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allegheny river towns enterprise zone housing study



RKG ASSOCIATES, INC.

Economic, Planning & Real Estate Consultants



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EXECUTIVE SUMMARY

A. INTRODUCTION

The Allegheny River Towns Enterprise Zone, Inc. (ARTEZ) is a community development organization serving seven small towns north of Pittsburgh. Established under Pennsylvania's enterprise zone legislation in 2005, ARTEZ originally focused on improving the local economy, e.g., business retention and recruitment. More recently, ARTEZ has turned its attention to other community development needs, notably affordable housing. Hoping to compete for federal, state, and privately funded housing subsidies and provide better-quality housing stock, ARTEZ decided to pursue a housing study targeting the four boroughs with evidence of the greatest need: Etna, Millvale, Sharpsburg, and Blawnox Together, they comprise the study area for this project.

B. KEY ISSUES: DEMOGRAPHIC PROFILE

- **Population Loss.** ARTEZ's seven member communities (the Enterprise Zone, or EZ) have a combined Census 2010 population of 52,038. The four post-industrial towns that make up the study area for this project comprise 24 percent of the population and 11 percent of the EZ's land area. As a result, they are comparatively dense, yet in terms of population, all four boroughs are a shadow of their former selves. By 2010, the number of people living in the study area was 54 percent less than in 1930: a mirror-image of the population decline that occurred in Pittsburgh during the same period.
- **Lack of Racial and Ethnic Diversity.** There are very few racial and ethnic minorities living in the study area, and there are significant differences between the study area and Allegheny County as a whole. According to Census 2010, white, non-Hispanics comprise 80.6 percent of Allegheny County's population and 64.8 percent of the City of Pittsburgh's population, but 90.9 percent of the study area and 91.8 percent of the EZ.
- **Loss of Households.** The vast majority of people living in the study area are in households: a single person living alone or two or more people constituting a single housekeeping unit. In stable housing markets, communities usually gain households even if their population counts drop somewhat. This has not been the case for ARTEZ's study area. In three of the four towns, the total number of households has declined. Though not as sharp as the decline in Pittsburgh, Etna's 8.2 percent decrease in households over twenty years (1990-2010) plainly indicates a weak-market community.

Fluctuations in number of households were greater than changes in housing supply between 1990 and 2010. Overall, the study area communities lost 470 households between 1990 and 2010: over sixteen times greater than the loss in housing (-24 units). In most cases, a greater loss occurred between 2000 and 2010.

- **Young Householders.** Householders between 25 and 34 years make up 17 percent of all study area households, yet the same age group represents just 13 percent for the state as a whole and almost 15 percent in Allegheny County. The most dramatic difference can be seen in Millvale, where 20 percent of the town's householders are in the 25-to-34-year age cohort. In fact, one-fourth

of all householders in Millvale are between 15 and 34, making Millvale very similar to the City of Pittsburgh for the prevalence of young residents.

- **Low- and Moderate-Income Households.** The study area is home to approximately 3,379 low- or moderate-income households, or 59 percent of the total number of households in 2011 (estimated at 5,755). Despite the modest value of many of the study area's homeownership units and modest rents for most of the apartments, many lower-income residents pay more than they can actually afford in order to live in the units they own or rent.
- **Low-Wage Jobs for Study Area Labor Force.** In Pittsburgh and Allegheny County as a whole, over 40 percent of the civilian employed labor force has a management, business, science, or arts occupation – that is, occupations that usually require fairly high levels of education. By contrast, residents of the study area are more likely to have jobs in lower-wage jobs in service occupations, e.g., food service, health care support, cleaning and maintenance, or personal services.
- **Education.** Educational attainment plays an undeniable role in the job prospects and earnings potential of the study area's current population. Educational attainment is measured as the highest level of formal education a person has completed. Among people 25 years and over – that is, people old enough to have finished high school and college, and in some cases graduate or professional studies – residents of the study area are much more likely to have left high school without a diploma or received a diploma but never attended or not finished a college degree.
- **Disproportionately Small Employment Base.** The study area's employment base includes 5,910 jobs for public and private employer establishments. The ratio of employment to household population is only 0.494 jobs per person, which underscores the study area's dependence on non-local places of employment.

C. KEY ISSUES: RESIDENTIAL MARKET ANALYSIS

- **Virtually No Housing Growth.** The study area's housing supply has experienced little if any expansion over the last two decades; in fact, there is evidence of some reduction in the total housing inventory. Still, since household growth failed to materialize, the number of vacant units increased.

During the 1990s, all four study area towns experienced some degree of housing growth, from less than 1 percent in Millvale to almost 4 percent in Etna, although the absolute gain totaled almost 140 units and accounted for 20 percent of the increase in EZ. Housing in the Pittsburgh decreased by 4 percent during the 1990s, while a half a percent gain was indicated in Allegheny County. Since 2000, however, Blawnox, Etna and Sharpsburg lost some housing units. In Blawnox and Etna, any gain in housing experienced in the 1990s was eliminated, since the housing supply in 2010 was less than that of 1990. Sharpsburg also had a decline in housing, and the supply in 2010 was only marginally higher (0.3 percent) than in 1990.

- **Housing Growth in Millvale.** Millvale was the only community to experience any net housing growth: only 33 units, or an increase of less than 2 percent.
- **Aging Housing Stock.** The study area towns have a high concentration of older units compared with the EZ as a whole. Any expansion in the EZ's housing stock has occurred outside the study

area, suggesting that the local investment climate has diminished, since other areas in ARTEZ captured the new development.

- **Concentration: Pre-1940 Units.** Fifty-two percent of the housing in the study area was built prior to 1940, compared with 28 percent for the EZ and 31 percent for Allegheny County. Sharpsburg (55 percent) had the highest concentration of pre-1940 housing, while Blawnox (35 percent) had the lowest. The study area has a very limited supply of modern housing and a high concentration of older housing.
- **Concentrations: Vacant Units and Multifamily Housing.** The high concentration of older and vacant units indicates a high level of deferred maintenance and possibly abandonment, which is as evident on the ground (from field inspections) as in data from regional and federal sources. The study area communities also have a high concentration of the EZ's multi-unit structures across nearly all property types, and many appear targeted to low-income households. However, characteristics and conditions do vary between the different study area communities.
- **Vacancies.** Vacant housing increased in each town between 1990 and 2010 except in Blawnox, where no change in vacancy occurred. In the other study area towns, the supply of vacant units doubled in some cases over the twenty-year period, and as a result the vacancy rate increased. In 2010, the collective vacancy rate in the study area was 12.5 percent and almost twice the rate indicated for EZ (6.9 percent), but slightly lower than that for Pittsburgh (12.8 percent)

Millvale had the highest vacancy rate (15.7 percent) of the study area communities in 2010, while Blawnox had the lowest (7.7 percent).

- **Disproportionate Share of Vacant Units.** In 2010, the study area towns had 50 percent of the entire EZ's vacant housing, and 40 percent of the vacant housing in the study area was in Millvale. Another 27 percent was located in Sharpsburg and 25 percent in Etna.
- **Building Permits.** Since 2000, Blawnox and Etna were the only study area communities to report building permits for new residential construction. In Blawnox, a total of seventeen units were permitted during the past decade, including six single-family homes, but none since 2009. In Etna, three homes were permitted during the last decade, and only one since 2010.
- **Median Housing Value.** The median value of owner-occupied units ranged from \$66,200 (Millvale) to \$97,600 (Blawnox), with an average of \$75,720 for the study area. This is roughly half the median owner-occupied housing value in ARTEZ's seven-town service area (\$148,790).
- **Low-Value Housing.** About 78 percent of the owner-occupied housing in the study area is valued at less than \$100,000. Less than 4 percent of the ownership housing in the study area was valued at \$200,000 or more, while over 24 percent of the housing in the EZ as a whole was valued at \$200,000 or more. Effectively, the study area communities have over 40 percent of the housing in the EZ valued at less than \$100,000 but only 4 percent of the owner-occupied housing at \$200,000 or more.
- **Renter Households.** Renter households increased between 2000 and 2012 in most of the study area communities, but the increase was not sufficient to offset the losses of homeowners. In some cases,

the increase was a result of aging in place of the existing base; and, some of the study area communities successfully attracted younger renters due to the affordable pricing.

- **Renter Household Incomes.** In 2012, the median household income for renters ranged between \$20,000 (Sharpsburg) and \$33,000 (Blawnox). Over 63 percent of all EZ renters lived in the study area and had incomes of less than \$20,000, and they accounted for nearly 40 percent of the renter households. Only 1 percent of the renters in the study area communities earned incomes of \$100,000 or more, as compared to 4 percent in ARTEZ.
- **Gross Rents.** Approximately two-thirds of the renter in the study area communities paid monthly gross rents in the \$500 to \$999 range, and only 3 percent had rents of \$1,000 or more. In comparison, 24 percent of the renters in the City of Pittsburgh paid \$1,000 or more.
- **High Rental Turnover.** Annual renter turnover in the study area communities averaged at 280 households per year, and a portion of this relatively high turnover was associated with a shift in tenure as owners became renters because of the decline in the housing market. In addition, the study area captured a larger percentage of lower income renters.

Today we know that “place” influences outcomes—the place where a person lives is a reliable predictor of his or her long-term health, education, and employment outcomes. Families and individuals living in concentrated poverty experience greater inequity and often, as a result, more dismal outcomes.

The White House

D. KEY RECOMMENDATIONS

- **Reaffirm and Solidify Partnership.** Reaffirm the commitment to address community development needs through inter-local cooperation and collaboration, recognizing that it will not always be possible to distribute ARTEZ resources evenly to each member town.
- **Tipping Point Neighborhoods.** Concentrate housing development activity at the neighborhood level, and give priority to “tipping point” neighborhoods.
- **Sustainability.** Inventory and evaluate components of neighborhood sustainability, recognizing that building market value involves more than a series of real estate transactions. The quality, convenience, and desirability of **neighborhood assets** – infrastructure, public parks and other amenities, walkability, and access to goods and services – play a critical role in the attractiveness of neighborhoods to prospective homebuyers and renters.
- **Place-Based Planning and Neighborhood Revitalization.** Focus on place-based strategies to revitalize ARTEZ neighborhoods and improve corridors. Success will require coordinated and geographically targeted use of resources.
- **Performance Measures and Program Evaluation.** Work in support of meeting the technology needs of member towns. Ready access to local data in usable formats will help the towns and ARTEZ do a better job of identifying and responding to community development needs and evaluating the results of community development initiatives.

II. DEMOGRAPHIC & ECONOMIC BASE ANALYSIS

A. STUDY AREA

The Allegheny River Towns Enterprise Zone, Inc. (ARTEZ) is a community development organization serving seven small towns north of Pittsburgh. Established under Pennsylvania's enterprise zone legislation in 2005, ARTEZ originally focused on improving the local economy, e.g., business retention and recruitment. More recently, ARTEZ has turned its attention to other community development needs, notably affordable housing. Hoping to compete for federal, state, and privately funded housing subsidies and provide better-quality housing stock, ARTEZ decided to pursue a housing study targeting the four boroughs with evidence of the greatest need: Etna, Millvale, Sharpsburg, and Blawnox (Fig. 1.1) Together, they comprise the study area for this project.

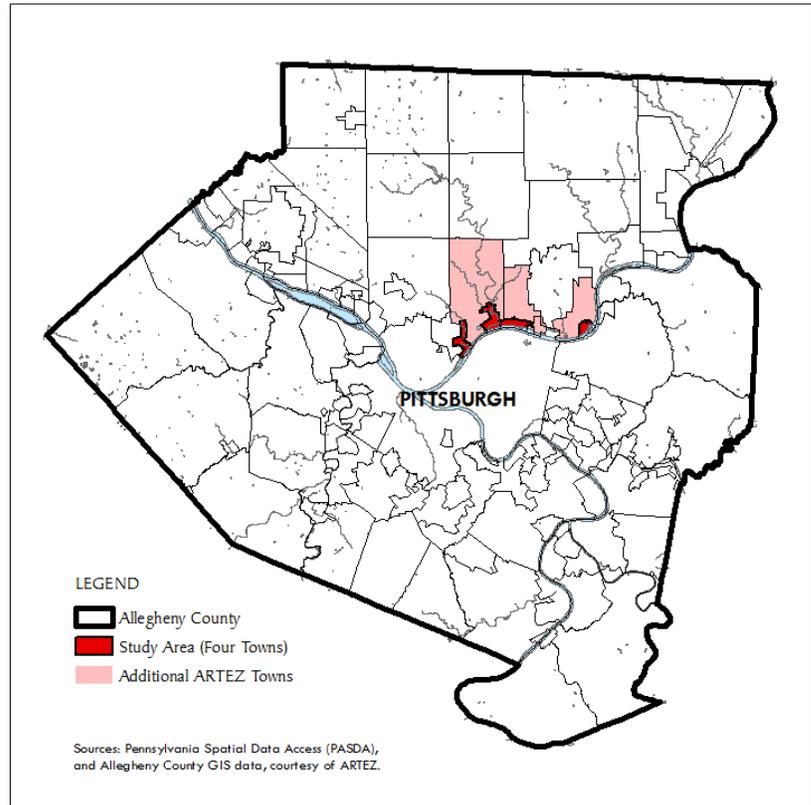


Fig. 1.1. Allegheny County, ARTEZ, and study area.

The study area communities extend along the northern bank of Allegheny River, generally between the 40th Street Bridge and a river bend about three-fourths of a mile upstream. The land is both strikingly beautiful and environmentally challenging, for the landscape slopes between high ground and the river at grades as steep as 24 percent in some locations, all within very small distances. The four towns combined contain about 2.1 square miles (sq. mi.) of land area.¹ Significant parts of Etna, Millvale, and Sharpsburg fall with the federally designated 100-year floodplain (both current and proposed). Despite the small total area of these towns, they drain different sub-basins of the Allegheny River. The sub-basins differ by topography and the location of the river's locks and dams.

¹ N.B. The land area calculations for ARTEZ communities varies significantly depending on the source of data. For this report, we have used area data (converted to sq. mi.) from Census 2010, which closely corresponds with information reported by Pennsylvania Spatial Data Access (PASDA).

B. POPULATION CHARACTERISTICS

1. Population History

ARTEZ's seven member communities (the EZ) have a combined Census 2010 population of 52,038.² Over half the population lives in Shaler Township, which also holds over half the EZ's entire land area. By contrast, the four post-industrial towns that make up the study area for this project comprise 24 percent of the population and 11 percent of the EZ's land area. As a result, they are comparatively dense, yet in terms of population, all four boroughs are a shadow of their former selves. By 2010, the number of people living in the study area was 54 percent less than in 1930: a mirror-image of the population decline that occurred in Pittsburgh during the same period.

Census	Study Area					City of Pittsburgh
	Blawnox	Etna	Millvale	Sharpsburg	Total	
1930	2,186	7,493	8,166	8,642	26,487	669,817
1940	2,162	7,223	7,811	8,202	25,398	671,659
1950	2,165	6,750	7,287	7,296	23,498	676,806
1960	2,085	5,519	6,624	6,096	20,324	604,332
1970	1,907	5,819	5,815	5,453	18,994	520,117
1980	1,653	4,534	4,772	4,351	15,310	423,938
1990	1,626	4,200	4,341	3,781	13,948	369,879
2000	1,550	3,924	4,028	3,594	13,096	334,563
2010	1,432	3,451	3,744	3,446	12,073	305,704
1930-2010	-34.5%	-53.9%	-54.2%	-60.1%	-54.4%	-54.4%
Source: U.S. Bureau of the Census.						

2. Population Age

The study area's population is relatively young. The median population age in Allegheny County is 41.3 years, but in Millvale, Etna, and Sharpsburg, it is 37.5, 39.5, and 40.2 years respectively. Only in Blawnox is the median population age (46.9 years) much higher than that of the county. Although most towns in the EZ as whole have slightly larger percentages of children under 18 than Allegheny County, the age profile of these communities is driven by two factors: large shares of young workers (18 to 34) and, with the exception of Blawnox, small shares of senior citizens. By contrast, O'Hara Township has a disproportionately large percentage of children under 18, but because its housing values are very high, O'Hara Township's adult population is generally older than that of the study area. Tenure and income play a role in these statistics, too, for as discussed later in this chapter, renter households are

² N.B. Wherever possible, we have presented demographic data from Census 2010 and earlier decennial census records. Though Census 2010 data are four years old, the decennial census is the only systematically collected and reported data source for population, households, and housing units in the United States. For topics not covered by the decennial census, we have drawn from the most recently published five-year estimates from the American Community Survey (ACS), 2008-2012. They are *estimates* based on annual population sampling, not (100%) actual counts.

prevalent in the study area towns and underrepresented in the surrounding, more affluent communities.

Fig. 1.2 illustrates differences in age mix between the study area and O'Hara Township, the ARTEZ town that is statistically most unlike Allegheny County. Due to the age mix conditions described above, the study area's towns tend to have a fairly low **age-dependency ratio**, or the ratio of social dependents (children and seniors) to the size of the working-age population. For comparison, Allegheny County's age-dependency ratio is 0.575, i.e., the County has 0.575 social dependents for every 1 working-age person, but in the study area, the ratios range from a low of 0.495 in Etna to 0.601 in Sharpsburg. The ratio is high in Sharpsburg because the town has a large under-18 population, a condition found throughout the Fox Chapel School District. For comparison, O'Hara Township's age-dependency ratio is extraordinarily high, at 0.757.

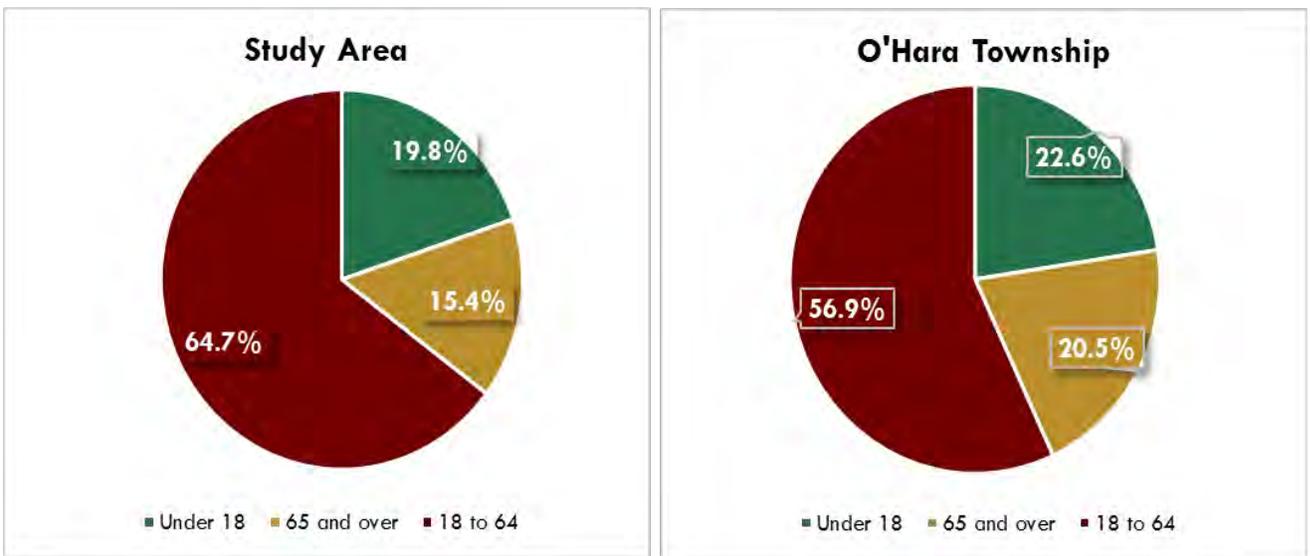


Fig. 1.2. Population Age Mix in Study Area and O'Hara Township. (Sources: U.S. Bureau of the Census, Census 2010, and RKG Associates, Inc.)

3. Race and Ethnicity

There are very few racial and ethnic minorities living in the study area (Table 1.2), and there are significant differences between the study area and Allegheny County as a whole. According to Census 2010, white, non-Hispanics comprise 80.6 percent of Allegheny County's population and 64.8 percent of the City of Pittsburgh's population, but 90.9 percent of the study area and 91.8 percent of the EZ. It is difficult to compare population by race statistics from one census period to the next because over time, the Census Bureau has changed some race classifications and changed the race questions on the survey form. Still, many people interviewed for this study³ said that towns throughout the EZ have historically been white communities. They also reported that in the past, racial integration has been a tense topic in the study area and other towns opposite Pittsburgh on the north side of the river.

³ In-person and telephone interviews conducted with stakeholders identified by ARTEZ, January-February 2014.

TABLE 1.2. RACE AND HISPANIC OR LATINO POPULATIONS (2010)

	Study Area					City of Pittsburgh
	Blawnox	Etna	Millvale	Sharpsburg	Total	
Race						
White	1,330	3,304	3,487	2,994	11,115	201,766
Black, African American	27	47	143	232	449	79,710
American Indian, Alaska Native	2	3	10	7	22	584
Asian	57	25	9	59	150	13,465
Native Hawaiian, Other Pacific Islander	0	0	0	1	1	86
Other Race (Unclassified)	0	23	18	26	67	2,405
Two or More Races	16	49	77	127	269	7,688
Hispanic	12	65	52	115	244	6,964
White Hispanic	10	42	26	65	143	3,580
Minority Percent	8.4%	5.7%	8.1%	17.3%	9.9%	53.3%

Sources: Census 2010, Table DP-1, and RKG Associates, Inc.

4. Geographic Mobility

Geographic mobility refers to the inflow, outflow, and net movement of people between geographic units, including communities, counties, states, regions of the U.S., and foreign countries. High mobility rates are generally associated with employment, tenure, and marital status. It is not surprising to find that in the U.S., the South has attracted more immigration than any other region, largely because so much job growth has happened there. In any given area, the presence of many colleges and universities also fuels high mobility rates.⁴

A large percentage of the study area's housing units are occupied by renters, so one would expect to find higher-than-average mobility rates in these communities. However, the percentage of young adults (18 to 34 years) living in the same house for a year or more moderately exceeds both county-wide and statewide averages. There are no cross-tabulations of mobility data with age and income records, but stakeholders who spoke with RKG for this plan agreed almost universally that the study area (especially Millvale and Etna) has attracted young renters priced out of Pittsburgh's neighborhoods. The presence of many young householders could be a plus for the vitality of these small towns, but there is evidence that other residents of the study area have mobility constraints due to low educational attainment and low incomes, as suggested by the statistics in Table 1.3.

In addition, it seems that some of the study area's well-educated residents may be leaving for better opportunities elsewhere. According to the American Community Survey (ACS), almost 30 percent of Blawnox's residents with a college or graduate degree moved away within a one-year timeframe, about half moving elsewhere in Allegheny County (perhaps move-ups within the Fox Chapel School District) and half to out-of-state destinations. Since the number of people with college or graduate degrees is

⁴ David K. Ihrke and Carol S. Faber, U.S. Census Bureau, *Geographical Mobility: 2005 to 2010*, Report No. P20-567 (December 2012).

small, the absolute change is small as well, but it points to the study area's larger challenge of attracting and retaining living-wage jobs.

TABLE 1.3. POPULATION MOBILITY INDICATORS BY CURRENT RESIDENCE

Geography	Lived in Same House 1 Year Ago	Lived in Same House 1 Year Ago; Householder 18-34 Years	Lived in Same House 1 Year Ago; Holds College or Graduate Degree	Lived in Same House 1 Year Ago; Median Personal Income
Blawnox	88.0%	16.8%	20.1%	\$29,219
Etna	81.9%	22.6%	20.5%	\$26,491
Millvale	81.6%	17.6%	14.9%	\$23,074
Sharpsburg	85.3%	17.4%	13.9%	\$16,496
Study Area Total	83.5%	18.9%	16.8%	N/A
City of Pittsburgh	78.5%	21.1%	33.1%	\$23,366
Allegheny County	86.8%	16.4%	34.6%	\$28,150

Sources: American Community Survey Five-Year Estimates, 2008-2012, and RKG Associates, Inc.

C. HOUSEHOLD CHARACTERISTICS

1. Households and Tenure

The vast majority of people living in the study area are in **households**: a single person living alone or two or more people constituting a single housekeeping unit. In stable housing markets, communities usually gain households even if their population counts drop somewhat. This has not been the case for ARTEZ's study area. In three of the four towns, the total number of households has fallen quite a bit (Table 1.4). Though not as sharp as the decline in Pittsburgh, the 8.2 percent decrease in households over twenty years (1990-2010) in Etna plainly indicates a weak-market community.

TABLE 1.4. CHANGE IN NUMBER OF HOUSEHOLDS

Geography	Decennial Census (Actual Counts)				ACS Estimate
	1990	2000	2010	% Change	2012
Blawnox	844	858	830	-1.7%	778
Etna	1,751	1,749	1,607	-8.2%	1,585
Millvale	1,907	1,839	1,786	-6.3%	1,746
Sharpsburg	1,762	1,748	1,641	-6.9%	1,617
Study Area	6,264	6,194	5,864	-6.4%	5,726
City of Pittsburgh	153,483	143,739	136,217	-11.2%	133,192
Allegheny County	541,261	537,150	533,960	-1.3%	524,392

Sources: 1990 Census of Population and Housing, Census 2000, and Census 2010; American Community Survey Five-Year Estimates, 2008-2012, and RKG Associates, Inc.

Since the **number of households in a town always matches the number of occupied housing units**, a decrease in households will correlate with an increase in vacant housing unless the total housing inventory has decreased, too. Not surprisingly, the number of vacant units in the study area is higher today than thirty years ago (by about 200 units). Meanwhile, the majority of today's

households live in rental units, and the percentage of renter households has gradually increased. While market conditions are presented in much greater detail in the next section of this report, understanding basic housing tenure statistics now is important because they relate inextricably to other socioeconomic indicators for the study area's population. The study area provides housing for people who cannot find decent, affordable units in other towns in the EZ or in many parts of Pittsburgh.

Geography	Households in Rental Units			Percent Total Households		
	1990	2000	2010	1990	2000	2010
Blawnox	458	459	475	54.3%	53.5%	57.2%
Etna	646	723	700	36.9%	41.3%	43.6%
Millvale	849	935	1,028	44.5%	50.8%	57.6%
Sharpsburg	920	999	970	52.2%	57.2%	59.1%
Study Area	2,872	3,116	3,173	45.9%	50.3%	54.1%
City of Pittsburgh	73,211	68,812	71,410	47.7%	47.9%	52.4%
Allegheny County	182,946	177,114	188,567	33.8%	33.0%	35.3%

Sources: 1990 Census of Population and Housing, Census 2000, and Census 2010; 2008-2012, and RKG Associates, Inc.

Renters can be found throughout the study area and in all of the neighborhoods in each town. Nevertheless, in some locations they tend to be highly concentrated. For example, in Sharpsburg, which has the study area's largest percentage of renters, Main Street is lined with many owner-occupied dwellings, but within a block of Main Street north toward State Highway 28, the neighborhoods along and off Middle Street, Cecil Street, and Penn Street have significant concentrations of renter-occupied housing. Similarly, many renter-occupied units exist in the neighborhoods along and off Stanton Avenue and all along North Avenue in Millvale, yet east of Evergreen Avenue and north of Lawrence Street, nearly all of the housing appears to be owner-occupied. The neighborhoods north of Walnut Street in Blawnox tend to be rental nodes, too. Concentrations of renter households are estimated on a series of maps prepared for this plan (see Appendix). They raise important policy questions for this plan, i.e., whether the focus should be on improving housing for people who already live in the study area or developing new housing that could attract a broader range of incomes and household types.⁵

2. Household Types

The study area differs from the balance of the EZ in terms of households by type and composition. Except for Etna, less than 60 percent of the households in the study area's towns are **families**:

⁵ See Appendix C, map sets labeled by town (four sets of maps). The sixth map in each set presents an estimate of owner- and renter-occupied housing by parcel for each town in the study area.

households of two or more people related by birth, marriage, or adoption, or unmarried partners.⁶ By contrast, families comprise 63 percent of Allegheny County's households and 72 percent of the households in O'Hara and Shaler Townships and the Borough of Aspinwall. In terms of its household mix, the study area is more like Pittsburgh than the EZ's other communities or Allegheny County as a whole. In O'Hara Township, for example, families comprise 75 percent of all households. While its affiliation with the Fox Chapel

school district makes O'Hara Township attractive to families, it is not the only factor. In the Borough of Aspinwall, also in the Fox Chapel school system, just 54 percent of all households are families, and in Shaler Township, headquarters of the Shaler Area School District, families make up 74 percent of all households – that is, about the same as O'Hara Township. The housing stock also influences the make-up of the population and households in all of these communities.

One-parent families are far more common in the study area than the other towns in the EZ or Allegheny County proper. Table 1.6 shows that husband-wife families range from a low of 42 percent to a high of 55 percent in these towns, with none being close to Allegheny County's 65 percent. The reason this matters is that overall, one-parent families tend to have lower incomes than husband-wife families. As a result, what they can afford to pay for housing tends to be less as well. It is not very surprising to find that husband-wife families account for 84 percent of the families in O'Hara Township or 82 percent in Shaler Township, where housing values are much higher. In Sharpsburg, where household and family incomes run well below the rest of the study area, ARTEZ as a whole, and Allegheny County, one-parent families make up about 44 percent of all families. The study area offers affordable housing choices that do not exist elsewhere in the EZ or in many other communities located so close to Pittsburgh.

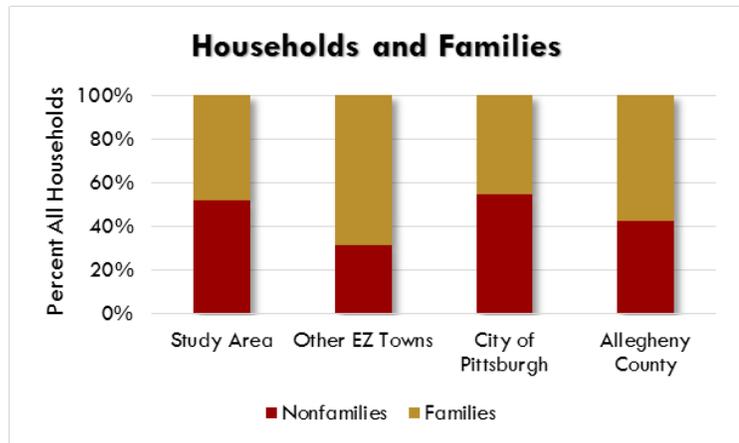


Fig. 1.3. Household Types: Study Area and Comparison Geographies. (Source: Census 2010 and RKG Associates, Inc.)

⁶ N.B. The Census Bureau does not include unmarried partner households in the definition of families, but unmarried partner households with and without children are reported in the decennial census as a household subgroup. In this housing study, the term "families" includes families as defined by the Census Bureau and unmarried partner households.

TABLE 1.6. FAMILIES BY TYPE

Geography	Total Families	Husband-Wife Families		Unmarried Partner Families		One-Parent Families: Male		One-Parent Families: Female	
		Total	%	Total	%	Total	%	Total	%
Blawnox	350	191	54.6%	60	17.1%	26	7.4%	73	20.9%
Etna	998	524	52.5%	133	13.3%	78	7.8%	263	26.4%
Millvale	1,049	483	46.0%	181	17.3%	102	9.7%	283	27.0%
Sharpsburg	953	396	41.6%	148	15.5%	111	11.6%	298	31.3%
Study Area	3,350	1,594	47.6%	522	15.6%	317	9.5%	917	27.4%
Pittsburgh	71,709	36,031	50.2%	9,968	13.9%	5,412	7.5%	20,298	28.3%
Allegheny Cty.	340,187	222,332	65.4%	32,178	9.5%	20,406	6.0%	65,271	19.2%

Source: Bureau of the Census, RKG Associates, Inc.

3. Age of Householders

Since most of the study area towns have young population age profiles, it makes sense to find many young households in the study area. Householders between 25 and 34 years make up 17 percent of all study area households, yet the same age group represents just 13 percent for the state as a whole and almost 15 percent in Allegheny County. The most dramatic difference can be seen in Millvale, where 20 percent of the town's householders are in the 25-to-34-year age cohort. In fact, *one-fourth* of all householders in Millvale are between 15 and 34, making Millvale very similar to the City of Pittsburgh for the prevalence of young residents. These kinds of statistics go hand-in-hand with the study area's housing tenure characteristics, as discussed later in this section.

4. Income and Poverty

The study area's residents are generally lower-income households, especially relative to the two townships, the most affluent communities in the EZ. The working-age householders in Blawnox, Etna, Millvale, and Sharpsburg tend to be people with full- or part-time jobs, but lower-wage jobs, as evidenced by their annual earnings and the percentage of households eligible for and receiving some type of public assistance. There are also many households that rely almost entirely on fixed incomes, whether Social Security, disability payments, or cash assistance.

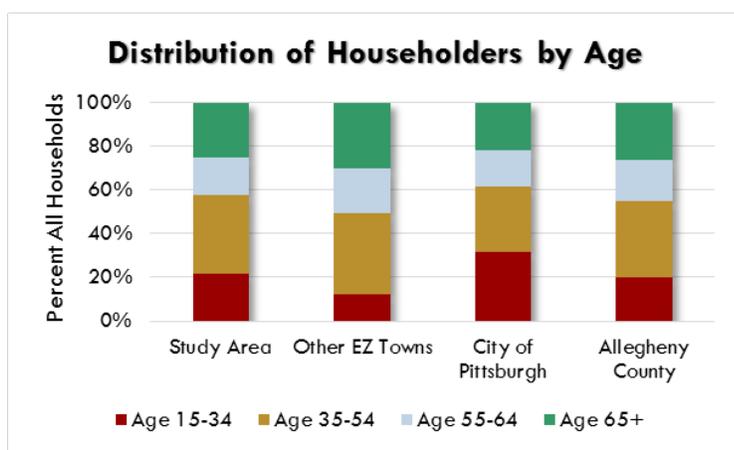


Fig. 1.4. Comparison Householder Age Profiles. Source: Census 2010, RKG Associates.

TABLE 1.7. INCOME CHARACTERISTICS OF STUDY AREA HOUSEHOLDS

Geography	Per Capita Income	Median Household Income	Mean Earnings: Households w/Earnings	Percent Total Estimated Households			Median Family Income
				With Earnings Income	With Food Stamps or SNAP	With Incomes < \$35,000	
Blawnox	\$26,355	\$41,250	\$50,896	72.9%	11.1%	46.3%	\$51,750
Etna	\$22,888	\$37,487	\$51,343	81.6%	25.2%	43.9%	\$48,250
Millvale	\$20,917	\$38,009	\$45,642	73.8%	21.2%	46.2%	\$54,233
Sharpsburg	\$17,660	\$29,250	\$37,641	68.8%	30.2%	54.5%	\$39,364
Study Area				74.4%	23.5%	47.9%	
City of Pittsburgh	\$26,535	\$38,029	\$62,525	74.2%	16.4%	47.0%	\$52,935
Allegheny County	\$31,173	\$50,664	\$75,211	75.3%	10.9%	34.2%	\$68,968

Sources: American Community Survey Five-Year Estimates, 2008-2012, and RKG Associates, Inc.

The economic position of single-parent families and non-family households plays an important part in the overall picture of the study area. As noted in Table 1.6, three of the towns (excluding Blawnox) have comparatively large percentages of single-parent families, and all four have large percentages of non-family households. Nationally, the lowest-income households are single parents (mainly women) with children under 18 and elderly women living alone, and in most cases the study area mirrors the nation's experience.

TABLE 1.8. HOUSEHOLD INCOME DISPARITIES BY HOUSEHOLD TYPE

Geography	Median Income					
	All Families	Families with Dependent Children (<18)			Nonfamily Households	
		Married Couples	One-Parent Families: Male	One-Parent Families: Women	All Nonfamily Households	Elderly Women Living Alone
Blawnox	\$51,750	\$54,583	\$14,432	\$36,339	\$26,115	\$15,813
Etna	\$48,250	\$50,515	\$44,773	\$11,389	\$32,868	\$14,507
Millvale	\$54,233	\$66,000	\$15,089	\$25,208	\$20,409	\$16,582
Sharpsburg	\$39,364	\$66,875	\$25,405	\$22,175	\$14,656	\$13,182
Study Area						
City of Pittsburgh	\$52,935	\$79,962	\$29,932	\$17,485	\$26,393	\$16,593
Allegheny County	\$68,968	\$94,872	\$37,897	\$21,798	\$29,679	\$19,202

Sources: American Community Survey Five-Year Estimates, 2008-2012, and RKG Associates, Inc.

The lower-income profile of the study area is consistent with other significant demographic indicators: household and family composition, householder ages, tenure, and low- or moderate-income summary data reported by the U.S. Department of Housing and Urban Development (HUD) for the federal Community Development Block Grant (CDBG) Program. Though HUD has not yet updated its low- and moderate-income population estimates to reflect recent survey data from the ACS, conditions in the study area and between the study area and its surroundings have not changed enough to make the older estimates in Table 1.9 obsolete. If anything, the percentage of low- and moderate-income residents in most of the study area has probably increased since 2000. (See also, Section D below.)

TABLE 1.9. HUD LOW- AND MODERATE-INCOME POPULATION ESTIMATES				
Geography	Population	LMI	Universe	Percent
Blawnox	1,407	610	1,405	43.4%
Etna	3,471	2,010	3,500	57.4%
Millvale	3,739	2,492	3,780	65.9%
Sharpsburg	3,445	2,206	3,410	64.7%
Study Area	12,062	7,318	12,095	60.5%
ARTEZ (All Towns)	52,005	17,044	51,710	33.0%

Source: U.S. Department of Housing and Urban Development, CDBG Program Low-Mod Data, ACS Five-Year Estimates 2006-2010. Note: Table 1.9 reports low- and moderate-income people, not households. See Section D for low- and moderate-income household estimates.

There is considerable poverty in the study area, too. According to estimates from the American Community Survey (ACS), almost 19 percent of the population in these four towns falls below the federal poverty threshold, with the highest incidence of individual poverty found in Sharpsburg (20.7 percent). Both Etna and Sharpsburg have much larger percentages of families in poverty than Allegheny County, and somewhat larger percentages than Pittsburgh.

Of the four towns, only Blawnox has fewer people and fewer families in poverty than the study area or Allegheny County.⁷

... almost 19 percent of the population in these four towns falls below the federal poverty threshold, with the highest incidence of individual poverty found in Sharpsburg (20.7 percent).

American Community Survey

5. Household and Group Quarters Populations

A fraction of the populations in Etna, Millvale, and Sharpsburg live in some type of **non-institutional group quarters** setting. In small towns like those in the study area, the most common group quarters facility is a group home for adults with severe, life-long disabilities. The Census Bureau classifies most of the study area's group quarters population (combined total of thirty-four people) as group home residents or individuals temporarily living in emergency shelters. Pittsburgh has a large population of college students living in dormitories, but there are no such facilities in the study area. In addition, the study area has no compulsory institutional facilities, e.g., prisons, juvenile detention facilities, or nursing homes.⁸

D. HOUSING PROBLEMS OF EXISTING HOUSEHOLDS IN THE STUDY AREA

All four towns in the study area have relatively affordable housing – that is, relative to Allegheny County overall, to many neighborhoods on the other side of the river in Pittsburgh, and to some of the nearby communities that have historically attracted more affluent families such as O'Hara and Fox Chapel Townships. However, that many lower-income people can find a place to live in the study area does not mean the available lower-cost housing is actually affordable to them, or that the housing is

⁷ 2008-2012 ACS Five-Year Estimates, B17026.

⁸ U.S. Census Bureau, Census 2010, Table PCT 21.

safe, decent, and sanitary. In an effort to understand and document the housing needs of the nation's poorest populations, the U.S. Department of Housing and Urban Development (HUD) publishes data sets that are intended primarily for use in the Five-Year Consolidated Plan. Known as the Comprehensive Housing Affordability Strategy (CHAS) data, these data sets shed light on how much housing is affordable to very-low, low-, and moderate-income households, whether the housing appears to meet basic quality standards, and whether the affordable units are occupied by households that actually need it (as opposed to higher-income households that choose to lease low-rent apartments).

According to the most recent CHAS data, the four-town study area is home to approximately 3,379 low- or moderate-income households, or 59 percent of the total number of households in 2011 (estimated at 5,755). Despite the modest value of many of the study area's homeownership units and modest rents for most of the apartments, lower-income residents are not all that well served by the existing housing stock because in many cases, they pay more than they can actually afford in order to live in the units they own or rent. When low- or moderate-income households spend more than 30 percent of their monthly gross income on housing costs, they meet the federal definition of **housing cost burdened**. It is important to note that lower-income residents of the other EZ towns (Aspinwall, O'Hara Township, and Shaler Township) are conspicuously cost burdened due to the very limited number of affordably priced units in these communities, as shown in Table 1.10. A review of disparate impacts under the federal Fair Housing Act may be in order for all of ARTEZ's communities, but especially those omitted from the study area for this report.

TABLE 1.10. ESTIMATED LOW- AND MODERATE-INCOME HOUSEHOLDS AND INCIDENCE OF HOUSING COST BURDEN (2011)					
Geography	Total Households (Est. 2011)	Low- and Moderate-Income (LMI) Households			
		Total	Percent All Households	Housing Cost Burdened	Percent Cost Burdened
Blawnox	805	429	53.3%	162	37.8%
Etna	1,635	990	60.6%	515	52.0%
Millvale	1,810	1,025	56.6%	484	47.2%
Sharpsburg	1,505	935	62.1%	510	54.5%
Study Area	5,755	3,379	58.7%	1,671	49.5%
Aspinwall	1,405	510	36.3%	445	87.3%
Shaler	11,860	3,595	30.3%	2,725	75.8%
O'Hara	3,480	880	25.3%	780	88.6%
ARTEZ Totals	22,500	8,364	37.2%	5,621	67.2%
Pittsburgh	134,000	71,150	53.1%	47,155	66.3%
Allegheny County	523,175	218,475	41.8%	151,085	69.2%
Sources: HUD, CHAS Data 2011, and RKG Associates, Inc.					

E. LABOR FORCE & EMPLOYMENT

1. Labor Force and Unemployment

A community's **labor force** includes residents 16 years and over, employed or looking for work. The size of the labor force fluctuates due to economic conditions, seasonal change, and the flow of people in and out of the labor force because of their age and life circumstances. In addition, the number of people in the labor force can differ depending on the source of data.⁹ A **labor force participation rate** is the ratio of the civilian labor force to the total 16-and-over population. High labor force participation rates are usually found in communities with a young population age profile, excluding college towns.

ACS estimates for the study area place the combined four-town labor force at 10,098 people and the labor force participation rate at 66 percent, with a low of 56.9 percent in Sharpsburg and a high of 71.6 percent in Millvale. At any given time, these figures could be higher or lower, depending on the time of year. Table 1.9 reports each town's labor force based on weighted averages over five years, both for all people in the labor force and the participation rate for women alone. For all towns except Sharpsburg, the labor force participation rates are noticeably higher than those for Allegheny County overall. This is fairly consistent with the population age profile of the study area.

Geography	Population 16 and over	In the civilian labor force	Labor Force Participation Rate	
			Total	Rate for women only
Blawnox	1,167	803	68.8%	64.7%
Etna	2,804	1,931	68.9%	65.3%
Millvale	3,144	2,250	71.6%	64.2%
Sharpsburg	2,983	1,697	56.9%	51.7%
Study Area	10,098	6,681	66.2%	61.0%
City of Pittsburgh	261,714	161,063	61.5%	59.3%
Allegheny County	1,014,328	648,047	63.9%	59.2%

Sources: American Community Survey Five-Year Estimates, 2008-2012, and RKG Associates, Inc.

Table 1.12 reports the estimated unemployment rate for each town in the study area and the area as a whole, based on the ACS. The unemployment rate for Millvale is very high, at 12.8 percent, yet relatively low in Blawnox and Etna compared with either Pittsburgh or Allegheny County. Millvale also has the smallest percentage of working-age people classified as not in the labor force.

⁹ The U.S. Bureau of Labor Statistics (BLS) measures and reports the official size of the labor force at monthly and annual intervals for states, counties, metro areas, and sub-state areas with populations of 25,000 or more. The BLS estimates the labor force by dividing the total U.S. population into three groups: (a) people under 16 years of age and people who are institutionalized, for example, in mental hospitals or correctional institutions, (b) adults not employed and not seeking work but are potential workers, and (c) the labor force. The labor force consists of people who are able and willing to work. To estimate the size of the labor force, the BLS relies on the Current Population Survey (CPS), a monthly sample survey of about 60,000 households designed specifically to produce the current monthly employment and unemployment data and the annual data on income and poverty for the nation. Employment and unemployment estimates from the ACS and CPS can differ because the surveys use different questions, samples, and collection methods. ACS is the most readily available source for geographies as small as the study area's four towns.

TABLE 1.12. UNEMPLOYMENT IN STUDY AREA TOWNS (2012)

Component	Study Area					Pittsburgh	Allegheny County
	Blawnox	Etna	Millvale	Sharpsburg	Total		
Population 16 and over	1,167	2,804	3,144	2,983	10,098	261,714	1,014,328
Civilian labor force	803	1,931	2,250	1,697	6,681	161,063	648,047
Employed	762	1,809	1,962	1,555	6,088	146,133	599,425
Unemployed	41	122	288	142	593	14,930	48,622
Unemployment rate	5.1%	6.3%	12.8%	8.4%	8.9%	9.3%	7.5%
Not in labor force	364	873	894	1,274	3,405	100,520	365,570
Percent	31.2%	31.1%	28.4%	42.7%	33.7%	38.4%	36.0%

Source: American Community Survey & RKG Associates, Inc.

The types of jobs held by residents in the study area differ somewhat from the occupational profile of Allegheny County or the City of Pittsburgh, where over 40 percent of the civilian employed labor force has a management, business, science, or arts occupation – that is, occupations that usually require fairly high levels of education. By contrast, residents of the study area are more likely to have jobs in lower-wage jobs in service occupations, e.g., food service, health care support, cleaning and maintenance, or personal services. Differences exist between the towns as well, as shown in Table 1.13. For example, a larger share of Etna’s residents have construction trade and transportation jobs, and a larger share of Sharpsburg’s residents have sales jobs. These occupational characteristics matter because they relate to the wages earned by a community’s labor force and, as a result, what people can afford to pay for housing costs.

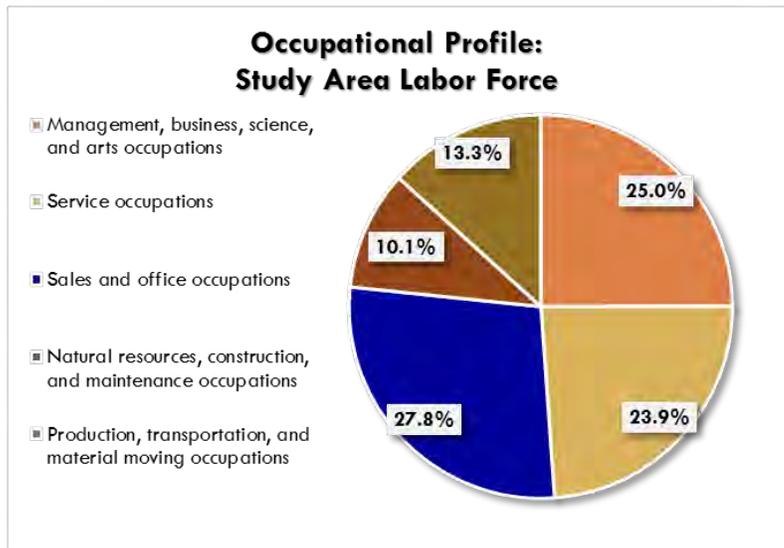


Fig. 1.5. Snapshot of Four-Town Study Area Labor Force by Standard Occupational Classification (SOC). Sources: 2008-2012 American Community Survey and RKG Associates, Inc.

TABLE 1.13. WHAT DO STUDY AREA WORKERS DO FOR WORK?

Component	Civilian employed population 16 years and over	Occupational Classifications of Civilian Employed Labor Force				
		Management, business, science, and arts	Services	Sales and office	Natural resources, construction, and maintenance	Production, transportation, and material moving
Blawnox	762	32.5%	21.5%	31.5%	7.3%	7.1%
Etna	1,809	28.0%	16.1%	25.5%	11.8%	18.6%
Millvale	1,962	23.0%	29.7%	23.9%	9.9%	13.5%
Sharpsburg	1,555	20.2%	26.8%	33.4%	9.6%	9.9%
Study Area	6,088	25.0%	23.9%	27.8%	10.1%	13.3%
Pittsburgh	146,133	43.4%	21.5%	23.2%	4.9%	7.1%
Allegheny County	599,425	42.0%	17.4%	25.6%	6.3%	8.7%

Sources: American Community Survey Five-Year Estimates, 2008-2012, and RKG Associates, Inc.

The study area's residents are fairly well represented in the same industries that employ workers from other EZ towns and Allegheny County as a whole. Some noticeable differences exist, such as larger percentages of Blawnox and Etna residents working in retail trade, Millvale residents in manufacturing, and Sharpsburg residents in health care support. Overall, however, the employment-by-industry profile of the study area is similar to that of Allegheny County.¹⁰

TABLE 1.14. COMPARISON ANNUAL EARNINGS OF WORKERS WITH FULL-TIME EMPLOYMENT

	Median Annual Earnings			Female-Male Earnings Ratio
	Total	Male	Female	
Blawnox	\$31,922	\$45,074	\$32,862	72.9%
Etna	\$27,310	\$29,017	\$35,353	121.8%
Millvale	\$24,046	\$39,818	\$28,370	71.2%
Sharpsburg	\$22,176	\$28,879	\$33,173	114.9%
Pittsburgh	\$24,978	\$43,505	\$36,037	82.8%
Allegheny County	\$31,419	\$51,656	\$39,583	76.6%

Sources: American Community Survey Five-Year Estimates, 2008-2012, and RKG Associates, Inc.

The study area's employed residents have relatively low earnings, as suggested by the household and family income estimates reported earlier in this section. The existence of gender-based wage differences can be seen in the study area, too, especially in towns with larger shares of single-parent households headed by men. There is an emerging pattern nationally of very poor one-parent families with a male head of household, and while the annual earnings of full-time employed women still lag behind those of full-time employed men, the reverse is becoming more common for one-parent families in lower-income communities.

¹⁰ 2008-2012 ACS Five-Year Estimates, DP-03.

Educational attainment plays an undeniable role in the job prospects and earnings potential of the study area's current population. Educational attainment is measured as the highest level of formal education a person has completed. Among people 25 years and over – that is, people old enough to have finished high school and college, and in some cases graduate or professional studies – residents of the study area are much more likely to have left high school without a diploma or received a diploma but never attended or not finished a college degree. Table 1.15 compares the four towns with Allegheny County and Pittsburgh and attests to some of the employment and earnings challenges faced by residents of the study area.

TABLE 1.15. EDUCATIONAL ATTAINMENT OF STUDY AREA ADULTS (25 YEARS AND OVER)

	Population 25 and over	Highest Level of Education Completed						
		Less than 9 th grade	9 th to 12 th grade, no diploma	High school diploma or GED	Some college, no degree	Associate's degree	Bachelor's degree	Graduate or professional degree
Blawnox	1,088	2.9%	8.0%	36.6%	19.0%	10.6%	17.7%	5.1%
Etna	2,533	2.0%	9.4%	37.7%	21.2%	9.9%	12.0%	7.9%
Millvale	2,691	1.3%	13.5%	41.8%	16.8%	12.0%	11.9%	2.6%
Sharpsburg	2,380	3.4%	12.8%	40.5%	18.9%	10.5%	10.2%	3.7%
Study Area	8,692	2.3%	11.4%	39.6%	18.9%	10.8%	12.2%	4.8%
Pittsburgh	200,674	2.7%	7.5%	30.3%	17.0%	7.6%	17.9%	17.1%
Allegheny County	861,245	2.0%	5.3%	31.5%	17.2%	8.8%	20.8%	14.3%

Sources: American Community Survey Five-Year Estimates, 2008-2012, and RKG Associates, Inc.

2. Local Employment

Like many post-industrial nodes within the commuting orbit of major cities, towns in the study area provide very limited employment options for their own residents. It is not surprising to find such small percentages of locally employed residents in the study area and such a large percentage in Pittsburgh, the county seat and region's largest economic center.

TABLE 1.16. RESIDENTS WORKING IN OWN COMMUNITY

	Workers 16 and over	Percent Working Locally	Male workers 16 and over	Percent working locally	Female workers 16 and over	Percent working locally
Blawnox	740	8.0%	343	4.7%	397	10.8%
Etna	1,772	5.9%	887	4.2%	885	7.7%
Millvale	1,903	4.6%	987	1.5%	916	7.9%
Sharpsburg	1,513	12.2%	779	19.0%	734	5.0%
Study Area	5,928	7.4%	2,996	7.2%	2,932	7.5%
Pittsburgh	142,577	70.4%	70,766	68.9%	71,811	71.8%
Allegheny County	586,994	28.8%	299,114	27.3%	287,880	30.4%

Sources: American Community Survey Five-Year Estimates, 2008-2012, and RKG Associates, Inc. Note: the number of workers 16 and over is calculated differently than the civilian employed population 16 and over cited in other tables. Therefore, the universe totals are somewhat different.

Apparently Pennsylvania does not publish local employment data for towns as small as those in the study area. Most of these communities provide business lists on their town websites, but it is not clear that the lists are complete or how current they may be. There is some evidence of industry clustering in Millvale, where Mr. Small's Funhouse serves as an entertainment draw for the Greater Pittsburgh area, yet the extent of arts, entertainment, retail, and food service "spinoff" activity that can probably be garnered here has not materialized. The construction trades, auto repair, and industrial uses implied in Etna's labor force-occupational profile can be gleaned from the list of employers on the borough's website, but again, the list probably does not capture all of the town's employers. Moreover, systematically collected data such as the ES-202 or Current Employment Statistics (CES) do not measure all employers because by design, they focus on payroll employment. As a result, many sole proprietorships escape accurate tallying by government sources. What is clear is that most of the study area's employed residents work outside of town each day, most likely in Pittsburgh.

For Pennsylvania's small geographies, the most readily available sources of local employment data are proprietary, such as Nielsen Claritas and ESRI Business Analyst. Table 1.17 provides a snapshot of employment by major industrial class in each borough, based on estimates from ESRI. According to ESRI, the study area's employment base includes 5,910 jobs for public and private employer establishments. The ratio of employment to household population is only 0.494 jobs per person, which underscores the study area's dependence on non-local places of employment.

Industry	Blawnox	Etna	Millvale	Sharpsburg	Study Area
Agriculture, Forestry, Fishing	0	0	2	1	3
Utilities	0	5	0	0	5
Construction	41	147	216	478	882
Manufacturing	271	322	89	227	909
Wholesale Trade	36	73	88	137	334
Retail Trade	78	127	88	217	510
Transportation & Warehousing	1	263	90	61	415
Information	0	43	98	54	195
Finance, Insurance, Real Estate	24	64	62	72	222
Professional & Business Services	52	127	92	400	671
Educational Services, Social Assistance, Health Care	70	51	80	106	307
Arts & Accommodations	57	155	233	142	587
Other Services	79	70	105	170	424
Public Administration	49	136	65	131	381
Unclassified	22	6	9	28	65
Total Employment	780	1,589	1,317	2,224	5,910

Sources: ESRI Business Analyst. Data acquired April 17, 2013 by Nicholas Fedorek, Office of State Sen. James Ferlo, supplied to RKG Associates, Inc., November 2013.

III. RESIDENTIAL MARKET ANALYSIS

This chapter summarizes housing supply characteristics and trends in Blawnox, Etna, Millvale, and Sharpsburg relative to the EZ as a whole from a review of decennial census and other data. Comparisons with Allegheny County are also made and in some cases with the City of Pittsburgh. Characteristics of owner and renter households are examined, and current real estate market conditions are also identified. Annual demand for housing over the next five years in each of town in the study area is also estimated. While this chapter draws on many of the same sources of data referred to in the previous chapter, at times the numbers will differ depending on the survey or data collection year. Where differences exist, however, they do not have a substantive impact on the overall findings and conclusions of the report.

A. HOUSING SUPPLY AND TENURE TRENDS

1. Housing Growth and Change: Study Area and EZ

Appendix 2-A reports selected housing supply statistics and tenure trends from decennial census data over a twenty-year period. Key findings from the data include:

- Collectively, the study area towns had nearly 6,700 housing units in 2010 and accounted for 27 percent of the entire EZ's housing supply. In 2010, Blawnox (900 units) had the smallest number of units amount while Millvale (2,120 units) had the largest. Allegheny County had 589,200 housings units in 2010, and nearly 27 percent were in the City of Pittsburgh. Only 4 percent in were in the EZ.
- During the 1990s, all of the study area towns experienced some degree of housing growth, from less than 1 percent in Millvale to almost 4 percent in Etna, although the absolute gain totaled almost 140 units and accounted for 20 percent of the increase in EZ. Housing in the Pittsburgh decreased by four percent during the 1990s, while a half a percent gain was indicated in Allegheny County.
- During the 2000s, the reverse was indicated in three of the study area towns (Blawnox, Etna and Sharpsburg) as a reduction in the housing supply resulted to varying degrees. In Blawnox and Etna, any gain in housing experienced in the 1990s was eliminated, since the housing supply in 2010 was less than that of 1990. Sharpsburg also had a decline in housing, and the supply in 2010 was only marginally higher (0.3 percent) than in 1990. Millvale was the only community to experience any net housing growth: only 33 units, or an increase of less than 2 percent.
- Despite the declines in three of towns during the 2000s, a 1 percent gain occurred in the EZ overall, indicating that all the increase in housing occurred outside the study area with the exception of Millvale. Pittsburgh lost another 4 percent of its housing stock during the 2000s, while a 1 percent gain occurred in Allegheny County.
- The study area's housing supply has remained relatively unchanged over the last twenty years, while EZ overall experienced a 4 percent increase in housing. Nearly all gains occurred outside the study area.
- The fluctuations in occupied units (households) were greater the changes in housing supply in the study area communities between 1990 and 2010. Collectively, the study area communities lost 470

households between 1990 and 2010, which was sixteen times greater than the loss in housing (-24 units), and in most cases, a greater loss occurred between 2000 and 2010. Blawnox had the smallest decrease, while Etna had the largest, followed by Millvale and Sharpsburg.

- A similar trend was evident in Pittsburgh where a loss of 17,270 household occurred, and in Allegheny County, a loss of 7,300 households occurred. In other words, household growth failed to keep pace with new housing production, and all new housing was developed at the expense of the older supply.

The changes in occupied housing (households) between 1990 and 2010 were also affected by an increase in renter households in the study area while a greater decline in owner households occurred. The renter-occupied unit rate in 2010 in each of the study area communities was higher than in 1990, as shown in Appendix 2-A and conversely, the owner-occupied rate was lower. The reverse, however, was indicated EZ-wide, due in part to an increase in occupied housing, as the owner-and renter-occupied rates were both slightly higher in 2010 than in 1990. In essence, all the growth in occupied housing in EZ occurred outside the study area communities.

In 2010, Sharpsburg (59 percent) had the highest renter-occupied rate, followed by Millvale (58 percent) and Blawnox (57 percent). Etna (47 percent) had the lowest renter-occupied rate in the study area communities. The renter-occupied rates in the EZ (26 percent) and Allegheny County (35 percent) were much lower, but the rate in Pittsburgh (52 percent) was very similar.

- In 2010, the study area towns had nearly 54 percent of all renter households in the EZ, but only 16 percent of the owner households. The study area's share of renters increased since 1990 and its share of homeowners declined.

2. Vacant Housing

Table 2.1 reports statistics on vacant housing in the study area. The following are key findings from a review of the data.

- Vacant housing units in each of the study area communities increased between 1990 and 2010 except in Blawnox, where no change was indicated. In the other study area towns, the supply of vacant units doubled in some cases over the twenty-year period, and as a result the vacancy rate increased.
- In 2010, the collective vacancy rate in the study area was 12.5 percent and almost twice the rate indicated for EZ (6.9 percent), but slightly lower than that for Pittsburgh (12.8 percent)
- Millvale had the highest vacancy rate (15.7 percent) of the study area communities in 2010, while Blawnox had the lowest (7.7 percent)
- In 2010, the study area towns had 50 percent of the entire EZ's vacant housing, and 40 percent of the vacant housing in the study area was in Millvale. Another 27 percent was located in Sharpsburg and 25 percent in Etna.
- In 2010, the owner vacancy rate in the study area was 3.4 percent, and twice that indicated for the EZ as a whole (1.7 percent). As shown in Table 2.1., Sharpsburg (4.3 percent) had the highest homeowner vacancy rate while Blawnox (2.2 percent) had the lowest. In each case, the owner

vacancy rate was higher in the study area towns than throughout the EZ (1.7 percent), which had a more standard owner vacancy rate than indicated in the study area. This suggests a localized imbalance caused by excess vacant housing units.

- In 2010, the renter vacancy rate in ARTEZ was 8.1 percent in 2012, which was slightly lower than the study area communities (8.3 percent) and Pittsburgh (8.3 percent). In almost all cases, the renter vacancy rate in the study area communities was much higher in 2010 than in 1990, again indicating a localized imbalance created by excess supply.

TABLE 2.1. HOUSING VACANCY TRENDS, 1990-2010								
Category / Year	Blawnox	% from prior	Etna	% from prior	Millvale	% from prior	Sharpsburg	% from prior
Total Units								
1990	913		1,867		2,078		1,864	
2000	931	2.0%	1,934	3.6%	2,085	0.3%	1,911	2.5%
2010	899	-3.4%	1,812	-6.3%	2,118	1.6%	1,869	-2.2%
Vacant Units								
1990	69		116		171		102	
2000	73	5.8%	185	59.5%	246	43.9%	163	59.8%
2010	69	-5.5%	205	10.8%	332	35.0%	228	39.9%
Owner Vacancy Rate								
1990	2.0%		2.4%		4.1%		1.5%	
2000	1.7%		2.7%		4.6%		4.2%	
2010	2.2%		2.8%		3.4%		4.3%	
Renter Vacancy Rate								
1990	5.6%		4.7%		5.5%		4.5%	
2000	8.0%		10.5%		8.7%		8.0%	
2010	5.2%		10.3%		8.9%		7.7%	

Source: Census 2010 and RKG Associates, Inc.

3. New Housing Production

According to the Census Bureau and data supplied by the four towns (Appendix 2-G), there has been very little new construction in the study area since 2000.

- Since 2000, Blawnox and Etna were the only study area communities to report building permits for new residential construction. In Blawnox, a total of seventeen units were permitted during the past decade, including six single-family homes, but none since 2009. In Etna, three homes were permitted during the last decade, and only one since 2010.
- No building permits were issued in Millvale or Sharpsburg since 2000. However, Millvale did experience a net gain of 33 units between 2000 and 2010, according to the decennial census. The change was likely a result of renovations and not new construction or a count correction in 2010.

- Considering all towns in the EZ, over 1,010 units were permitted between 2000 and 2009, including nearly 590 single-family homes. Since 2010, reported permit activity in the EZ has declined sharply, with a total of 80 units permitted since then.

The average unit cost for new construction reported in the study area was much lower than for the EZ or Allegheny County.

4. Housing in 2012 and Housing by Period Built

Given permit activity since 2010 and any positive changes that can be gleaned from the decennial census and the ACS, RKG estimates that together, the study area communities had nearly 6,700 housing units in 2012. For purposes of this report, the 2012 estimate represents the current housing supply. Table 2.2 reports the estimated number of housing units built during different periods dating to the 1940s.

- Fifty-two percent of the housing in the study area was built prior to 1940, compared with 28 percent for the EZ and 31 percent for Allegheny County. Sharpsburg (55 percent) had the highest concentration of pre-1940 housing, while Blawnox (35 percent) had the lowest.
- Another 14 percent of the housing in the study area communities was built during the 1940s, which represents 38 percent of the housing developed in EZ at that time.
- Almost 9 percent of the EZ's housing was built after 1990, while another 6 percent was built during the 1980s. In the study area, less than 2 percent of the housing was built after 1990 and less than 5 percent in the 1980s. The study area had a very limited supply of modern housing and a high concentration of older housing.

TABLE 2.2. AGE OF HOUSING STOCK

% of Housing by Period Built	Blawnox	Etna	Millvale	Sharpsburg	Study Area	S-A as % of ARTEZ	Allegheny Co.
Total Housing Units	899	1,813	2,118	1,869	6,699	27.4%	589,171
2010 or later	0.0%	0.1%	0.0%	0.0%	0.0%	1.2%	0.7%
2000 to 2009	1.9%	0.2%	1.6%	0.0%	0.8%	5.2%	3.5%
1990 to 1999	2.9%	0.0%	0.5%	1.2%	0.9%	5.6%	5.3%
1980 to 1989	12.6%	1.5%	2.9%	5.5%	4.6%	20.7%	6.9%
1970 to 1979	6.8%	3.6%	5.1%	10.7%	6.5%	16.7%	10.3%
1960 to 1969	10.8%	6.4%	10.4%	9.7%	9.2%	15.2%	11.8%
1950 to 1959	12.1%	21.5%	7.9%	8.1%	12.2%	17.0%	19.0%
1940 to 1949	18.4%	13.7%	17.0%	9.9%	14.3%	38.3%	11.7%
1939 or earlier	34.6%	53.1%	54.7%	54.8%	51.6%	50.0%	30.9%

Sources: American Community Survey and RKG Associates, Inc.

5. Housing by Type of Structure

Table 2.3 reports the distribution of housing units by type of structure in the study area communities and their respective share of the EZ's housing inventory.

- About 79 percent of the EZ's housing units are in single-unit structures (detached, attached and mobile home) compared with 73 percent for Allegheny County. The remainder were in multi-unit structures. In the study area, however, about 58 percent of the housing units are single-unit structures and the remainder in multi-unit structures.
- In 2012, the study area communities had a higher concentration of the EZ's supply of multi-unit structures and single-unit, attached structures than its overall representation of housing (28 percent).

About 79 percent of the EZ's housing units are in single-unit structures (detached, attached and mobile home) compared with 73 percent for Allegheny County. The remainder were in multi-unit structures. In the study area, however, about 58 percent of the housing units are single-unit structures and the remainder in multi-unit structures.

TABLE 2.3. HOUSING TYPES IN STUDY AREA

% of Units by Housing Type	Blawnox	Etna	Millvale	Sharpsburg	Study Area Total	Study Area % EZ	Allegheny County
Total housing units	899	1,813	2,118	1,869	6,699	27.6%	589,171
1-unit, detached	30.4%	48.8%	42.4%	36.5%	40.9%	16.1%	62.1%
1-unit, attached	20.5%	15.2%	19.2%	14.6%	17.0%	55.4%	10.3%
2 units	2.4%	7.9%	17.0%	19.5%	13.3%	68.2%	5.1%
3 or 4 units	9.0%	13.0%	6.9%	12.6%	10.4%	58.5%	4.6%
5 to 9 units	7.2%	2.6%	3.9%	9.0%	5.4%	47.9%	4.9%
10 to 19 units	9.3%	1.5%	2.9%	1.0%	2.8%	27.6%	3.9%
20 or more units	16.1%	2.6%	8.8%	8.5%	8.0%	50.7%	8.4%
Mobile home	0.7%	0.0%	0.3%	0.0%	0.2%	9.8%	0.7%
Source: US Census, American Community Survey & RKG Associates, Inc.							

Similar information can be derived from the data in Table 2.4, which summarizes the number of tax parcels in the study area towns by different residential building types.¹¹

- The study area towns has about 18 percent of the single-family tax parcels in the EZ and only 27 percent of the townhouse parcels, but 96 percent of the row house parcels.
- The study area has between 60 and 77 percent of the two-to-four family tax parcels in the EZ and over 50 percent of the apartments with 5 to 39 units.
- The study area has virtually all of the lower-income housing in the EZ and two-thirds of the independent living parcels, but only 25 percent of the apartment projects with 40 units or more.

¹¹ Unfortunately, unit counts for these property types were not available, so a reconciliation with census data cannot be done.

TABLE 2.4. LAND PARCELS BY RESIDENTIAL USE TYPE

Building Type	Blawnox	Etna	Millvale	Sharpsburg	Study Area	% EZ
Single Family	312	1,076	962	761	3,111	17.5%
Townhouse	73		13	37	123	26.6%
Rowhouse	80	23	174	85	362	95.8%
Condominium	19				19	4.1%
Mobile Home	2				2	2.6%
Two Family	35	139	150	161	485	59.9%
Three Family	10	23	43	25	101	67.8%
Four-Unit Bldg.	6	22	23	18	69	76.7%
Apart: 5-19 Units	13	14	9	19	55	53.4%
Apart:20-39 Units			3	4	7	53.8%
Apart:40+ Units	1			1	2	25.0%
Independent Living (Seniors)			2		2	66.7%
HUD 202 Development		1	1		2	100.0%
Metro Housing Authority	1			1	2	100.0%
Nursing Home/Private		2	1	1	4	100.0%
Group Home				1	1	50.0%
Retail/Apt's Over	27	36	62	57	182	80.5%
Office/Apartments Over	5	12	18	12	47	65.3%
Total Parcels	584	1,348	1,461	1,183	4,576	22.2%

Sources: Allegheny County Assessor, RKG Associates, Inc.

6. Conclusion

The study area's housing supply has experienced little if any expansion over the last two decades; in fact, there is evidence of some reduction in the total housing inventory. However, household growth failed to materialize, causing vacant housing units to increase. A noticeable shift to more renter households was also evident, but not enough to offset the losses in owner households. In comparison, the EZ experienced modest growth despite these local declines.

In addition, the study area towns have a high concentration of older units compared with the EZ as a whole. Any expansion in the EZ's housing stock has occurred outside the study area, suggesting that the local investment climate has diminished, since other areas in ARTEZ captured the new development. The high concentration of older and vacant units indicates a high level of deferred maintenance and possibly abandonment, which is as evident on the ground (from field inspections) as in data from regional and federal sources. The study area communities also have a high concentration of the EZ's multi-unit structures across nearly all property types, and many appear targeted to low-income households. However, characteristics and conditions do vary between the different study area communities.

B. HOMEOWNER HOUSEHOLD CHARACTERISTICS

Key characteristics of homeowner households in the study area in 2012 can be found in Table 2.5. They include:¹²

- The study area had nearly 2,500 owner households in 2012, accounting for 15 percent of the homeowners in ARTEZ. Millvale, Etna, and Sharpsburg accounted for 89 percent of the homeowner households, which were fairly evenly distributed between these communities, while the remainder were in Blawnox. As noted earlier, homeowner households have been in decline since 2000 in all geographies.
- Almost 50 percent of the study area's homeowners were in the cohorts age 55 years and older. Blawnox (63 percent) and Etna and Sharpsburg (54 percent) had a higher concentration of owners 55 years and older, compared with Millvale (38 percent).
- Collectively, the study area communities (13 percent) had a higher concentration of young homeowners (under 35 years) than the EZ (11 percent). Millvale (17 percent) and Etna (18 percent) had a larger share of young homeowners than Blawnox (7 percent) or Sharpsburg (6 percent).
- The median owner household income in the study area ranged from \$48,920 (Sharpsburg) to \$53,690 (Millvale), and averaged at \$51,370. In all four towns, the median incomes were at least 30 percent below that indicated for the entire EZ (\$74,030).
- Blawnox (18 percent) and Etna (23 percent) had the highest concentration of households earning \$100,000 or more, though well below the representation of high-income households in EZ (30 percent).
- In addition, all study area communities had a much higher concentration of households earning less than \$20,000 than indicated for the EZ (8 percent), and they accounted for 31 percent of all EZ owners earning less than \$20,000. This was twice the share of owner households (15 percent) in the EZ.
- The median value of owner-occupied units ranged from \$66,200 (Millvale) to \$97,600 (Blawnox), with an average of \$75,720 in the study area. This was about half the median owner-occupied housing value for the EZ (\$148,790).
- About 78 percent of the owner-occupied units in the study area were valued at less than \$100,000 and less than 4 percent at \$200,000 or more. This differs from the EZ, where 27 percent of owner housing was valued at less than \$100,000 and another 24 percent valued at \$200,000 or more. Effectively, the study area communities had over 40 percent of the housing in ARTEZ valued at less than \$100,000 but only 4 percent of the owner housing at \$200,000 or more.

¹² Data from the Allegheny County Assessor's Office have not been used to develop a profile of housing values for the study area or the EZ as a whole due to concerns reported by ARTEZ. The ACS is the only other available source of information about the financial characteristics of a community's housing stock. However, individual property characteristics cannot be determined with ACS estimates.

TABLE 2.5. CHARACTERISTICS OF HOMEOWNERS IN THE STUDY AREA

% of Owner Households by Age	Blawnox	Etna	Millvale	Sharpsburg	Study Area	ARTEZ	Study Area % ARTEZ
Total Owner Households	283	742	774	695	2,494	16,688	14.9%
< 35 years	7.4%	18.5%	16.5%	6.2%	13.2%	10.9%	18.0%
35 to 44 years	9.9%	12.8%	11.0%	14.1%	12.3%	15.4%	11.9%
45 to 54 years	19.8%	15.2%	34.5%	25.6%	24.6%	23.1%	15.9%
55 to 64 years	25.1%	24.0%	14.5%	21.0%	20.3%	19.9%	15.3%
65 years +	37.8%	29.5%	23.5%	33.1%	29.6%	30.7%	14.4%
% of Owner Households by Income	Blawnox	Etna	Millvale	Sharpsburg	Study Area	ARTEZ	Study Area % ARTEZ
< \$20,000	16.6%	16.0%	15.0%	20.7%	17.1%	8.2%	31.1%
\$ 20,000 - \$34,999	14.8%	18.1%	14.6%	6.8%	13.5%	13.4%	15.0%
\$ 35,000 - \$49,999	14.8%	15.0%	15.1%	23.5%	17.4%	11.5%	22.5%
\$ 50,000 - \$74,999	18.7%	17.4%	23.5%	35.8%	24.6%	21.0%	17.5%
\$ 75,000 - \$99,999	17.3%	10.4%	19.8%	5.9%	12.8%	16.3%	11.7%
\$100,000 & up	17.7%	23.2%	12.0%	7.3%	14.7%	29.5%	7.4%
Median Income	\$53,029	\$50,603	\$53,690	\$48,917	\$51,366	\$74,027	69.4%
% of Owner Households by Home Values	Blawnox	Etna	Millvale	Sharpsburg	Study Area	ARTEZ	Study Area % ARTEZ
< \$50,000	7.1%	11.6%	26.5%	22.2%	18.6%	6.1%	45.9%
\$50,000 to \$99,999	44.9%	63.7%	55.0%	61.0%	58.1%	20.6%	42.2%
\$100,000 to \$149,999	37.1%	17.3%	15.0%	9.6%	16.7%	29.4%	8.5%
\$150,000 to \$199,999	0.0%	2.7%	0.0%	5.5%	2.3%	20.2%	1.7%
\$200,000 to \$299,999	8.5%	4.7%	3.5%	1.7%	3.9%	15.6%	3.8%
\$300,000 +	2.5%	0.0%	0.0%	0.0%	0.3%	8.2%	0.5%
Median Home Value	\$97,600	\$84,900	\$66,200	\$67,600	\$75,717	\$148,790	50.9%
Sources: American Community Survey and RKG Associates, Inc.							

1. Owner Households by Move-in Year

Between 1 percent (Millvale) and 4 percent (Sharpsburg) of owner households moved into their unit in 2010 or later, which equates to a cumulative average of 30 owners per year in the study area and well below the cumulative average of 95 owner households per year during the 2000s. A similar slowdown in new owner households moving into their unit was shown throughout the EZ, for an average of 220 owners per year was indicated since 2010, compared with 590 owners per year over the last decade.

2. Conclusions

Homeowner households in the study area decreased at a faster pace over the last decade than in the EZ as a whole. In most cases, the loss in homeowners was highest among the elderly (age 65 and older) and in all cohorts younger than age 45, while the Baby Boom generation (age 45 to 64) aged in place. As reported in Section 1 of this plan, the median homeowner household income in the study area ranged from \$48,920 (Sharpsburg) to \$53,690 (Millvale). In all cases, these median income levels were at least 30 percent below that indicated for the entire EZ (\$74,030).

About 78 percent of the owner-occupied housing in the study area was valued at less than \$100,000: quite unlike EZ, where 27 percent of the owner-occupied housing was estimated in the same value range. Less than 4 percent of the owner housing in the study area communities was valued at \$200,000 or more, while over 24 percent of the housing in the EZ was valued at \$200,000 or more. Effectively, the study area communities had over 40 percent of the housing in the EZ valued at less than \$100,000 but only 4 percent of the owner-occupied housing at \$200,000 or more.

The homeowner turnover rate in the study area has averaged about 1 percent per year since 2010, much lower than the average of 3 to 4 percent turnover per year during the 2000s. The effects of the national recession and banking crisis slowed the movement of owner households in the study area's towns over the last few years, and losses in homeowner households were evident.

C. FOR-SALE MARKET CONDITIONS

1. Sales Activity and Sales Prices

Table 2.6 presents a summary of sales activity by different product types in the study area communities and the median value of each type in 2013.

TABLE 2.6. AVERAGE SALES/YEAR (2009-2013)							
Type	Blawnox	Etna	Millvale	Sharpsburg	Study Area	ARTEZ	Study Area % ARTEZ
Single-Family	9	37	29	20	95	504	18.8%
Townhouse	3			1	4	26	17.2%
Condominium	1				1	24	2.5%
Row-House	2	1	4	3	10	11	94.5%
2-Family	1	3	4	4	12	20	61.2%
Total	16	41	37	28	122	585	20.9%
Sheriff Sales	0.4	0.0	1.0	0.6	2.0	6.8	29.4%
Median Value in 2013							
Type	Blawnox	Etna	Millvale	Sharpsburg	Study Area	ARTEZ	S-A as % of ARTEZ
Single-Family	\$113,000	\$55,000	\$39,900	\$64,000	\$53,587	\$142,400	37.6%
Townhouse	\$134,700			\$91,000	\$128,000	\$155,375	82.4%
Condominium	\$300,000					\$174,500	
Row-House	\$24,000	\$14,500	\$36,000	\$33,000	\$32,000	\$32,000	100.0%
2-Family	\$76,000	\$16,000	\$30,500	\$54,750	\$54,000	\$92,450	58.4%

Source: Allegheny County & RKG Associates, Inc.

- Over the last five years, the cumulative average of residential sales in the study area towns totaled just over 120 sales per year, with the highest concentration occurring in Etna and Millvale. Sales activity in the study area communities accounted for about 21 percent of the cumulative activity in the EZ.

- Sherriff sales have averaged two sales per year in the study area. Nearly half these sales occurred in Millvale. The number of sheriff sales in the study area communities accounted for 29 percent of all those occurring in the EZ, suggesting the study area captured a higher share of sheriff sales than its representation of for-sale activity (21 percent).
- In the study area communities, sales of single-family homes accounted for 78 percent of average sales activity, while sales of condominiums and townhouses for 4 percent. Sales of two-family homes averaged twelve transfers per year, while sales of row-houses averaged ten sales per year. The latter accounted for 95 percent of the sales activity of row-houses in the EZ, while the former represented 61 percent of the two-family sales in the EZ.
- The median value of single-family sales in the study area was nearly \$53,600 in 2013: more than 60 percent lower than the EZ-wide median (\$142,400). Blawnox (\$113,000) had the highest median value of single-family homes while Millvale (\$39,900) had the lowest.
- The median townhouse value in the study area (\$128,000) was only 18 percent lower than the EZ (\$155,375). Blawnox (\$134,700) had the highest median for this type, while Sharpsburg (\$91,000) the lowest.
- The median condominium value in 2013 was \$174,500 in the EZ, representing the highest median value for any residential property type.
- However, Blawnox was the only study area community to have condominium sales (supply), and the activity there was limited to one sale where the recent price was \$300,000, or almost twice that for the EZ for this product type.
- The median value of row-house properties was \$32,000 in the study area communities, and also for the EZ, since nearly all the supply of row-house properties was in the study area. The median values ranged from less than \$15,000 (Etna) to \$36,000 (Millvale).
- The median value of two-family properties was \$54,000 in the study area communities, ranging from \$16,000 (Etna) to \$76,000 (Blawnox). In the EZ, the median value of two-family sales was \$92,450, nearly 60 percent higher than in the study area communities.

2. Conclusions

The for-sale market showed signs of improvement as sales in 2013 increased for most property types. Median values also recovered, but in some cases remain below previous high values. The single-family sector was the most active throughout the EZ and in the study area communities in terms of sales volume. The townhouse and condominium sectors had the next highest amount of sales in the EZ, but sales in the study area communities were more limited compared with sales of two-family and row house properties.

Median prices in the study area for all product types were generally below that indicated in the EZ with the exception of condominiums, but that was limited to a single project. Median sale prices in Blawnox were generally higher than the other study area communities, although the average sales volume was the lowest. Etna had the highest number of sales of the study area communities, but generally had the lowest median prices, except for single-family properties in 2013. In many cases, opportunities for homeownership at affordable prices appear to exist in the study area communities.

However, many of the affordably priced properties need modernizing and upkeep. The presence of older homes needing modernization and more serious substandard conditions can be gleaned from the Assessor's Database and field studies conducted for the boroughs of Millvale, Etna, and Sharpsburg, which recently joined forces for a multi-town comprehensive plan.

D. RENTER HOUSEHOLD CHARACTERISTICS

Key characteristics of renter households in the study area in 2012 can be found in Table 2.7. They include:

- The study area communities had over 3,230 renter households in 2012 and represented 55 percent of renters in the EZ. Since 2000, some of the study area communities experienced growth in renter households to varying degree, but not sufficient enough to offset losses in households.
- Millvale, Sharpsburg and Etna had 85 percent of the renter households in the study area communities fairly evenly divided between the three, while Blawnox had the remainder.
- Approximately 35 percent of the renter households in the study area communities were younger than age 35, ranging from 26 percent of renters in Blawnox to 38 percent of renters in Millvale. The study area communities had 61 percent of the young renters in ARTEZ.
- Approximately 16 percent of the renters in the study area were elderly renters (age 65 and older), ranging from 10 percent (Etna) to 25 percent (Blawnox). The study area communities had 43 percent of the elderly renter in ARTEZ.
- The median renter household income ranged from \$19,670 (Sharpsburg) to \$33,040 (Blawnox), averaged at \$25,840 in the study area communities, and was 11 percent lower than in ARTEZ.
- Only 1 percent of the renters in the study area communities reportedly earned \$100,000 or more. They accounted for 14 percent of renters in the EZ, and these upper-income renters were in either Blawnox or Millvale. Another 4 percent of renter households in the study area had incomes of \$75,000 to \$99,999, representing 43 percent of renters at that income level in the EZ.
- Approximately 39 percent of the renters in the study area communities had incomes of less than \$20,000 and represented 63 percent of renters in ARTEZ at that income level. Renters in the three cohorts earning \$20,000 to \$74,999, accounted for between 50 and 59 percent of ARTEZ renters at those income levels.
- Approximately 3 percent of the renters in the study area communities paid \$1,000 or more in rent. In absolute terms, approximately 110 renters in the study area communities paid rent of \$1,000 or more in 2012, and over half were in Blawnox. In ARTEZ, 11 percent of renters paid \$1,000 or more. By way of comparison, 20 percent of renters in Allegheny County had rents of \$1,000 or more, and 24 percent of renters in the City of Pittsburgh. Pittsburgh had 45 percent of the renters in Allegheny County that paid \$1,000 or more, while the study area communities had only 0.3 percent. In other words, the evidence of renters paying \$1,000 or more in the study area communities was very limited as compared to renters paying in the \$500 to \$999 range.

TABLE 2.7. CHARACTERISTICS OF RENTER HOUSEHOLDS IN THE STUDY AREA

% of Renter Households by Age	Blawnox	Etna	Millvale	Sharpsburg	Study-Area	ARTEZ	Study Area % ARTEZ
Total Renter Households	495	843	972	922	3232	5869	55.1%
< 35 years	26.5%	37.4%	38.1%	34.1%	35.0%	31.8%	60.6%
35 to 44 years	15.8%	14.5%	14.2%	10.8%	13.6%	12.9%	57.7%
45 to 54 years	10.3%	24.4%	14.5%	21.1%	18.3%	18.4%	55.1%
55 to 64 years	22.4%	13.8%	17.0%	19.2%	17.6%	16.9%	57.4%
65 years +	25.1%	10.0%	16.3%	14.8%	15.5%	20.1%	42.6%
% of Renter Households by Income	Blawnox	Etna	Millvale	Sharpsburg	Study-Area	ARTEZ	Study Area % ARTEZ
< \$20,000	27.9%	29.4%	43.7%	50.1%	39.4%	34.5%	62.8%
\$ 20,000 - \$34,999	26.9%	23.1%	15.6%	24.7%	21.9%	23.9%	50.4%
\$ 35,000 - \$49,999	14.5%	32.7%	16.7%	15.6%	20.2%	18.9%	59.0%
\$ 50,000 - \$74,999	22.6%	13.0%	16.4%	6.7%	13.7%	13.7%	55.2%
\$ 75,000 - \$99,999	5.1%	1.7%	5.5%	2.8%	3.7%	4.6%	43.4%
\$100,000 & up	3.0%	0.0%	2.2%	0.0%	1.1%	4.4%	14.0%
Median Income	\$33,042	\$31,635	\$22,723	\$19,969	\$25,842	\$29,122	88.7%
Renter Households by Gross Rent Paid	Blawnox	Etna	Millvale	Sharpsburg	Study-Area	ARTEZ	Study Area % ARTEZ
No Rent Paid	5.9%	1.2%	2.8%	1.3%	2.4%	4.9%	26.9%
< \$300	6.3%	3.3%	7.4%	6.1%	5.8%	4.1%	77.0%
\$300-\$499	16.8%	24.3%	26.0%	17.2%	21.7%	16.2%	73.5%
\$500 to \$749	39.8%	42.7%	36.2%	51.6%	42.9%	37.0%	63.8%
\$750 to \$999	19.4%	26.3%	25.9%	21.7%	23.8%	26.7%	49.2%
\$1,000 & up	11.9%	2.1%	1.6%	2.1%	3.5%	11.0%	17.4%
Median Gross Rent	\$659	\$613	\$616	\$601	\$618	\$708	87.2%

Sources: American Community Survey and RKG Associates, Inc.

1. Renter Households by Move-in Year

Between 10 percent (Etna) and 25 percent (Blawnox) of the renter households in the study area communities moved into their unit in the two years after 2010, compared with 14 percent for the EZ as a whole. In absolute numbers, this turnover of renter units in the study area averaged 280 renters per year, ranging from 40 renters (Etna) to 110 renters (Millvale) per year. Turnover in the study area equated to 67 percent of the EZ's annual renter turnover.

2. Conclusion

Renter households increased between 2000 and 2012 in most of the study area communities, but the increase was not sufficient to offset the losses of homeowners. In some cases, the increase was a result of aging in place of the existing base; and, some of the study area communities successfully attracted younger renters due to the affordable pricing.

In 2012, the median household income for renters ranged between \$20,000 (Sharpsburg) and \$33,000 (Blawnox) and averaged at \$25,840 in the study area communities, which was over 10 percent lower

than in the EZ. Over 63 percent of all EZ renters lived in the study area and had incomes of less than \$20,000, and they accounted for nearly 40 percent of the renter households. Only 1 percent of the renters in the study area communities earned incomes of \$100,000 or more, as compared to 4 percent in ARTEZ.

Approximately two-thirds of the renter in the study area communities paid monthly gross rents in the \$500 to \$999 range, and only 3 percent had rents of \$1,000 or more. In comparison, 24 percent of the renters in the City of Pittsburgh paid \$1,000 or more.

Annual renter turnover in the study area communities averaged at 280 households per year, and a portion of this relatively high turnover was associated with a shift in tenure as owners became renters because of the decline in the housing market. In addition, the study area communities captured a higher percentage of lower income renters due primarily to an “affordable” supply. There is evidence of deferred maintenance because prevailing rents in the study area do not generate excess capital for property improvements.

E. RENTAL MARKET CONDITIONS

This section analyzes conditions in the rental market from data obtained from ReisReports, a private firm that tracks conditions at multiple apartment projects containing over 86,000 units in the Pittsburgh Metro region. As shown in Fig. 2.1, the EZ communities are located within the North submarket (Key 1), one of six submarkets in the Pittsburgh Metro and containing about 20 percent of the apartment supply. For comparison purposes, ReisReport provided detailed specifics on a sample of ten apartment projects within relatively close proximity to the EZ communities.

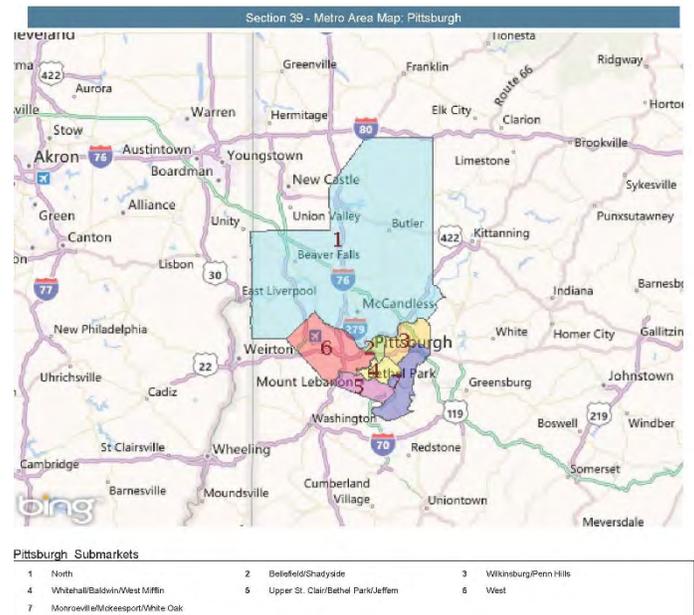


Fig. 2.1. Pittsburgh Metro and Submarkets (REIS)

1. Comparative Rental Data

Table 2.8 compares rental characteristics of the sample group with the averages for the North submarket and the Pittsburgh Metro. Rent growth trends by unit types are also shown for the submarket and the metro. The following are comments from a review of the data.

- The sample group (\$873) had a lower overall average rent than indicated for both the North submarket (\$951) and the Pittsburgh Metro (\$899). The sample also had a higher distribution of two-bedroom units (56 percent) and lower distribution of three-bedroom (0.5 percent) and one-bedroom (39.9 percent) units than the comparative areas.
- The sample group had higher average rents for studio (\$639) and one-bedroom units (\$837) than the comparative areas. However, the average rents at the sample group for two-bedroom units (\$915) and three-bedroom units (\$1,003) were lower.

- The overall rent per square foot (SF) in all geographies was relatively similar at just over \$1.00/SF. However, the sample group had higher rents per SF for studio and one-bedroom units, and lower rates for two- and three-bedroom units. The average unit size for one-, two- and three- bedroom units at the sample group was smaller than the two comparative areas, but larger for studio units.
- Referring to Table 2.11, rent growth in the sample group averaged at 4.5 percent in 2012, but the growth in rent through November 2013 averaged at only 0.1 percent. In the North submarket and Pittsburgh Metro the growth in rent in 2012 averaged at 3 percent (slightly lower), and an additional 0.5 percent occurred in 2013. Most of the 2013 growth in the North submarket and Pittsburgh Metro occurred in two-bedroom and one-bedroom rents.

TABLE 2.8. RENTAL COMPARISON BY SAMPLE & SUBMARKETS

Sample Group	November 2013				Rent Growth					
					Quarterly			Annualized		
Unit by Type	Rent	Avg SF	Rent/SF	Mix	3q-13	2q-13	YTD	1-year	3-year	5-year
0-bdrm	\$639	502	\$1.27	4.2%						
1-bdrm	\$837	684	\$1.22	39.9%						
2-bdrm	\$915	990	\$0.92	55.5%						
3-bdrm	\$1,003	1,300	\$0.77	0.5%						
Average	\$873	849	\$1.03	1,911	-0.8%	-0.1%	0.1%	4.5%	1.9%	1.9%
North Submarket	November 2013				Quarterly			Annualized		
Unit by Type	Rent	Avg SF	Rent/SF	Mix	3q-13	2q-13	YTD	1-year	3-year	5-year
0-bdrm	\$545	464	\$1.17	2.5%	-3.0%	1.6%	-1.3%	-0.2%	1.0%	0.6%
1-bdrm	\$821	721	\$1.14	42.6%	0.9%	0.2%	1.7%	2.3%	1.5%	1.2%
2-bdrm	\$1,023	1,032	\$0.99	48.2%	1.5%	0.2%	2.6%	2.6%	0.8%	1.1%
3-bdrm	\$1,424	1,695	\$0.84	6.6%	-1.2%	-1.4%	-2.9%	8.1%	3.8%	2.5%
Average	\$951	928	\$1.02	17,144	0.9%	0.1%	0.5%	3.0%	1.5%	1.4%
Pittsburgh Metro	November 2013				Quarterly			Annualized		
Unit by Type	Rent	Avg SF	Rent/SF	Mix	3q-13	2q-13	YTD	1-year	3-year	5-year
0-bdrm	\$605	487	\$1.24	4.4%	-0.5%	-0.2%	0.4%	-0.8%	1.5%	1.5%
1-bdrm	\$788	712	\$1.11	42.9%	0.6%	0.1%	1.7%	2.4%	1.9%	1.6%
2-bdrm	\$977	1,009	\$0.97	46.5%	0.4%	0.8%	2.2%	3.0%	1.8%	1.4%
3-bdrm	\$1,305	1,373	\$0.95	6.2%	0.1%	-0.2%	0.8%	5.6%	2.8%	1.7%
Average	\$899	881	\$1.02	86,260	0.5%	0.4%	0.5%	2.9%	2.0%	1.6%
	Average over period ending				Sep-13	Jun-13	Nov-13	Dec-12	Dec-12	Dec-12

Source: ReisReports & RKG Associates, Inc.

Table 2.9 compares changes in vacancy rates, and growth in rents for the sample group, and the other comparative areas. The following are comments from a review of the data.

- The vacancy rate at the sample group (3.1 percent) in November 2013 was between that in the North submarket (3.3 percent) and the Pittsburgh Metro (2.9 percent). The November 2013 vacancy rate for the sample group was higher than in each of the last two-quarters and year-to-date, suggesting a rise in vacancy over the last few months. However, the current rate is on par with the three-year average (3.1 percent), and below the five-year average (4.0 percent). A similar finding was indicated in the comparative areas.
- Growth in rent at the sample group in 2013 varied from the other areas but for the most part was slightly lower. This may be attributed to a spike in rent growth (4.5 percent) that occurred in 2012 at the sample, which was much higher than the other areas.

TABLE 2.9. COMPARISON TRENDS IN VACANCY AND RENT GROWTH							
Period	Vacancy Rate Trends			Rent Growth			Average over period ending
	Sample	North	Pittsburgh	Sample	North	Pittsburgh	
Nov-13	3.1%	3.3%	2.9%	0.6%	0.0%	0.3%	Nov-13
3q13	2.2%	2.8%	3.0%	-0.8%	0.9%	0.5%	Sep-13
2q13	2.1%	2.8%	3.1%	-0.1%	0.1%	0.4%	Jun-13
YTD Avg	2.4%	2.8%	3.0%	0.1%	0.5%	0.5%	Nov-13
1-year	2.8%	2.5%	3.1%	4.5%	3.0%	2.9%	Dec-12
3-year	3.1%	3.9%	4.0%	1.9%	1.5%	2.0%	Dec-12
5-year	4.0%	5.0%	4.5%	1.8%	1.4%	1.6%	Dec-12

Source: ReisReports & RKG Associates, Inc.

Table 2.10 exhibits different rental market characteristics based on the age of properties within the North submarket and Pittsburgh Metro.

- The North submarket (18 percent) had a higher concentration of post-2000 units than Pittsburgh Metro (14 percent), and a lower concentration of pre-1980 units (57 percent versus 65 percent). Its concentration of units built during the 1990s (10 percent) was also higher than the Pittsburgh Metro (7 percent).
- The post-2009 units in the North submarket (\$1,319) had a lower average rent than units build in the prior two decades, but it was almost 50 percent higher than the 1980 inventory (\$881). The lower average rent may be attributed to a high vacancy factor for the post-2009 inventory (9.5 percent) in the North submarket.

Year Built	North			Pittsburgh Metro		
	Supply	Rent	Vac. Rate	Supply	Rent	Vac. Rate
Pre 1970	26%	\$800	4.7%	39%	\$809	3.7%
1970-1979	31%	\$766	2.1%	26%	\$808	2.4%
1980-1989	16%	\$881	2.6%	14%	\$855	2.8%
1990-1999	10%	\$1,365	4.7%	7%	\$1,144	2.9%
2000-2009	15%	\$1,320	2.5%	11%	\$1,343	3.1%
Post 2009	3%	\$1,316	9.5%	3%	\$1,459	6.8%
All	100%	\$951	3.3%	100%	\$899	2.9%

Source: ReisReports & RKG Associates, Inc.

2. Listings at Newer, Modern Projects

RKG identified a sample of 20 projects in the greater Pittsburgh Metro and compared the rents and size to four properties in the study area communities. The results are shown in Appendix X. The top four listings are apartment complexes in the EZ. The next seven properties reflected recent conversions of older buildings into modern apartments, and the last group consists of recently built, modern apartment complexes. Key findings are as follows:

- Average rents at the sample of conversions ranged from \$1,170 for one-bedroom units to \$2,360 for three-bedroom units, while the average rents at the modern supply ranged from \$1,230 to nearly \$2,250.
- In comparison, the sample in ARTEX averaged less than \$550 for a one-bedroom unit and \$790 for a three-bedroom.
- Residences at the Docks in Fox Chapel provided a good example of a modern complex built on the riverfront. One-bedroom rents averaged \$1,125 per month, two-bedroom unit at \$1,420, and rents for three-bedroom units started at \$2,500 per month.
- The location, amenities and surrounding neighborhoods of the modern apartment properties varied significantly from that in the study area communities, so it is difficult to make any direct comparison, give the different characteristics of the study area communities.

3. Craig's List and Other Sources

RKG reviewed the for-rent listings in the EZ's communities on Craig's List, a popular Internet site for renters. The rents from the listings were tabulated by community, bedroom count, and rental range. Comparison to average rents indicated from the ReisReport were made, as well as to the sample of modern apartments previously identified. The fair market rent (FMR) for Allegheny County was also shown. RKG also augmented this with rental data from available multi-family listing on realtor.com. A summary of these listings can be found in the Appendix. The following are comments drawn from a review of the data.

- Listing totaled 103 available apartments/homes in ARTEZ, and most were in Millvale and Sharpsburg. The median asking rent was \$648 for ARTEZ, ranging from \$545 for one-bedroom units to \$2,200 units for four-bedroom units.
- Thirty-six listings on one-bedroom unit were identified, and half the listings had rents at less than \$500. The median rent was \$545, which was lower than the FMR (\$633), and well below the average one-bedroom rent for the North submarket (\$788), and the \$1,200 indicated at the modern sample.
- The median asking rent for two-bedroom units in ARTEZ was \$675, and 27 listings (57 percent of the two-bedroom listings) were in the \$500 to \$749 range, and another 13 listings (28 percent) were in the \$750 to \$999 range. This median was almost 34 percent lower than the average two-bedroom rent in the North submarket (\$1,023), and almost 15 percent lower than FMR (\$789). It was also well below the \$1,600 average indicated at the modern sample.
- Fifteen listings of three-bedroom units in ARTEZ indicated a median asking rent of \$1,350. Two-thirds of the listing had rents at \$1,250 or more, including single-family homes. The median rent for ARTEZ was 5 percent lower than indicated in the North submarket (\$1,424) but 3 percent higher than for the Pittsburgh Metro (\$1,305). It was also 36 percent higher than FMR (\$991) for this product type. Three-bedroom rents at the modern sample averaged at nearly \$2,300.
- Five listing of four-bedroom units in ARTEZ were collected, and all were single-family homes. The median asking rent was \$2,200 and 60 percent of listings were priced at \$1,250 or more. The median for this group is almost twice the FMR (\$1,054) for four-bedroom units.

4. Rental Conclusions

The apartment market in the Pittsburgh Metro area and the North submarket was strong as vacancy rates appeared nominal, rents were increasing, and new construction continued, all according to the ReisReport. However, all the expansion was at the expense of the existing supply because household growth in Allegheny County did not keep pace with housing production, causing overall vacancy to increase. Despite this finding, the vacancy rate for the apartment market in the Pittsburgh Metro was below 3 percent, according to REIS, and the overall average rent increased to nearly \$900. This average was influenced by many older properties in the market as rents at more modern properties average at \$1,450. However, none of these were located in the EZ or the study area communities, and very few were nearby.

The average rents in the Pittsburgh Metro market were well above the prices at listings of available properties in ARTEZ and the study area communities, indicating a more affordable, but more informal local market, than the properties surveyed in the REIS report or the sample of modern properties.

The median rents for available listings in the EZ (\$648) were almost half the average rental prices indicated at post-2000 apartment developments in the North submarket and Pittsburgh Metro area (\$1,300 to \$1,450), and therefore not sufficient enough to support new construction without offsetting subsidies. In many cases, the asking rents in the EZ and the study area communities were below FMR for Allegheny County.

F. FORECASTED ANNUAL HOUSEHOLD DEMAND (2013-2018)

This section identifies annual demand for housing for each of the study area communities, based on five-year forecasts obtained from DemographicsNow and key characteristics from federal census data. The annual demand is allocated to owners and renters by age, income, and pricing.

1. Blawnox

In Blawnox, annual demand over the next five years is estimated to average about 43 households per year, divided between owner (10) and renter (33) households. However, all of this total demand would be a result of turnover, as growth in households is not forecasted, since the base is estimated to remain effectively the same over the next five years. Assuming a capture rate ranging between 5 percent (low) and 10 percent (high), this would indicate a range of two to four units per year in Blawnox over the next five years, and most of the annual demand would be channeled to renters.

TABLE 2.11. BLAWNOX: ANNUAL DEMAND FOR HOUSING (2013-2018)			
Blawnox 5-year Household Projections	Owners	Renter	Total
2013	345	491	836
2018	341	492	833
5-year change	(4)	1	(3)
Annual Average	(1)	0	(1)
Annual Turnover	0	5	5
Total Annual Demand	(1)	6	5
Range in Annual New Construction [1]	Owner	Renter	Total
Low	(0)	0	0
High	(0)	1	0
[1] 5% to 10% of annual demand for new construction			
Source: Demographics NOW; US Census & RKG Associates, Inc.			

AFFORDABILITY OF OWNING AND RENTING

In order to quantify future demand for housing by different age and income levels, it is necessary to establish a range in home values and monthly rents that would be affordable at different income levels. Based on current financial assumptions as noted in Table 2.12, a range in home values and monthly rents are estimated.

- As indicated, households with annual earnings of \$75,000 could afford homes in the \$230,000 to \$270,000 range, while households with incomes of \$40,000 could afford homes in the \$120,000 to \$145,000 range. Households earning \$20,000 could afford a home in the \$60,000 to \$72,000 range depending on the down-payment.
- In terms of monthly rents, households with earnings of \$20,000 could afford a monthly rent of \$500, while those earning \$40,000 could afford rent of \$1,000.

Gross Income	Ownership		Monthly Rent
	Low Value	High Value	
\$20,000	\$60,000	\$72,000	\$500
\$40,000	\$120,000	\$145,000	\$1,000
\$60,000	\$180,000	\$215,000	\$1,500
\$75,000	\$230,000	\$270,000	\$1,875
\$100,000	\$305,000	\$365,000	\$2,500
\$125,000	\$445,000	\$545,000	\$3,125
\$150,000	\$535,000	\$655,000	\$3,750

Source: RKG Associates, Inc.

ANNUAL DEMAND FOR UNITS BY PRICE RANGE AND CONCLUSIONS

Table 2.13 exhibits average annual owner demand for housing in Blawnox over the next five years by age, income and home value. Approximately 77 percent of demand would be from households earning \$100,000 or more, including 43 percent of this group age 65 and older, and 14 percent each in the younger cohorts. Another 39 percent of the demand would come from households earning \$75,000 to \$99,999, including 75 percent of this group in the two baby-boom generation cohorts (age 45 to 64). Elderly households would account for 50 percent of annual demand, while another 20 percent would be generated in the age 55-to-64 group and the younger than age 35. A loss in owner households is forecasted for owners earning less than \$60,000.

Income Range	Age					Total	% Total	Home Value Range
	< 35	35-44	45-54	55-64	65+			
Less than \$20,000 [1]	(0.0)	(0.0)	(1.0)	(0.4)	(0.8)	(2.3)	261.5%	\$72,000 or less
\$20,000 to \$39,999 [1,2]	(0.2)	(0.3)	(1.1)	(0.3)	(0.8)	(2.8)	322.6%	\$60,000 to \$145,000
\$40,000 to \$59,999 [2,3]	(0.0)	(0.2)	(1.1)	(1.3)	(0.6)	(3.3)	374.5%	\$120,000- \$215,000
\$60,000 to \$74,999 [3]	(0.0)	0.0	0.2	0.1	0.3	0.5	-57.0%	\$180,000-\$270,000
\$75,000 to \$99,999	0.3	0.1	(0.4)	1.2	0.4	1.6	-181.5%	\$230,000-\$365,000
\$100,000+	0.8	0.4	0.9	0.8	2.6	5.4	-620.1%	\$305,000+
Total	0.8	(0.1)	(2.7)	0.1	1.0	(0.9)	100%	Total
% of Total	-90%	16.1%	306.7%	-16%	117%	100%		% Total

[1] 30% of AMI; [2] Very-Low Income (50%); [3] Low Income (80%).

Source: Demographics NOW; US Census & RKG Associates, Inc.

Table 2.14 presents average annual renter demand for housing in Blawnox over the next five years by age, income, and monthly rent. Approximately 48 percent of demand would come from households

¹³ Financial assumptions for this and other affordability tables: Interest Rate: 4-5.00%; 30-year, fixed rate; real estate taxes per \$1,00: \$32.07; Insurance per \$1,000: \$4.00; owner and renter housing cost percent of monthly income: 30 percent.

earning less than \$40,000, which could afford rents of up to \$1,000 per month. Approximately 40 percent of annual renter demand would come from elderly households, with 20 percent from households younger than age 35.

TABLE 2.14. BLAWNOK: ANNUAL RENTER DEMAND BY AGE, INCOME & RENT (2013-2018)

Income Range	Age					Total	% Total	Monthly Rent Range
	< 35	35-44	45-54	55-64	65+			
Less than \$20,000 [1]	(1.2)	(0.9)	(1.9)	(0.3)	1.3	(2.9)	-51.5%	\$500 or less
\$20,000 to \$39,999 [1,2]	(0.0)	(0.6)	(0.5)	(0.7)	2.6	0.8	14.0%	\$500 to \$1,000
\$40,000 to \$59,999 [2,3]	(0.4)	0.7	(0.5)	0.5	0.9	1.1	19.3%	\$1,000 to \$1,500
\$60,000 to \$74,999 [3]	0.1	0.2	0.4	0.9	0.6	2.2	37.9%	\$1,500 to \$1,875
\$75,000 to \$99,999	0.4	0.2	0.5	0.6	0.4	2.1	36.2%	\$1,875 to \$2,500
\$100,000+	1.3	0.2	0.5	0.0	0.4	2.5	44.0%	\$2,500 & up
Total	0.1	(0.2)	(1.4)	1.0	6.2	5.7	100%	Total
% of Total	1%	-4%	-24.4%	18%	109%	100%		% of Total

[1] 30% of AMI; [2] Very-Low Income (50%); [3] Low Income (80%)

Source: Demographics NOW; US Census & RKG Associates, Inc.

Another 40 percent of demand would come from renters in the three cohorts age 35-to-64, and 46 percent of that demand would come from households that could afford rents of \$1,500 or higher. About 30 percent of annual renter demand comes from renters earning \$60,000 or more, and nearly 33 percent would be younger households (under than age 35). In absolute terms, total demand from renter households earning \$60,000 or more equals 10 households per year. The likelihood of a large project seems unrealistic since only a small amount would be channeled for new construction.

2. Etna

In Etna, annual demand over the next five years is estimated to average about 60 households per year, divided between owner (20) and renter (40) households. However, all of this demand would be a result of turnover because a decline in households is forecasted, so Etna would lose another 100 or so households (-6.6 percent) by 2018. Assuming a capture rate ranging between 5 percent (low) and 10 percent (high), this would indicate a range of 3 to 6 units per year in Etna over the next five years. Most of the annual demand would be channeled to renters.

TABLE 2.15. ETNA: ANNUAL DEMAND FOR HOUSING (2013-2018)

5-year Household Projections	Owners	Renter	Total
2013	894	721	1,615
2018	830	679	1,509
5-year change	(64)	(42)	(106)
Annual Average	(13)	(8)	(21)
Annual Turnover	13	26	39
Total Annual Demand	0	17	18
Range in Annual New Construction [1]	Owner	Renter	Total
Low	0	1	1
High	0	2	2

[1] 5% to 10% of annual demand for new construction

Source: Demographics NOW; US Census & RKG Associates, Inc.

AFFORDABILITY OF OWNING AND RENTING

In order to quantify future demand for housing by different age and income levels, it is necessary to establish a range in home values and monthly rents that would be affordable at different income levels. Based on current financial assumptions, a range in home values and monthly rents are estimated.

- As indicated, households with annual earnings of \$75,000 could afford homes in the \$230,000 to \$270,000 range, while households with incomes of \$40,000 could afford homes in the \$120,000 to \$145,000 range. Households earning \$20,000 could afford a home in the \$60,000 to \$72,000 range depending on the down-payment.
- In terms of monthly rents, households with earnings of \$20,000 could afford a monthly rent of \$500, while those earning \$40,000 could afford rent of \$1,000, and so on.

Gross Income	Ownership ^[1]		Monthly Rent ^[2]
	Low Value	High Value	
\$20,000	\$60,000	\$70,000	\$500
\$40,000	\$120,000	\$140,000	\$1,000
\$60,000	\$180,000	\$215,000	\$1,500
\$75,000	\$225,000	\$265,000	\$1,875
\$100,000	\$300,000	\$360,000	\$2,500
\$125,000	\$445,000	\$545,000	\$3,125
\$150,000	\$535,000	\$655,000	\$3,750

Source: RKG Associates, Inc.

ANNUAL DEMAND FOR UNITS BY PRICE RANGE AND CONCLUSIONS

Table 2.17 projects average annual owner demand for housing in Etna over the next five years by age, income and home value.

Income Range	Age					Total	% Total	Home Value Range
	< 35	35-44	45-54	55-64	65+			
Less than \$20,000 ^[1]	(0.0)	(0.0)	(1.0)	(0.4)	(0.8)	(2.3)	261.5%	\$72,000 or less
\$20,000 to \$39,999 ^[1,2]	(0.2)	(0.3)	(1.1)	(0.3)	(0.8)	(2.8)	322.6%	\$60,000 to \$145,000
\$40,000 to \$59,999 ^[2,3]	(0.0)	(0.2)	(1.1)	(1.3)	(0.6)	(3.3)	374.5%	\$120,000- \$215,000
\$60,000 to \$74,999 ^[3]	(0.0)	0.0	0.2	0.1	0.3	0.5	-57.0%	\$180,000-\$270,000
\$75,000 to \$99,999	0.3	0.1	(0.4)	1.2	0.4	1.6	-181.5%	\$230,000-\$365,000
\$100,000+	0.8	0.4	0.9	0.8	2.6	5.4	-620.1%	\$305,000+
Total	0.8	(0.1)	(2.7)	0.1	1.0	(0.9)	100%	Total
% of Total	-90%	16.1%	306.7%	-16%	117%	100%		% Total

^[1] 30% of AMI; ^[2] Very-Low Income (50%); ^[3] Low Income (80%).

Source: Demographics NOW; US Census & RKG Associates, Inc.

Approximately 71 percent of demand would be from households earning \$100,000 or more, including 31 percent of this group age 65 and older, and 23 percent each in the age 35-to-44 and the age 45-to-54 cohorts. Another 43 percent of owner demand would come from households earning \$75,000 to \$99,999 including 75 percent of this group in the two baby-boom generation cohorts (age 45-to-64). Elderly households would account for 39 percent of annual demand, while another 32 percent would be generated in the age 55-to-64 group and 22 percent in the age 45-to-54 group. A loss in owner households is forecasted for owners earning less than \$60,000, but 22 percent of annual owner demand would come from those earning \$60,000 to \$74,999 and all would in the age 45-and-older cohorts.

Table 2.18 exhibits average annual renter demand for housing in Etna over the next five years by age, income and monthly rent. Approximately 66 percent of demand would come from households earning less than \$40,000 and could only afford rents of up to \$1,000 per month. Approximately 36 percent of annual renter demand would come from renters younger than age 35, while 23 percent from renter age 35 to 44.

TABLE 2.18. ETNA: ANNUAL RENTER DEMAND BY AGE, INCOME & RENT (2013-2018)

Income Range	Age					Total	% Total	Monthly Rent Range
	< 35	35-44	45-54	55-64	65+			
Less than \$20,000 [1]	0	(1)	(2)	(0)	2	(0)	0%	\$500 or less
\$20,000 to \$39,999 [1,2]	2	1	(1)	4	1	7	39%	\$500 to \$1,000
\$40,000 to \$59,999 [2,3]	2	1	(0)	0	1	5	26%	\$1,000 to \$1,500
\$60,000 to \$74,999 [3]	1	2	0	0	(0)	3	19%	\$1,500 to \$1,875
\$75,000 to \$99,999	1	1	0	0	(0)	2	11%	\$1,875 to \$2,500
\$100,000+	0	0	0	0	0	1	4%	\$2,500 & up
Total	7	5	(3)	4	4	17	100%	Total
% of Total	41%	30%	-16%	21%	24%	100%		% of Total
[1] 30% of AMI; [2] Very-Low Income (50%); [3] Low Income (80%)								
Source: Demographics NOW; US Census & RKG Associates, Inc.								

Another 40 percent of demand would come from renters in the three cohorts, age 45 and older; however, nearly all that demand would come from households that could afford rents of \$1,000 or less. About 24 percent of annual renter demand comes from renters earning less than \$20,000, and nearly 33 percent would be renters younger than age 45, and 67 percent renters age 55 and older. In absolute terms, total demand from renter households earning \$60,000 or more equals 7 households per year, and the likelihood of a large project seems unreasonable since only a small amount would be channeled for new construction.

3. Millvale

In Millvale, annual demand over the next five years is estimated to average about 100 households per year, divided between owner (25) and renter (75) households. All of this demand would be a result of turnover. Growth in households is not forecasted since the base is estimated to remain effectively the same over the next five years. Assuming a capture rate ranging between 5 percent (low) and 10 percent (high), this would indicate a range of 5 to 10 units per year in Millvale over the next five years, and most of the annual demand would be channeled to renters.

TABLE 2.19. MILLVALE: ANNUAL DEMAND FOR HOUSING (2013-2018)			
5-year Household Projections	Owners	Renter	Total
2013	741	1,055	1,796
2018	732	1,062	1,794
5-year change	(9)	7	(2)
Annual Average	(2)	1	(0)
Annual Turnover	11	41	52
Total Annual Demand	9	43	51
Range in Annual New Construction ^[1]	Owner	Renter	Total
Low	0	2	3
High	1	4	5
^[1] 5% to 10% of annual demand for new construction			
Source: Demographics NOW; US Census & RKG Associates, Inc.			

AFFORDABILITY OF OWNING AND RENTING

In order to quantify future demand for housing by different age and income levels, it is necessary to establish a range in home values and monthly rents that would be affordable at different income levels. Based on current financial assumptions, a range in home values and monthly rents are estimated.

TABLE 2.20. MILLVALE: AFFORDABILITY OF OWNING & RENTING (JANUARY 2014)			
Gross Income	Ownership		Monthly Rent
	Low Value	High Value	
\$20,000	\$60,000	\$70,000	\$500
\$40,000	\$120,000	\$140,000	\$1,000
\$60,000	\$180,000	\$210,000	\$1,500
\$75,000	\$225,000	\$265,000	\$1,875
\$100,000	\$300,000	\$360,000	\$2,500
\$125,000	\$60,000	\$70,000	\$500
\$150,000	\$120,000	\$140,000	\$1,000
Source: RKG Associates, Inc.			

- As indicated, households with annual earnings of \$75,000 could afford homes in the \$230,000 to \$270,000 range, while households with incomes of \$40,000 could afford homes in the \$120,000 to \$145,000 range. Households earning \$20,000 could afford a home in the \$60,000 to \$72,000 range depending on the down-payment.
- In terms of monthly rents, households with earnings of \$20,000 could afford a monthly rent of \$500, while those earning \$40,000 could afford a \$1,000 monthly rent, and so on.

ANNUAL DEMAND FOR UNITS BY PRICE RANGE AND CONCLUSIONS

Table 2.21 exhibits average annual owner demand for housing in Millvale over the next five years by age, income, and home value. Approximately 54 percent of demand would be from households earning \$100,000 or more, including 50 percent of this group age 65-and-older, and the rest spread over the younger cohorts. Another 40 percent of the demand would come from households earning \$75,000 to \$99,999, and fairly evenly distributed among all age groups. Another 31 percent of annual owner

demand would come from those earning \$60,000 to \$74,999, and spread fairly evenly among all age groups.

TABLE 2.21. MILLVALE: ANNUAL OWNER DEMAND BY AGE, INCOME & VALUE (2013-2018)

Income Range	Age					Total	% Total	Home Value Range
	< 35	35-44	45-54	55-64	65+			
Less than \$20,000 [1]	(0)	(0)	(1)	(0)	(2)	(3)	-31%	\$72,000 or less
\$20,000 to \$39,999 [1,2]	(2)	(0)	(1)	(2)	(3)	(8)	-95%	\$60,000 to \$145,000
\$40,000 to \$59,999 [2,3]	(0)	(1)	(2)	(0)	(1)	(4)	-40%	\$120,000- \$215,000
\$60,000 to \$74,999 [3]	1	1	1	2	0	5	57%	\$180,000-\$270,000
\$75,000 to \$99,999	2	1	1	2	1	7	83%	\$230,000-\$365,000
\$100,000+	1	1	2	1	6	11	126%	\$305,000+
Total	2	2	(0)	2	3	9	100%	Total
% of Total	23%	23%	0%	25%	29%	100%		% Total

[1] 30% of AMI; [2] Very-Low Income (50%); [3] Low Income (80%).

Source: Demographics NOW; US Census & RKG Associates, Inc.

Elderly households would account for 30 percent of annual demand, while another 20 percent would be generated in the age 55-to-64 group and the younger-than-age-35. Losses in owner households are forecasted for owners in all income groups earning less than \$60,000.

Table 2.22 estimates average annual renter demand for housing in Millvale over the next five years by age, income and monthly rent. Approximately 63 percent of demand would come from households earning less than \$40,000 and could only afford rents of up to \$1,000 per month. Approximately 25 percent of annual renter demand would come from elderly households, while 31 percent from households younger-than-age 35. Most of both groups could afford rents of \$1,000 or less. Approximately 37 percent of annual renter demand could afford rents of \$1,000 or more, including 22 percent that could afford rents of \$1,500 or more. Nearly all of these would in the age 55-or-younger cohorts.

TABLE 2.22. MILLVALE: ANNUAL RENTER DEMAND BY AGE, INCOME & RENT (2013-2018)

Income Range	Age					Total	% Total	Monthly Rent Range
	< 35	35-44	45-54	55-64	65+			
Less than \$20,000 [1]	2	(0)	(2)	0	5	5	12%	\$500 or less
\$20,000 to \$39,999 [1,2]	6	2	1	3	5	18	42%	\$500 to \$1,000
\$40,000 to \$59,999 [2,3]	1	1	(0)	4	1	7	17%	\$1,000 to \$1,500
\$60,000 to \$74,999 [3]	2	2	1	1	0	6	14%	\$1,500 to \$1,875
\$75,000 to \$99,999	2	1	1	1	0	5	11%	\$1,875 to \$2,500
\$100,000+	0	0	1	0	1	2	5%	\$2,500 & up
Total	13	5	2	10	13	43	100%	Total
% of Total	29%	12%	4%	24%	30%	100%		% of Total

[1] 30% of AMI; [2] Very-Low Income (50%); [3] Low Income (80%).

Source: Demographics NOW; US Census & RKG Associates, Inc.

4. Sharpsburg

In Sharpsburg, annual demand over the next five years is estimated to average about 80 households per year, divided between owner (20) and renter (60) households. However, all of this total demand would be a result of turnover. Growth in households is not forecasted because the base is estimated to decrease by 40 or so households

TABLE 2.24. SHARPSBURG: AFFORDABILITY OF OWNING & RENTING (JANUARY 2014)

Gross Income	Ownership		Monthly Rent
	Low Value	High Value	
\$20,000	\$60,000	\$70,000	\$500
\$40,000	\$120,000	\$140,000	\$1,000
\$60,000	\$180,000	\$210,000	\$1,500
\$75,000	\$225,000	\$265,000	\$1,875
\$100,000	\$300,000	\$360,000	\$2,500
\$125,000	\$60,000	\$70,000	\$500
\$150,000	\$120,000	\$140,000	\$1,000

Source: RKG Associates, Inc.

over the next five years. Assuming a capture rate ranging between 5 percent (low) and 10 percent (high), this would indicate a range of 2 to 4 units per year in Sharpsburg over the next five years, and most of the annual demand would be channeled to renters.

TABLE 2.23. SHARPSBURG: ANNUAL DEMAND FOR HOUSING (2013-2018)

5-year Household Projections	Owners	Renter	Total
2013	741	1,055	1,796
2018	732	1,062	1,794
5-year change	(9)	7	(2)
Annual Average	(2)	1	(0)
Annual Turnover	11	41	52
Total Annual Demand	9	43	51
Range in Annual New Construction ^[1]	Owner	Renter	Total
Low	0	2	3
High	1	4	5
^[1] 5% to 10% of annual demand for new construction			
Source: Demographics NOW; US Census & RKG Associates, Inc.			

AFFORDABILITY OF OWNING AND RENTING

In order to quantify future demand for housing by different age and income levels, it is necessary to establish a range in home values and monthly rents that would be affordable at different income levels. Based on current financial assumptions, a range in home values and monthly rents are estimated.)

- As indicated, households with annual earnings of \$75,000 could afford homes in the \$235,000 to \$280,000 range while households with incomes of \$40,000 could afford homes in the \$125,000 to \$150,000 range. Households earning \$20,000 could afford a home in the \$60,000 to \$75,000 range depending on the down payment.
- In terms of monthly rents, households with earnings of \$20,000 could afford a monthly rent of \$500, while those earning \$40,000 could afford a \$1,000 monthly rent, and so on.

ANNUAL DEMAND FOR UNITS BY PRICE RANGE AND CONCLUSIONS

Table 2.25 reports average annual owner demand in Sharpsburg over the next five years by age, income, and home value. Approximately 50 percent of demand would be from households earning \$100,000 or more, including 33 percent age 65 and older, and another 33 percent in the age 35 to 44 cohort. Another 29 percent of annual demand would come from households earning \$75,000 to \$99,999, fairly evenly spread over all age groups, with the highest concentration in the 45-to-64 group. Another 24 percent of annual demand would be generated from owners earning \$60,000 to \$74,999, and these would all be age 45 and older. Elderly households would account for 22 percent of annual demand as well as 22 percent in the age 45-to-54 group, while 25 percent would be generated by the age 55-to-64 group. Owner households earning less than \$60,000 are not forecasted to generate much demand over the next five years.

TABLE 2.25. SHARPSBURG: ANNUAL OWNER DEMAND BY AGE, INCOME & VALUE (2013-2018)

Income Range	Age					Total	% Total	Home Value Range
	< 35	35-44	45-54	55-64	65+			
Less than \$20,000 [1]	(0)	(0)	(0)	(0)	(2)	(2)	-31%	\$72,000 or less
\$20,000 to \$39,999 [1,2]	(0)	(0)	(0)	0	(2)	(2)	-32%	\$60,000 to \$145,000
\$40,000 to \$59,999 [2,3]	(0)	(1)	(1)	(1)	(1)	(4)	-59%	\$120,000- \$215,000
\$60,000 to \$74,999 [3]	0	(0)	0	2	0	2	35%	\$180,000-\$270,000
\$75,000 to \$99,999	1	0	2	1	1	4	63%	\$230,000-\$365,000
\$100,000+	1	3	1	1	2	8	124%	\$305,000+
Total	2	2	1	2	(1)	7	100%	Total
% of Total	25%	31%	20%	35%	-11%	100%		% Total

[1] 30% of AMI; [2] Very-Low Income (50%); [3] Low Income (80%).

Source: Demographics NOW; US Census & RKG Associates, Inc.

Table 2.26 exhibits average annual renter demand for housing in Sharpsburg over the next five years by age, income and monthly rent. Approximately 61 percent of demand would come from households earning less than \$40,000 and could only afford rents of up to \$1,000 per month. Approximately 33 percent of annual renter demand would come from elderly households, while 25 percent from households younger than age 35. Most (75 percent) of the former group could afford rents of \$1,000 or more, while most (81 percent) of the latter group could afford rents of \$1,000 or less.

Another 40 percent of demand would come from renters in the three cohorts, age 35-to-64; however, 20 percent of that demand would come from households that could afford rents of \$1,500 or higher. About 24 percent of annual renter demand comes from renters earning \$60,000 or more, and nearly 60 percent would be younger households (less than age 35). In absolute terms, total demand from renter households earning \$60,000 or more equals 15 households per year, and the likelihood of a large project seems unreasonable since only a small amount would be channeled for new construction.

TABLE 2.26. SHARPSBURG: ANNUAL RENTER DEMAND BY AGE, INCOME & RENT (2013-2018)

Income Range	Age					Total	% Total	Monthly Rent Range
	< 35	35-44	45-54	55-64	65+			
Less than \$20,000 [1]	(1)	0	(3)	1	7	4	12%	\$500 or less
\$20,000 to \$39,999 [1,2]	0	1	(0)	5	5	11	32%	\$500 to \$1,000
\$40,000 to \$59,999 [2,3]	1	(0)	1	1	3	6	16%	\$1,000 to \$1,500
\$60,000 to \$74,999 [3]	3	1	2	1	0	6	17%	\$1,500 to \$1,875
\$75,000 to \$99,999	4	1	1	0	0	5	15%	\$1,875 to \$2,500
\$100,000+	1	0	0	0	0	2	7%	\$2,500 & up
Total	7	3	1	8	16	34	100%	Total
% of Total	21%	8%	2%	23%	45%	100%		% of Total
[1] 30% of AMI; [2] Very-Low Income (50%); [3] Low Income (80%)								
Source: Demographics NOW; US Census & RKG Associates, Inc.								

IV. DEVELOPMENT OPPORTUNITIES AND CONSTRAINTS

The four towns in the study area present a diverse set of circumstances and specific character. With respect to redevelopment, however, all four share a common set of constraints that have to be considered when evaluating suitability for new or refurbished housing projects. To examine the feasibility of development on sites identified by ARTEZ and from a review of Geographic Information System (GIS) data, RKG Associates engaged the services of physical planners and engineers at the Moon Township offices of Michael Baker Jr. Inc. The engineering feasibility study focused on the following key constraints: flood zone, land slope, and current zoning classification. These constraints are discussed in more detail in the following sections and illustrated on a series of six maps for each town. The maps include:¹⁴

- Environmental Constraints
- Flood Hazard Areas (Preliminary FIRMs)
- Redevelopment Feasibility Areas
- Zoning Use Areas
- Real Estate Transactions
- Owner and Renter Occupancy (Estimated)

A. SITE CONSTRAINTS

1. Flood Zone

The two flood zones evaluated were Zone AE (areas within the 100 year flood plain) and Zone X (areas within the 500 year flood plain). Areas within Zone AE were excluded from the set of parcels that could be considered for redevelopment because the lots would require increased flood insurance premiums or substantial flood proofing as part of the renovation or new construction activities. (See Section B, below.) The Zone AE designation would also affect the ability to use grant monies to fund projects that involve these properties. A number of funding mechanisms require a flood certification that areas being developed are outside of this flood zone. Areas within Zone X have not been included in the initial group of properties, but would represent a second tier of properties for consideration. While some increased flooding risk does exist within these parcels, overall the risk is easily mitigated and would still allow redevelopment. However, the intent of this study was to narrow the properties to a select group that would pose the least risk in redevelopment.

2. Land Slope

The slope of the land is reported in incremental ranges on the environmental constraints maps. The final two ranges, 25 – 39.99 percent and 40+ percent, effectively exclude sites from the list of potential

¹⁴ See Appendix C.

redevelopment properties. As a means for constructability and general suitability of the land for redevelopment, the RKG Team has limited the maximum slope to a range that will optimize investment in the property and maintain standard construction techniques. There is certainly consideration for land that is sloped greater than the ranges used in this report, but there would be a premium in cost for the use of retaining walls or other methods of leveling the lot for construction. The ranges represented within the data also exclude areas that would normally be considered for redevelopment, but are excluded through their association with greater slopes in one category. The RKG Team recommends evaluating areas that are excluded solely based upon these criteria and allow parcels that are between 25 percent and 33 percent in grade to be considered as second-tier parcels. As indicated with respect to flood zones, these parcels would require some increased measures for development, but could be easily managed and may be viable.

3. Zoning Classification

The Zoning Use Area maps distribute the parcels according to the general function they meet within the Zoning Code. In the initial evaluation, the RKG Team focused only on areas with a predominately residential zoning classification. The intent is to continue to focus housing in areas where the land use has traditionally been for housing. This approach will maintain the integrity of the current neighborhoods and not seek to eliminate commerce or manufacturing from the communities. In fact, it may be appropriate to evaluate parcels adjacent to current commercial or industrial land uses for expansion of these activities as appropriate. Again, this criterion alone is not intended to exclude a parcel from consideration, but when combined with others it presents another layer of challenges to the economic and physical feasibility of a parcels redevelopment.

4. Redevelopment Activities

These three categories were combined and evaluated for each of the four communities to develop a map of parcels that posed the greatest potential for redevelopment. Again, as stated with respect to each of the individual classifications examined above, parcels that fall outside of this area are not by definition undevelopable, but rather are less desirable or pose greater challenges. The focus of this evaluation was to identify zones within each community where the fewest obstacles would be anticipated in the pursuit of redevelopment activities. In keeping with that philosophy, maps of each community of parcels that fall within the defined criteria have been developed. The map can be used as a tool to locate parcels that ARTEZ may be able to acquire and refurbish or redevelop.

Redevelopment activities within each of these communities are most effective when undertaken in groups of parcels at a time. The redevelopment of a single housing site will pose a greater average cost than a group of houses and often fails to make the desired impact within a town. The parcels need not be contiguous for the grouping to be effective in lowering the average per sq. ft. cost of restoration or construction. It simply needs to provide a sufficient economy of scale to provide cost savings in the execution of the work.

B. NEW FLOOD MAPS AND COST OF FLOOD INSURANCE

1. Background

Regular homeowner insurance policies do not cover damage from floods, requiring many property owners to take out additional flood insurance. FEMA has identified all locations that are susceptible to

flooding in the U.S., and mortgage lenders usually make it obligatory to take out a flood insurance policy on damages to structures within these zones. As the potential for loss can be extremely high, private insurers are unable to provide these policies directly, as collective premiums would not cover claims. In 1968, the National Flood Insurance Act responded to the dire situation of millions of Americans who live in coastal areas or inland regions that are susceptible to flooding. The 1968 Act made flood insurance available through a government-subsidized program, the National Flood Insurance Program (NFIP). The NFIP works together with the insurance industry to provide private insurance that is underwritten by the government. The Flood Disaster Protection Act of 1973 made the purchase of insurance mandatory in high-risk zones.

The NFIP is operated through an agreement between local jurisdictions and FEMA giving local property owners the chance to insure their homes and businesses. As of 2014, all ARTEZ communities are partners in the NFIP. In addition to providing affordable insurance options, the NFIP requires that participating communities adopt and enforce floodplain management ordinances. In this way FEMA can mandate flood prevention efforts as a requirement for flood insurance assistance. As of 2014, 5.6 million properties are insured with NFIP policies.

Calculations for premium rates on NFIP policies are based on data from official FEMA-produced Flood Insurance Rate Maps (FIRMs). A FIRM shows all land area covered by the floodwaters of the base flood, and either excludes the property, includes them in the 0.2-percent-annual-flooding low-medium risk zone or in the Special Flood Hazard Area (SFHA) which includes sixteen high risk premium zones. These zones are A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, V1-30, VE, and V. Each community is mapped and every property within the floodwater basin identified by zone. These zones then guide premium rates.

Almost all the flood risk properties that have a higher than 0.2-percent-annual-flood rating in the ARTEZ communities are categorized as AE - "An area inundated by 100-year flooding, for which Base Floor Elevations (BFEs) have been determined".¹⁵ Therefore, the extent of potential flooding is known and properties are marked with the risk and burden that this identification entails.

BIGGERT-WATERS FLOOD INSURANCE REFORM ACT (2012)

Due to several major flood disasters, including Hurricane Katrina, the NFIP entered severe fiscal difficulties, reaching a deficit of \$24 Billion in January 2014.¹⁶ Several years ago, Congress decided to reform the program and lead the NFIP to economically solvency. This led to the Biggert-Waters Flood Insurance Reform Act of 2012 (BW-12). The main tenet of Biggert-Waters was to remove the subsidies that create artificially-low premiums, and raise rate to be more aligned with actual risk. This meant extremely high and swift increases for many property owners.

Essentially, Biggert-Waters made policies in flood zones subject to full-cost insurance premiums based on their location. In many cases BW-12 allowed for multifold increases in premiums within one period of renewal. It also removed grandfather clauses that applied to structures built before community flood maps were instituted (called pre-FIRM buildings), and enabled the sale of a newly un-

¹⁵ FEMA SFHA Zone Table

¹⁶ <http://www.post-gazette.com/news/nation/2014/01/12/Rising-cost-of-flood-insurance-inspires-bill/stories/201401120157>

grandfathered building and policy to trigger the skyrocketing of premiums associated with those properties.

Although not fully enacted, BW-12 created worrisome prospects for many properties across the nation. With flood insurance rates poised to rise dramatically, the economic sustainability of homeowners in flood areas (especially low-income and fixed-budget households) was in jeopardy, property values declined, and new construction stymied.

Almost immediately it became apparent that corrective legislation was required. Preparation of a new bill began in 2013, led by a bipartisan effort including Congressperson Waters, co-author of the original 2012 bill.

HOMEOWNER FLOOD INSURANCE AFFORDABILITY ACT (2014)

The Homeowner Flood Insurance Affordability Act (HFIAA) was signed into law in March 2014, repealing and amending parts of Biggert-Waters. Significant premium rate increases continue with this law, but measures to protect property owners from unsustainable financial consequences were adopted. The key points of the 2014 legislation include:

- Properties in low-moderate flood zones that are remapped into high-risk zones can be grandfathered into the former category for lower premiums. This status continues with the property after resale unless renovations are performed or new construction added.
- Retroactive changes to policies made after July 6, 2012 are permitted, possibly lowering rate increases made due to BW-12.
- A requirement is made for FEMA to certify that it is using well-advanced mapping technology. In addition, FEMA must establish a transparent flow of mapping materials with communities, and provide ample financial support to successful map appeals.
- A new surcharge will apply on all policies (\$25 on primary residences; \$250 on all other properties).
- On newly mapped-in properties, first year premiums will be set at the same rate offered to properties located outside the SFHA (preferred risk policy rates).
- Annual rate increases of at least 5 percent and not more than 18 percent* will be allowed until the class premium reaches its full-risk rate.¹⁷

¹⁷ Approximately 80 percent of NFIP policy holders already pay full-risk rates prior to BW-12 or the HFIAA.

*Increases of up to 25 percent are allowed for the following categories:

- Older business properties insured with subsidized rates;
- Older non-primary residences insured with subsidized rates;
- Severe Repetitive Loss Properties insured with subsidized rates;
- Buildings that have been substantially damaged or improved built before the local adoption of a Flood Insurance Rate Map (known as Pre-FIRM properties).

Source: FEMA HFIAA Overview, March 28, 2014

2. Impact on ARTEZ Communities

In the St. Patrick's Day flood of 1936, heavy rains and sudden massive snowmelt filled streams and rivers far beyond capacity and swelled the Allegheny River, its waters rising to 30 feet above normal at the Point in Pittsburgh. This caused horrendous damage and multiple deaths in the Pittsburgh region. Major damage and extremely dangerous water levels reached all communities along the Allegheny, including Sharpsburg and Etna where residents were taking shelter on the highest floors of their houses.¹⁸

As a result of this, the greatest flood ever recorded in the Pittsburgh region, the U.S. Corps of Engineers constructed a series of 16 dams and reservoirs to mitigate river levels during future flooding. In addition to the upstream water controls (many in the Allegheny watershed), local creeks, including those in Etna and Millvale, were channelized. Collectively, these flood control systems are credited with greatly reducing damage in subsequent floods, including that which accompanied Hurricane Agnes in 1972.

However, even with greatly engineered structures and superior forecasting there remain both low-moderate, and high risk flood zones in Blawnox, Etna, Millvale, and Sharpsburg. It is important to note, however, that except for very narrow areas immediately adjacent to the Allegheny River, the flood potential is primarily from the smaller tributaries flowing to the Allegheny through or near three of the communities.

Of the four boroughs, Etna has the most properties within a high-risk flood zone (along Pine Creek and Little Pine Creek West), and the greatest amount of NFIP-insured properties as of 2012 (200). Millvale, threatened by the potential of cresting waters of Girtys Run, has 172 NFIP-insured properties. Sharpsburg has 142 NFIP-insured properties in a high-risk flood zone below Pine Creek, and Blawnox, endangered only by potential flooding of the Allegheny River, has just 14 properties with NFIP-policies as of 2012.

Furthermore, Sharpsburg has the greatest area susceptible to lower-risk 0.2-percent-annual-flooding. This zone covers the majority of properties in the borough. In Blawnox, the area between the railroad

¹⁸ <http://www.heinzhistorycenter.org/secondary.aspx?id=325&contentID=680>

and the Allegheny River is all considered a 0.2-percent-annual-flood zone (except for those areas delineated as 1-percent-annual-flood-zones).

Current flood zone data for all four boroughs is based on FIRM maps last updated in 2000, however, new FIRM maps come into effect on September 26, 2014. These maps are created with the newest technology, and unofficial version is already available on the FEMA RiskMAP website: <http://maps.riskmap3.com/PA/Allegheny/>

ETNA

Etna's *Little Pine Creek West Floodwall* system required reaccreditation in 2014 in order for FEMA to continue low-moderate risk status on the landward side of the levee and not impose a 100-year flood risk zone. The Borough of Etna decided in May, 2014 to not pursue reaccreditation. FEMA will now perform a study of the existing floodwall and map the properties below it to determine whether, and to what extent, 100-year (0.1-percent-annual-flood zone) flood risk status should apply. This process will take several months, and no start date for the study or remapping process has yet been established. Until a new map is created and approved, the existing low-moderate risk status will continue to apply to the area in question.¹⁹

INSURANCE PREMIUMS IN ARTEZ COMMUNITIES

In general, policy rates will increase annually for many properties in the flood zones and affect at least over 500 properties already insured with NFIP-policies across the four boroughs. Moreover, new development in the flood zones will require policies with higher premiums (though lower than if BW-12 was not partly repealed).

For those structures built before flood maps (the Pre-FIRM buildings), subsidies will slowly fade, and for newer structures, premiums are already theoretically at full-rate. The HFIAA-2014 legislation will both ease and limit rate increases, and should protect the communities from unintended losses in property values. Year-on-year adjustments to rates will be higher, but not unsustainable.

HAZUS

FEMA uses "Hazus" a flood risk assessment tool to develop assessment for property loss, vehicle loss, utility system damages, and damage to infrastructure such as bridges, rail, water etc. According to FEMA:

Hazus-estimated loss data can be used in many ways to support local decision making and explanation of flood risk. For mitigation planning purposes, loss data can be used to help meet requirements to develop loss information for the hazard of flood. Also, the FRM can show where flood risk varies by geographic location. For emergency management, Hazus data can help forecast losses based on predicted events, and resources can be assigned accordingly. Loss information can support floodplain management efforts, including those to adopt higher regulatory standards. Also, awareness of exposed essential facilities and infrastructure encourages mitigation actions to protect citizens from service disruption should flooding occur. Hazus-estimated loss data is

¹⁹ Letter from FEMA re: De-Accreditation of Little Pine Creek West (Upstream) Floodwall: http://www.r3levees.org/wiki/images/a/a7/LittlePineCrkUS-Etna_De-acc.pdf

summarized in the FRR [Flood Risk Report] and on the FRM [Flood Risk Map] and stored in the FRD [Flood Risk Database].²⁰

C. ARTEZ IDENTIFIED PARCELS

ARTEZ provided a set of parcels for evaluation with respect to suitability for redevelopment activities. The parcels have been identified on the Redevelopment Feasibility Map and are described in more detail in the following sections.

292-P-299 & 292-L-300 (BLAWNNOX)

These two parcels form a contiguous land mass very near the river and in a small portion directly abutting the Allegheny River within the Borough of Blawnox. The parcels are bounded by the railroad tracks to the south, 5th Street to the west, and residential parcels to the north. The previous use of the parcels was clearly industrial in nature, with existing high bay structures, industrial buildings, and associated offices still on the site. Given the scale and density of previous development, it would be anticipated that all utility services are existing within the site and have the capacity to serve a residential land use. Both parcels are outside the flood zones identified on the constraints map and are sloped at less than a 25 percent grade. However, the land use is currently industrial in nature and the site is fully built upon. The potential for redevelopment is severely limited by the amount of investment required to demolish the structures and other associated improvements to make way for residential development. Additionally, as is the case with many industrial parcels, the site would need to be investigated for potential environmental concerns associated with the past use of the existing facilities.

Most significant to this limitation is the fact that the reuse of industrial land for residential development carries the most stringent restrictions under Pennsylvania's Act 2 Land Recycling Program process. Accordingly, RKG and Baker recommend focusing on potential commercial or industrial re-use of this site to facilitate job growth, and seek parcels that will require less initial investment for creating new housing stock.

293-A-180 (BLAWNNOX)

This parcel is located along Center Avenue near the intersection of 8th Street and 7th Street in the Borough of Blawnox. The parcel is currently vacant land with no past use easily identified. The parcel is adjacent to areas of high residential development density and is close to amenities such as parks. The parcel is well within the normal street grid and is anticipated to have access to all utilities. The parcel is outside both flood zones examined and is not a slope-restricted parcel. The parcel meets the basic criteria with regards to redevelopment feasibility. The site also does not have any evidence of existing infrastructure that would need to be removed to facilitate new construction. It is recommended that this parcel be examined in more detail to determine any restrictions on re-use and verify the record information used in this evaluation. It is our opinion that this parcel is suitable for redevelopment.

79-B-315-0-2 & 79-B-126 (MILLVALE)

These two parcels are not contiguous, but sit across the street from one another. The two parcels occupy both sides of North Avenue where it intersects Farragut Street in Millvale. The site is fully developed

²⁰ FEMA Flood Risk Report – Allegheny County, Pennsylvania, p.9

with a church and associated school and accessory building. With the scale and density of previous development it is anticipated that all utility services are existing within the site and have the capacity to serve the re-use of the property.

Parcel 79-B-315-0-2 is outside of both flood zones, but parcel 79-B-126 is within Zone AE (100 year flood zone). These parcels are outside of the area of steeply sloping land and are currently zoned for church use. There is a potential for redevelopment of the existing facilities for multi-family housing (apartments). However, the expense for retrofitting the existing structures or partially demolishing a portion of the improvements would be a concern raised for redevelopment. With parcel 79-B-126 contained within Zone AE (100 year flood zone), it is not recommended for using the parcel for any redevelopment activities. While the remaining parcel provides a feasible option, it would be less cost effective than other options based upon the significant upfront cost in demolishing or retrofitting the improvements that exist on site.

168-R-150 (SHARPSBURG)

The parcel is located south of the railroad tracks and bounded by the Allegheny River to the south within the Borough of Sharpsburg. The parcel is accessed via a tunnel under the railroad tracks at the termination of Water Works Road. The site is currently fully developed by an industrial land use. The site houses the remnant of high bay structures with the cranes and steel structures remaining in place. With the scale and density of previous development it is anticipated that all utility services exist within the site and have the capacity to serve the re-use of the property. Additionally, there is an existing water tower within the property that provides further evidence of complete infrastructure in place.

The parcel is shown to be outside of both flood zones identified on the flood hazard map and is sloped at less than a 25 percent grade. However, the land use is currently industrial in nature and the former land use poses significant obstacles to redevelopment. The amount of investment required to demolish the structures and other associated improvements to make way for residential development as well as the investigation for potential environmental concerns associated with the past use of the existing facilities would be significant and would be a prerequisite to any future development activities. With the limitation of reuse of industrial land for residential development carrying the most stringent restrictions under Pennsylvania's Act 2 process, the up-front investment in the parcel would be significant. It is based upon these observations that a recommendation for this parcel be explored for potential commercial or industrial re-use to facilitate job growth within the community and seek parcels that will require less initial investment for creating new housing stock.

VI. RECOMMENDATIONS

A. SUMMARY

At the outset of this project, ARTEZ representatives described the outcomes they wanted to achieve with the study and how they see ARTEZ's role in community development. The latter seems very important for two reasons: first, Allegheny County has several community development organizations with shared interests, and there are not enough funds to support the work of so many groups; and second, ARTEZ is a relatively young non-profit without much development experience. Those who participated in the initial kickoff meeting said they envision ARTEZ becoming the region's "go-to" organization for housing and economic development: a group with the know-how to address everything from restoring blighted properties to building new, marketable rental housing. In time, ARTEZ may become the entity that people say the region wants and needs. First, it needs to have some success in the focus area that ARTEZ has turned to for this phase of its evolution: housing.

In support of that end, this report promotes a framework for revitalizing ARTEZ's lower-income communities by taking a place-based approach to revitalizing their neighborhoods. The framework embraces the following elements:

- 1) Reaffirm the commitment to address community development needs through inter-local cooperation and collaboration, recognizing that it will not always be possible to distribute ARTEZ resources evenly to each member town.
- 2) Concentrate housing development activity at the neighborhood level, and give priority to "tipping point" neighborhoods.
- 3) Inventory and evaluate components of neighborhood sustainability, recognizing that building market value involves more than a series of real estate transactions. The quality, convenience, and desirability of neighborhood assets – infrastructure, public parks and other amenities, walkability, and access to goods and services – play a critical role in the attractiveness of neighborhoods to prospective homebuyers and renters.

BUILDING ON LOCAL STRENGTHS

- Multi-generational households
- Easy access to Pittsburgh for employment, health care, and goods and services
- Growing population of young householders (presumably priced out of Pittsburgh)
- Many walkable neighborhoods, especially but not exclusively in Millvale
- Good restaurants
- Riverfront access
- Recreation facilities
- Small-town feel
- Public schools – especially Blawnox and Sharpsburg (Fox Chapel School District)
- Spirit of volunteerism, especially Millvale
- ARTEZ has brought "name recognition" to the region

- 4) Focus on place-based strategies to revitalize ARTEZ neighborhoods and improve corridors. Success will require coordinated and geographically targeted use of resources.
- 5) Work in support of meeting the technology needs of member towns. Ready access to local data in usable formats will help the towns and ARTEZ do a better job of identifying and responding to community development needs and evaluating the results of community development initiatives.

... the most important step ARTEZ can take is to declare a neighborhood or a collection of blocks as its own and take a comprehensive, place-based approach to rebuilding that location... the transformation of one neighborhood at a time will do more for the study area as a whole and ARTEZ than a strategy that dilutes the effects of public and private reinvestment.

Rationale. The four-town study area has significant barriers to the kind of economic vitality that exists in other towns nearby and in Pittsburgh's renaissance neighborhoods like Lawrenceville. Some hope that the forces behind Lawrenceville's rebirth on the other side of the 40th Street Bridge will make their way to Millvale, yet the story of Lawrenceville involves a 20+ year history of planning, advocacy, organizing, and implementation on the part of non-profit community development organizations, Lawrenceville residents, City leaders, and others.

All four boroughs are "weak-market" communities with low to very low housing values and many dwellings in substandard condition. Blighted properties are especially evident in Etna and Sharpsburg, and there are many absentee-owned properties, too, which makes code enforcement challenging. Land values are low, and building values are even lower. Throughout the study area, it is not uncommon to find single-family properties where the land is worth more than the house – a condition typically associated with teardown/rebuild activity in gentrifying neighborhoods, but not in the boroughs. Businesses associated with an active real estate market – real estate agencies, banks, law offices – are conspicuously underrepresented or simply missing throughout the study area. At the same time, all four communities have assets that could become the force that "tips" some neighborhoods toward higher-value development. These "**tipping point**" neighborhoods should be the focus of any housing development strategy that ARTEZ decides to pursue.

The study area's leaders seem to recognize that starting small and in a fairly concentrated way will be important for ARTEZ's long-term success in housing development, yet there are also concerns about ensuring that each town receives a "fair share" of the resources ARTEZ may bring to community revitalization. All of the towns belong to ARTEZ and contribute to its operations. While the present study was underway, ARTEZ was already working on a pilot housing development program with a few units in each community. This approach is understandable and may be necessary for political reasons, but the most important step ARTEZ can take in the near future is to declare a neighborhood or a collection of blocks as its own and take a comprehensive, place-based approach to rebuilding that location. Thought it may not be a "formal" neighborhood revitalization strategy area as that term is used in the Community Development Block Grant (CDBG) Program, the transformation of one neighborhood or set of blocks at a time will do more for the study area as a whole and ARTEZ than a strategy that dilutes the effects of public and private reinvestment.

WHAT IS A “TIPPING POINT” NEIGHBORHOOD?

Tipping point neighborhoods are at or almost at a threshold for major economic, social, population, racial, or ethnic change due to the cumulative effect of small, almost imperceptible changes over time. The threshold could lead to negative outcomes, such as a decline in property values and growth in crime rates due to an increase in foreclosures and high vacancies, or positive outcomes, such as private property improvements catalyzed by public investment in housing rehabilitation and redevelopment. In this report, we use “tipping point neighborhood” to mean places that seem likely to benefit from concentrated public investment because they have some marketable assets and indicators of social cohesion. Thus, public investment could induce sustainable positive outcomes for these areas; they should be revitalization initiative priorities.

B. COMMUNITY DEVELOPMENT STRATEGY

- 1) Reaffirm the commitment to address community development needs through inter-local cooperation and collaboration, recognizing that it will not always be possible to distribute ARTEZ resources evenly to each member town.

Discussion. At times throughout our work on this plan, RKG has observed some tension about the geographic distribution of ARTEZ’s financial resources, particularly housing resources. Clearly all of the towns have a stake in ARTEZ’s success, for if the organization builds development capacity, it will be poised to address a wider variety of housing and economic development needs – on its own or in partnership with other organizations. Today, however, ARTEZ is too small and too inexperienced to undertake several concurrent projects in the four towns that comprise the study area for this plan. Spreading ARTEZ’s limited resources across all four towns in an essentially equal division of funds may be politically expedient, but it is inadvisable community development practice.

- Using community development dollars to spur private investment works best when the results are visible and tied to a coherent plan, and it can be shown that the benefits outweigh the costs.
- While the study area’s four towns all have significant needs, the needs are not necessarily the same and the cost to address them will not be the same. If the solution to weak-market neighborhoods began and ended with housing quality improvements, budgeting resources for a neighborhood development strategy might be fairly straightforward and consistent. However, strategies to build sustainable neighborhoods typically require housing, gray and green infrastructure, transportation, and public realm improvements, along with social services, education, and other components, all tailored to “on the ground” conditions in each neighborhood.

To develop revitalization proficiency, gain the confidence of public and private partners, and build internal capacity, ARTEZ should focus on a “model” neighborhood in any one of the towns and meanwhile begin evaluating other neighborhoods for subsequent attention. This is the practical recommendation, but it does not really settle the underlying issue: the desires and expectations of the participating towns.

Remarkably, ARTEZ has several initiatives underway, not all linked to housing. At the completion of this plan, for example, ARTEZ was working with all seven towns on bicycle accessibility improvements, establishing an EcoDistrict in Millvale, developing a riverfront park in Etna, trying to assemble all of the funds needed to carry out a “pilot” housing redevelopment program. It would make sense for ARTEZ to use the pilot program experience to identify one neighborhood for intensive community development attention over the next few years.

2) Concentrate housing development activity at the neighborhood level, and give priority to “tipping point” neighborhoods.

Discussion. In June 2014, RKG asked representatives of three of the boroughs to mark on large display maps any areas they considered “tipping point” neighborhoods in their communities. The areas they identified in Millvale, Etna, and Sharpsburg became “reality check” points for a model that RKG developed in order to locate areas with some physical, social, and economic strengths for neighborhood revitalization.²¹ For the most part, these locally identified areas aligned fairly well with the boundaries of places that RKG’s model indicated as tipping point areas, too. Each borough has one or more areas that appear well suited for a concentrated neighborhood development initiative, which means ARTEZ has several opportunities to improve housing quality and affordability in the study area. RKG recommends that the ARTEZ board, with input from the housing committee, rank these areas for revitalization investments and take a one- or two-at-a-time approach, depending on the following:

- Funding
- How flexibly the available sources can be used, and
- Degree of revitalization complexity, i.e., whether the strategy is fairly straightforward or requires multiple activities and partnerships in order to succeed.

3) Inventory and evaluate components of neighborhood sustainability, recognizing that building market value involves more than a series of real estate transactions. The quality, convenience, and desirability of neighborhood assets – infrastructure, public parks and other amenities, walkability, and access to goods and services – play a critical role in the attractiveness of neighborhoods to prospective homebuyers and renters.

Discussion. RKG conducted a limited market value analysis (MVA) using an approach similar to the work done by The Reinvestment Fund (TRF) in several cities in the U.S. The MVA Maps found at the end of this section illustrate the indicators mapped and comparatively evaluated for the study area, using the competitive advantages enjoyed by O’Hara Township, Shaler Township, and the Borough of Aspinwall as a backdrop. A summary of the model is as follows.

Selected elements of the demographic analysis (Section 1) were analyzed at the **census block group** level: a geographic unit generally smaller than the boundaries of a town, even the small townships in Allegheny County. The selected census elements include:

- Median household income

²¹ Blawnox did not have a representative at the meeting.

- Median owner-occupied home value
- Housing vacancy rate
- Tenure
- Housing density

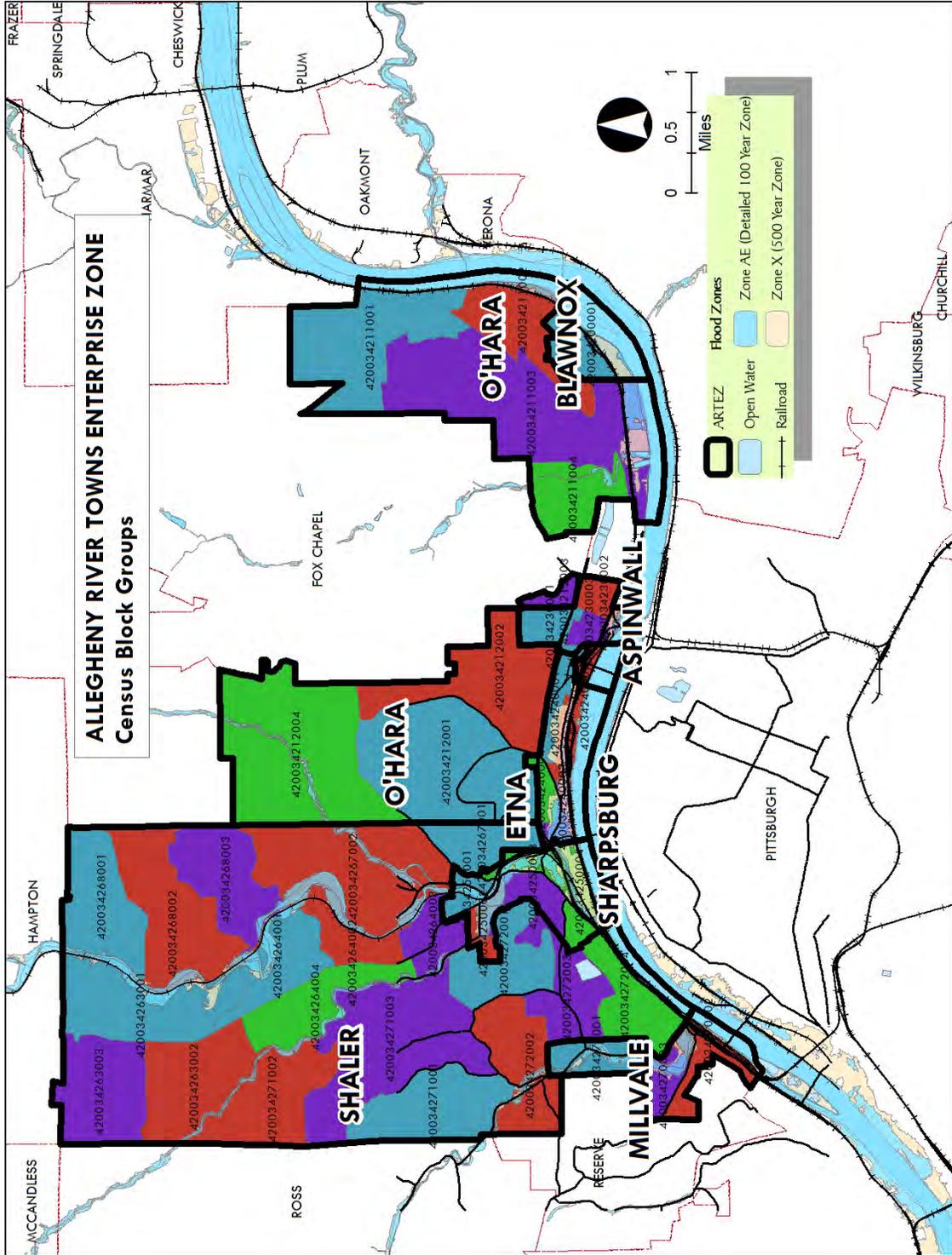
Similarly, selected elements of the residential market analysis (Section 2) were also analyzed at the census block group level. Specifically, the following parcel-based data points were mapped by “clipping” them to the Census Bureau’s forty-two census block group boundaries. For example, an average sale price for arm’s length transactions was drawn from the parcels that fall within each block group.

- Mean single-family sale price (2010-2013)
- Coefficient of variation for housing sale prices
- Land/building value ratios
- Location and extent of commercial land uses
- Sheriff sales
- Absentee ownership

Once all of the data were organized by block group, RKG divided each data range into quartiles.²² Each set of data points was ranked by block group, and a “score” was generated by applying weights to each criterion. For example, the coefficient of variation for housing sale prices had a higher weight than sale prices per se. The procedure for creating several demographic and housing data sets within a consistent set of boundary files (in this case, block groups) makes it possible to identify relatively strong areas within a town that is largely distressed. It also becomes possible to see where ARTEZ’s lower-income communities have some attributes in common with the three wealthier towns around them.

The MVA Maps identify “tipping point” areas from which ARTEZ could choose as focal points for its work. Since these neighborhoods are predominantly renter-occupied, a strategy to improve the quality of rental housing stock would benefit existing residents and build ARTEZ’s expertise in housing that makes up a large share of all occupied units in the boroughs. However, the member towns seem particularly interested in increasing their homeownership rate, so ARTEZ may decide to put greater weight on what the towns want than want than any other factors. For-sale housing is generally a less complicated project, and that may also inform ARTEZ’s decision. Still, much depends on the funding source. With a subsidy such as federal HOME funds, it may be easier and present fewer regulatory compliance risks to develop rental housing. Still, homeownership is often a critical component of neighborhood stabilization and revitalization.

²² A variety of other data sets could be added to the matrix if they are available in digital format and are either address-based, parcel-based, or organized by census tract or block group. Appendix B includes recommendations for additional data that should be considered for a closer assessment of revitalization “readiness” or neighborhood needs analysis, if the data are available or can be obtained in usable formats.



4) Focus on place-based strategies to revitalize ARTEZ neighborhoods and improve corridors. Success will require coordinated and geographically targeted use of resources.

The four towns in the ARTEZ housing market study area have significant housing quality problems and value constraints, yet conditions in some areas indicate a position of strength that could support (and benefit from) neighborhood revitalization initiatives. Rather than trying to pick neighborhoods or specific development sites based on the town they are located in (in order to distribute resources equally), ARTEZ should select target areas based on the complexity of intervention needed, the potential for partnerships to address those needs, capacity for civic engagement, and evidence of some neighborhood strengths that can be built upon for a revitalization program. This general approach formed the basis for MVA rankings (or levels) shown in the MVA Maps and explained in the chart below.

Place-based initiatives take a comprehensive approach to community development and aim to revitalize multiple aspects of an entire neighborhood (or even region) to create lasting change for its residents. While the place-based approach is not new, the fallout from the economic recession is forcing funders, policymakers, and practitioners to take a closer look at these initiatives and critically assess what is and isn't working in the field.

Federal Reserve Bank of San Francisco, *Community Investments* (2010).

		LEVEL	DESCRIPTION		
GOVERNMENT ACTIONS NEEDED	A		High value housing with value growth; fairly stable population (not unusual amount of housing turnover), access to goods and services, and local/regional amenities	LIMITED	
	B		Primarily owner-occupied, housing in good condition, high home values		
	C		Transitional areas; population is often older, age-dependency ratio is driven by seniors; modest-value homes, "spot" blight	MODERATE	
	D		Distressed; tends to have high vacancy rate, low homeownership rate, lower-value properties, absentee landlords		
	E		Low property values, high vacancy rates, many substandard properties ("area blight"), relatively high incidence of foreclosures, populations with social and educational needs		
				SIGNIFICANT, LONG-TERM	

Many study area neighborhoods fall into the level D or E categories, and some fall into level C. These rankings matter because they help to emphasize that in very-low-income communities, efforts to improve the quality of life by improving the quality of housing stock are unlikely to succeed unless paired with other services: human services, public safety, public health, schools and literacy programs, job readiness programs, homelessness services, and empowerment. In level A neighborhoods,

government's housing role is mainly to regulate housing development and ensure that public policies do not frustrate housing production. In a level E neighborhood, government's housing role has far more to do with a comprehensive approach to helping people – including but not limited to improving the housing stock they live in. In order to do that, public agencies need effective non-profit partners because for the most part, the nonprofits will provide the organizational know-how and capacity to work “grassroots” with residents to revitalize distressed neighborhoods.

However one chooses to evaluate and prioritize neighborhoods in the study area, a place-based approach should guide the strategies that ARTEZ and its partners decide to pursue. **Place-based planning means focusing on the complex issues that affect a particular location – in our case, distinct neighborhoods and corridors – more than on the vision or interests of any given organization**, including ARTEZ. If this seems contrary to the purposes of a housing plan for ARTEZ, it is not. Without partners from other service organizations, ARTEZ is unlikely to have much success with improving the quality and desirability of housing in the study area. The affected neighborhoods have too many other needs that housing alone cannot address. The irony is that once having selected a neighborhood or corridor for targeted housing development, ARTEZ needs to assure that other partners have a seat at the table to help drive the revitalization process, even if it means that ARTEZ has to adapt its own plans to the direction sought by the larger body of collaborators (including, especially, neighborhood residents and business owners). Some important ingredients of place-based approaches to neighborhood development:

- A “one step at a time” approach, where two or three concrete, identifiable community-wide problems or issues are tackled collaboratively in some neighborhood area;
- Multi-pronged initiatives that not only respond to a pressing issue or challenge – like substandard housing – but also serve to strengthen neighborhood-based organizations and institutions;
- A process for collecting and organizing data that can be used to track progress and impact, beginning in the early stages of a planning initiative; residents should have ample opportunities for engaging in evaluation and learning activities;
- Significant support for local and grassroots community organizing in the early stages of project planning;
- Involving local and small businesses in planning, needs identification, and improving living conditions in distressed neighborhoods and corridors; and
- Support for resource commitments over several years to build a culture and practice of strategic collaboration among community-based nonprofits and others, e.g., municipal leaders, neighborhood associations, others.

In addition to exploring the possibility of qualifying as a Community Housing Development Organization (CHDO) under the federal HOME program, ARTEZ should explore with Allegheny County the possibility of designating a Neighborhood Revitalization Strategy Area (NRSA) in one of the boroughs and creating a pilot, dedicated stream of CDBG funds for NRSA activities for a specific period, e.g., five years, or the duration of a HUD Consolidated Plan.

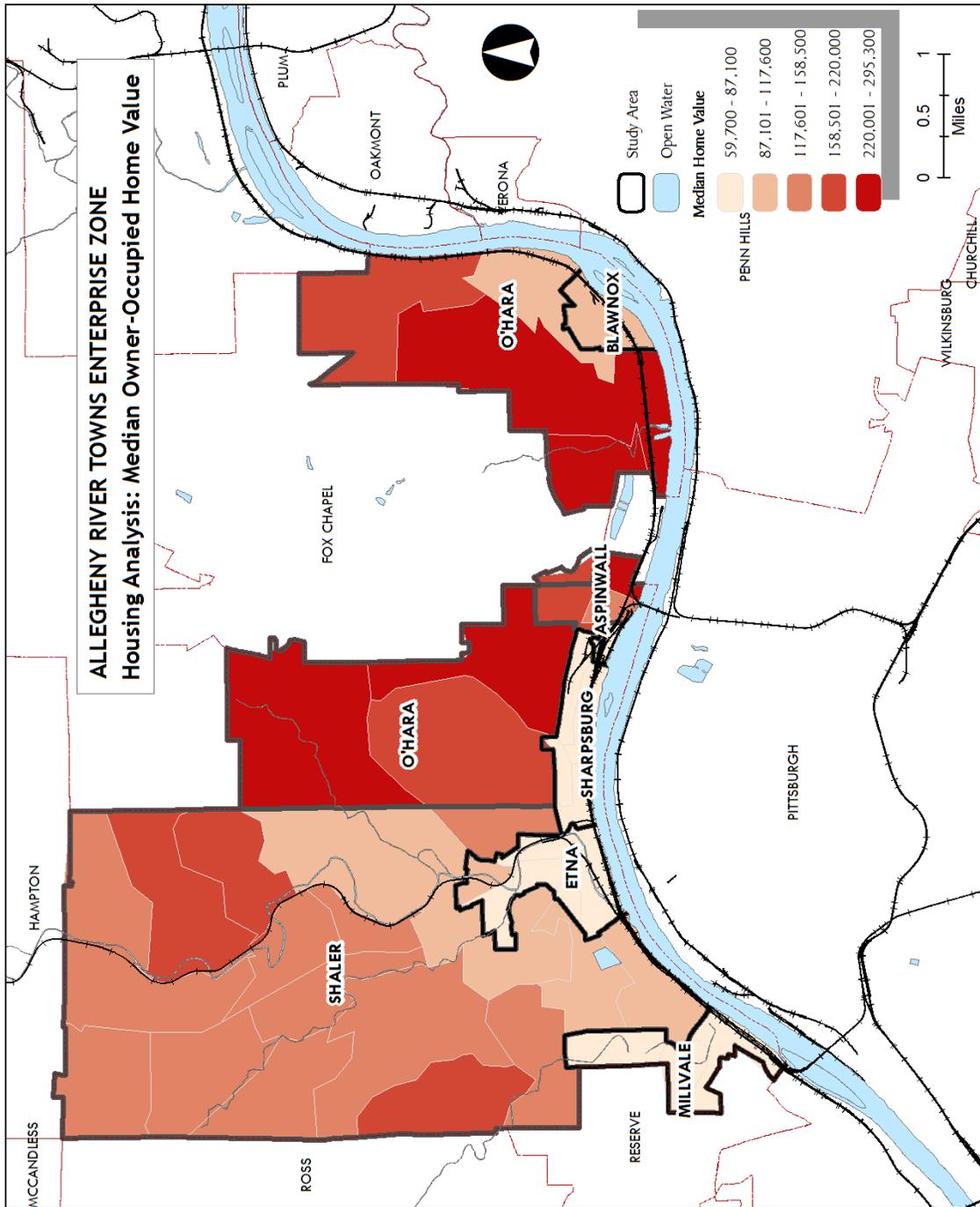
- 5) **Work in support of meeting the technology needs of member towns. Ready access to local data in usable formats will help the towns and ARTEZ do a better job of identifying and responding to community development needs and evaluating the results of community development initiatives.**

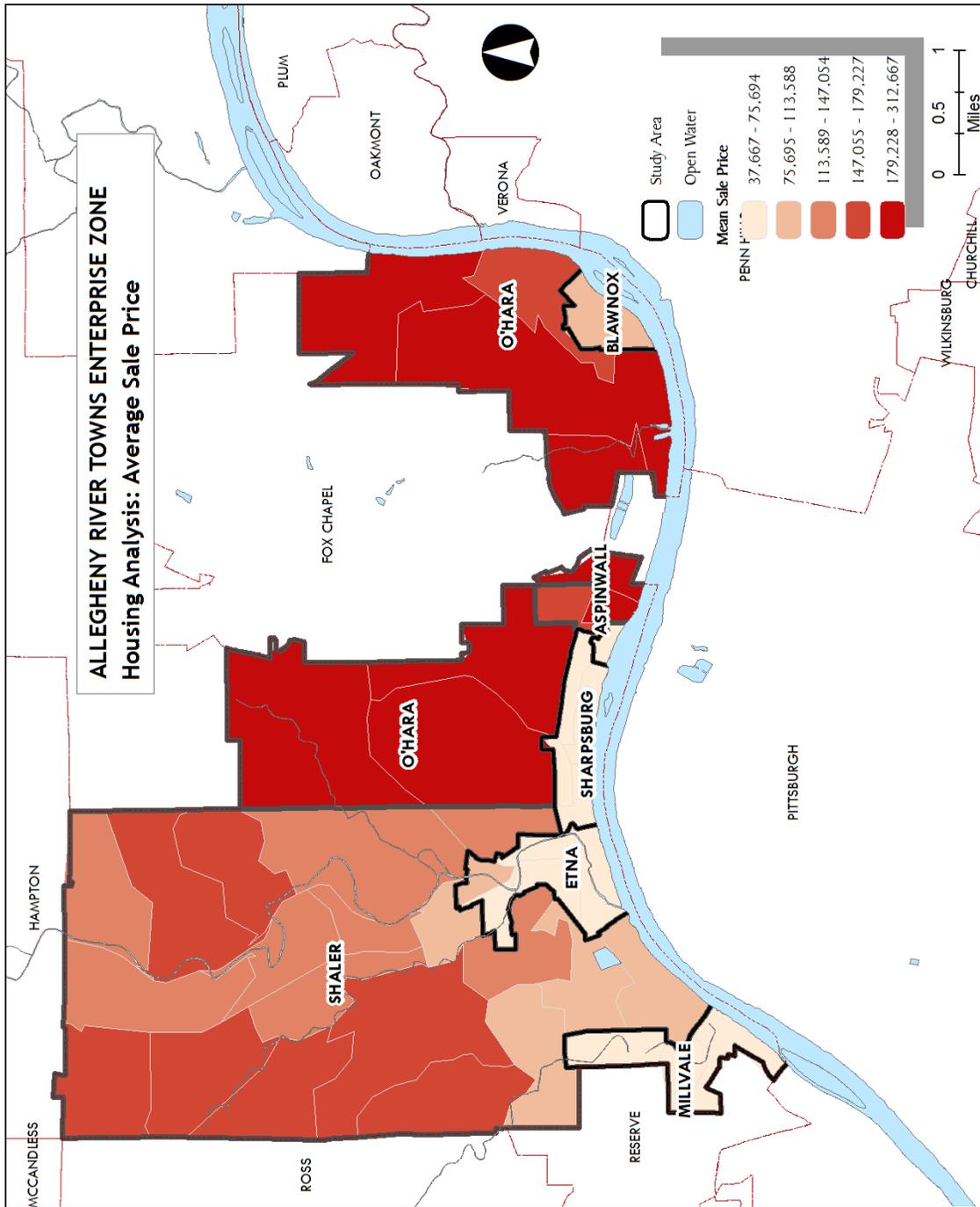
Discussion. ARTEZ is not well equipped to track and measure the effectiveness of any housing initiatives because there is very little local data available in electronic (usable) formats. Furthermore, the towns report that Allegheny County's appraisal data contain many errors, making the databases unreliable sources of information for planning and market analysis. As a result, ARTEZ's desire for a "block by block" housing strategy can only be approximated today, relying in part on real estate sales data and in part on federal census data that are not published for the micro areas one would need for a block-by-block plan. Moreover, the full range of social, economic, and housing data needed for a true neighborhood "place" initiatives do not exist in very small geographic units. This means that to some extent, ARTEZ and the communities need to be thinking about whether they can begin to create some original databases from this point forward. For example, Sharpsburg maintains well-organized code violation and housing inspection records that could make a significant contribution to neighborhood planning and program evaluation. However, the records cannot be mapped because they are in paper form. Similarly, the towns report that they have rosters of renter-occupied properties, but the rosters are not available in usable formats, so the data cannot be readily analyzed and mapped.

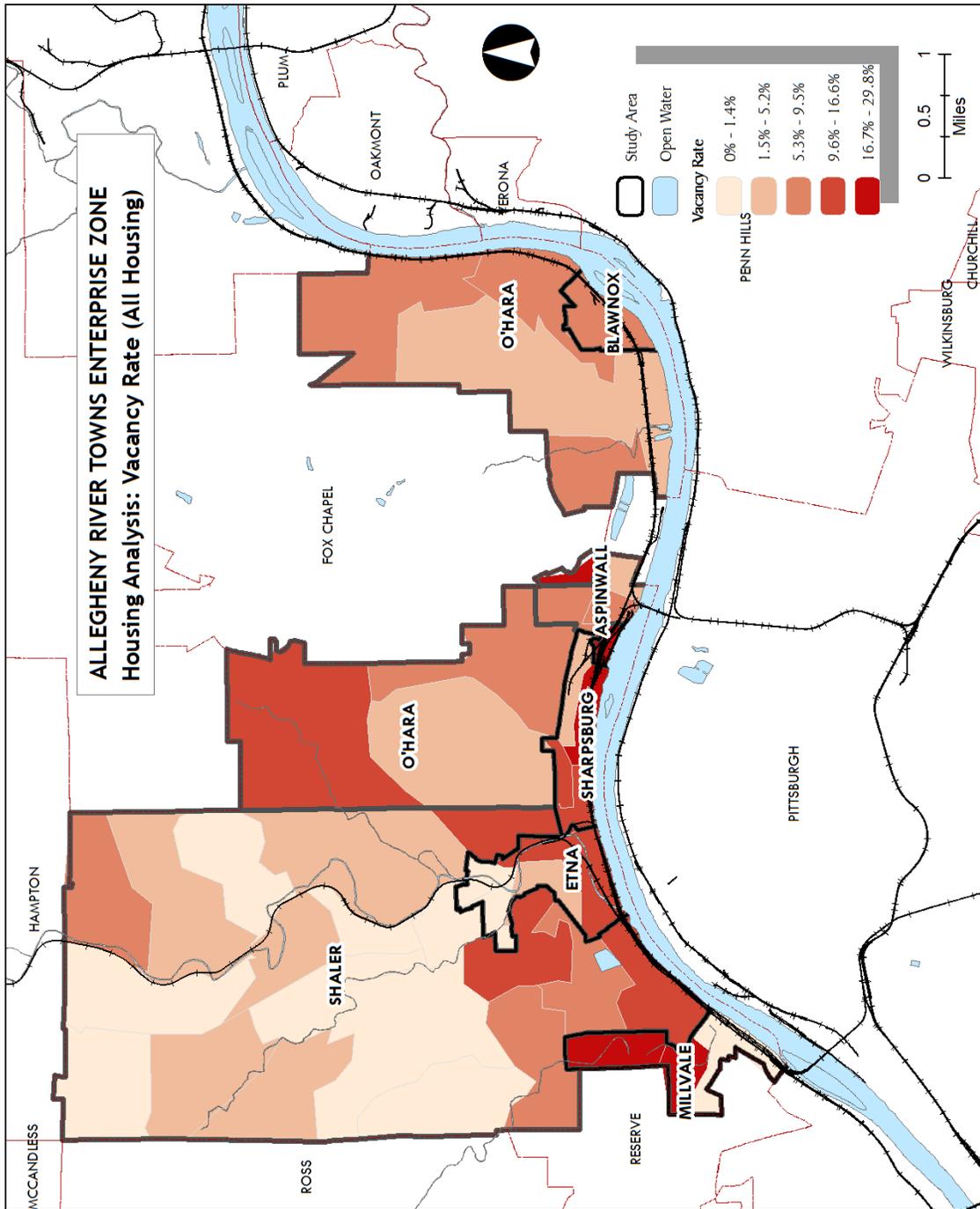
Equipping housing inspectors with GPS devices could help to record housing problem location points and form the beginning of a more informative database, but it would not be helpful for research and tracking purposes unless the database was actually being developed – which takes time, expertise, and software. ARTEZ and the towns should determine the information they most need for program planning and evaluation, develop a long-term plan to collect and store that information in formats that can be readily analyzed, and agree on interim program indicators that can be tracked with available, relatively reliable data. Aside from the value of being able to conduct timely self-assessments, ARTEZ and/or the towns may need performance data for future housing subsidy applications.

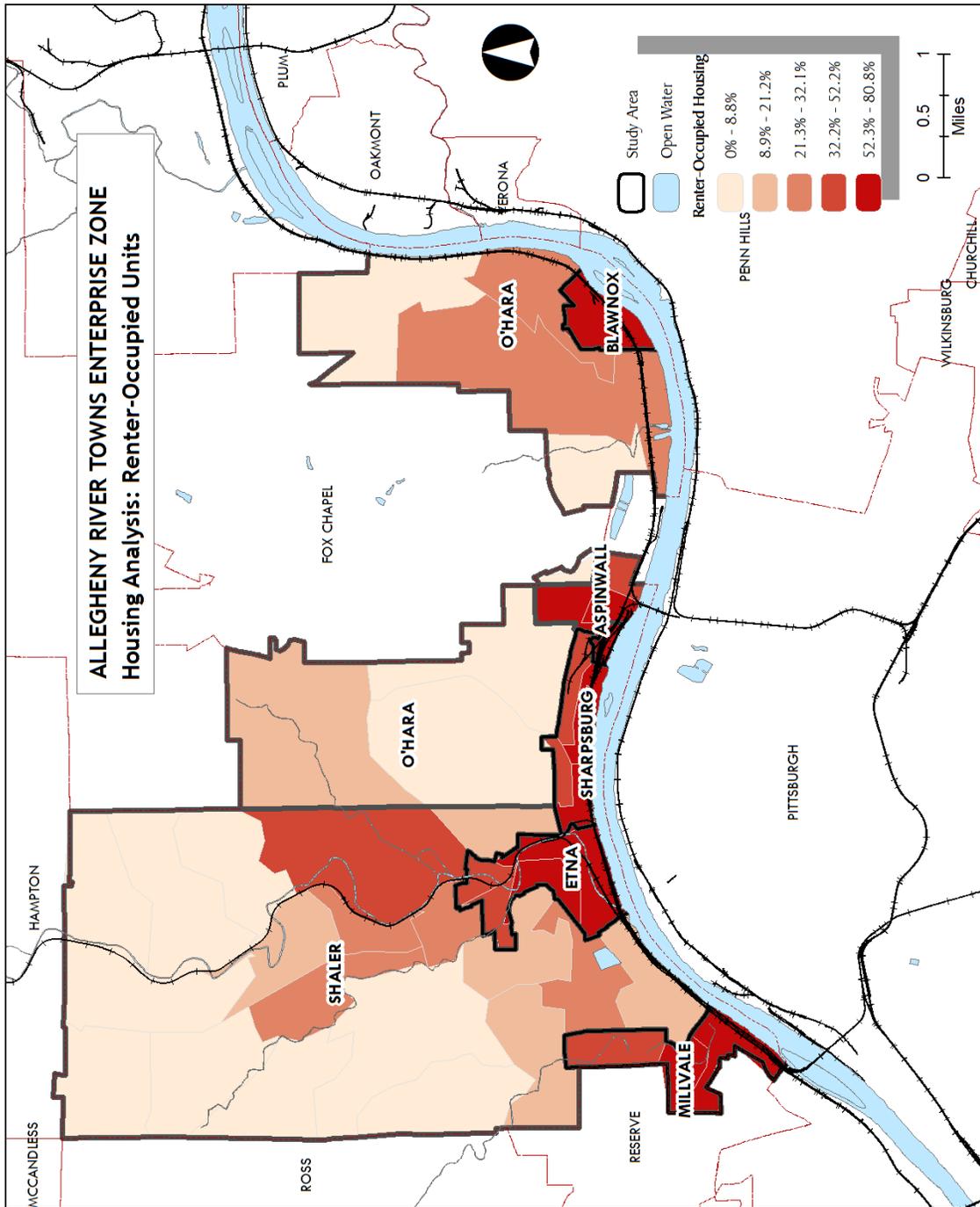
C. MARKET VALUE ANALYSIS MAPS

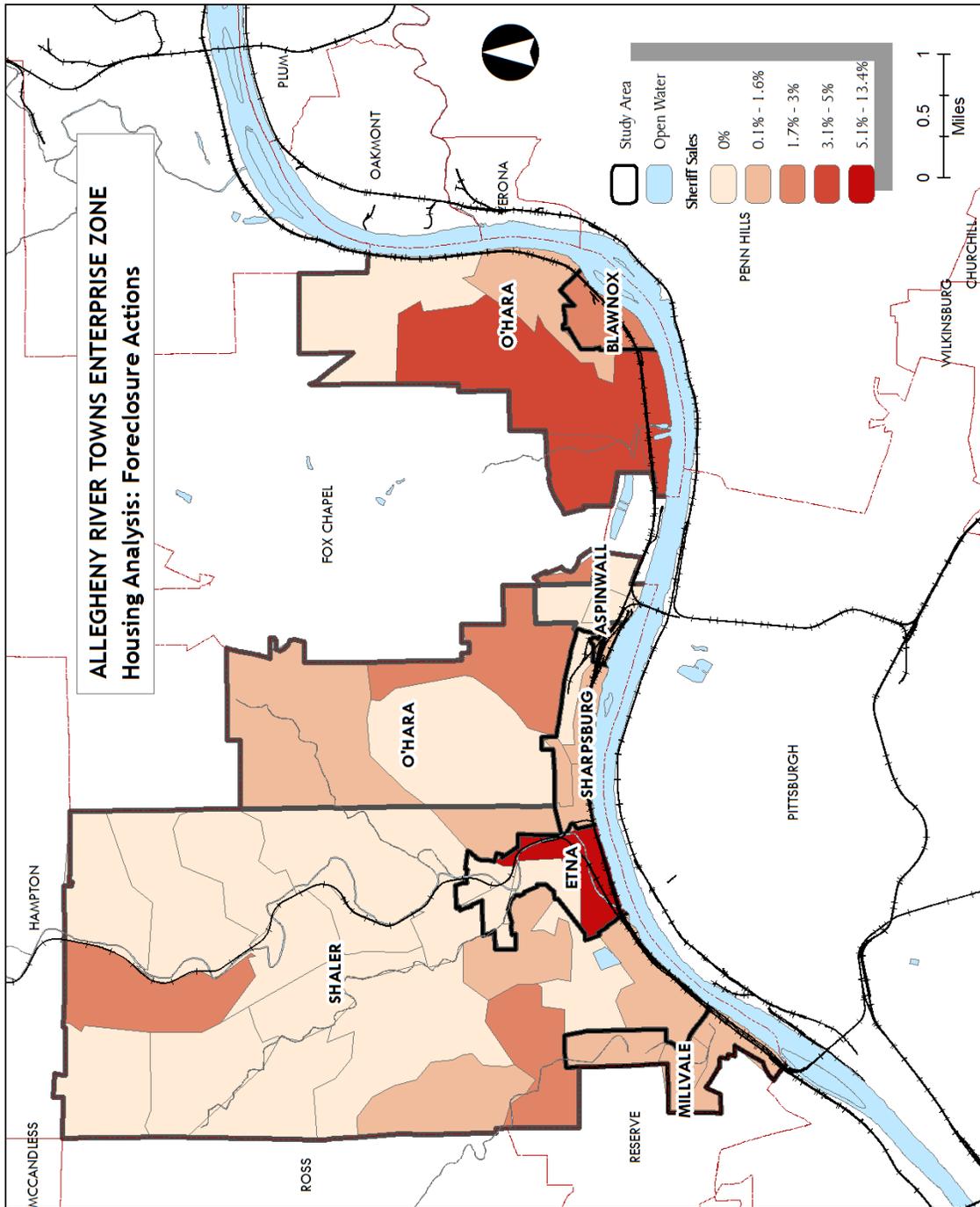
The Market Value Analysis (MVA) maps prepared for this plan can be found on the next twelve pages. The last four maps in the series identify potential “tipping point” neighborhoods and corridors in each borough, drawing from available demographic and market data prepared at the census block group level.

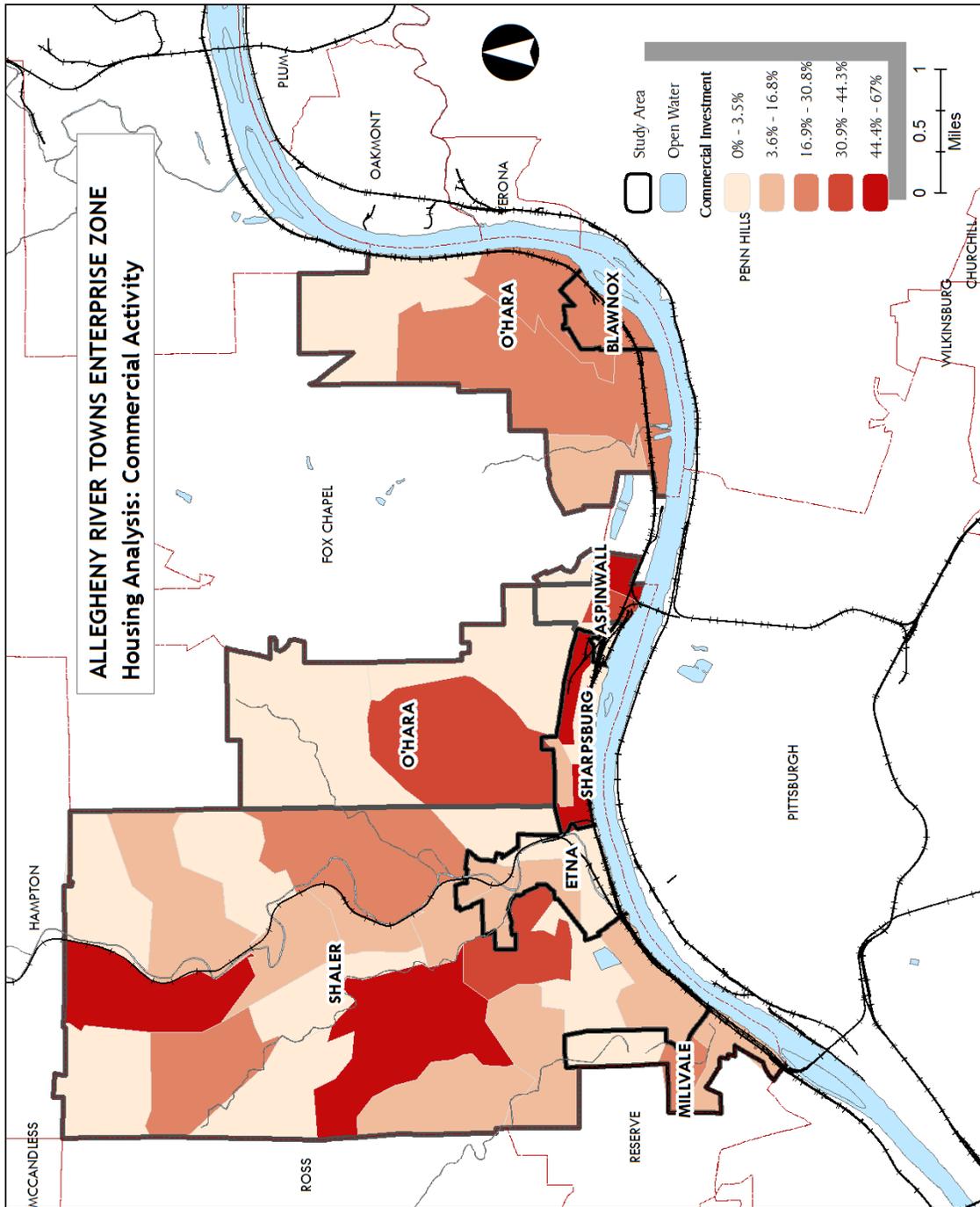


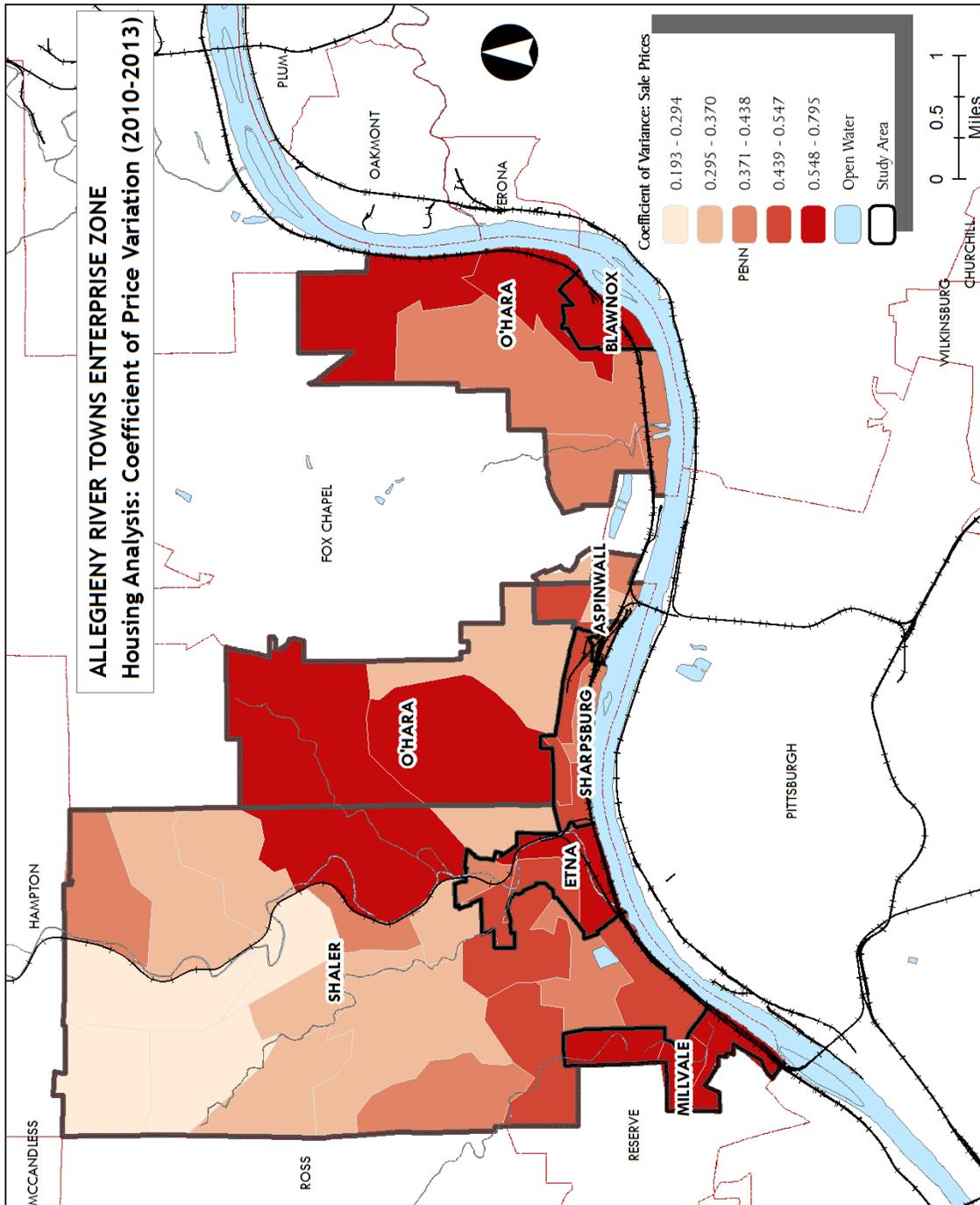


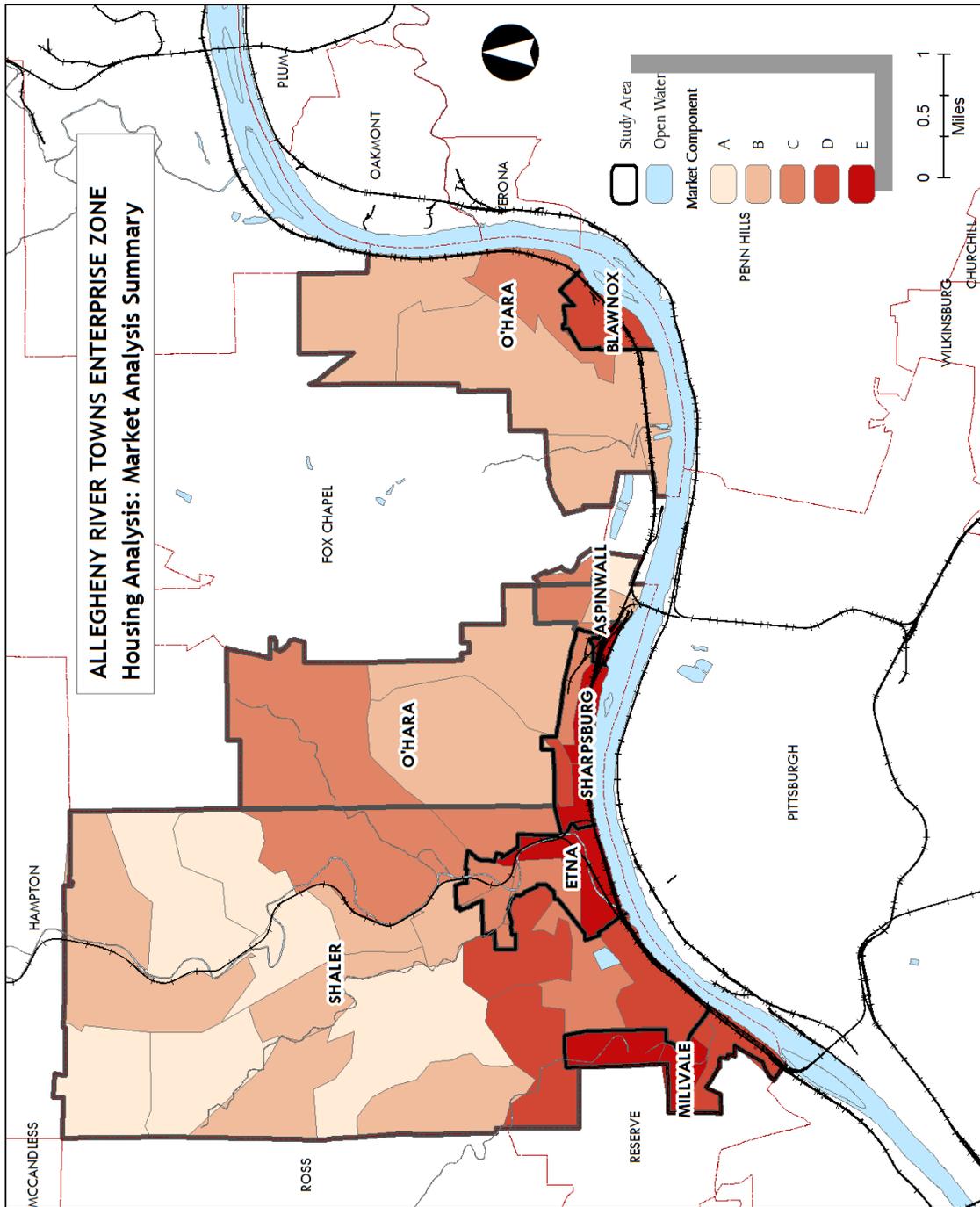


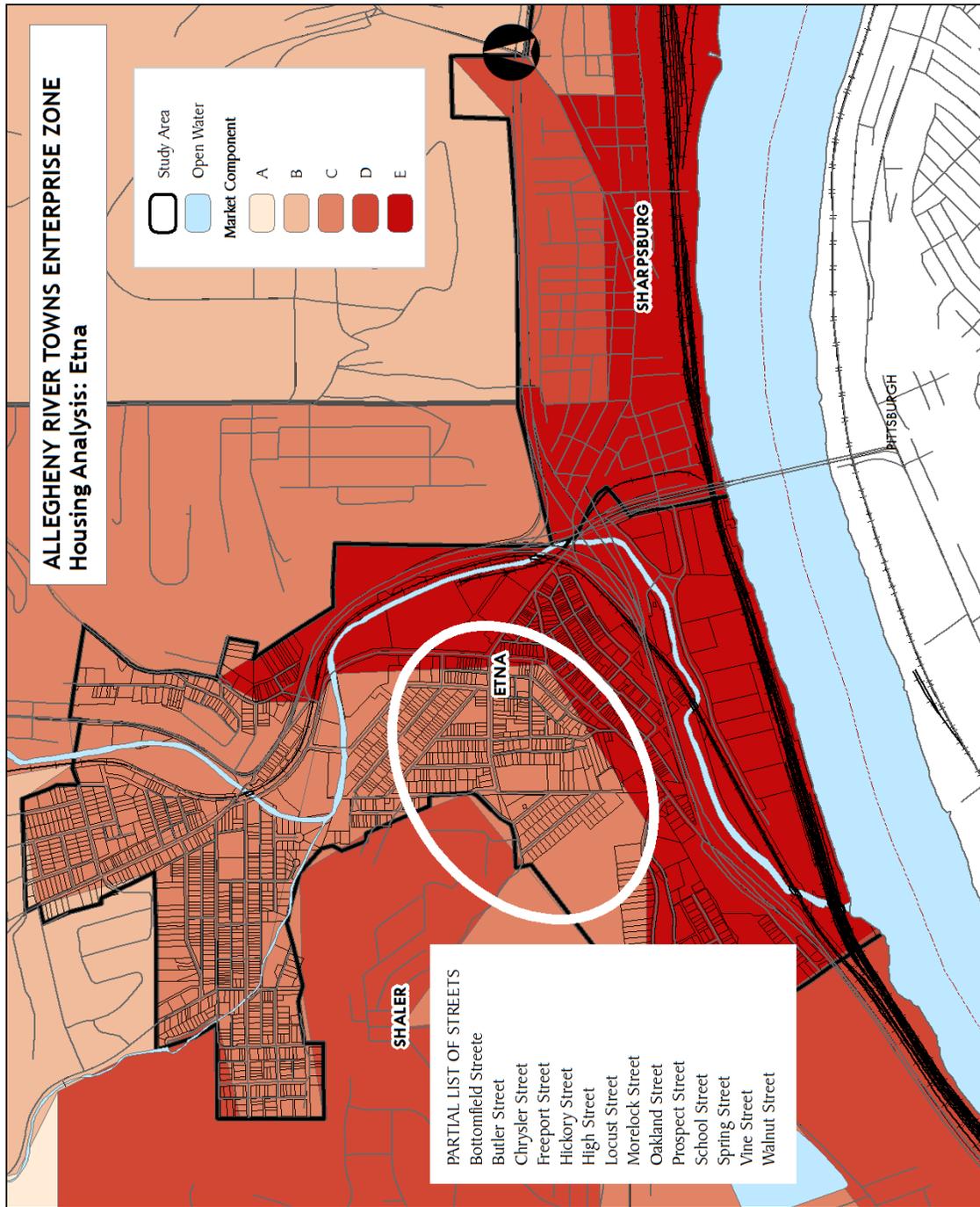


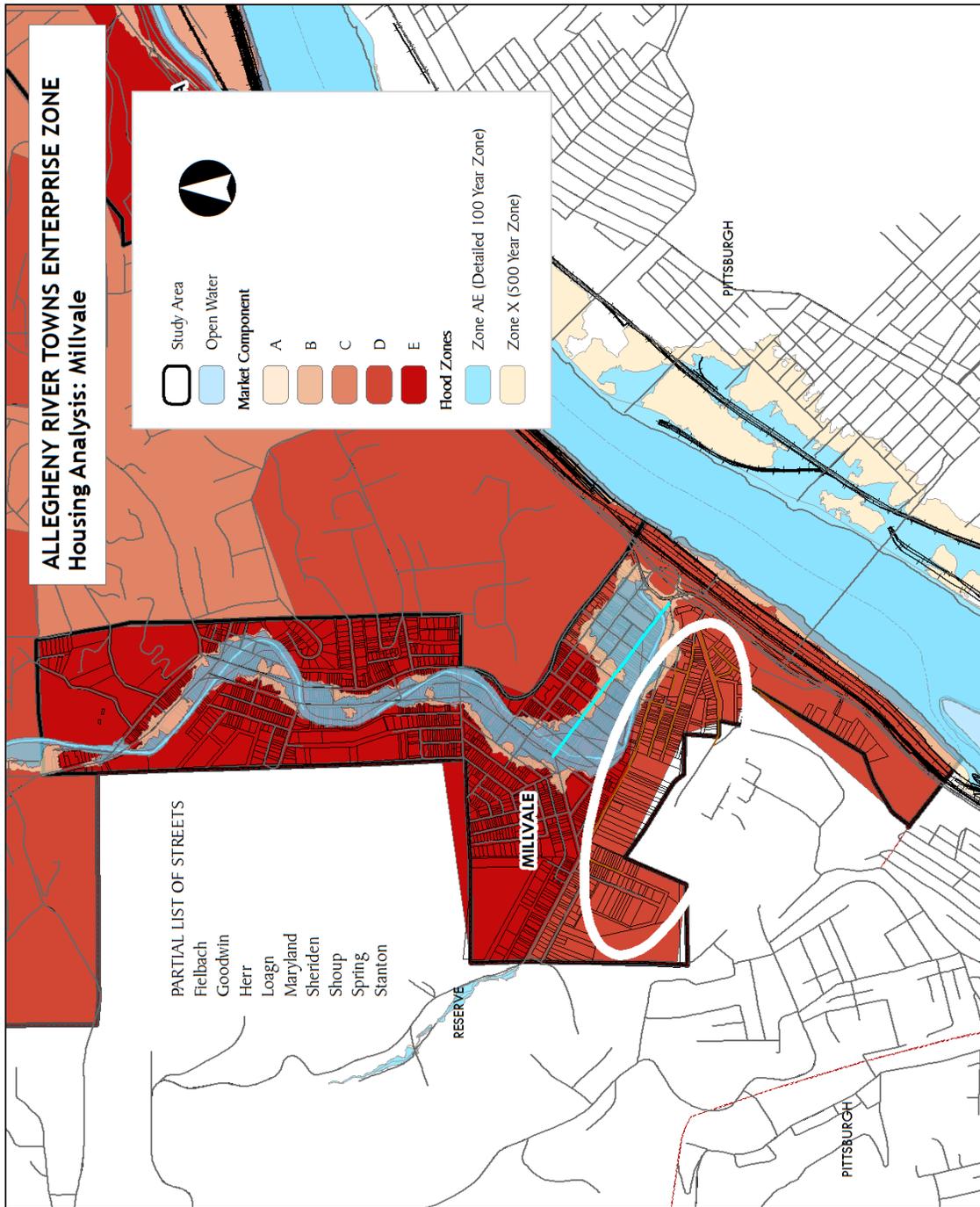


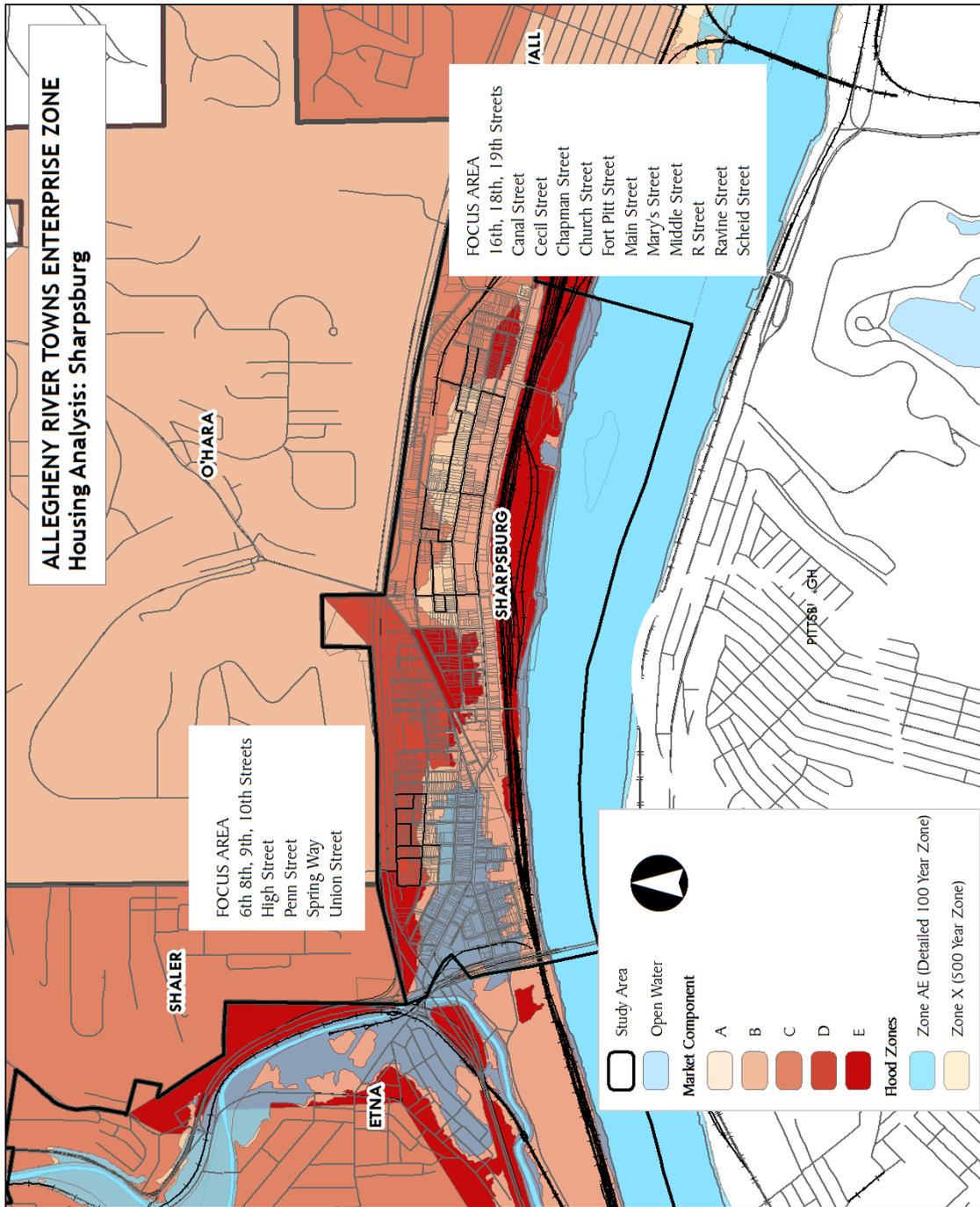


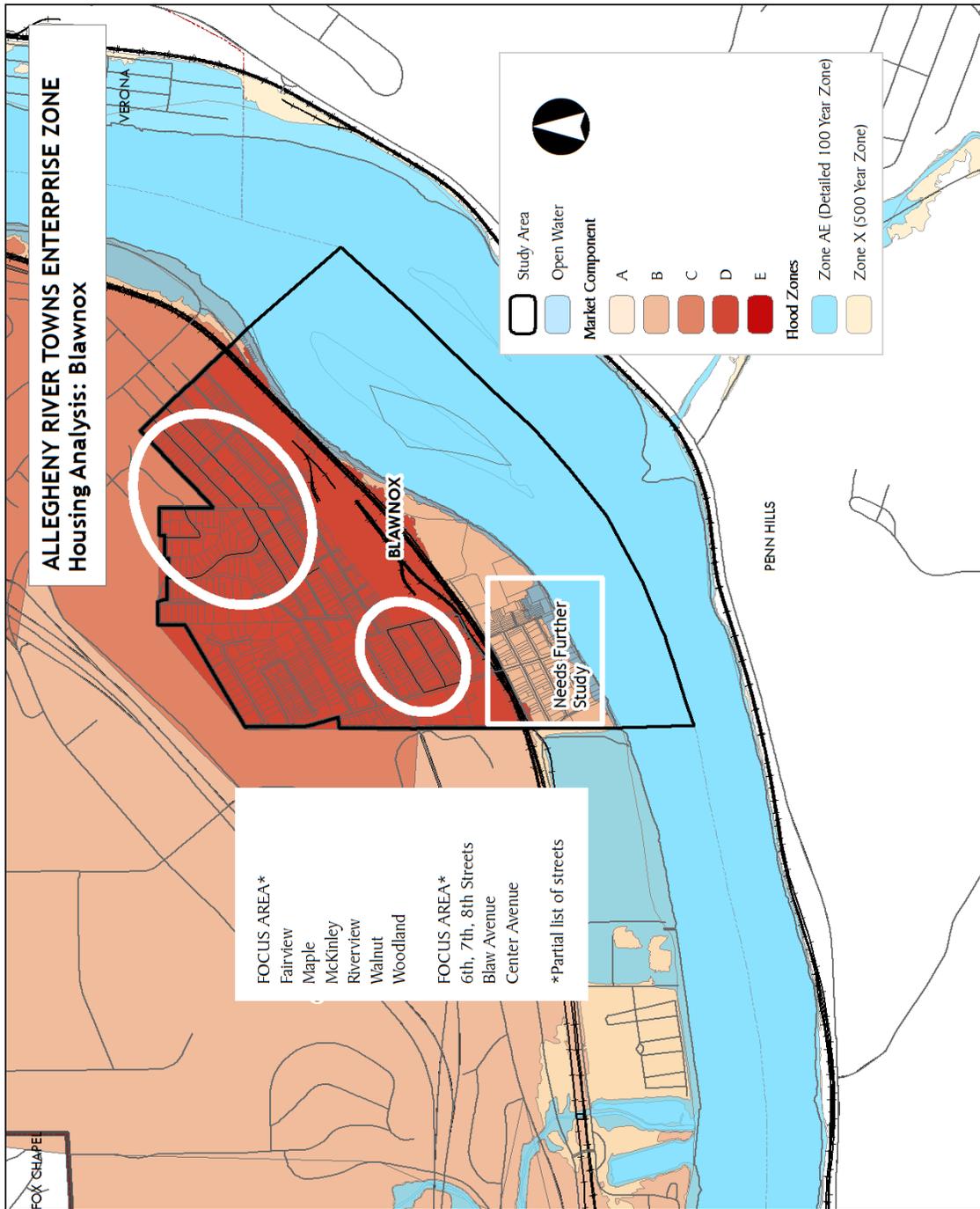












VII. APPENDIX

Appendix A. Supplemental Tables, Report Section 2

APPENDIX 2-A. COMPARISON CHANGES IN HOUSING SUPPLY, 1990-2010												
Category/ Year	Blawnox	Change		Etna	Change		Millvale	Change		Sharpsburg	Change	
		No.	%		No.	%		No.	%		No.	%
Total Units												
1990	913			1,867			2,078			1,864		
2000	931	18	2.0%	1,934	67	3.6%	2,085	7	0.3%	1,911	47	2.5%
2010	899	-32	-3.4%	1,812	-122	-6.3%	2,118	33	1.6%	1,869	-42	-2.2%
Occupied Units												
1990	844			1,751			1,907			1,762		
2000	858	14	1.7%	1,749	-2	-0.1%	1,839	-68	-3.6%	1,748	-14	-0.8%
2010	830	-28	-3.3%	1,607	-142	-8.1%	1,786	-53	-2.9%	1,641	-107	-6.1%
Owner H'holds												
1990	386			1,105			1,058			842		
2000	399	13	3.4%	1,026	-78.881	-7.1%	904	-	-14.6%	749	-93	-
2010	355	-44	-11.0%	907	-119	-	758	-146	-16.2%	671	-78	-
						11.6%						10.4%
Owner-Occupied Rate												
1990	45.7%			63.1%			55.5%			47.8%		
2000	46.5%	0.8%		58.7%	-4.4%		49.2%	-6.3%		42.8%	-5.0%	
2010	42.8%	-3.7%		56.4%	-2.2%		42.4%	-6.7%		40.9%	-2.0%	
Renter H'holds												
1990	458			646			849			920		
2000	459	1	0.2%	723	77	11.9%	935	86	10.2%	999	79	8.6%
2010	475	16	3.5%	700	-23	-3.2%	1,028	93	9.9%	970	-29	-2.9%
Renter-Occupied Rate												
1990	54.3%			36.9%			44.5%			52.2%		
2000	53.5%	-0.8%		41.3%	4.4%		50.8%	6.3%		57.2%	5.0%	

APPENDIX 2-A. COMPARISON CHANGES IN HOUSING SUPPLY, 1990-2010												
Category/ Year		Change			Change			Change			Change	
		No.	%		No.	%		No.	%		No.	%
2010	57.2%	3.7%		43.6%	2.2%		57.6%	6.7%		59.1%	2.0%	
Vacant Units												
1990	69			116			171			102		
2000	73	4	5.8%	185	69	59.5%	246	75	0.4386	163	61	59.8%
2010	69	-4	-5.5%	205	20	10.8%	332	86	0.34959	228	65	39.9%
Vacancy Rate												
1990	7.6%			6.2%			8.2%			5.5%		
2000	7.8%	0.3%		9.6%	3.4%		11.8%	3.6%		8.5%	3.1%	
2010	7.7%	-0.2%		11.3%	1.7%		15.7%	3.9%		12.2%	3.7%	
Owner Vacancy Rate												
1990	2.0%			2.4%			4.1%			1.5%		
2000	1.7%	-0.3%		2.7%	0.3%		4.6%	0.5%		4.2%	2.7%	
2010	2.2%	0.5%		2.8%	0.1%		3.4%	-1.2%		4.3%	0.1%	
Renter Vacancy Rate												
1990	5.6%			4.7%			5.5%			4.5%		
2000	8.0%	2.4%		10.5%	5.8%		8.7%	3.2%		8.0%	3.5%	
2010	5.2%	-2.8%		10.3%	-0.2%		8.9%	0.2%		7.7%	-0.3%	
Category/ Year	Study Area			ARTEZ			Pittsburgh			Allegheny County		
Total Units												
1990	6,722			23,461			170,159			580,738		
2000	6,861	139	2.1%	24,160	699	3.0%	163,366	-6,793	-4.0%	583,646	2,908	0.5%
2010	6,698	-163	-2.4%	24,385	225	0.9%	156,165	-7,201	-4.4%	589,201	5,555	1.0%
Occupied Units												
1990	6,264			22,605			153,483			541,261		
2000	6,194	-70	-1.1%	22,873	268	1.2%	143,739	-9,744	-6.3%	537,150	-4,111	-0.8%
2010	5,864	-400	-6.5%	22,713	-160	-0.7%	136,217	-7,522	-5.2%	533,960	-3,190	-0.6%

APPENDIX 2-A. COMPARISON CHANGES IN HOUSING SUPPLY, 1990-2010												
Category/ Year		Change			Change			Change			Change	
		No.	%		No.	%		No.	%		No.	%
Owner H'holds												
1990	3,392			16,335			80,272			358,315		
2000	3,078	-314	-9.2%	17,091	756	4.6%	74,927	-5,345	-6.7%	360,036	1,721	0.5%
2010	2,691	-701	-22.8%	16,797	-294	-1.7%	64,807	-	-13.5%	345,393	-	-4.1%
								10,120			14,643	
Owner-Occupied Rate												
1990	54.1%			72.3%			52.3%			66.2%		
2000	49.7%			74.7%	2.5%		52.1%	-0.2%		67.0%	0.8%	
2010	45.9%			74.0%	-0.8%		47.6%	-4.6%		64.7%	-2.3%	
Renter H'holds												
1990	2,872			5,561			73,211			182,946		
2000	3,116	244	8.5%	5,782	221	4.0%	68,812	-4,399	-6.0%	177,114	-5,832	-3.2%
2010	3,173	57	1.8%	5,916	134	2.3%	71,410	2,598	3.8%	188,567	11,453	6.5%
Renter-Occupied Rate												
1990	45.9%			24.6%			47.7%			33.8%		
2000	50.3%			25.3%	0.7%		47.9%	0.2%		33.0%	-0.8%	
2010	54.1%			26.0%	0.8%		52.4%	4.6%		35.3%	2.3%	
Vacant Units												
1990	458			856			16,676			39,477		
2000	667	209	45.6%	1,287	431	50.4%	19,627	2,951	17.7%	46,496	7,019	17.8%
2010	834	167	25.0%	1,672	385	29.9%	19,948	321	1.6%	55,241	8,745	18.8%
Vacancy Rate												
1990	6.8%			3.6%			9.8%			6.8%		
2000	9.7%			5.3%	1.7%		12.0%	2.2%		8.0%	1.2%	
2010	12.5%			6.9%	1.5%		12.8%	0.8%		9.4%	1.4%	
Owner Vacancy Rate												
1990	2.7%			1.4%			2.7%			1.8%		

APPENDIX 2-A. COMPARISON CHANGES IN HOUSING SUPPLY, 1990-2010												
Category/ Year	Change			Change			Change			Change		
	No.	%		No.	%		No.	%		No.	%	
2000	3.5%		1.7%	0.3%		2.8%	0.1%		1.9%	0.1%		
2010	3.4%		1.7%	-0.1%		2.8%	0.0%		2.1%	0.2%		
Renter Vacancy Rate												
1990	5.1%		4.3%			9.8%			11.5%			
2000	8.8%		7.8%	3.5%		8.8%	-1.0%		8.9%	-2.6%		
2010	8.3%		8.1%	0.3%		8.3%	-0.5%		8.9%	0.0%		

APPENDIX 2-B. ARTEZ & STUDY AREA: SINGLE-FAMILY SALES & LISTINGS BY PRICE

ARTEZ	2009	2010	2011	2012	2013	Total	AVG	%	Listings	%
\$1,000-\$19,999	27	18	16	23	22	106	21	4%	2	2%
\$20,000-\$49,999	40	34	31	37	48	190	38	8%	8	6%
\$50,000-\$99,999	109	96	90	83	99	477	95	19%	31	23%
\$100,000-\$149,999	122	159	169	146	142	738	148	29%	28	21%
\$150,000-\$199,999	99	109	109	86	114	517	103	21%	25	19%
\$200,000-\$299,999	55	60	53	68	70	306	61	12%	20	15%
\$300,000 & up	39	23	27	40	57	186	37	7%	17	13%
Total Sales	491	499	495	483	552	2,520	504	100%	132	100%
Median Price	\$129,900	\$133,900	\$132,000	\$137,500	\$138,500				\$142,400	
Sheriff Sales	4	0	3	3	19	29	6			
BLAWNOX	2009	2010	2011	2012	2013	Total	AVG	%	Listings	%
\$1,000-\$19,999			1			1	0	2%		
\$20,000-\$49,999	1	2	2			7	1	16%		
\$50,000-\$99,999	1	2	2	3	3	11	2	26%		
\$100,000-\$149,999	2	2	5	2	3	14	3	33%	2	67%
\$150,000-\$199,999	1	1	2	1	3	8	2	19%	1	33%
\$200,000-\$299,999	1		1			2	0	5%		
Total Sales	6	7	13	6	11	43	9	100%	3	100%
Median Price	\$102,000	\$80,000	\$118,000	\$102,500	\$113,000				\$139,900	
Sheriff Sales					1	1				
ETNA	2009	2010	2011	2012	2013	Total	AVG	%	Listings	%
\$1,000-\$19,999	6	4	4	8	4	26	5	14%		
\$20,000-\$49,999	9	6	6	11	13	45	9	25%	3	27%
\$50,000-\$99,999	13	19	21	22	20	95	19	52%	8	73%
\$100,000-\$149,999	1	1	2	7	4	15	3	8%		
\$150,000-\$199,999		1		1		2	0	1%		
Total Sales	29	31	33	49	41	183	37	100%	11	100%
Median Price	\$48,000	\$64,350	\$62,000	\$62,000	\$55,000				\$68,000	
Sheriff Sales						0				
MILLVALE	2009	2010	2011	2012	2013	Total	AVG	%	Listings	%
\$1,000-\$19,999	13	9	5	8	11	46	9	32%	1	13%
\$20,000-\$49,999	11	11	4	8	12	46	9	32%	1	13%
\$50,000-\$99,999	10	10	6	9	11	46	9	32%	5	63%
\$100,000-\$149,999	1	2	1		3	7	1	5%	1	13%
\$200,000-\$299,999		1				1	0	1%		
Total Sales	35	33	16	25	37	146	29	100%	8	100%
Median Price	\$30,000	\$38,000	\$40,500	\$31,800	\$39,900				\$64,950	
Sheriff Sales	1		1		2	4	1			
SHARPSBURG	2009	2010	2011	2012	2013	Total	AVG	%	Listings	%
\$1,000-\$19,999	6	2	1	3	3	15	3	15%	1	6%
\$20,000-\$49,999	6	6	9	5	7	33	7	33%	3	19%
\$50,000-\$99,999	14	9	10	6	10	49	10	49%	11	69%
\$100,000-\$149,999		1	1		1	3	1	3%	1	6%
\$150,000-\$199,999					1	1	0	1%		
Total Sales	26	18	21	14	22	101	20	100%	16	100%
Median Price	\$55,400	\$52,000	\$50,000	\$43,000	\$64,000				\$59,900	
Sheriff Sales	1		1			2	0			

Source: Allegheny County; realtor.com & RKG Associates.com

APPENDIX 2-C. ARTEZ & STUDY AREA: CONDOMINIUM SALES BY PRICE

ARTEZ	2009	2010	2011	2012	2013	Total	AVG	%
\$1,000-\$19,999								
\$20,000-\$49,999	1				1	2	0	1.6%
\$50,000-\$99,999	4	4	2	1	2	13	3	10.7%
\$100,000-\$149,999	4	4	6	5	4	23	5	19%
\$150,000-\$199,999	2	4	10	3	9	28	6	23%
\$200,000-\$299,999	6	5	4	4	8	27	5	22%
\$300,000 & up	5	5	10	5	4	29	6	24%
Total Sales	22	22	32	18	28	122	24	100%
Median Price	\$190,000	\$187,500	\$181,419	\$204,000	\$174,500			
BLAWNOX	2009	2010	2011	2012	2013	Total	AVG	%
\$300,000 & up			2		1	3	1	100%
Total Sales			2		1	3	1	100%
Median Price			\$335,000		\$300,000			

Source: Allegheny County; realtor.com & RKG Associates.com

APPENDIX 2-D. ARTEZ & STUDY AREA: ROWHOUSE SALES BY PRICE

ARTEZ	2009	2010	2011	2012	2013	Total	AVG	%
\$1,000-\$19,999								
\$20,000-\$49,999		1				1	0	1%
\$50,000-\$99,999	3	5	10	3	3	24	5	19%
\$100,000-\$149,999	4	8	9	8	8	37	7	29%
\$150,000-\$199,999	3	10	7	8	8	36	7	28%
\$200,000-\$299,999	7	3	5	5	2	22	4	17%
\$300,000 & up	4			1	3	8	2	6%
Total Sales	21	27	31	25	24	128	26	100%
Median Price	\$205,000	\$136,500	\$125,500	\$152,500	\$155,375			
Sheriff Sales				1		1		
BLAWNOX	2009	2010	2011	2012	2013	Total	AVG	%
\$1,000-\$19,999								
\$20,000-\$49,999								0%
\$50,000-\$99,999				1		1	0	6%
\$100,000-\$149,999	2	3	1	3	3	12	2	71%
\$150,000-\$199,999		1	1	1	1	4	1	24%
\$200,000-\$299,999								0%
\$300,000 & up								0%
Total Sales	2	4	2	5	4	17	3	100%
Median Price	\$116,750	\$122,250	\$150,000	\$145,000	\$134,700			
SHARPSBURG	2009	2010	2011	2012	2013	Total	AVG	%
\$1,000-\$19,999								
\$20,000-\$49,999		1				1	0	20%
\$50,000-\$99,999	1			1	1	3	1	60%
\$100,000-\$149,999					1	1	0	20%
\$150,000-\$199,999								
\$200,000-\$299,999								
Total Sales	1	1		1	2	5	1	100%
Median Price	\$75,000	\$35,600		\$95,000	\$91,000			

Source: Allegheny County; realtor.com & RKG Associates.com

APPENDIX 2-E. ARTEZ & STUDY AREA: TOWNHOUSE SALES BY PRICE

ARTEZ	2009	2010	2011	2012	2013	Total	AVG	%
\$1,000-\$19,999	4	3	4	7	2	20	4	36%
\$20,000-\$49,999	6	3	11	1	5	26	5	47%
\$50,000-\$99,999			4	1	2	7	1	13%
\$100,000-\$149,999	1			1		2	0	9%
Total Sales	11	6	19	10	9	55	11	100%
Median Price	\$24,000	\$19,765	\$32,000	\$14,000	\$32,000			
Sheriff Sales					3	3		
BLAWNOX	2009	2010	2011	2012	2013	Total	AVG	%
\$1,000-\$19,999			1	3		4	1	33%
\$20,000-\$49,999	1		5	1	1	8	2	67%
Total Sales	1		6	4	1	12	2	100%
Median Price	\$24,500		\$33,450	\$12,500	\$24,000			
Sheriff Sales					1	1		
ETNA	2009	2010	2011	2012	2013	Total	AVG	Total
\$1,000-\$19,999	1		1			2	0	67%
\$20,000-\$49,999		1				1	0	33%
Total Sales	1	1	1			3	1	100%
Median Price	\$12,500	\$24,000	\$14,500					
MILLVALE	2009	2010	2011	2012	2013	Total	AVG	Total
\$1,000-\$19,999	2	1	1	3	1	8	2	36%
\$20,000-\$49,999	3	1	4		4	12	2	55%
\$50,000-\$99,999			1		1	2	0	9%
Total Sales	5	2	6	3	6	22	4	100%
Median Price	\$20,000	\$31,500	\$27,684	\$10,000	\$36,000			
Sheriff Sales					1	1	0	
SHARPSBURG	2009	2010	2011	2012	2013	Total	AVG	%
\$1,000-\$19,999	1	2	1	1	1	6	1	40%
\$20,000-\$49,999	2	1	1	1		5	1	33%
\$50,000-\$99,999			3		1	4	1	27%
Total Sales	3	3	5	2	2	15	3	100%
Median Price	\$39,500	\$18,530	\$55,000	\$22,000	\$33,000			
Sheriff Sales					1			

Source: Allegheny County; realtor.com & RKG Associates.com

APPENDIX 2-F. ARTEZ & STUDY AREA: TWO-FAMILY SALES & LISTINGS BY PRICE

ARTEZ	2009	2010	2011	2012	2013	Total	AVG	%	Listings	%
\$1,000-\$19,999	3	4	1	2	3	13	3	13%		
\$20,000-\$49,999	4	5	3	6	1	19	4	19%	2	14%
\$50,000-\$99,999	12	4	4	10	7	37	7	38%	8	57%
\$100,000-\$149,999	1	2	1	3	6	13	3	13%	1	7%
\$150,000-\$199,999	1		1	4	3	9	2	9%	2	14%
\$200,000-\$299,999		1	3		1	5	1	5%	1	7%
\$300,000 & up			1		1	2	0	2%		
Total Sales	21	16	14	25	22	98	20	100%	14	100%
Median Price	\$58,000	\$47,500	\$95,000	\$60,000	\$92,450				\$83,700	
BLAWNOX	2009	2010	2011	2012	2013	Total	AVG	%	Listings	%
\$50,000-\$99,999		1	1	1	1	4	1	100%		
Total Sales		1	1	1	1	4	1	100%	0	
Median Price		\$59,900	\$92,000	\$90,000	\$76,000					
ETNA	2009	2010	2011	2012	2013	Total	AVG	%	Listings	%
\$1,000-\$19,999	1	2			2	5	1	29%		
\$20,000-\$49,999	2	2		1		5	1	29%	1	50%
\$50,000-\$99,999	1	2		3	1	7	1	41%	1	13%
Total Sales	4	6		4	3	17	3	100%	2	14%
Median Price	\$82,500	\$35,000		\$50,500	\$16,000				\$57,400	
MILLVALE	2009	2010	2011	2012	2013	Total	AVG	%	Listings	%
\$1,000-\$19,999	1	1		2	1	5	1	28%		
\$20,000-\$49,999	1	1	1	1		4	1	22%		
\$50,000-\$99,999	4		2	2	1	9	2	50%	2	25%
Total Sales	6	2	3	5	2	18	4	100%	2	14%
Median Price	\$53,100	\$30,750	\$58,900	\$25,000	\$30,500				\$69,950	
SHARPSBURG	2009	2010	2011	2012	2013	Total	AVG	%	Listings	%
\$1,000-\$19,999		1				1	0	5%		
\$20,000-\$49,999	3	1	1	3	1	9	2	43%		
\$50,000-\$99,999	5			3	2	10	2	48%	2	25%
\$100,000-\$149,999					1	1	0	5%		
Total Sales	8	2	1	6	4	21	4	100%	2	14%
Median Price	\$57,450	\$21,000	\$40,000	\$45,000	\$54,750				\$87,200	

Source: Allegheny County; realtor.com & RKG Associates.com

APPENDIX 2-G. MODERN APARTMENTS IN PITTSBURGH AND APARTMENT LISTINGS IN STUDY AREA													
Community	Project Name	Address	ZIP Code	# of Units	Starting Rents by Type			Units Size in SF			Price per Unit SF		
					One	Two	Three	One	Two	Three	One	Two	Three
Shaler	Shalercree Apartments	272 Mt. Vernon	15223	252	\$590	\$690	\$790	-na-	-na-	-na-	-na-	-na-	-na-
Blawnox	Apartment Building	265 Freeport Rd	15238	40	\$525	\$625		-na-	-na-		-na-	-na-	
Millvale	Regency House	1 Howard St	15209	30	\$485	\$600		500	800		\$0.97	\$0.75	
Sharpsburg	Sharpsburg Apartments	1300 Main St	15215	7	\$575	\$675		500	750		\$1.15	\$0.90	
Pittsburgh	The Cork Factory Lofts	2349 Railroad St	15222	297	\$1,370	\$2,145	\$3,730	682	1,087	2,247	\$2.01	\$1.97	\$1.66
Pittsburgh	The Break House Lofts	2501 Liberty Ave	15222	18	\$1,200	\$1,950		730	1,575		\$1.64	\$1.24	
Pittsburgh	Shadyside Commons	401 Amberson Ave	15232	148	\$1,360	\$1,860		674	971		\$2.02	\$1.92	
Pittsburgh	Penn Ave Apartments	526 Penn Ave	15222	72	\$1,400	\$1,550		740	1,035		\$1.89	\$1.50	
Pittsburgh	Luna Lofts	410-416 N Craig St	15213	14	\$1,025	\$1,400	\$1,575	505	865	1,200	\$2.03	\$1.62	\$1.31
Pittsburgh	Noodle Factory	4646 Friendship Ave	15224		\$940	\$1,100		656	710		\$1.43	\$1.55	
Pittsburgh	Live South Side	26 South 28th St	15203	49	\$919	\$990	\$1,794	395	745	1,120	\$2.33	\$1.33	\$1.60
Pittsburgh	Lot 24	2404 Railroad St	15222	96	\$1,450	\$2,100		708	1,007		\$2.05	\$2.09	
Pittsburgh	The Flats at Southside Works	2635 E Carson St	15203	83	\$1,300	\$1,975		714	1,097		\$1.82	\$1.80	
Lawrenceville	Doughboy Square Apts	3431 Butler St	15201	39	\$1,580	\$1,750	\$3,580	903	1,035	2,247	\$1.75	\$1.69	\$1.59
Pittsburgh	The Gateway at Summerset	1876 Parkview Blvd	15217	131	\$1,375	\$1,750		768	1,051		\$1.79	\$1.67	

APPENDIX 2-G. MODERN APARTMENTS IN PITTSBURGH AND APARTMENT LISTINGS IN STUDY AREA													
Community	Project Name	Address	ZIP Code	# of Units	Starting Rents by Type			Units Size in SF			Price per Unit SF		
					One	Two	Three	One	Two	Three	One	Two	Three
Pittsburgh	Locomotive Lofts	4840 Harrison St	15201	34	\$1,450	\$1,700		1,021	1,094		\$1.42	\$1.55	
Pittsburgh	Morgan at North Shore	100 Anderson St	15212	232	\$1,260	\$1,670		609	1,013		\$2.07	\$1.65	
Pittsburgh	Carson Street Commons	2529 E Carson St	15203	270	\$1,300	\$1,615		575	1,027		\$2.26	\$1.57	
Pittsburgh	City Vista	325 Elizabeth Dr	15220	272	\$1,055	\$1,610	\$1,975	600	1,094	1,365	\$1.76	\$1.47	\$1.45
Pittsburgh	Oak Hill Apartments	3078 Terrace St	15213	718	\$1,225	\$1,570	\$1,950	612	881	1,321	\$2.00	\$1.78	\$1.48
Munhall	The Waterfront Apartments	611 E Waterfront Dr	15120	235	\$1,114	\$1,550	\$1,895	583	1,104	1,515	\$1.91	\$1.40	\$1.25
Fox Chapel	Residence at The Docks	501 Riverfront Dr	15238	246	\$1,125	\$1,420	\$2,500	583	1,027	1,515	\$1.93	\$1.38	\$1.65
Pittsburgh	East Liberty Place North	115 N Beatty St	15206	54	\$900	\$1,250		773	943		\$1.16	\$1.33	
Pittsburgh	Crawford Square Apt	510 Protectory Place	15219	348	\$910	\$1,035	\$1,575	675	816	1,205	\$1.35	\$1.27	\$1.31
Source: move.com, apartmentguide.com, rent.com; apartments.com & RKG Associates, Inc.													

Appendix B: Place-Based Planning Indicators

1. Indicators Used in MVA Maps			
Item	Source	Geography	Weight
Median Owner-Occupied Home Value	American Community Survey	Census Block Group	5%
Average Sale Price	Assessor's Data	Parcel; Block Group clip	10%
Housing Vacancy	American Community Survey	Census Block Group	15%
Renter-Occupied Units	American Community Survey	Census Block Group	20%
Foreclosures	Assessor's Data	Parcel; Block Group clip	10%
Commercial Activity	Assessor's Data	Parcel; Block Group clip	15%
Coefficient of Price Variation	Assessor's Data; RKG	Parcel	25%
		SUM	100%

2. Potential Additional Indicators (if data can be obtained in usable formats)*

- Age of housing stock
- Lead paint poisoning
- Building permits (new construction or home improvements)
- Housing inspections
- Code violations
- Frail elder residents
- Asthma incidences
- Family poverty rate
- Proximity to religious organizations
- Proximity to schools
- Proximity to public parks and open space
- Proximity to bus line

*Data will need to be clipped in GIS to census block group boundaries

Appendix C. Study Area Maps

Study Area Analysis Prepared by Michael Baker Corp.