



A home is often a family’s greatest asset and a critical part of the fabric of the community. Housing needs to be safe, affordable, and matched to the needs of the residents. Homes that are inadequate can harbor dangers such as lead based paint and failing mechanical systems. Even units in good repair may not allow for aging residents to remain in their homes as they age.

“In order for communities to function, there must be an adequate supply of housing in proximity to employment, public transportation, and community facilities, such as public schools.” - *American Planning Association Policy Guide on Housing*

The local housing stock is under tremendous pressure. Three major floods in the span of 5 years have damaged hundreds of Broome County homes. Changing flood maps and the rising cost of flood insurance threaten whole neighborhoods. And these threats follow on the complete restructuring of the national housing market as a result of the subprime mortgage crisis that began in 2008.

Housing Units

Broome County, the region and the State all saw substantial increases in the number of housing units from 1970 to the present. Delaware County experienced the greatest increase, over 76%, during this period. This is more than 3 times the Broome County increase.

Total Housing Units from 1970 to 2010: State, Region and Counties						
Area	1970	1980	1990	2000	2010	Percent Increase 1970 - 2010
State	6,299,684	6,867,674	7,227,059	7,679,307	8,108,103	28.7%
Region	218,620	257,371	281,867	294,752	307,071	40.5%
Broome	73,371	81,982	87,969	88,817	90,563	23.4%
Chemung	33,051	36,706	37,290	37,745	38,369	16.1%
Chenango	15,427	18,864	22,164	23,890	24,710	60.2%
Delaware	17,734	22,746	27,361	28,952	31,222	76.1%
Schuyler	6,270	7,560	8,472	9,181	9,455	50.8%
Steuben	34,502	40,520	43,019	46,132	48,875	41.7%
Tioga	14,161	17,987	20,254	21,410	22,203	56.8%
Tompkins	24,104	31,006	35,338	38,625	41,674	72.9%

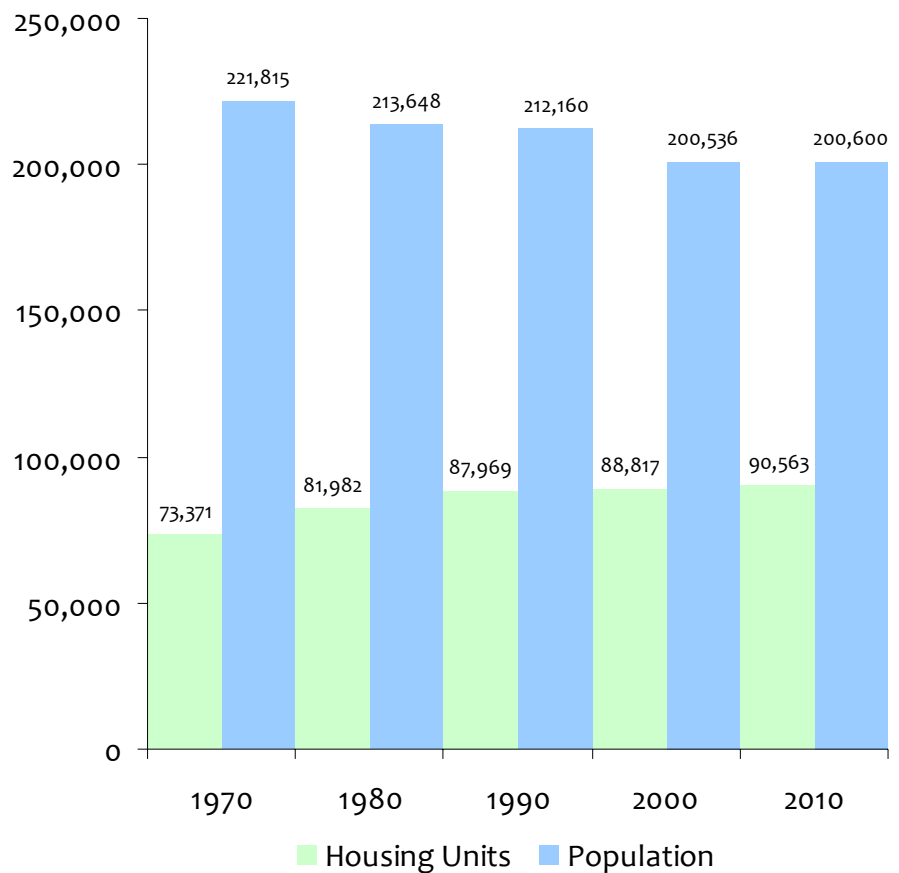
Source: 1970 through 1990 prepared by New York State, Department of Economic Development State Data Center; U.S. Census Bureau: DP-1 Profile of General Demographic Characteristics: 2000, Census 2000 Summary File 1 (SF 1) 100-Percent Data; DP-1 Profile of General Population and Housing Characteristics: 2010, 2010 Demographic Profile Data. Southern Tier East Region Counties and Towns 1940 to 1980. Percentages rounded to the 10th decimal place.



These remarkable increases, however, came despite stagnant population growth, even declines in some counties, over the same period. As shown on this chart, Broome County lost over 21,000 residents, but added over 17,000 housing units from 1970 to 2010.

What accounts for increasing housing units during a period of population decline? There are a number of factors, the most dramatic of which is the rise in the number of households during this period. In 1970, there were just over 69,000 households in Broome County, and today there are over 82,000 households. As we lost 21,000 residents, we gained over 12,800 households. These households, however, are substantially smaller. In 1970, the average household size was 3.1 persons, and by 2010 this had shrunk 25 percent to just over 2.3 persons. As the community aged, and children have left the area, households increased but household size has decreased.

Broome County Trends in Population and Housing Units



Housing Type

At the municipal level, the changes in the number of housing units follows a pattern similar to the population changes. The suburban towns such as the portion of Union outside of the villages of Endicott and Johnson City, Vestal and Chenango added the most housing units, and the rural towns such as Triangle and Lisle increased housing units at the fastest rate.



Total Housing Units from 1970 to 2010: Broome County Municipalities				
Area	1970	2010	Number	Percent Change
Binghamton-C	23,603	23,842	239	1.0%
Barker-T	592	1,114	522	88.2%
Binghamton-T	1,362	1,985	623	45.7%
Chenango-T	3,673	4,857	1,184	32.2%
Colesville-T	1,372	2,302	930	67.8%
Conklin-T	1,626	2,337	711	43.7%
Dickinson-T	1,172	1,396	224	19.1%
Fenton-T	2,154	2,940	786	36.5%
Kirkwood-T	1,735	2,520	785	45.2%
Lisle-T	460	1,044	584	127.0%
Maine-T	1,659	2,223	564	34.0%
Nanticoke-T	297	651	354	119.2%
Sanford-T	687	1,317	630	91.7%
Triangle-T	361	852	491	136.0%
Union-T	8,890	12,892	4,002	45.0%
Vestal-T	7,069	9,432	2,363	33.4%
Windsor-T	1,590	2,524	934	58.7%
Deposit-V (part)	413	422	9	2.2%
Endicott-V	6,444	6,719	275	4.3%
Johnson City-V	6,694	7,443	749	11.2%
Lisle-V	119	141	22	18.5%
Port Dickinson-V	774	782	8	1.0%
Whitney Point-V	305	411	106	34.8%
Windsor-V	356	417	61	17.1%

As the number and location of housing units has changed, so has the nature of these units. In keeping with the increasing suburban and rural nature of the county, we have more units in single family homes and mobile homes than we did in 1970 and fewer in multi-family buildings. There are more than twice as many mobile homes in Broome County now than in 1970.



Housing Units in Structure 1970 to 2010						
Broome County	Single-Family		Multi-Family		Mobile Home	
	No.	Percent	No.	Percent	No.	Percent
1970	42,734	59%	27,764	38%	2,287	3%
2010	56,960	63%	28,704	32%	4,681	5%
Change	14,226	na	940	na	2,394	na

Currently the City of Binghamton has the lowest percentage of single-family units (under 44%). The Town of Binghamton has more than double this percentage, with over 93% of its units in single-family homes. The Town of Nanticoke has the highest percentage of mobile home units (over 38%).

Housing Units in Structure in 2010: Broome County Municipalities							
Area	Total Housing Units	Single-Family		Multi-Family		Mobile Home	
		No.	Percent	No.	Percent	No.	Percent
Broome	90,348	56,960	63.1%	28,704	31.8%	4,681	5.2%
Binghamton-C	24,664	10,800	43.8%	13,795	55.8%	69	0.3%
Barker-T	1,062	812	76.5%	40	3.8%	210	19.8%
Binghamton-T	1,941	1,813	93.4%	115	6.0%	13	0.7%
Chenango-T	4,853	4,028	83.0%	530	11.0%	295	6.1%
Colesville-T	1,881	1,415	75.2%	124	6.6%	342	18.2%
Conklin-T	2,337	1,829	78.3%	217	9.3%	291	12.5%
Dickinson-T	1,787	1,384	77.5%	403	22.5%	0	0.0%
Fenton-T	2,814	1,997	71.0%	185	6.5%	632	22.5%
Kirkwood-T	2,419	1,759	72.7%	553	22.8%	107	4.4%
Lisle-T	1,126	731	65.0%	40	3.6%	355	31.5%
Maine-T	2,162	1,584	73.3%	37	1.7%	541	25.0%
Nanticoke-T	645	377	58.5%	21	3.3%	247	38.3%
Sanford-T	1,707	1,313	76.9%	166	9.7%	228	13.4%
Triangle-T	1,279	834	65.2%	161	12.6%	284	22.2%
Union-T	27,675	16,928	61.2%	10,549	38.1%	198	0.7%
Vestal-T	9,257	7,404	80.0%	1,580	17.1%	273	2.9%
Windsor-T	2,739	1,952	71.3%	188	6.8%	596	21.8%
Deposit-V	941	593	63.0%	330	35.1%	18	1.9%
Endicott-V	7,164	3,086	43.0%	4,031	56.2%	47	0.7%
Johnson City-V	7,887	4,133	52.4%	3754	47.6%	0	0.0%
Lisle-V	135	109	80.7%	11	8.1%	15	11.1%
Port Dickinson-V	653	404	61.9%	249	38.2%	0	0.0%
Whitney Point-V	431	223	51.7%	119	27.5%	89	20.6%
Windsor-V	438	320	73.0%	115	26.2%	0	0.0%

Source: U.S. Census Bureau: DP04 Selected Housing Characteristics: 2006-2010 American Community Survey 5-Year Estimates.



Home Ownership

According to economist Robert Dietz, “Homeownership—attained through prudent lending practices—confers benefits for the homeowner’s family and their surrounding community, including improved health and school performance for children, increased civic engagement and volunteering, reduced crime, and higher lifetime wealth.”

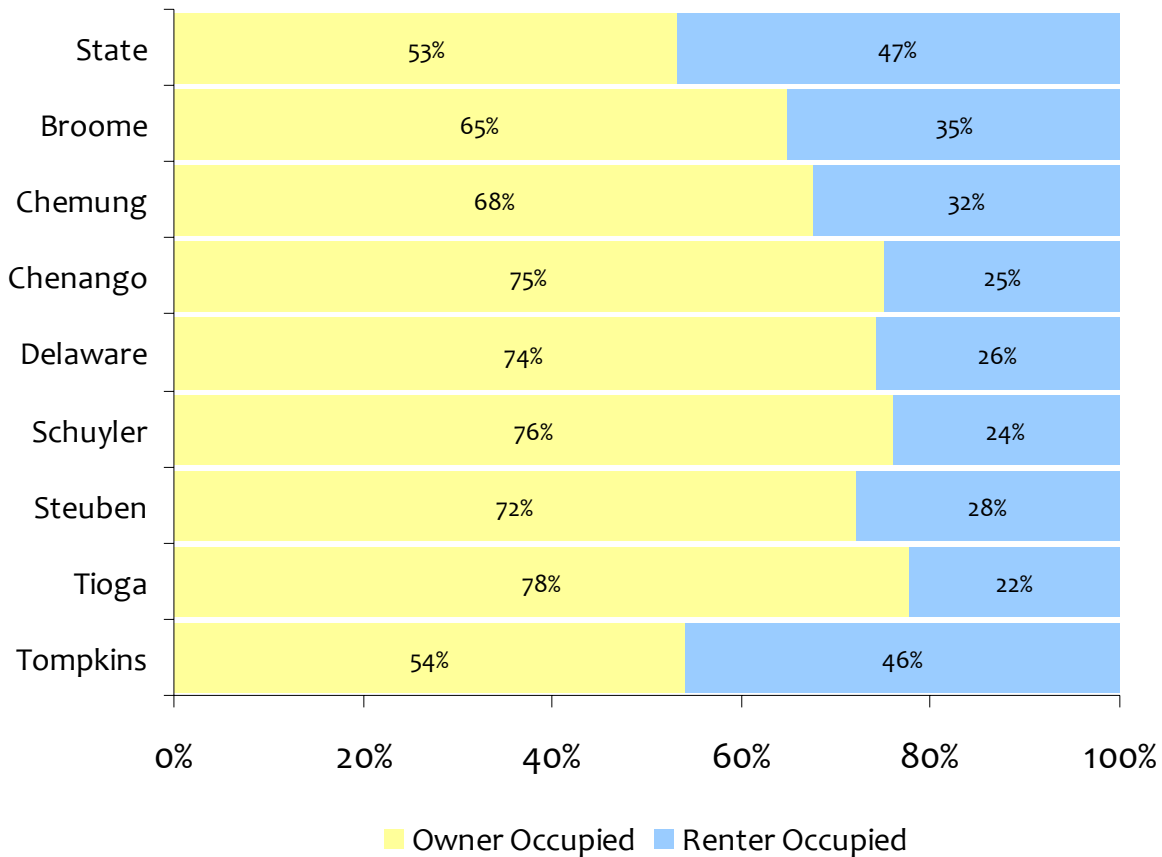
Broome County’s homeownership rate in 2010 (65%) was substantially higher than the statewide average (53%), but far from the highest in the region. Tioga County, at nearly 80%, has the highest rate, and Tompkins County, at 54%, has the lowest.

Within the county, the village of Endicott had the lowest homeownership rate at 42% and the town of Binghamton had the highest at 91%.

Downtown Loft Living

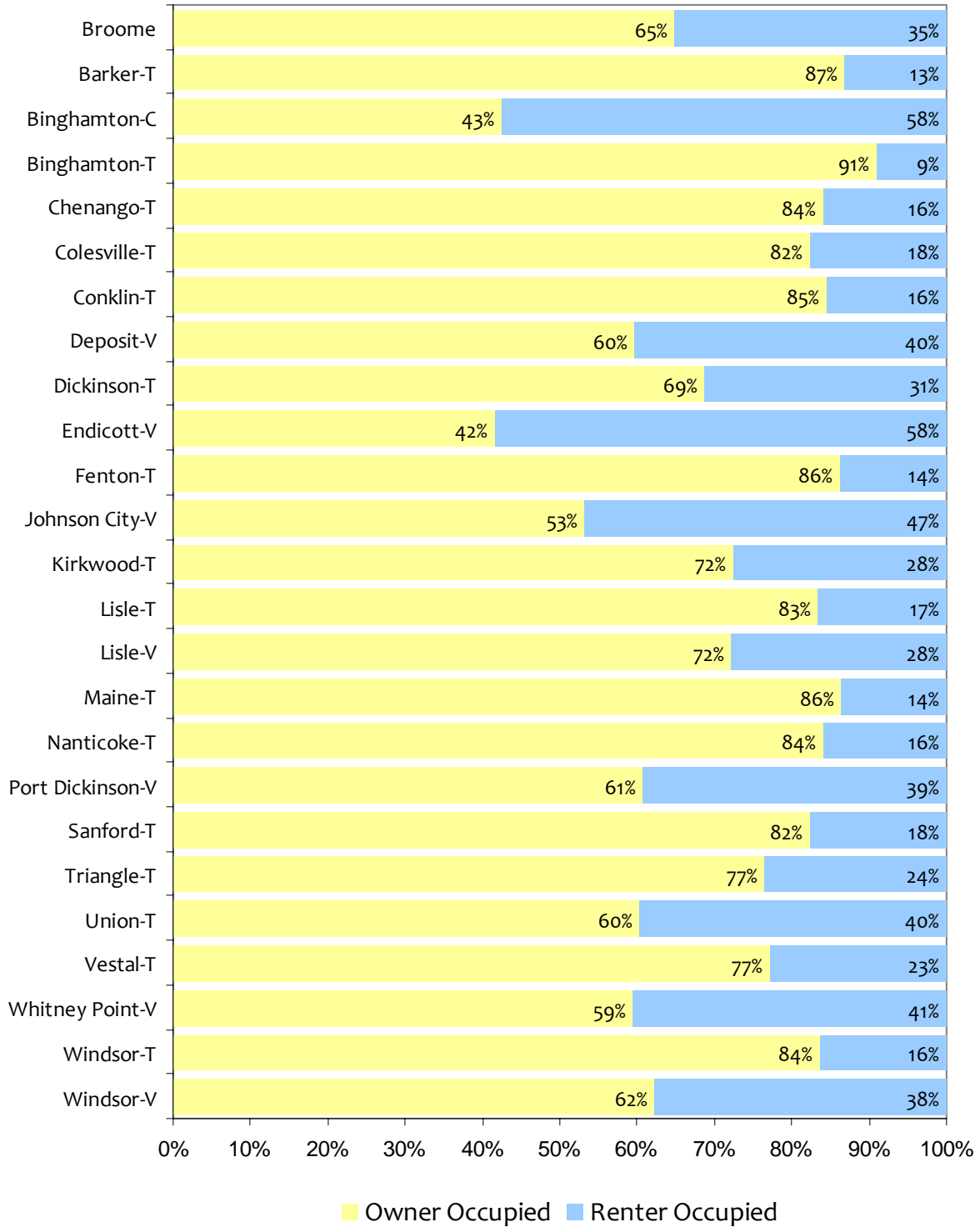
One of the bright spots in the local housing market has been the rehabilitation of upper stories of individual row type buildings in downtown Binghamton to upscale loft apartments. Although not significant in terms of total numbers, the trend shows increasing confidence in the urban core as a place to live.

2010 Owner and Renter Occupied Rates





2010 Owner and Renter Rates

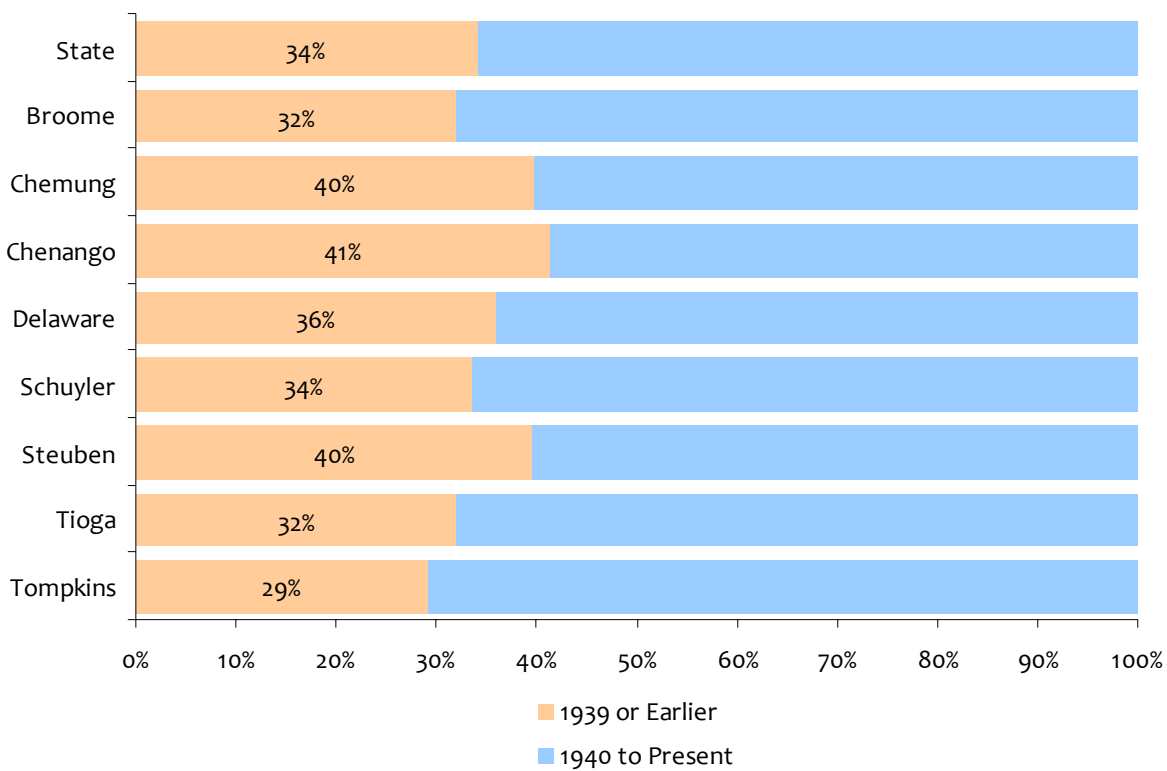




Housing Quality

One means to measure housing quality is the age of the buildings. Older homes tend to have more condition issues due to deferred maintenance and inadequate initial construction. Older homes often have built-in shortcomings such as lack of handicapped accessibility, inadequate wiring, use of lead based paint, asbestos, poor insulation and weatherization, and other issues. The percentage of homes built before 1939 is a generally accepted measure for housing quality, the more pre war homes a community has, the more likely there are quality issues. Broome County, as whole, has fewer homes built before 1939 than that State or most counties in the region. We are tied with Tioga County at 32%. Only Tompkins County at 29% is lower.

Year Residential Structure Built



But the older housing is not evenly distributed throughout the county. The Land Use chapter documents the suburban building boom that took place in the post World War II period. Outmigration to newly constructed homes in the suburban and rural towns left an aging housing stock in the villages and the urban core.

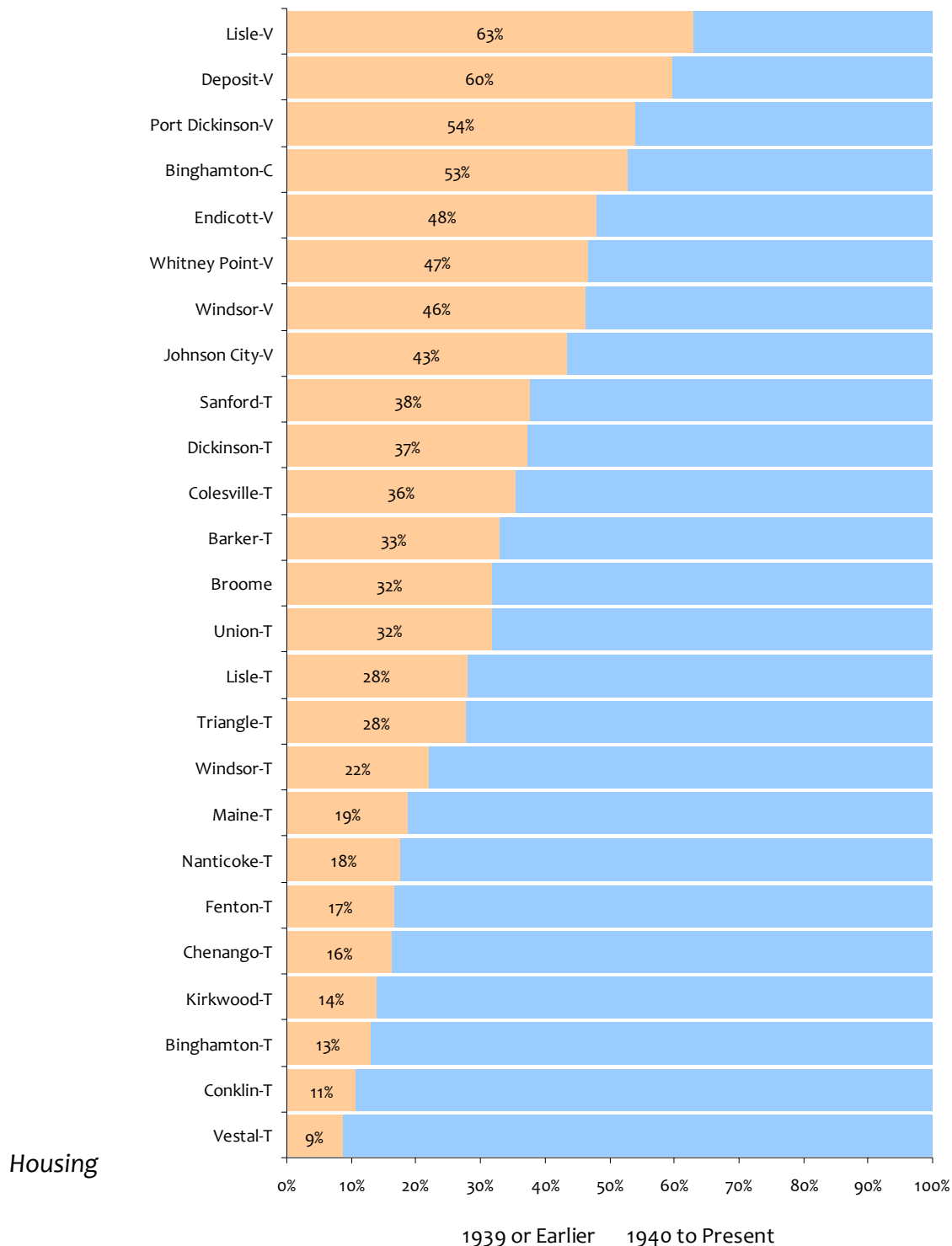


Broome County Comprehensive Plan

Building our Future

Less than 10% of the housing stock in Vestal was built before 1939. The figure for Binghamton is more than 5 times that amount. The percentage of homes built before 1939 is much higher than the statewide average for all of the rural villages, the urban core communities of Binghamton, Endicott and Johnson City, and the towns of Sanford, Dickinson and Colesville.

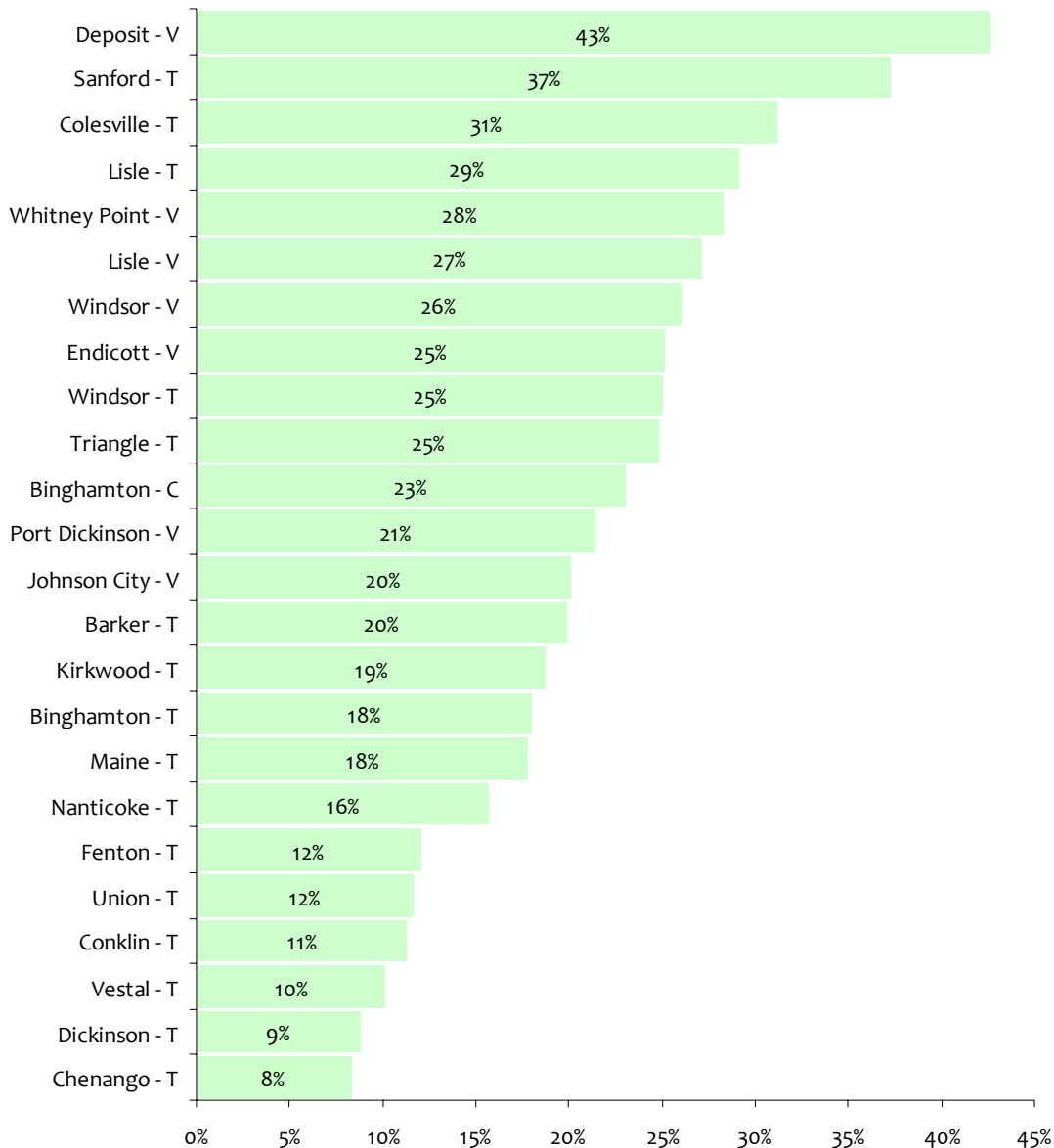
Year Residential Structure Built





A more direct measure of the quality of the housing stock is the judgment made by the local assessors in preparing the property tax roll. They categorize all structures as being in ‘Poor’, ‘Fair’, ‘Normal’, ‘Good’ or ‘Excellent’ condition. The New York State Real Property Assessor’s Manual defines ‘Poor’ as “severely dilapidated, in extreme need of repair and barely habitable” and ‘Fair’ as the “structure shows extant deferred maintenance. The functionality of the house is diminished but usable and in dire need of work.” Using this source, the quality of the housing stock is shown on the following graph:

Residential Structures in Fair or Poor Condition





According to local assessors, the Village of Deposit has the housing stock that is in the poorest condition and the Town of Chenango has the best rated housing. Taken together, housing condition and age of housing, we can identify the communities with the poorest quality housing stock. On both measures, Vestal ranks as having very high quality housing. The villages of Lisle and Deposit score poorly on both scales. The map entitled ‘Residential Building Conditions’ shows the areas with ‘Fair’ or ‘Poor’ housing quality and large concentration of pre-1939 housing.

Housing Values and Rents

Housing costs are generally a household’s greatest expense. Rising or falling housing values and rents, therefore, have a great impact on the lives of residents.

Starting in 2006, housing values nationwide plummeted as a result of the subprime mortgage crisis. This collapse of the housing bubble has been cited as a primary cause of the 2007 to 2009 recession in the US economy. Deeply devalued home prices led to greatly increased foreclosures rates across the country, but mostly concentrated in markets that were previously expanding at the greatest pace.

The New York State Association of Realtors tracks home sale prices for each county. Statewide home sales prices are down 7% from 2008 and Broome County home sales are off less than that amount (4%). But two counties in the region have seen exploding sales prices in the face of the housing crisis. Home prices in Chemung and Steuben counties have gone up over 25% from 2008 to the present. There are a variety of reasons for these increases: improving employment at Corning, Inc., the Horseheads School District is particularly desirable, and some gas industry workers are not finding adequate homes in neighboring Pennsylvania counties.

Historical Median Home Sales Prices						
County	2008	2009	2010	2011	2012	Change from 2008
State	\$ 230,000	\$ 210,000	\$ 215,000	\$ 212,500	\$ 215,000	-7%
Broome	\$ 109,900	\$ 114,447	\$ 105,150	\$ 109,900	\$ 106,000	-4%
Chemung	\$ 85,000	\$ 86,000	\$ 99,900	\$ 105,225	\$ 106,500	25%
Chenango	\$ 96,750	\$ 93,000	\$ 78,440	\$ 85,500	\$ 91,835	-5%
Delaware	\$ 120,500	\$ 113,150	\$ 118,000	\$ 105,000	\$ 120,000	0%
Schuyler	\$ 119,500	\$ 100,000	\$ 127,280	\$ 140,000	\$ 125,000	5%
Steuben	\$ 84,900	\$ 86,900	\$ 91,000	\$ 90,500	\$ 107,000	26%
Tioga	\$ 136,585	\$ 120,250	\$ 125,000	\$ 115,426	\$ 117,000	-14%
Tompkins	\$ 182,500	\$ 167,000	\$ 177,416	\$ 181,850	\$ 180,000	-1%

Source: New York State Association of Realtors



According to the US Census, rental rates in the region are substantially less than the statewide median figure for 2011. Tompkins County rents are far higher than any other county in the region, more than 37% higher than Broome County rents.

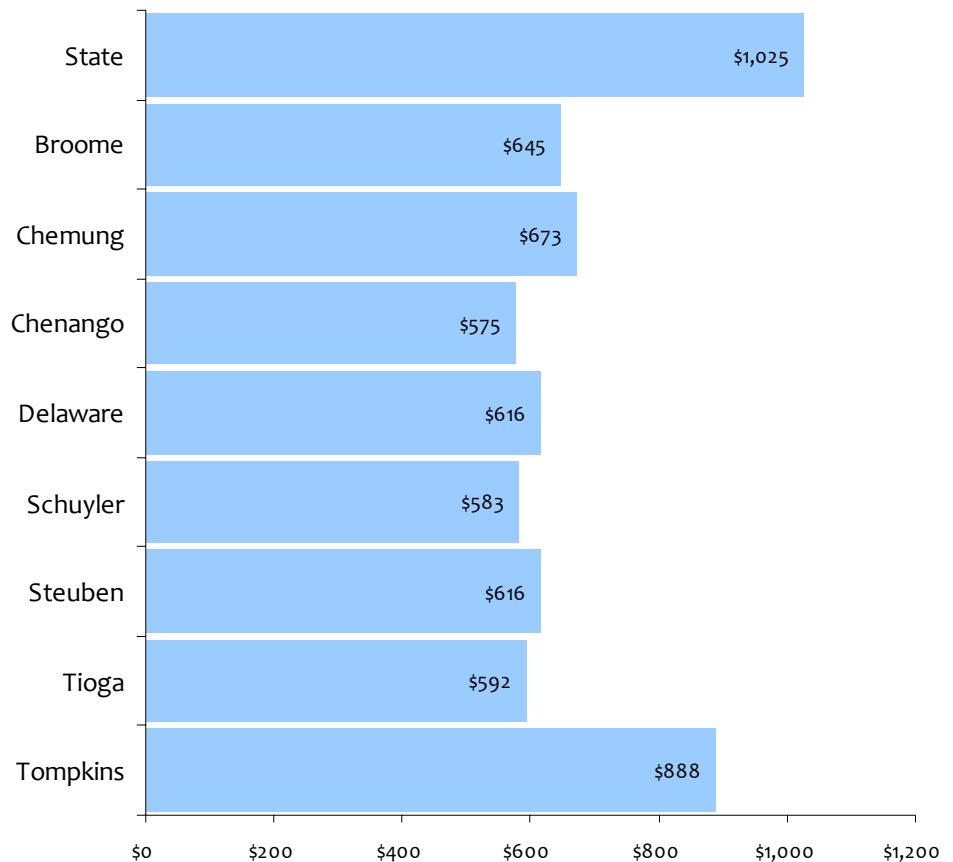
Senior Housing

Broome County is an aging community, and one of the most direct impacts of this is on the housing stock. Older homes, for all their character, were not built with a senior population in mind. The classic ‘E-J Home’ has bedrooms and bath on the second floor, narrow doorways, and the laundry in the basement. And this layout is not suited to an elderly resident with mobility limitations. Add to the inappropriate layout, inadequate insulation, older undersized electric service and aging plumbing, and seniors have a difficult time maintaining their independence. According to the Office for Aging Plan for Services, housing issues were the fourth most frequent reason that older adults and caregivers called their ‘Senior Resource Line’ in 2010.

To enable seniors to age in place, home modifications are often necessary. Financial assistance exists for low income seniors, but with significant waiting lists. For middle income seniors, there is no assistance for making needed repairs and modifications. And for residents in mobile homes, the cost of repairs may exceed the value of the home.

For seniors who are capable of living independently, but no longer wish to maintain a home, there are numerous providers of apartments. According to the Office for the Aging’s ‘Senior

2011 Median Gross Rent for Occupied Units





Apartment Guide’, these are the units and locations of apartments which are targeted for senior living:

Senior Apartment Locations			
Municipality	Units	Name	Location
Binghamton	143	ABC Housing	One Hundred Chenango Place
	20	Carlisle-Binghamton Housing Authority	150 Moeller St
	24	Crandall Hall	2 Crandall St
	32	East Hills Senior Housing	50 East Clapham St
	40	Good Shepherd Fairview*	80 Fairview Ave
	37	Hamilton House	16 St. John Ave
	12	Henry Apartments	94 Henry St
	13	Historic Dightsville Gateway Apartments	235-256 Front St
	45	Lincoln Court - Metro Interfaith	21 New St
	150	Metro Plaza Apartments	110 Chenango Place
	222	North Shore Towers & Village	14&24 Isbell St & 45 Exchange St
	34	Saratoga Apartments	Felters Rd
	13	Schoolhouse Apartments	144-146 Clinton
	32	Stratmill Apartments	104 Victoria Dr
	8	United Methodist Homes - Manor House	3 Manor Dr
22	United Methodist Homes - St. Louise Manor*	861 Front St	
147	Woodburn Court I	21-23 Exchange St	
Union	154	Good Shepherd Village at Endwell*	32 Village Drive
	33	Ideal Senior Living Center*	508 High Ave
	102	Marian Apartments	701 Hooper Rd
	57	Nichols Notch-Sepp Group	301-401 Hayes Ave
	60	Harry L. Apartments - Sepp Group	235 Harry L. Drive
	125	Reynolds Pointe	1035 Anna Maria Drive
	12	Riverview Apartments for Seniors	270 Riverside Dr
	181	United Methodist Homes - Hilltop*	286 Deyo Road
49	Wells Apartments - Sepp Group	299 Floral Ave	
Kirkwood	32	Valley View Apartments	26 South Woodhill Ave
Conklin	24	Conklin Senior Housing	1095 Conklin Rd
Vestal	126	The Hearth at Castle Gardens	1715 Castle Gardens Rd
	24	Vestal Pines Apartments	2030 NYS Route 26
Whitney Point	24	Whitney Point Apartments - Sepp Group	10 Strongs Pl
Windsor	24	Windsor Woods - Sepp Group	49 Grove St
Deposit	81	Meadow Park Apartments	85 Fair St
Colesville	24	Norma Gardens	NYS Route 79

*This facility offers a continuum of care that includes independent living, adult care and assisted living.

The largest concentrations of units is in Binghamton, with 994 senior living apartments, and Union (including Endicott, and Johnson City) with a combined total of 773 units. All of these facilities having a waiting list for new residents.



Broome County Comprehensive Plan *Building our Future*

Of these facilities, five offer a continuum of care from fully independent living, to adult care and finally assisted living. Three other facilities in Broome County, St. Louise Manor and the Garden House both in Binghamton and Woodland Manor in Vestal, offer adult care or assisted living without the option of independent living. Adult care consists staff members cuing and reminding seniors to take medicines and participate in activities and assisted living means one staff person physically aids a resident with daily care such as dressing and bathing.

For seniors who need more intense care than assisted living provides, there is the option of a residential health care facility (nursing home). These facilities also provide short term rehabilitation services for residents recovering from serious injuries or major surgery. There are 10 residential health care facilities in Broome County, located in three towns: Binghamton, Union (including Endicott and Johnson City) and Vestal. Broome County operates Willow Point Nursing Home in Vestal. According to figures from the New York State Department of Health, the Residential Health Care Facilities in Broome County are as follows:

Residential Health Care Facilities (Nursing Homes)			
Municipality	Facility Name	Location	Number of Beds
Binghamton	Bridgewater Center for Rehabilitation & Nursing	159-163 Front Street	381
	Elizabeth Church Manor	863 Front St	120
	Good Shepherd - Fairview Home	80 Fairview	54
Union	Good Shepherd Village at Endwell	14 Village Drive	32
	Absolut Center For Nursing and Rehabilitation	301 Nantucket Drive	160
	Ideal Senior Living Center	601 High St	150
	James G Johnston Memorial Nursing Home	285 Deyo Hill Rd	120
	Susquehanna Nursing Home and Rehabilitation Center	282 Riverside Dr	160
Vestal	Vestal Park Rehabilitation and Nursing Center	Being Relocated	180
	Willow Point Nursing Home	3700 Old Vestal Rd	303

The Vestal Park Rehabilitation and Nursing Center on Vestal Road in Vestal was devastated by the flood of 2011. The facility’s owners have chosen to rebuild at another site in Vestal. While the new building is constructed, Vestal Park operates from a leased wing of Willow Point Nursing Home in Vestal.



Residential Health Care Facility (Nursing Home) Bed Needs				
Area	2016 Bed Needs	Current Beds	Surplus Beds	Unmet Bed Needs
State	121,349	113,635		7,714
Broome	1,380	1,648	268	
Chemung	551	736	185	
Chenango	487	564	77	
Delaware	511	362		149
Schuyler	139	120		19
Steuben	691	691		0
Tioga	352	277		75
Tompkins	478	395		83

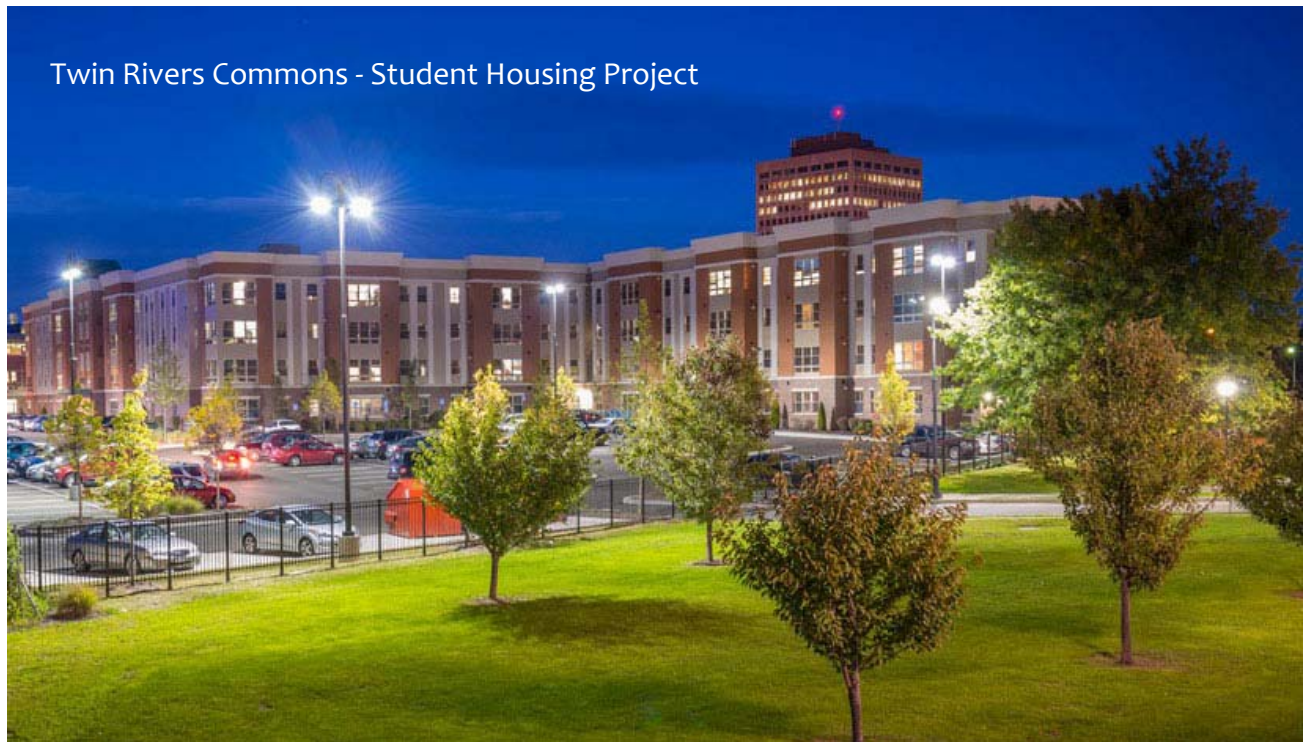
The New York State Department of Health forecasts the number of residential care beds that are needed for each county. For the 2016 planning year, their projections show Broome County as having a surplus of 268 beds. Chemung and Chenango Counties also have a surplus of beds. Delaware County has the greatest unmet need (149 beds).

Student Housing

Historically, student housing in Broome County meant on-campus dormitories at Binghamton University and conversion of older homes, primarily on the Westside of Binghamton, to student rentals. As enrollment at Binghamton University increased, the demand for student housing has outgrown both of these traditional mechanisms. The result is a dramatic growth in large scale private sector development of student oriented housing projects. Examples of this boom in new student housing projects include:

- Conversion of the former Marine Midland building in downtown Binghamton to ‘luxury’ student apartments
- Construction of Twin Rivers Commons along the Chenango River in downtown Binghamton
- Conversion of C. Fred Johnson School in Johnson City to the Campus Square
- Construction of University Plaza Apartments as part of a mixed use development in Vestal

These facilities are characterized by quality amenities aimed at the student market. These include indoor basketball court, 24-hour gym, computer lab, tanning salon, media and gaming rooms and advanced security systems.



Twin Rivers Commons - Student Housing Project

In addition to these completed facilities, Broome County College recently announced plans to construct a 300-bed on-site dorm for their students. This is the first dormitory proposed for the college.

Marcellus Shale Drilling

According to a study prepared by the *Center for the Study of Community and the Economy at Lycoming College*, the exploration and extraction of natural gas from the Marcellus shale through high volume hydraulic fracturing led to dramatic changes in the housing market in Pennsylvania in the counties where drilling was most prevalent. We can learn from their experience and prepare for potential impacts in Broome County should New York State approve high volume hydraulic fracturing here.

From a housing perspective, development of the Marcellus shale in Pennsylvania proceeded in two general phases. Once leases are signed with property owners and drilling units are established, the gas industry moves into development mode. This brings in a wave of transitory workers to construct gas gathering lines and well sites. A final phase occurs when the industry matures in an area, and the gas companies establish regional offices and bring in a set of workers with more diverse housing needs. As an example of this, Chesapeake's Towanda office had 1,400 employees in 2011, and they expected to grow to 4,000 jobs there. Based on the



report entitled Marcellus Natural Gas Development's Effect on Housing in Pennsylvania prepared by the *Center for the Study of Community and the Economy at Lycoming College* some of the issues experienced in Pennsylvania include:

- The housing needs of first phase gas worker are initially met by hotels, 'man-camps', campgrounds, and local apartments. In rural areas without adequate zoning protection, this may result in inappropriate development without adequate supporting infrastructure.
- In university towns, some student housing has been converted to housing for gas workers.
- The upsurge in demand for rental housing has boosted rents, and this has made it difficult for seniors, the disabled, the poor and the working poor to secure adequate housing.
- Local housing developers and lenders were reluctant to pursue housing development for gas workers due to concerns that the industry would not last in the area more than a few years. However, gas industry representatives see development of Marcellus shale lasting 30 or so years.
- There was a gap between the expectations of second-phase gas workers and the local housing market. Middle and upper income gas employees relocating from the south and west were disappointed by the aging housing stock in Pennsylvania.
- For second wave workers with a fixed work site, they tend to want to live within a 30 minute commute of their office. This leads to the highest demand in the areas with the densest commercial and residential development. The greatest demand among this group was for homes in the \$125,000 to \$250,000 price range that are in move-in condition.
- Rehabilitation of older homes to meet the housing needs of both sectors of the gas industry was occurring, but it was not keeping pace with demand.
- Rural counties faced the greatest conflicts. Water and sewer infrastructure was not adequate to handle the influx of new residents in these areas. In addition, the rural counties of Pennsylvania lack the development community and non-profit safety net to adapt to the housing demands of the gas industry.
- Increased rental housing demand has led to some interest in brownfield redevelopment.
- Developers in Pennsylvania did not find a lack of skilled construction workers.
- The fast initial pace of Marcellus shale development in Pennsylvania led to much of the difficulties of the housing market. Landlords, developers, lenders and the marketplace needed time to adapt.



Broome County may be better suited to adapt to the changes brought by Marcellus shale development than the more rural Pennsylvania counties. Here there is a mature development community and a broad non-profit housing sector which is missing in the more rural areas of Pennsylvania. As new student housing comes online, especially in Vestal and downtown Binghamton, there have been concerns expressed about declining demand for existing student rentals. Gas workers seeking rental housing may fill that potential gap.

Flooding Impacts on Housing

Broome County has been subject to a series of devastating floods, and these have had a major impact on the housing inventory. The two most significant events were river floods in 2006 and again in 2011. According to code enforcement officials, these floods caused the following damages to residential structures:

Flood Damage to Residential Structures		
Level of Damage	Residential Structures Impacted	
	2006	2011
Minor	576	3,876
Moderate	444	2,775
Major	384	2,367
Destroyed	36	229

The primary response to protect the housing stock from flooding is participation at the municipal level in the FEMA funded ‘buyout’ program. Over 300 homes are proposed for purchase and demolition through the current round of this program, and New York State has proposed making more funding available for buyouts. A map of the FEMA funded buyouts is part of the [Land Use](#) chapter.

In 2012, Congress revamped the National Flood Insurance Program to make it self-sustaining. Before Hurricane Katrina, revenue from flood insurance premiums was enough to pay for the loss claims that were made. But after Katrina, and a series of devastating storms including Superstorm Sandy, the National Flood Insurance Program is \$24 billion in debt. The 2012 flood insurance reform eliminates subsidized rates on many flood insurance policies, allows for greater premium increases, and increases the fines on banks for compliance. The result will be dramatically higher flood insurance rates until the program revenues are high enough cover anticipated losses and the debt is retired.

Flooding is discussed further in the [Land Use](#) and [Water Resources](#) chapters