

Market Analysis

Greene County, Pennsylvania Workforce Analysis and Housing Needs Assessment

Prepared For

Robbie Matesic
Redevelopment Authority of the
County of Greene
49 South Washington Street
Waynesburg, Pennsylvania 15370

Effective Date

August 10, 2011

Job Reference Number

11-222 PB



155 E. Columbus Street, Suite 220
Pickerington, Ohio 43147
Phone: (614) 833-9300
Bowennational.com

TABLE OF CONTENTS

- I. Executive Summary
 - II. County Overview
 - III. Stakeholder Interviews Overview
 - IV. Employer/Employee Survey Overview
 - V. Employment & Workforce Analysis
 - VI. Demographic Statistics
 - VII. Rental Housing Analysis (Supply & Demand)
 - VIII. For-Sale Housing Analysis (Supply & Demand)
 - IX. Senior Residential Care Analysis (Supply & Demand)
 - X. Case Studies – Boom/Bust Markets
 - XI. Qualifications
- Addendum A – Field Surveys of Rental Housing
- Addendum B – Field Survey of For-Sale Housing
- Addendum C – Field Survey of Senior Facilities
- Addendum D – Sources
- Addendum E – Employer Surveys
- Addendum F – Employee Surveys

INTRODUCTION

A. PURPOSE

Greene County Department of Economic Development (DED) retained Bowen National Research in April, 2011 for the purpose of determining the potential impact of the rapidly growing Energy Extraction Industry (EEI) on Greene County's housing market. Specifically, the primary purpose of the study is to quantify the degree to which the Energy Extraction Industry's job growth has impacted the demand for housing and to determine future housing needs in the county.

The Energy Extraction Industry, actively seeking Marcellus Shale natural gas and Pittsburgh Seam coal, was significantly increasing its workforce size, while Greene County's housing markets appeared static. While numerous studies have been conducted and published analyzing the economic impact and workforce needs of the Energy Extraction Industry as it quickly grows within Pennsylvania, researchers have not investigated the Energy Extraction Industry's impact on a specific county's housing market.

With housing pressures looming and the desire to capture new EEI jobs mounting, Greene County officials realized that they needed to understand the relationship between employment growth and housing needs. As signs of a growing Energy Extraction Industry materialize within the county, various anecdotal accounts and estimates have been voiced locally regarding numbers of new jobs, increased homelessness, availability and suitability of housing, stress on infrastructure, and adequacy of community services.

In the absence of verifiable and supportable data, Greene County Department of Economic Development engaged Bowen National Research to comprehensively assess the current and future impact of the Energy Extraction Industry's growth on Greene County's housing market. Clearly, inadequate housing could discourage, delay, or greatly inhibit job growth within the county. Toward that end, this report intends to:

- Provide an overview of present-day Greene County.
- Research similar counties across the nation that are experiencing or have experienced rapid growth impacts by the Energy Extraction Industry, and document actual or anticipated outcomes.
- Compile stakeholder perceptions of Energy Extraction Industry's impact on Greene County and its housing market.

- Ascertain employer and employee housing needs and preferences within Greene County through surveying.
- Determine current condition and supply of all major housing components within Greene County (for-sale/ownership, long-term rental, short-term rental, and senior living).
- Establish baseline employment/household numbers for Year 2010 and projected employment/household numbers for Year 2015 within Greene County.
- Calculate housing demand for all major housing components within Greene County for Year 2105, and compare results to current supply.

By accomplishing the study's objectives, area stakeholders, local public officials, EEI employers, and private housing developers can: (1) better understand Greene County's evolving housing market, (2) more accurately establish Greene County's future housing policies, and (3) enhance and/or expand Greene County's housing market to attract future EEI workers.

B. METHODOLOGIES

The following methods were used by Bowen National Research to collect and analyze data for this study:

Study Area Delineation

The geographic scope of this study is Greene County, Pennsylvania. Since there are few large concentrations of people within the county, submarkets were not identified or analyzed. All results and conclusions are presented on a countywide basis. References are made to the adjoining Pennsylvania counties of Washington and Fayette, and to the neighboring cities of Washington, Pennsylvania and Morgantown, West Virginia.

Projected Employment Growth (2015)

To fully understand the Energy Extraction Industry's impact on Greene County's housing market, Bowen National Research had to project new job growth within the county by 2015, and then convert these new jobs into new households for calculating housing demand. Employment growth in Greene County by 2015 will take three forms: (1) primary gas jobs, (2) primary coal jobs, and (3) secondary support jobs. Projection of primary gas jobs relies on current employment data from the Pennsylvania Department of Labor & Industry and projected gas well and workforce data from the Marcellus Shale Education & Training Center. Projection of primary coal jobs comes from new employment announcements in

newspapers and the use of an ancillary job multiplier provided by the Pennsylvania Department of Labor & Industry. Finally, projection of secondary support jobs uses an aggregated multiplier from three sources that is applied to the total number of new primary jobs (gas and coal).

Demographic Information

Demographic data for population, households, housing, crime, and employment was secured from ESRI, Inc., the 1990 and 2000 United States Census, Applied Geographic Solutions, U.S. Department of Commerce, and Department of Labor, Bureau of Labor Statistics. This data has been used in its primary form and by Bowen National Research for secondary calculations. All sources are referenced throughout the report and in Addendum D of this report.

Housing Component Definitions

This study is concerned with three major housing components: (1) for-sale/ownership, (2) rental (both long-term and short-term), and (3) senior living. For-sale/ownership housing includes single-family homes and condominiums. Long-term rentals include single-family homes and multifamily apartments (2+ units per building and “age-restricted” independent living senior communities). Short-term rentals include mobile homes, RVs, motels, hotels, bed & breakfasts, inns, campgrounds and boarding houses. Senior living facilities include congregate care (age-restricted independent living with supportive services), personal care/assisted living, and skilled nursing homes.

Housing Supply Documentation

Between May 9, 2011 and May 18, 2011, a field analyst from Bowen National Research traveled throughout Greene County conducting research on the housing properties identified in this study (except for-sale homes; see below). Additional information was secured via phone by Bowen National Research in-office staff. The following data was collected on each property:

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

* Quality ratings used in this study were established after a careful examination of the housing properties and their surrounding neighborhoods. Factors influencing the ratings include curb appeal, unit and property amenities, age, interior and exterior building conditions, parking arrangements, architectural design, landscaping and grounds, management presence, accessibility, visibility, signage, public infrastructure, condition of adjacent properties, neighborhood interviews, and area services. The rating scale used is as follows:

A = Excellent / B = Good / C = Average / D = Fair / F = Poor

Information regarding for-sale single-family homes was collected by Bowen National Research in-office staff during the month of April, 2011. Home listings were gleaned from realtor.com, pittsburghmoves.com, trulia.com (real estate websites) and supplemental home data was secured from the GIS Coordinator within the Greene County Department of Economic Development. Thus, for-sale single-family home information represents a snapshot as of May, 2011.

Surveys

To gain perspective and insight into the housing needs of Greene County employers and their current/future employees, the following two surveys were conducted for this study:

- **Prospective Employee Survey:** On June 17, 2011, Bowen National Research staff conducted an intercept survey at the Tri-County Employment Expo in Waynesburg, Pennsylvania. Of the 931 people attending, 220 job seekers agreed to complete a 12-question survey that elicited personal, employment, and housing information.
- **Employer Survey:** Between July 29, 2011 and August 15, 2011, Bowen National Research staff conducted a 28-question phone survey of Greene County employers. Of the 50 identified employers, 17 participated in the survey, though not all respondents answered all questions. Questions were structured to elicit business, employment, and housing information.

Case Studies

Because of the unique dynamics of the relationship between Energy Extraction Industry (EEI) boom-cycle job growth and housing demand, we case-studied other communities in the United States that experienced various impacts from EEI boom-cycles. After searching communities across the nation that have been impacted by a rapidly growing Energy Extraction Industry, three counties emerged as excellent candidates for case study research. These include Bradford County, Pennsylvania, Wise County, Texas, and Sublette County, Wyoming. All of these counties are rural in nature, have similar demographic characteristics, and have experienced similar phases of the boom-bust EEI cycle. Through articles,

research reports, phone interviews, and Internet research (no personal visits), Bowen National Research staff compiled a case study for each county that covers the following topics: (1) community background/overview, (2) EEI employment/household growth, (3) EEI impacts on housing, (4) local actions taken, (5) lessons learned, (6) unresolved issues, and (7) current situation. These case studies provide insight into the possible future scenarios for Greene County.

Stakeholder Interviews

In an effort to gain local perspectives and insights as to how Greene County has been and could be affected by the Energy Extraction Industry's actual and anticipated job growth, approximately two dozen phone interviews were conducted with Greene County stakeholders for this study. These interviews afforded participants an opportunity to voice their opinions and provide anecdotal insights about the study's subject matter. Representatives from the following groups were interviewed between May 5, 2011 and August 10, 2011 using a list of pre-determined questions and discussion topics:

- Education (public school and university staff); six interviews
- Government (public officials); five interviews
- Housing (realtors, property managers, and housing agencies); six interviews
- Research (researchers and experts); two interviews
- Employment (training centers, employment agencies and chambers of commerce); six interviews

Individual names and businesses have not been disclosed in order to protect the confidentiality of participants and encourage their candor.

Housing Demand

Based on the demographic data for both 2010 and 2015, and taking into consideration the housing data from our field survey of area housing alternatives, we are able to project the potential number of *new* units the Greene County market can support.

- Rental Housing (Long-term) – We included renter household growth, the number of units required for a balanced market, and the need for replacement housing as the demand components for new rental housing units. As part of this analysis, we accounted for vacancies reported among all rental alternatives. We concluded by providing the number of units that the market can support by three different income segments (Federally-subsidized, Tax Credit, and market-rate housing).
- Rental Housing (Short-term) – We included the projected new *temporary* households generated from the Energy Extraction Industry by 2015 as the primary demand component for short-term rental housing. We took into consideration other short-term housing alternatives already available in the market.
- Rental Housing for Special Needs Populations (Homeless) – We presented and evaluated data that identified the number of individuals and family households that are classified as “homeless”. We considered the supply, if any, of homeless housing alternatives offered in the market.
- For-Sale Housing – We considered potential demand from new owner-occupied household growth and need for replacement housing in our estimates for new for-sale housing. We deducted the estimated number of available for-sale housing to yield a net support base of potential for-sale housing. Demand estimates were provided for three price point stratifications (less than \$140,000, \$140,000 to \$199,999, and \$200,000 and higher).
- Senior Living Facilities – We calculated the number of senior households that would require assistance with at least three Activities with Daily Living (ADLs). Income and assets of seniors were considered in our demand estimates for senior living facilities (i.e. personal care homes and memory care units/beds). The existing supply of senior care facilities was considered in our demand estimates.

C. REPORT LIMITATIONS

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

It is not the intent of this report to make recommendations for future actions. This study is limited to an assessment of employment and housing within Greene County, Pennsylvania, and the Energy Extraction Industry's impact on both.

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

I. EXECUTIVE SUMMARY

The purpose of this study is to quantify the degree to which the projected Energy Extraction Industry's (EEI) job growth may impact future housing needs in Greene County, Pennsylvania.

CONCLUSIONS:

Projected Energy Extraction Industry Job Growth

Based on our employer and prospective employee surveys, case studies of other communities impacted by the energy extraction industry, Pennsylvania Department of Labor statistics, permitted and projected well drilling activity, and state and regional EEI job growth studies, we have projected the *potential* job growth for Greene County by the year 2015, which is summarized in the following table.

Greene County, Pennsylvania Projected New Jobs by Source & Duration Type (2015)		
Source Type / Calculation	Permanent FTE Jobs	Temporary FTE Jobs
Projected New Primary Jobs by Duration	1,490	678
Plus Projected New Secondary Jobs	653	0
Equals Total Projected New Jobs by Duration	2,143	678
Share by Duration	76.0%	24.0%
Total Projected New Jobs (2015)	2,821	

FTE – Full-time Equivalent

It is important to understand that many variables will affect the actual EEI job growth that will occur in Greene County including such factors as the actual number of wells drilled, gas pricing, total investments made by the EEI, and the health of the state and national economies. As such, our job growth projections assume the projected well activity will materialize, gas prices will not fall below current levels, and the state and national economies will not experience another significant recession.

Not all future Greene County workers will need or choose to live in Greene County. Based on a variety of primary and secondary sources, it was determined that approximately 30% of all new Greene County workers by 2015 could potentially move into Greene County from beyond its borders. When the number of potential new jobs in Greene County by 2015 (2,821) is multiplied by the aggregated 30% relocation (or new resident) share, **up to 846 new workers could seek living arrangements within Greene County by 2015.** Of these 846 potential new workers, 643 would likely have “permanent” type jobs (long-term residency for more than a year), while 203 would have “temporary” type jobs (short-term residency for less than a year). These new potential workers represent future potential residents of Greene County. As a result, we have accounted for these potential residents in our demographic projections for 2015, which are illustrated in Section VI of this report.

Projected Housing Needs by 2015

We identified, surveyed and analyzed the most common alternatives offered within the continuum of housing in Greene County. These included rental housing (both short-term and long-term alternatives), for-sale housing, and senior living facilities (i.e. personal care homes, nursing homes, etc.). With the exception of the nursing care facilities market segment, which has some vacancies, and the low-end (under \$140,000 price point) for-sale market, which has a large surplus of available product, the overall housing market is performing well. Details of the housing stock are included in Sections VII through IX of this report.

Based in part on the projected EEI job growth and the overall demographic growth trends, we have projected potential county-wide demand for each of the housing segments studied in this report. The methodologies incorporated for each housing segment are included in Sections VII through IX of this report. The following tables summarize the potential number of units (or number of beds in the case of the senior living facilities) the Greene County market will require by 2015.

Long-Term Rental Housing Demand Estimates Summary		
Housing Program Type (Income Segment)	Senior Units	Family Units
Total Net Demand For Subsidized Rental Units (< \$15,000)	~35	~5
Total Net Demand For Tax Credit Rental Units (\$15,000-\$37,499)	~50	~90
Total Net Demand For Market-Rate Rental Units (\$37,500+)	~150	~50

Short-Term Rental Housing Demand Estimates Summary	
Housing Segment	Short-Term Units
Total Net Demand Short-Term Rental Units	~160-200

Special Needs (Homeless) Rental Housing Demand Estimates Summary		
Special Needs Group	Units for Individuals	Units for Families
Net Demand For Rental Housing Units For Homeless	~10	~10

For-Sale Housing Demand Estimates Summary	
Housing Product Type (Income Segment)	For-Sale Units
Total Net Demand For Low-end/Entry Level Units (< \$140,000)	0
Total Net Demand For Moderate Priced Units (\$140,000-\$199,999)	~40
Total Net Demand For High-End Units (\$200,000+)	~50

Senior Living Facilities Housing Demand Estimates Summary	
Facility Type Segment	Senior-Living Units
Personal Care Home/Assisted-Living Facility Units/Beds	~40
Personal Care Home/Memory Care Facility Units/Beds	~20
Nursing Home Units/Beds	0

Ultimately, the actual number of units that can be supported in any single housing segment will be dependant upon a variety of factors including site location, rents/prices, design, amenities, services, unit types, features, and quality of the proposed project(s). The estimates cited above represent the approximate number of units that can be supported, assuming the designed product is marketable.

Key Housing Findings

The following is a summary of key housing findings from our comprehensive analysis.

1. **Housing Market Indicators** – Based on our research of Greene County, the market is showing signs that it is in the initial stages of a stressed housing market, but that it is not exhibiting indicators of a full stressed market. Both sets of indicators are listed below:
 - a. Initial Stress Indicators (Currently Exhibited in Greene County)
 - i. High occupancy rates in most housing components
 - ii. Rapid escalation of homelessness
 - iii. New lodging and RV parks planned
 - iv. HUD Section 8 vouchers not being accepted
 - v. Increased truck traffic/congestion
 - vi. Employers providing transportation and housing allowances to workers
 - b. Full Stress Indicators (Currently Not Exhibited in Greene County)
 - i. Rents, lodging rates, and for-sale housing price escalating at unusually high rates
 - ii. Long waiting lists maintained by property management
 - iii. New housing projects under construction
 - iv. Few for-sale homes available on the market
 - v. Roadways in significant disrepair
 - vi. Inadequate public services

While Greene County is currently showing signs of being in an *initial stress market*, the projected job and household growth will likely lead to a *full stress market*, unless adequate housing, community services and infrastructure are developed by 2015.

2. **Location Considerations** - A variety of factors influence the development of and support for additional housing. These include such things as the availability of buildable land, proximity to community services and jobs, availability of public utilities, zoning and building regulations, site access and visibility, and neighborhood desirability (i.e. aesthetic appeal, crime risk, adjoining land uses, quality of schools, etc.). Based on our on-site research, as well as on the stakeholder interviews and employee/employer surveys we completed, the following communities appear to be the most likely to support the development of new residential units:
 - a. Waynesburg/Franklin Township
 - b. Carmichaels/Cumberland Township
 - c. Jefferson/Jefferson Township

The preceding communities appear to have a good basis of community services, infrastructure, households/population, and other prerequisites to support successful residential development, though additional services and infrastructure may need to be developed to supplement additional residential development. Most other areas of the county have limited support potential.

3. **Secondary Market Influences** – According to our stakeholder interviews, employer and employee surveys, and case studies of other EEI influenced markets, a market’s proximity to secondary markets with abundant housing alternatives and community services impacts the housing demand in the primary market. Greene County’s proximity to the following areas will likely diminish, to some degree, the impact of EEI job growth in the county:
 - a. Washington, PA (25 miles north)
 - b. Morgantown, WV (26 miles southeast)
 - c. Southpointe/Canonsburg, PA (35 miles north)
 - d. Pittsburgh, PA (52 miles north)

It was determined that many current (and potential) workers are commuting to Greene County from Washington, Pennsylvania and Morgantown, West Virginia, while corporate/regional offices related to the EEI are located in the Southpointe business park in Canonsburg, Pennsylvania and in the Greater Pittsburgh area. As such, Greene County will likely not experience the full impact of EEI job growth to the degree to which other, more remote and isolated communities experience. It will be important that Greene County offer adequate community services (i.e. schools, shopping, parks, entertainment, etc.) to attract potential residents and workers to the county.

4. **Impediments to Housing Development** - While Greene County is expected to have a growing base of potential support for new residential units, the county faces several impediments to development that should be addressed to enable the county to enhance its residential development potential. These impediments include the following:
 - a. Limited availability of public utility systems
 - b. Limited and stressed roadway system
 - c. Lack of community services outside county seat (Waynesburg)
 - d. Under performing schools
 - e. Zoning regulations not in sync with future housing needs

Improvements to infrastructure, changes in public policy, and enhancements to quality of life issues will increase the county's appeal to prospective developers, and ultimately to prospective residents.

RECOMMENDATIONS:

Housing markets that experience rapid EEI job growth and corresponding household growth are often faced with short-term challenges, such as housing those moving into the area during the initial expansionary years; medium-term challenges, such as meeting the needs of the entire community and maintaining a stable cost of living; and long-term challenges, such as avoiding a housing surplus during a possible post-growth cycle. To overcome some of these challenges, we have recommended a variety of approaches that can be considered in individual components or in multiple combinations as part of an overall strategy.

Based on the findings contained in this report and the preceding housing needs demand estimates, the following recommendations should be considered for implementation:

- **Encourage Development of New Rental Housing** – As shown in our report, there is, and will be, a need for the development of additional rental housing in the county. These housing needs are not limited to the market-rate product anticipated to be required to house new workers that are expected to be added to the county, but also include the need for affordable housing, special needs (homeless) housing, and senior housing (both independent living and senior care housing). To encourage needed development and assist developers in making sound housing development decisions, public policy should be developed (i.e. creating incentives, streamlining zoning and building permit processes, etc.) and necessary data (i.e. housing needs assessment, public demographics, government comprehensive plans, etc.) should be provided to developers. The county should encourage diversity in new rental housing development to enable product to appeal to a wide spectrum of housing needs.
- **Explore Adaptive Reuse of Existing Structures** – During our site visits to Greene County, it was observed that there were structures in the market that represented good candidates for adaptive reuse buildings. This may include vacant office or manufacturing buildings, or old schools that are no longer in use (note: potential consolidation of schools may create vacant school structures that can be used). Smaller unused structures in the market would serve as potential housing for the homeless, including transitional housing or emergency homeless shelters. Adaptive reuse can accommodate the rental housing needs of government-subsidized, Tax Credit or market-rate housing.

- **Encourage Development of Manufactured Housing Alternatives** – Given some of the fluidity and uncertainty associated with the energy extraction industry (i.e. fluctuating gas prices, volume of gas produced, competition, transient nature of the temporary workers, etc.), development of modular housing, mobile homes or RV parks should be considered as a viable alternative. Much of this housing offers flexibility in that it can be removed once its use is no longer required. Such housing could serve both short- and long-term housing needs.
- **Encourage Development of For-Sale Housing** – The county appears to have an abundant supply of low-end (priced under \$140,000) for-sale product to meet both the short- and long-term homebuyer market needs. We do believe, however, the market can support some moderate and high-end for-sale product, which would enable the county to attract more, white collar, higher paid employees to the area. Such housing can consist of scattered in-fill lots, individual estate lots, and smaller subdivisions.
- **Develop and Nurture Tri-County Partnerships and Regional Housing Plans** – It is clear that Greene County and adjacent western Pennsylvania counties of Washington and Fayette are linked together in many aspects, including the impact the entire region is experiencing due to the growth created from the EEI. Since much of the workforce in each of the three counties overlaps and workers commute between the three counties, it would be in the best interest of the region to develop broad based relationships that involve housing and commercial development, infrastructure and socioeconomic issues that face the entire region. A regional housing plan should be developed to allow each county to address mutual housing impacts and to limit redundancy in efforts.
- **Devise Land Use Regulations that Promote Short-Term Rental Housing Development** – Land use regulations, including zoning and utility requirements, should be developed to encourage the development of sites that could support non-conventional short-term rental alternatives, such as mobile home parks, manufactured home developments, and trailer/RV parks to help meet the short-term housing needs of the temporary workforce. It is strongly urged that the development of lodging facilities (i.e. hotels and motels) not be considered the primary solution for solving short-term housing needs.
- **Encourage Development of Modern Senior Living Facilities** – Based on our survey and analysis of Greene County senior living facilities (i.e. personal care homes and nursing home facilities), it is evident that these facilities are dominated by smaller and older group homes and that the market lacks modern senior living facilities. With an aging population, it will be important for the county to attract and encourage the development of a modern senior living facility to help retain and meet the needs of the market's older population requiring special care.

- **Work with EEI Companies to Develop Housing Solutions** – Since the EEI is expected to have the greatest impact on both the economic and housing situations in the county over the foreseeable future, it is recommended that public-private partnerships be developed between Greene County government entities and the EEI businesses within the market to help solve a variety of issues in the county. Development of dormitory-style workforce housing (aka “man camps”) should be considered as a possible housing option for the temporary EEI workforce.
- **Organize an Annual Housing Symposium** – An organized housing symposium should be planned annually to bring together local and county government staff, HUD and Pennsylvania Housing Finance Agency officials, developers, architects, housing coalitions, planning groups, housing authorities, non-profit organizations, and others for the county, and possibly for the southwest Pennsylvania region (includes Greene, Fayette, and Washington counties). Workshop sessions could address a variety of housing-related issues, and include problem/solution sharing, case studies, technical training and assistance, and housing programs education. Guest speakers with specialized fields of expertise could be brought in for education purposes, tours of existing housing facilities could be scheduled, and exhibit booths could be on display to allow vendors and housing experts the opportunity to have one-on-one dialogue.
- **Invest in Quality of Life Enhancements** – Besides jobs and housing, prospective workers and residents will gage the “livability” of the county based on various quality of life opportunities offered in the market. It will be important that parks and other recreational opportunities are maintained/expanded (as needed), that traffic congestion is minimized, that adequate social venues are available, that the schools within the county are good and/or are improving, and that diverse retail opportunities are offered. Greene County is in competition with neighboring counties for workers, residents, businesses and revenue and therefore, it will be critical to position itself to compete within the region on a quality of life basis.
- **Monitor Energy Extraction Industry Activity and Adjust Public Policy Accordingly** – Because of the fluid nature of the EEI and its workforce, it will be important for local and county governments to monitor gas well drilling and coal mining activity on a regular basis. While public policy can be developed to meet *anticipated* needs within the county, it will be critical to monitor the EEI for significant changes in their energy extraction efforts, and adjust public policy to best respond to these potential changes.
- **Educate the Public on Energy Extraction Industry** – A public relations effort should be made to objectively educate the public on EEI activity within the county, informing the public of well activity, direct job creation, and other quantifiable impacts created by the EEI.

II. COUNTY OVERVIEW

A. INTRODUCTION

Greene County, situated in the extreme southwest corner of Pennsylvania, was established in 1796 when the southern portion of Washington County was split-off into a new county by an act of the State Legislature. Greene County was named after General Nathanael Greene, a military hero of the Revolutionary War.

Greene County is bounded on the north by Washington County, on the east by Fayette County (Monongahela River forms the common boundary), and on the south and west by West Virginia (Monongalia, Wetzel, and Marshall Counties). Pittsburgh, Pennsylvania is located 60.0 miles to the north. Surrounding cities of notable size include Washington, Pennsylvania to the north (25.0 miles/15,300 people), Uniontown, Pennsylvania to the east (28.0 miles/12,400 people), Morgantown, West Virginia to the south (26.0 miles/26,800 people), and Wheeling, West Virginia to the west (56.0 miles/31,400 people). Population values are rounded 2000 Census numbers and distances are measured along primary highways to the Borough of Waynesburg.

Greene County contains nearly 600.0 square miles, with an average north-south length of 19.0 miles and an average east-west length of 32.0 miles. The terrain is hilly, as the watershed drains from west to east toward the Monongahela River (the county's eastern boundary). Being part of the Allegheny Plateau, Greene County ranges in elevation from 500 to 1,600 feet above mean sea level. There are numerous stream-cut valleys separated by rolling hills, ridges, and knobs that trend from northwest to southeast within the county.

With 40,672 people (2000 Census) in six boroughs and 20 townships, Greene County is designated as a "sixth-class county" (out of eight classes) under Pennsylvania's population classification system. Approximately 15% of the county population is located in boroughs, while the remaining 85% are township residents. These percentages indicate that Greene County is very rural in character. Waynesburg, incorporated in 1816 and the county seat, is the most populated of the six boroughs with 4,184 people (2000 Census). The second most populated borough (Carmichaels) drops off to just 556 persons. In 2000, the most populated township was Franklin with 7,694 people. Of the 20 total townships, 15 (or 75%) had populations below 2,000 people. The eastern half of Greene County contains 80% of its population.

Of the 25,300 registered voters in Greene County, 65.5% are democrats, 27.0% are republicans, and 7.5% are independents. The county is presided over by three elected-at-large commissioners who each serve a six-year term.

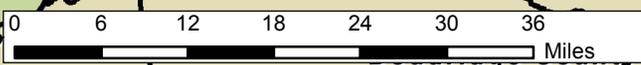
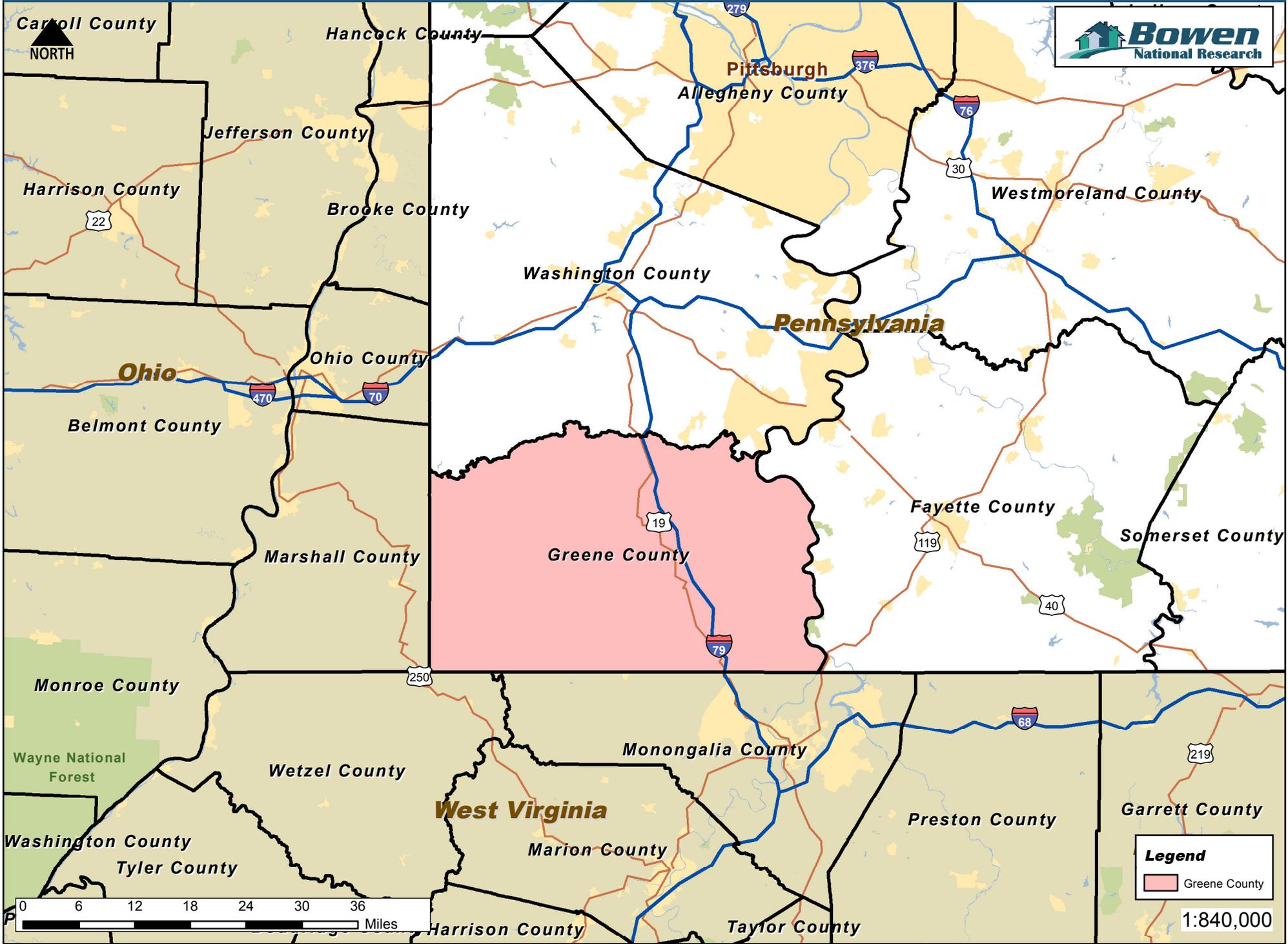
In 2000, Greene County included 15,060 households and 16,678 housing units (29 units per square mile). Of the 15,060 households, 30% had children living at home, 55% had married couples living together, 11% were headed by single-parent females, and 30% were non-traditional families (these characteristics and percentages overlap and exceed 100%). The county's average household size was 2.48 persons, its median age was 38 years, and its gender split was 51.5% male and 48.5% female.

Interstate 79 bisects Greene County in a north-south direction, linking it with Washington and Pittsburgh, Pennsylvania to the north, and Morgantown, West Virginia to the south. State Highway 21 bisects Greene County in an east-west direction, linking it to Uniontown, Pennsylvania to the east and Wheeling, West Virginia to the west. Approximately 45% of the county's population lives east of Interstate 79, while 55% resides to the west of it.

While Greene County has had a long-term association with energy extraction industries (coal/oil/gas), it has received recent notoriety with the development of Pennsylvania's Marcellus Shale natural gas play. Greene County, along with its adjoining counties of Fayette and Washington, is located within the southwestern region of the Marcellus Shale, the largest domestic natural gas reserve. The Marcellus Shale extends across two-thirds of Pennsylvania and into parts of New York, West Virginia, Virginia, and Ohio. In 2003, development of the Marcellus play began at a dramatic rate in the northern tier counties of Pennsylvania along its border with New York. Industry expansion moved into Southwestern Pennsylvania (the Greene County area) in 2008, where it has enjoyed a more sustained level of growth to-date. By all accounts, energy extraction industries are impacting and transforming rural Greene County.

Maps locating Greene County within Pennsylvania follow this page.

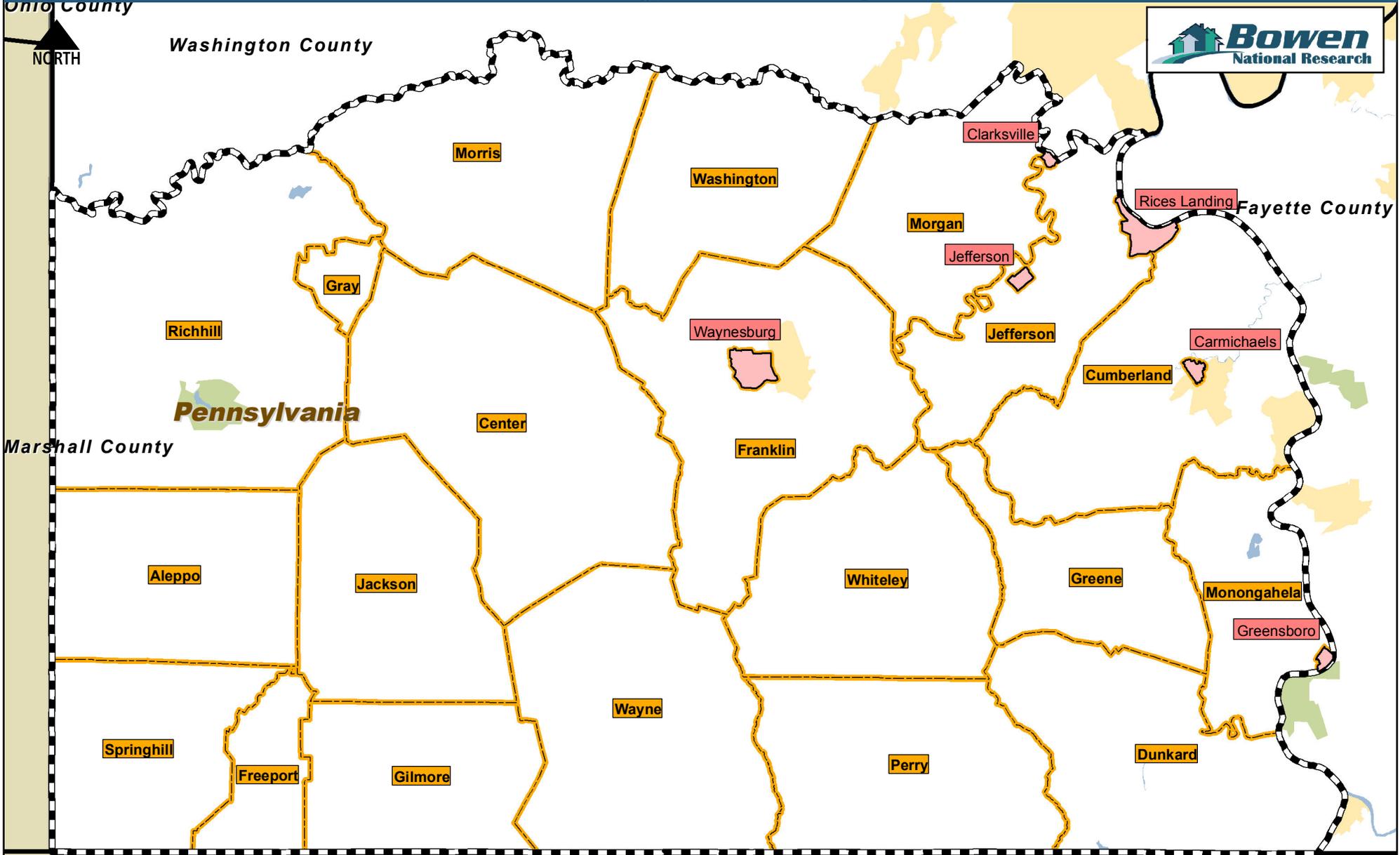
Greene County, PA: Regional Area



Legend
Greene County

1:840,000

Greene County, PA: Municipalities



NORTH

Ohio County

Washington County

Fayette County

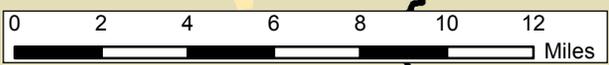
Pennsylvania

Marshall County

West Virginia

Wetzel County

Monongalia County



Legend

- Greene County
- Townships
- Boroughs

1:280,000

The following sections, which include Community Services, Public Water and Sewer Systems, Land Development Regulations, Public School Districts, School Performance Data, Crime Risk, Commuting Patterns, and Population Trends, present a snapshot of the development level and quality of life in Greene County, Pennsylvania.

B. COMMUNITY SERVICES

The location, type, and scope of community services can have a significant impact on a market's ability to support both existing and future housing alternatives. As a result, we have evaluated the community services offered throughout Greene County. The following are summaries of the notable and larger concentrations of community services for the various boroughs and townships within the county. For the purposes of this analysis, we have provided narratives of communities by township, with discussions of any notable community services within individual boroughs. The intent of these narratives is to provide an overview of the types and general locations of community services within each geographical area analyzed. It is important to note that such narratives should not be considered a complete or exhaustive coverage of all community services offered.

Aleppo Township

Aleppo Township is located in the far western portion of Greene County, just east of the West Virginia border. The Aleppo Township Fire Department and a U.S. Post Office are both located in Aleppo, which is where most of the township's community services are situated. Safelite Auto Glass, Apria Healthcare and Dealer Engine Sales are the larger businesses within the township. The Greene County Sheriff's Department and Pennsylvania State Police Department both serve this area.

Center Township

Center Township is located in the central portion of Greene County, just west of Waynesburg and Franklin Township. Rogersville and Holbrook are the largest communities in the township, and most community services are located here. Rush Grocery & Video, Community Bank, a U.S. Post Office, Crystal's Children's Center, and Riley's Barber Shop are some of the services offered in Rogersville, along its West Roy Furman Highway corridor. Cornerstone Care and Center Township Volunteer Fire Department are two of the major employers within Center Township, and are also located in Rogersville. A U.S. Post Office, beauty shop, and several churches can be found in Holbrook. CNX Gas and Allen's Waste Water Services are two of the larger businesses in Holbrook. The Greene County Sheriff's Department and Pennsylvania State Police Department both serve this area.

Cumberland Township

Cumberland Township is located in the far eastern portion of Greene County. The borough of Carmichaels, the second largest borough in Greene County (556 people in 2000), is the largest community within Cumberland Township. Most of Carmichaels' community services are situated along West George Street, North Eighty Eight Road, South Vine Street, and North Market Street. The Carmichaels/Cumberland Township Fire Department, Cumberland Township Police, Dairy Mart, Franks Pizzeria, Flenniken Memorial Library, and First Federal Savings and Loan are all located on George Street in Carmichaels. Dollar General, Shop 'n Save, Sheetz, and Medicine Mine pharmacy can be found in the southern portion of Carmichaels along State Route 88 (North Eighty Eight Road and South Vine Street). The Carmichaels Community School District is one of the largest employers in the area. Restaurants, the Carmichaels Senior Citizen's Center, Fresenius Medical Care Clinic, and a U.S. Post Office are also located in Carmichaels. Additional community services are offered in Nemaocolin and Crucible within Cumberland Township. Both communities contain a U.S. Post Office and a volunteer fire department.

Dunkard Township

Dunkard Township is located in the southeast corner of Greene County, with West Virginia bordering it to the south and the Monongahela River and Fayette County (PA) to the east. The community services within Dunkard Township are located primarily in the communities of Bobtown and Dilliner. Bobtown offers Bobtown Market, a U.S. Post Office, Kyro's Pizza, a hair salon, churches, and the Bobtown Volunteer Fire Department. A convenience store and a U.S. Post Office serve the community of Dilliner. Dick Eddy Builders, Jordan Auto Parts and Holbert Trucking are the larger businesses within the township. The Greene County Sheriff's Department and Pennsylvania State Police Department both serve this area.

Franklin Township

Franklin Township is centrally located in Greene County, and lies just west of Interstate 79. Franklin Township contains the county's largest borough, Waynesburg, with 4,184 people (2000 Census). Waynesburg is the county seat of Greene County and contains the largest concentration of community services. The Waynesburg-Franklin Township Volunteer Fire Department, Waynesburg Police Department and Greene County Sheriff's Office all operate out of Waynesburg. Grocery stores, gas stations, convenience stores, hotels, banks, shopping, pharmacies, restaurants, churches, and a public library can all be found along the U.S. Highway 19 and State Route 21 corridors. The Waynesburg Senior Citizen's Center, several parks and the Greene County Fairgrounds are situated in Waynesburg as well. The Southwest Regional Medical Center, serving all of Greene County, is a 77-bed hospital that provides 24-hour emergency services, cardiology, laboratory services and home health care services. Waynesburg is home to Waynesburg University, a private Christian institution offering doctoral, graduate, and undergraduate programs. The university offers more than 70 majors and has an enrollment of approximately 1,500 students. EQT, Jacob's Petroleum Products, Norfolk Southern, and The Southwestern Regional Medical Center constitute the largest employers in Waynesburg.

Freeport Township

Freeport Township is located near the southwest portion of the county. The New Freeport Volunteer Fire Department, Greene County Sheriff's Department, and Pennsylvania State Police Department all serve the residents in the township. Additionally, a U.S. Post Office and Church of Christ can be found in New Freeport. Spring Hill Well Services and the West Greene School District are two of the largest employers within the township.

Gilmore Township

Gilmore Township is located in the western third of the county. There are no boroughs in this township. There is significant public park land in the township. No community services have been identified in this area.

Gray Township

The smallest township in terms of geography within Greene County, Gray Township, is located in the northwest portion of the county. The only community in the township is Graysville. Graysville is home to all of the community services in Gray Township. Amy's Corner Store, a U.S. Post Office, Creekside Kitchen, and Graysville Park can all be found along West Roy Furman Highway and Main Street in Graysville. The Greene County Sheriff's Department and Pennsylvania State Police Department serve this area. The West Greene School District is one of the larger employers in the township.

Greene Township

Greene Township is located in the eastern third of the county. This township is very rural and has a large amount of public park land. No community services have been identified in this township.

Jackson Township

Jackson Township is located in the western third of the county. The township is rural with a large share of park space. No community services have been identified in this area.

Jefferson Township

Jefferson Township is located in the northeast portion of Greene County, and includes the boroughs of Clarksville, Jefferson, and Rices Landing. The majority of the community services in this area are situated in these three municipalities. The Greene County Sheriff's Department and Pennsylvania State Police Department respond to this area. Green Cove Bar & Grill, Ozy's Bar & Grill, General Store Market Street, Muhly's Little Store, and Clarksville Senior Citizen's Center are all located in Clarksville. Lesosky's Personal Care Home and McDaniel's Personal Care Home are the largest employers in Clarksville.

Jefferson Market, BFS Foods, the Lit'l Store, a U.S. Post Office, restaurants, churches, hotels, and the Greene County Library-Jefferson Branch are all located in Jefferson borough. The Jefferson Fire Department, Jefferson-Morgan School District, Flushing Shirt Manufacturing Company, and Wilson Forest Products are the largest employers in the borough.

Giant Eagle grocery and pharmacy, Family Dollar Store, First National Bank, Dry Tavern True Value Hardware, Hobe Sports Center, and several restaurants are located along the State Route 88 corridor in Rices Landing.

The Rices Landing Fire Department is on Bayard Avenue. The Rices Landing Athletic Club and a hair salon are located along Sydney Avenue, while multiple churches can be found in Rices Landing.

Monongahela Township

Monongahela Township is located in the far eastern portion of Greene County, just west of the Monongahela River and Fayette County. The community services for Monongahela Township can be found primarily in Greensboro, the largest community in the township with a population of 295 (2000 Census). Community Bank, a U.S. Post Office, hair salons, churches, and restaurants are some of the community services offered in Greensboro. The Greensboro Fire Department, Cornerstone Care, and the Southeastern Greene School District are the largest employers in Monongahela Township. The Greene County Sheriff's Department and Pennsylvania State Police Department serve this area.

Morgan Township

Morgan Township is located in the northeast portion of the county. No community services have been identified in this area.

Morris Township

Morris Township is located in the far northwest portion of the county. Most of the community services are located in the small community of Nineveh. A U.S. Post Office and Morris Township Volunteer Fire Department are both situated along Browns Creek Road in Nineveh. Hopkins Store and Carroll Electrical Services, also located in Nineveh, are the largest businesses in the township. The Greene County Sheriff's Department and Pennsylvania State Police Department serve this area.

Perry Township

Perry Township is located in the south central portion of the county. Mt. Morris is the largest community in the township and contains most of the notable community services. Belko Foods, Mt. Morris Senior Citizen's Center, Mt. Morris Volunteer Fire Department, and Sorella's Pizzeria are all situated along Mt. Morris Road in Mt. Morris. BFS Foods, a U.S. Post Office, a gas station, and L&T Supply Company are concentrated in the central portion of the township. The Southwest Regional Police Department, located in Belle Vernon, responds to this area. Morgantown Technical Services, Bell's Wholesale Grocery, and Honda/Mazda are the largest businesses within Perry Township.

Richhill Township

Located in the northwest corner of Greene County, Richhill Township is bounded by the West Virginia border to the west and Washington County (PA) to the north. Community services within Richhill Township can be found primarily in Wind Ridge. Burns Exxon gas station, Stokes General Merchandise, a barber shop, church, and U.S. Post Office are all situated along West Roy Furman Highway in Wind Ridge. Texas Eastern Transmission and Gas Pipeline and Equitable Gas are the area's largest businesses. Ryerson Station State Park, a 1,164-acre recreation area featuring a 62-acre lake, picnicking areas, camping, hunting, fishing and hiking, is located in Wind Ridge as well. The Greene County Sheriff's Department and Pennsylvania State Police Department serve this area.

Springhill Township

Springhill Township is located in the southwest corner of the county and is bounded by West Virginia to the west and south. No community services have been identified in this area.

Washington Township

Washington Township is in the north central portion of the county, just south of Washington County (PA). There are limited community services within this township. Hughes Company and Lingus Manufacturing Machine, two of the township's largest businesses, are located in Sycamore, along with a U.S. Post Office. The Greene County Sheriff's Department and Pennsylvania State Police Department serve this area.

Wayne Township

Wayne Township, located in the south central portion of Greene County, has the majority of its community services situated in the communities of Spraggs and Brave. A U.S. Post Office, Lotta Pizza, and the Native American Community Center are in Spraggs, while the Wayne Township Volunteer Fire Department and a U.S. Post Office are in Brave. The Southwest Regional Police Department, located in Belle Vernon, serves this area.

Whiteley Township

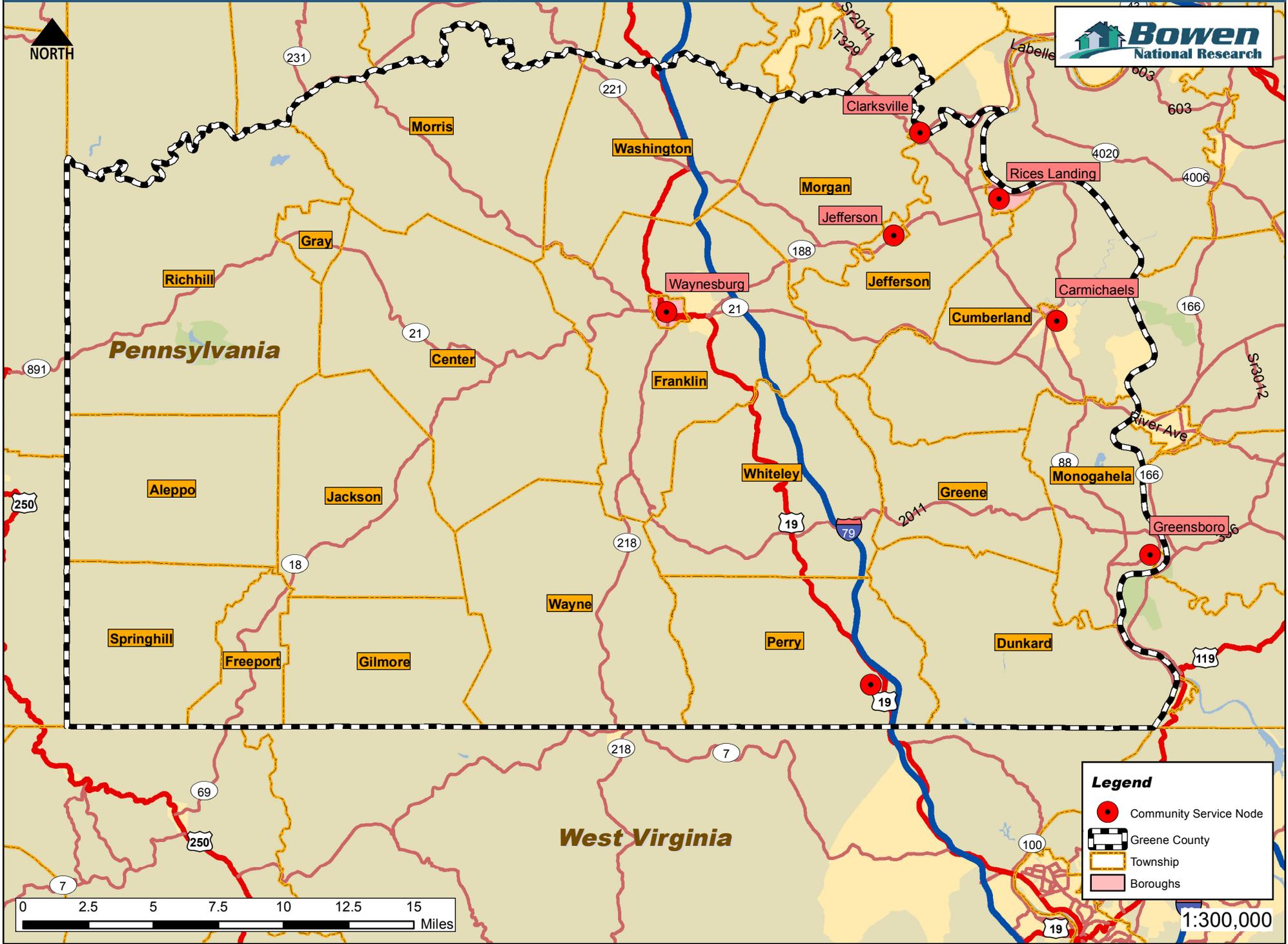
Whiteley Township is located in the central portion of Greene County. No community services have been identified in this area.

Overall Community Services Evaluation

Based on our analysis of the community services identified in the 20 townships and six boroughs within Greene County, it appears that most of the community services are located near the central portion of Greene County in the borough of Waynesburg (Franklin Township), which is the county seat. Waynesburg is served by all essential community services such as shopping, entertainment, recreation, employment, medical services and other opportunities. Development of future housing in Greene County would most likely benefit from a location in Waynesboro or Franklin Township. Other boroughs such as Carmichaels and Jefferson, located in the northeast portion of the county, also offer a notable share of community services that may be sufficient to positively contribute to the marketability of new housing development. While other communities within Greene County may not have an adequate base of community services to support residential development on their own, most communities within the county are within close proximity of Waynesburg (located near the center of the county) and may therefore be able to support small-scale residential development and still benefit from the community services and proximity of Waynesburg.

The following series of maps indicate the location of community services within Greene County. The first map shows the seven largest community service nodes (concentrations) as red dots. These generally coincide with the six boroughs within the county. The succeeding eight maps show specific community services for each node.

Greene County, PA: Community Service Nodes



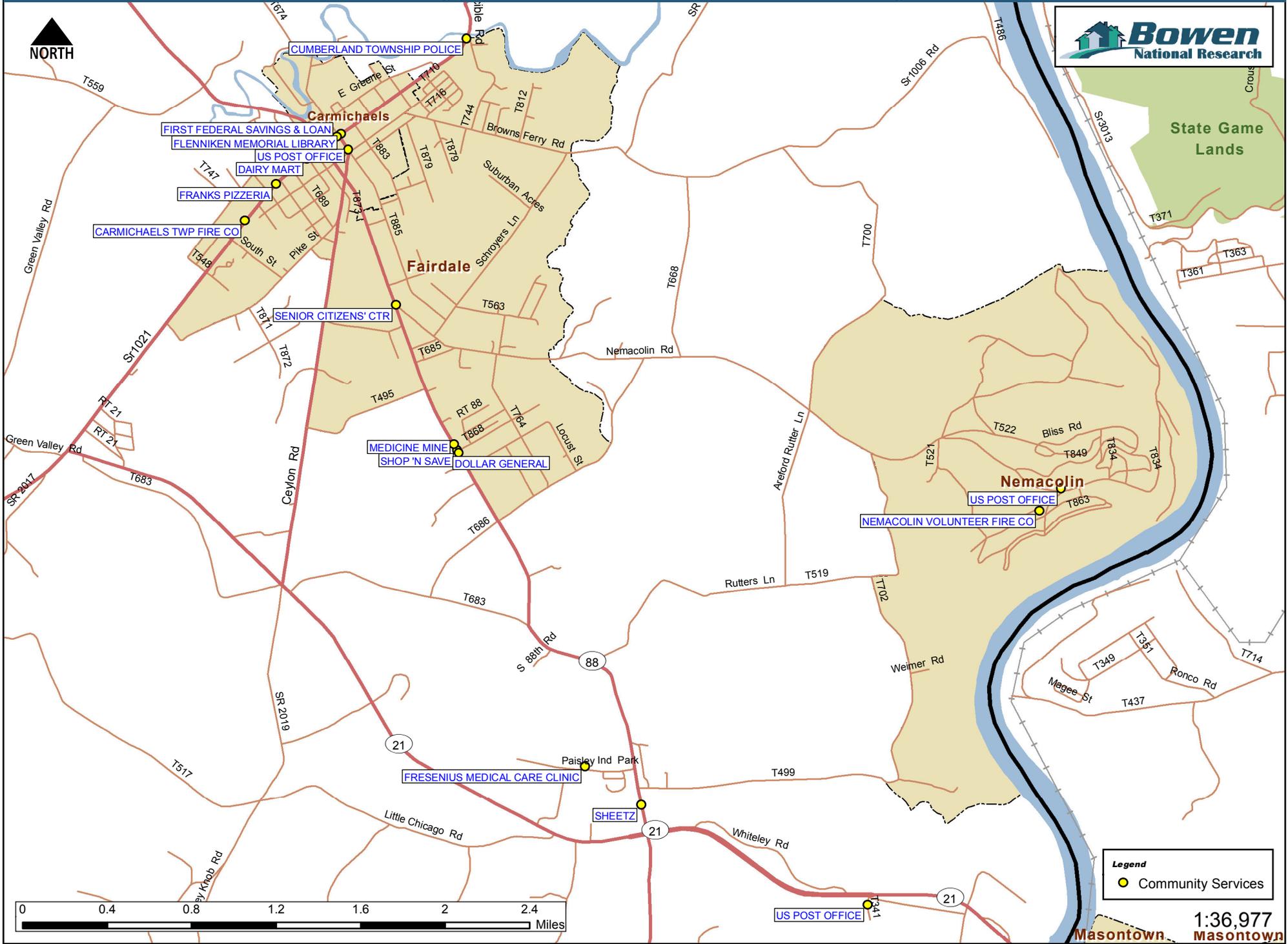
Legend

- Community Service Node
- Greene County
- Township
- Boroughs



1:300,000

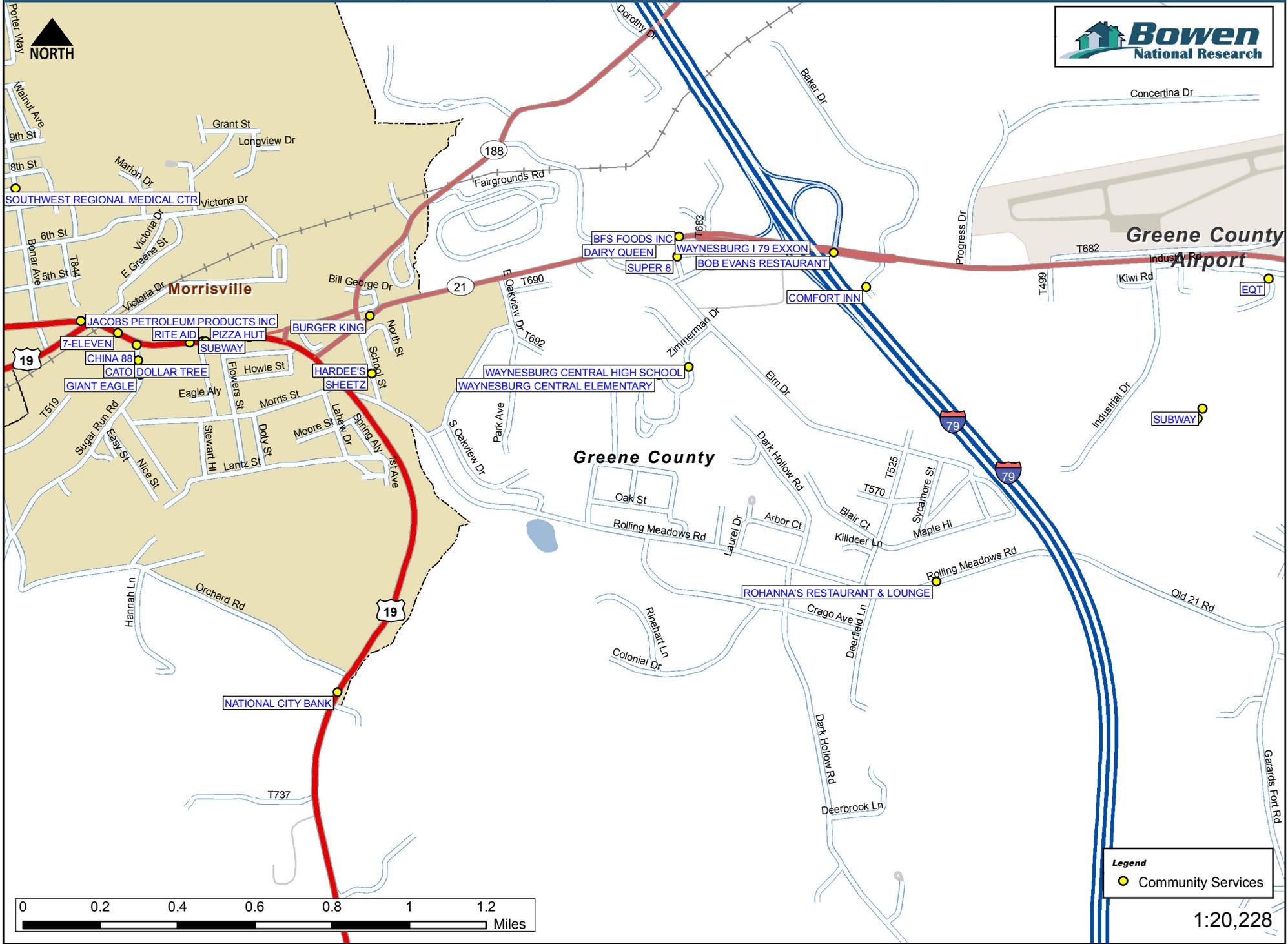
Greene County, PA: Carmichaels Community Services



Legend
● Community Services

1:36,977
Masontown Masontown

Greene County, PA: Waynesburg (East) Community Services



Porter Way
NORTH
Marion Ave
9th St
8th St
6th St
5th St
T844
Bonair Ave
Victoria Dr
E Greene St
Victoria Dr
Marion Dr
Grant St
Longview Dr
Fairgrounds Rd
188
Bill George Dr
North St
School St
Howie St
Morris St
Laraw Dr
Spring Aly
T519
Sugar Run Rd
Easy St
Nice St
Hannah Ln
Orchard Rd
T737
S Oakview Dr
Park Ave
S O Oakview Dr
Zimmerman Dr
Elm Dr
Dark Hollow Rd
Oak St
Rolling Meadows Rd
Laurel Dr
Arbor Ct
Blair Ct
Kildeer Ln
Sycamore St
Maple Hl
Rolling Meadows Rd
Crago Ave
Deerfield Ln
Dark Hollow Rd
Deerbrook Ln
T690
T692
T683
T570
T523
T570
T682
T499
Industrial Dr
Old 21 Rd
Garards Fort Rd

SOUTHWEST REGIONAL MEDICAL CTR

Morrisville

7-ELEVEN

JACOBS PETROLEUM PRODUCTS INC

RITE AID

PIZZA HUT

CHINA 88

CATO DOLLAR TREE

GIANT EAGLE

BURGER KING

SUBWAY

HARDEE'S

SHEETZ

NATIONAL CITY BANK

BFS FOODS INC

DAIRY QUEEN

SUPER 8

WAYNESBURG I 79 EXXON

BOB EVANS RESTAURANT

COMFORT INN

WAYNESBURG CENTRAL HIGH SCHOOL

WAYNESBURG CENTRAL ELEMENTARY

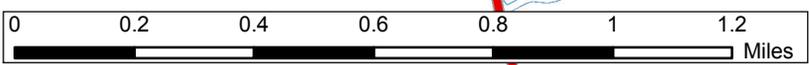
ROHANNA'S RESTAURANT & LOUNGE

Greene County Airport

EQT

SUBWAY

Legend
● Community Services



1:20,228

Greene County, PA: Waynesburg (West) Community Services



NORTH

21

19

218

Legend
● Community Services

0 0.075 0.15 0.225 0.3 0.375 0.45 Miles

1:7,459

Waynesburg

Greene County

Morrisville

Morrisville

6th St

7th St

5th St

Cliff Aly

Sycamore St

Center Ave

S Fruit Aly

S Maiden St

S Cherry St

S Liberty St

Montgomery Ave

Jasper Aly

Cherry Aly

Wendy's

CVS Pharmacy

High Street Exxon

McCracken Pharmacy

Waynesburg Police Dept

Greene County Sheriff's Office

National City Bank

State Farm Bank

Belko Foods

Family Dollar Store

Domino's Pizza

Waynesburg Hotel & Lounge

Hot Rod's House of Barbecue

South Side Deli

Golden Wok Chinese Restaurant

Fashion Bug

Community Bank

Big Lots

Sears

Pecjak's Sunoco

US Post Office

Wendy's

CVS Pharmacy

Waynesburg University

Senior Citizens CTR

Eva K Bowlby Public Library

Norfolk Southern

Richie Park

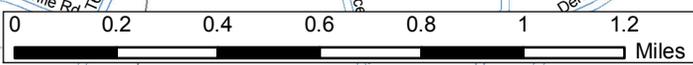
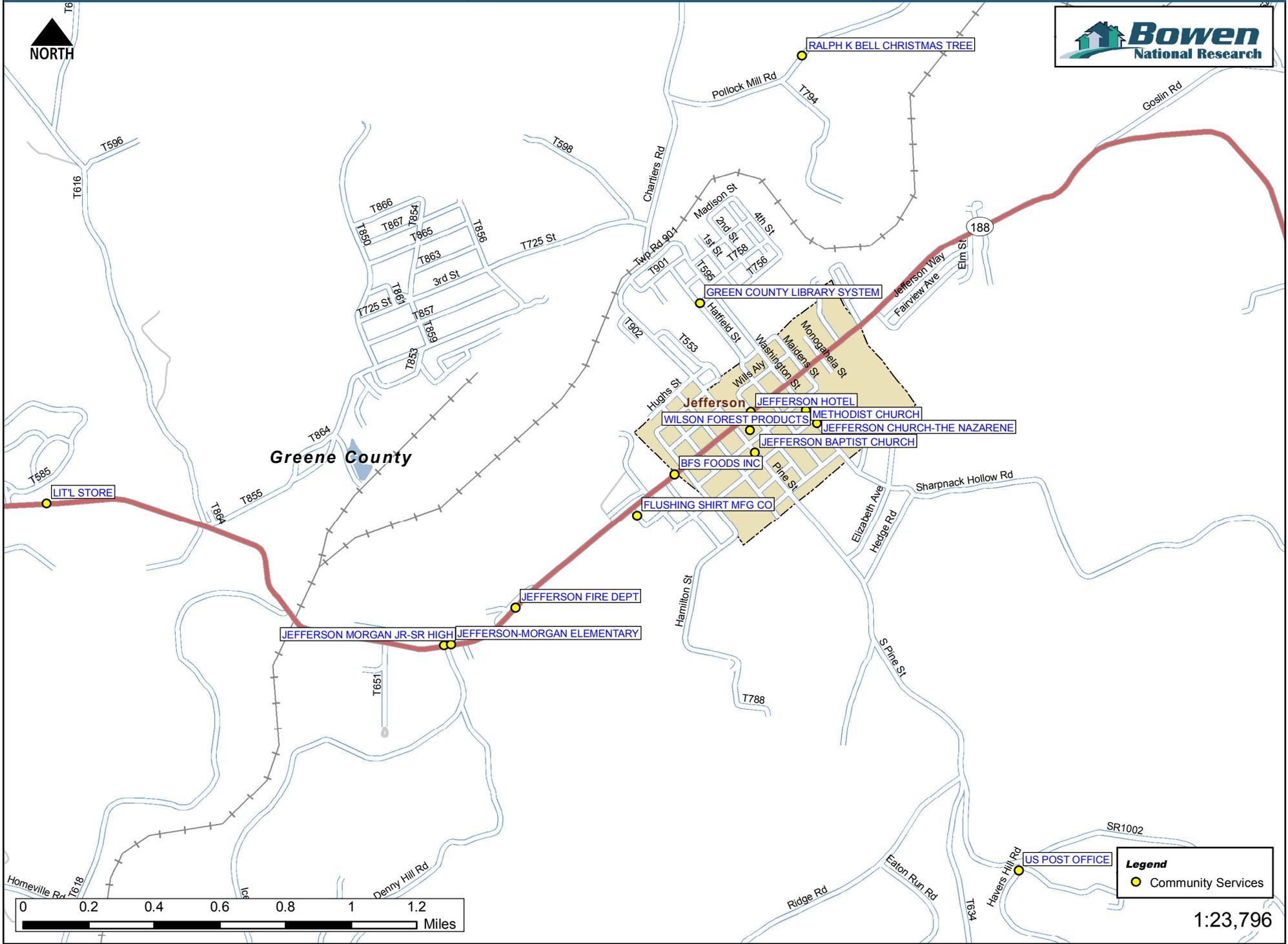
Monument Park

Waynesburg

Greene County

Morrisville

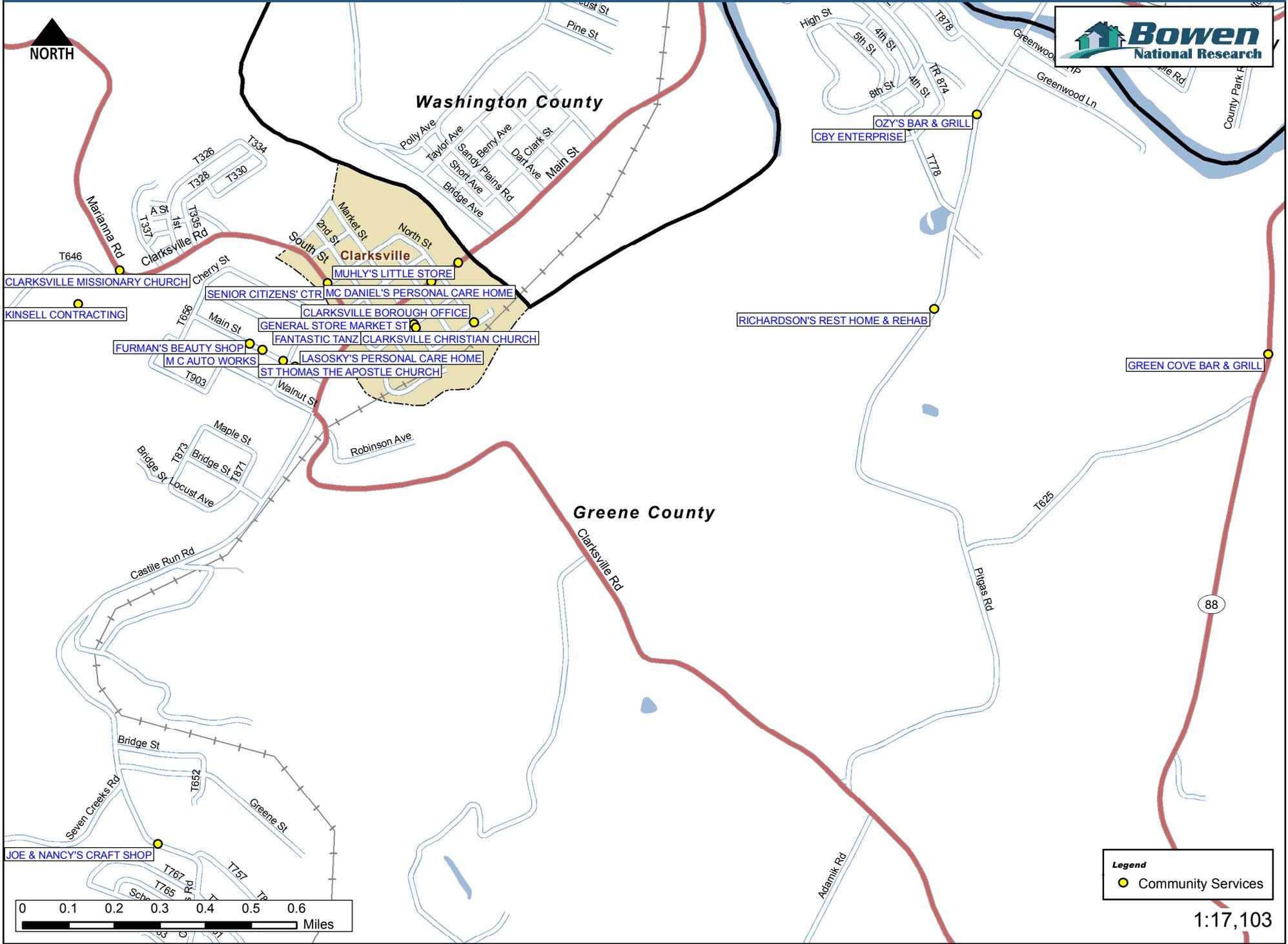
Greene County, PA: Jefferson Community Services



Legend
● Community Services

1:23,796

Greene County, PA: Clarksville Community Services



CLARKSVILLE MISSIONARY CHURCH

KINSELL CONTRACTING

SENIOR CITIZENS' CTR

MC DANIEL'S PERSONAL CARE HOME

CLARKSVILLE BOROUGH OFFICE

GENERAL STORE MARKET ST

FANTASTIC TANZ

CLARKSVILLE CHRISTIAN CHURCH

FURMAN'S BEAUTY SHOP

M.C. AUTO WORKS

LASOSKY'S PERSONAL CARE HOME

ST THOMAS THE APOSTLE CHURCH

MUHL'S LITTLE STORE

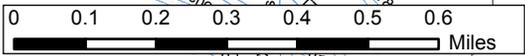
OZY'S BAR & GRILL

CBY ENTERPRISE

RICHARDSON'S REST HOME & REHAB

GREEN COVE BAR & GRILL

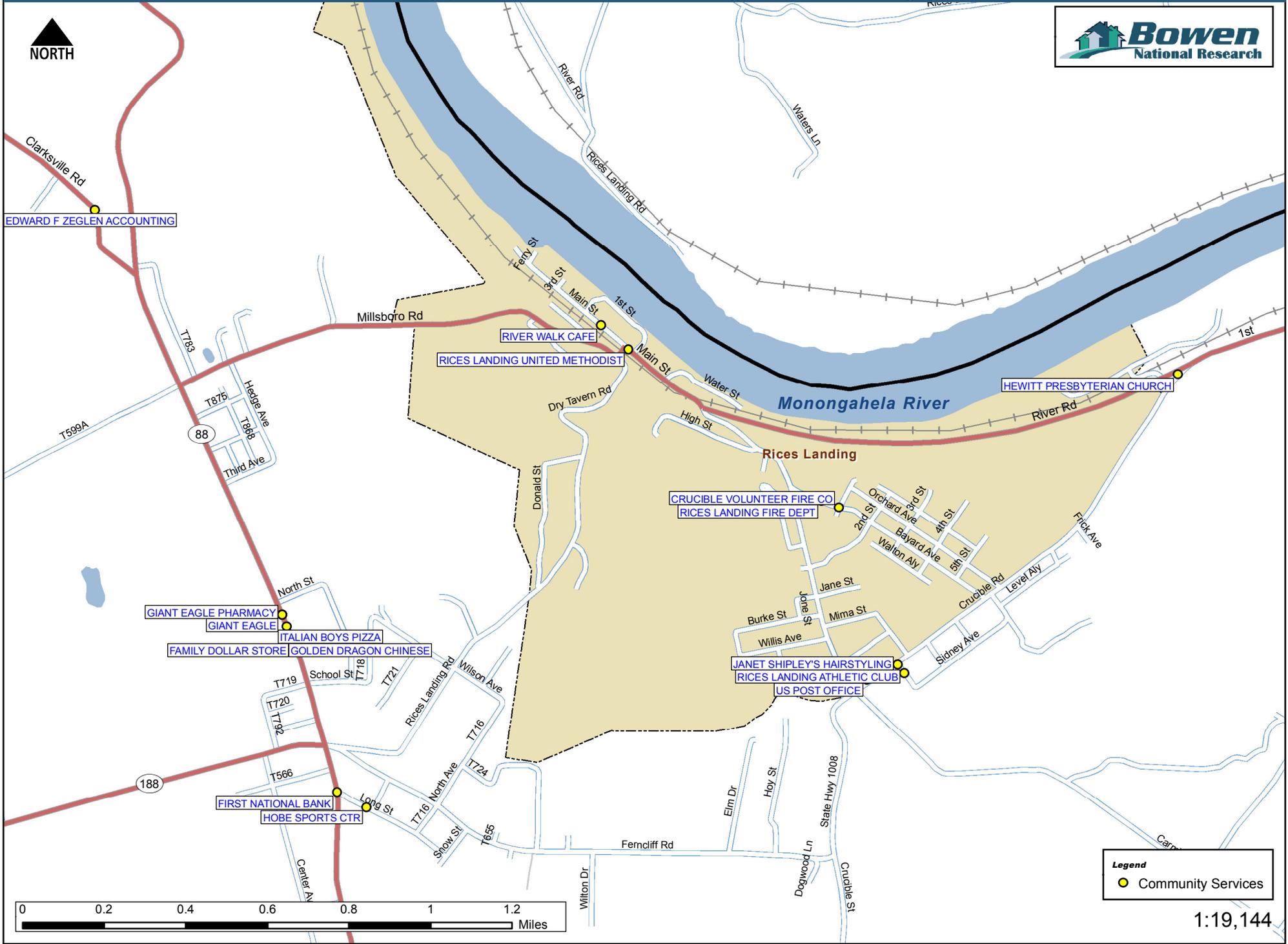
JOE & NANCY'S CRAFT SHOP



Legend
● Community Services

1:17,103

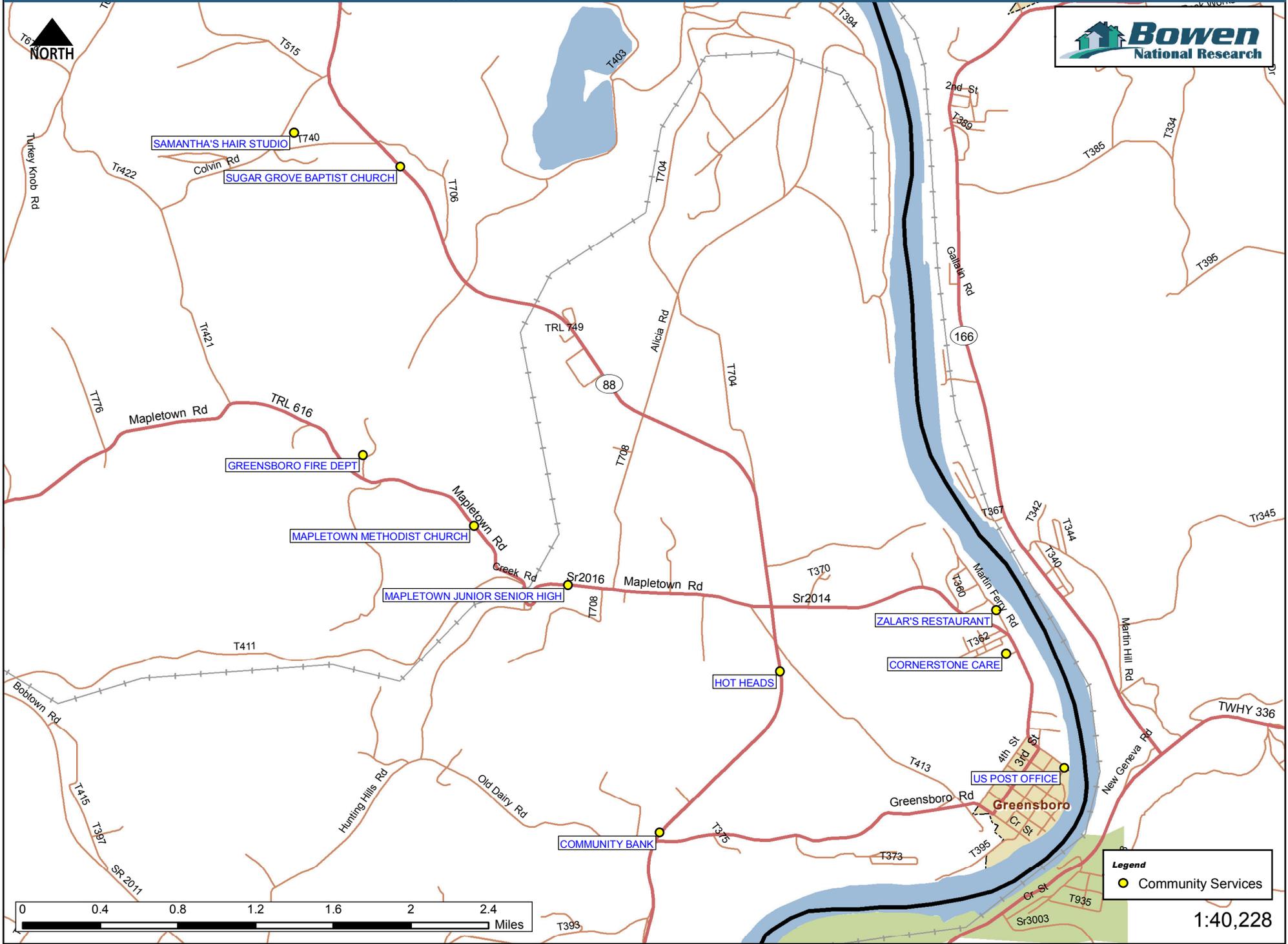
Greene County, PA: Rices Landing Community Services



Legend
● Community Services

1:19,144

Greene County, PA: Greensboro Community Services



SAMANTHA'S HAIR STUDIO

SUGAR GROVE BAPTIST CHURCH

GREENSBORO FIRE DEPT

MAPLETOWN METHODIST CHURCH

MAPLETOWN JUNIOR SENIOR HIGH

HOT HEADS

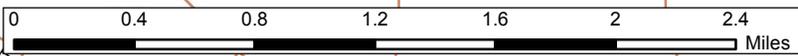
ZALAR'S RESTAURANT

CORNERSTONE CARE

US POST OFFICE

COMMUNITY BANK

Legend
● Community Services



1:40,228

Greene County, PA: Mt. Morris Community Services



MT MORRIS VOLUNTEER FIRE DEPT
BELKO FOODS
MT MORRIS SENIOR CITIZENS' CTR

SORELLAS PIZZERIA

19

79

79

Mt. Morris

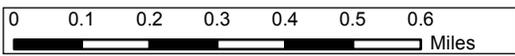
US POST OFFICE

L & T SUPPLY CO

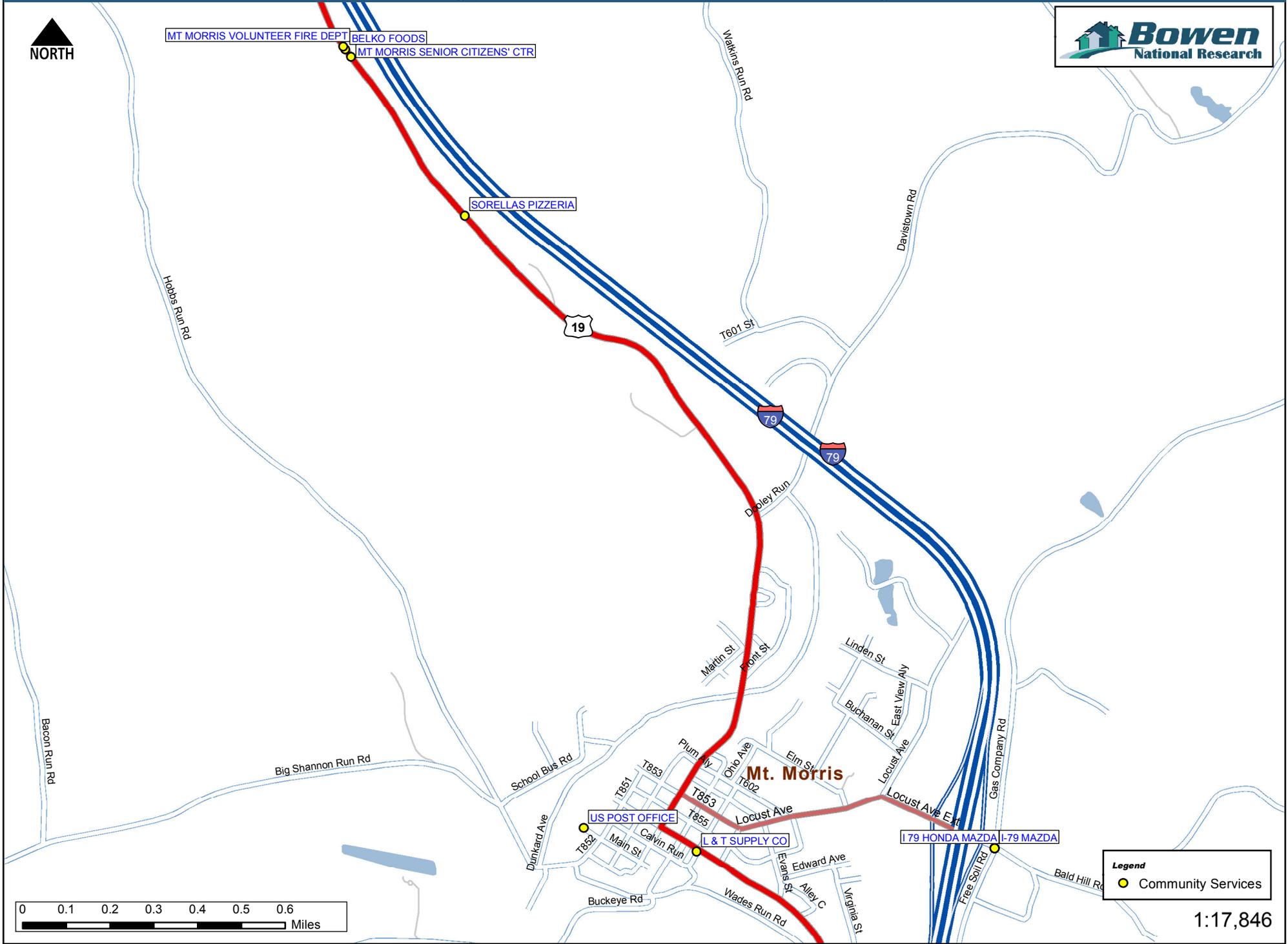
I 79 HONDA MAZDA

I-79 MAZDA

Legend
● Community Services



1:17,846



C. PUBLIC WATER AND SANITARY SEWER SYSTEMS

The availability of public (or central) water and sanitary sewer systems has a significant impact on real estate development pace and patterns, particularly with residential uses. As a result, we have reviewed public utility documents from Greene County to determine the general coverage and availability of water and sanitary sewer systems throughout Greene County. Because the overall objective of this study is to assess housing needs on a macro level, we have presented public utility information on a broad borough and township level. Information regarding line locations and depths, capacities, and potential service areas is beyond the scope of this study. A summary table of public water and sanitary sewer systems within Greene County follows:

Greene County Public Water and Sewer Services				
Township/Borough	Water	Sewer	No Water or Sewer	Service Area
Aleppo Township			X	
Carmichaels Borough	X	X		Water: Large / Sewer: Large
Center Township	X	X		Water: Small / Sewer: Small
Clarksville Borough	X	X		Water: Large / Sewer: Large
Cumberland Township	X	X		Water: Medium / Sewer: Medium
Dunkard Township	X	X		Water: Medium / Sewer: Small
Franklin Township	X	X		Water: Medium / Sewer: Medium
Freeport Township			X	
Gilmore Township			X	
Gray Township			X	
Greene Township	X	X		Water: Medium / Sewer: Small
Greensboro Borough	X	X		Water: Large / Sewer: Large
Jackson Township			X	
Jefferson Borough	X	X		Water: Large / Sewer: Large
Jefferson Township	X			Water: Medium
Monongahela Township	X			Water: Medium
Morgan Township	X	X		Water: Medium / Sewer: Small
Morris Township			X	
Perry Township	X	X		Water: Medium / Sewer: Small
Rices Landing Borough	X	X		Water: Large / Sewer: Large
Richhill Township			X	
Springhill Township			X	
Washington Township			X	
Wayne Township	X	X		Water: Small / Sewer: Small
Waynesburg Borough	X	X		Water: Large / Sewer: Large
Whiteley Township			X	

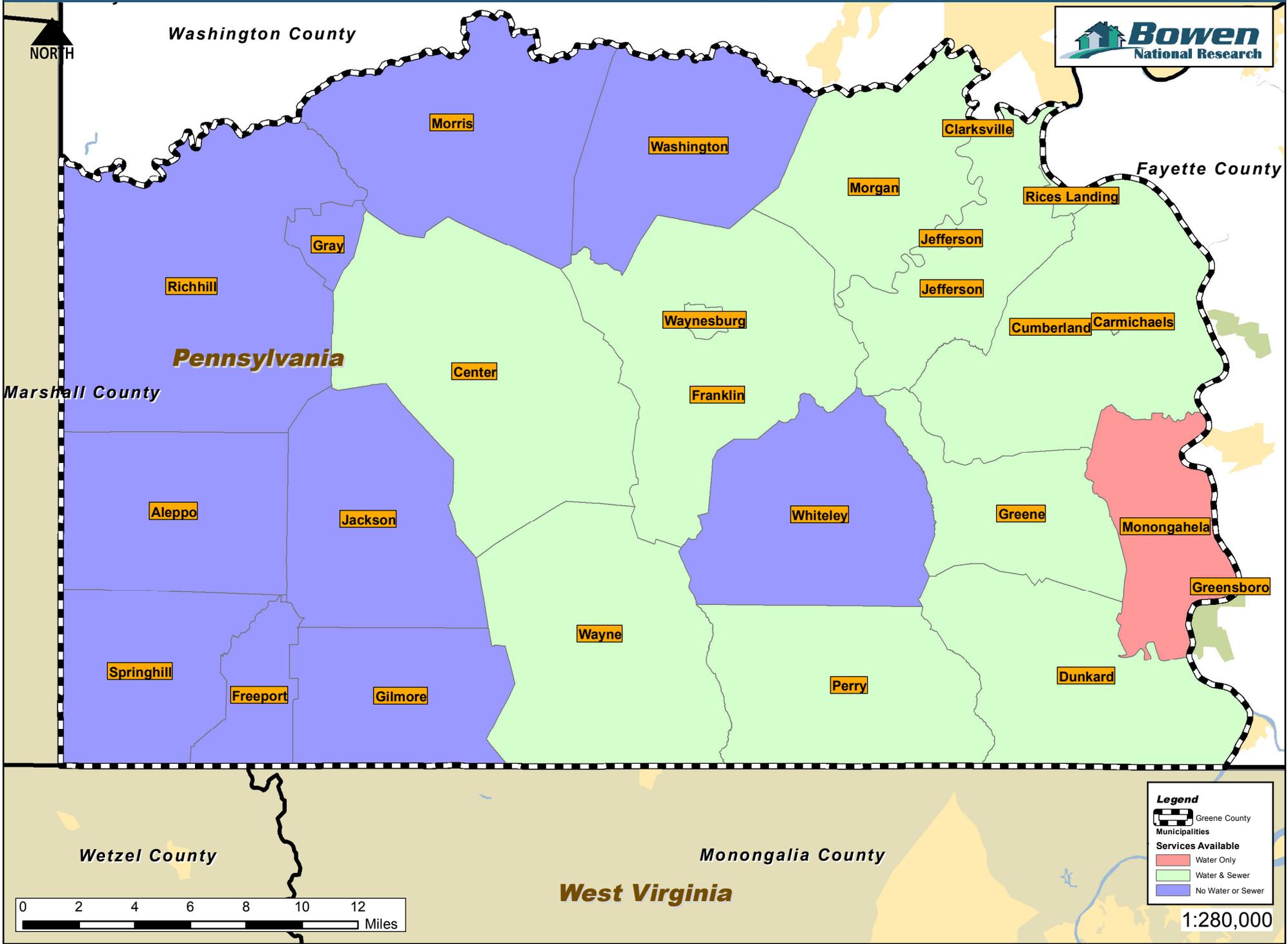
Source: Greene County Comprehensive Plan 2008 (Updated by Bowen National Research 2011)

Of the 26 boroughs and townships in Greene County, 14 (53.9%) have both public water and sanitary sewer services, 2 have only public water service, and 10 have no public water or sanitary sewer service.

While residential development has the potential to take place in most locations, regardless of water and sanitary sewer system availability, it is more likely that development will occur in those communities with adequate water and sewer sanitary systems, assuming the systems have the capacity to add additional residential units. It is our opinion that the 14 communities with both public water and sanitary sewer services will have the best opportunity to attract new residential development alternatives.

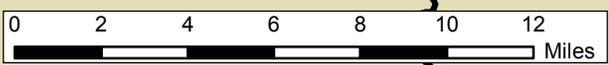
A map follows showing current availability of public water and sanitary sewer services by townships and boroughs within Greene County:

Greene County, PA: Public Water & Sanitary Sewer Service Availability



Legend

- Greene County
- Municipalities
- Services Available
 - Water Only
 - Water & Sewer
 - No Water or Sewer



1:280,000

D. LAND DEVELOPMENT REGULATIONS

Zoning, subdivision, and building regulations can direct and/or limit residential development within a market. The following table summarizes the land use controls for each borough and township within Greene County as of June, 2011.

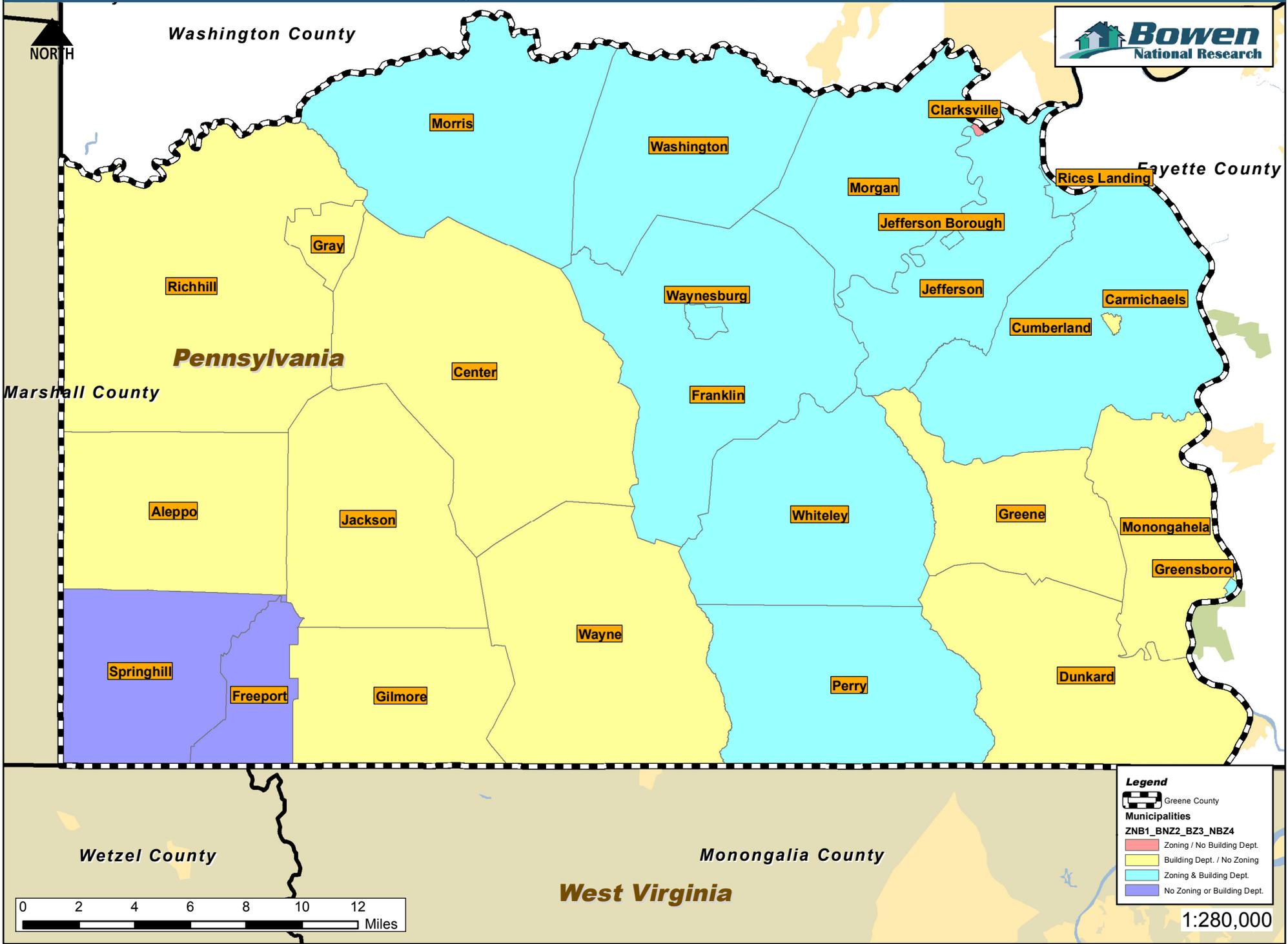
Greene County Land Use Controls				
Municipality	Zoning Ordinance	Subdivision Ordinance	Planning Commission	Building Department
Greene County	No	County	Yes	No
Aleppo Township	No	County	No	Yes
Carmichaels Borough	No	County	No	Yes
Center Township	No	County	No	Yes
Clarksville Borough	Yes – 2008	County	No	No
Cumberland Township	Yes – 1994	County	No	Yes
Dunkard Township	No	County	No	Yes
Franklin Township	Yes – 2000	Municipal	Yes	Yes
Freeport Township	No	County	No	No
Gilmore Township	No	County	No	Yes
Gray Township	No	County	No	Yes
Greene Township	No	County	No	Yes
Greensboro Borough	Yes – 1999	County	No	Yes
Jackson Township	No	County	No	Yes
Jefferson Borough	Yes – 2008	County	No	Yes
Jefferson Township	Yes – 2008	County	No	Yes
Monongahela Township	No	County	No	Yes
Morgan Township	Yes – 2008	County	No	Yes
Morris Township	Yes – 2008	County	No	Yes
Perry Township	Pending	County	No	Yes
Rices Landing Borough	Yes – 2001	Municipal	Yes	Yes
Richhill Township	No	County	No	Yes
Springhill Township	No	County	No	No
Washington Township	Yes – 2000	Municipal	Yes	Yes
Wayne Township	No	County	No	Yes
Waynesburg Borough	Yes – 1995	County	No	Yes
Whiteley Township	Yes – 2003	County	No	Yes

Source: Greene County Department of Economic Development 2011

Of the 26 boroughs and townships within Greene County, 12 (46.2%) have zoning ordinances in place, all (100%) have subdivision ordinances in place, 4 (15.4%) have planning commissions, and 23 (88.5%) have some type of building department. Greene County itself does not have a zoning ordinance or building department. It does have a planning commission and subdivision ordinance.

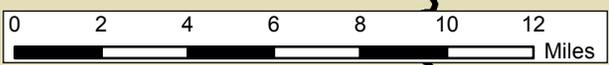
A map follows showing whether townships and boroughs within Greene County have zoning ordinances, building departments, both, or neither:

Greene County, PA: Land Development Regulations



Legend

- Greene County
- Municipalities**
- ZNB1_BN22_BZ3_NBZ4**
- Zoning / No Building Dept.
- Building Dept. / No Zoning
- Zoning & Building Dept.
- No Zoning or Building Dept.



1:280,000

E. PUBLIC SCHOOL DISTRICTS

Greene County is served by the following five public school districts:

Carmichaels Area School District

The Carmichaels Area School District (CASD) serves the Borough of Carmichaels and Cumberland Township. CASD operates one elementary school (grades K-6) and one junior/senior high school (grades 7-12).

Central Greene School District

The Central Greene School District (CGSD) has jurisdiction over the Borough of Waynesburg, Franklin Township, Perry Township, Washington Township, Wayne Township, and Whiteley Township. CGSD schools include: Waynesburg Central Elementary (grades K-5), Perry Elementary (grades K-5), Margaret Bell Miller Middle School (grades 6-8), and Waynesburg Central High School (grades 9-12).

CGSD offered a high school elective course in 2010 dealing specifically with natural gas extraction and production. Thirty students participated in the class, and based on its success, CGSD is considering an expansion of this course in the future. Also, there is a course offered on how to obtain Commercial Drive License (CDL).

Jefferson-Morgan School District

The Jefferson-Morgan School District (JMSD) serves the Boroughs of Jefferson, Rices Landing, and Clarksville, as well as Jefferson and Morgan Townships. JMSD offers one elementary school (grades PreK-6), one middle school (grades 7 and 8), and one high school (grades 9-12).

Southeastern Greene School District

The Southeastern Greene School District (SGSD) encompasses the Borough of Greensboro, Monongahela Township, Dunkard Township and Greene Township. Bobtown Elementary serves students in grades K-6, while Mapletown Junior-Senior High School serves students in grades 7-12.

West Greene School District

The West Greene School District (WGSD) serves the townships of Morris, Center, Gray, Jackson, Gilmore, Freeport, Springhill, Aleppo, and Richhill. Graysville Elementary and Springhill/Freeport Elementary both offer grades K-5, while West Greene Middle-Senior High School offers grades 6-12.

Greene County School District Overview

In general, the perception of the five school districts within Greene County is positive. However, due to statewide public education budget cuts, all districts, with the exception of the West Greene School District, are reviewing proposals in an effort to save money and eliminate budgetary shortfalls. Due to the rural nature of the West Greene School District, cuts in state funding have had little impact.

The growth of the Natural Gas Extraction Industry has not provided an increase in tax revenue to the school systems in Greene County at this time.

Enrollment within four of the five Greene County school districts has remained relatively stable with some minor fluctuations. These variations in enrollment are considered to be unaffected by the energy extraction industry. The exception is within the West Greene School District, where they are experiencing declining enrollment. This is due, in large part, to the coal extraction industry's policy of purchasing single family homes in order to deal with the issue of subsidence associated with mining.

The Central Greene School District offered an elective course related to the Energy Extraction Industry and a course for obtaining a CDL license. Offering Energy Extraction Industry course work at the Greene County Career and Technology Center is also under review by school district superintendents.

Greene County district high schools are not accredited by the Middle States Association of Colleges and Schools. This organization provides independent and nationally recognized accreditation to schools and colleges in the region. Although not state mandated, the districts' lack of accreditation may be considered a major drawback in attracting energy extraction industry employees with school-age children to Greene County, as there are school systems within a short commute that have this accreditation.

F. SCHOOL PERFORMANCE DATA

The following table shows the most recent performance data (proficiency testing, attendance, and graduation) for the five public school districts serving Greene County, as well as for statewide Pennsylvania. Values for school-wide math and reading tests represent the percentage of students receiving a score of "proficient" or higher. Every Pennsylvania public school student in grades 3 through 8 and then again in grade 11 is assessed in reading and mathematics.

Greene County Public School Districts Proficiency Scores						
Performance Criteria (2009-2010)	Carmichaels Area School District	Central Greene School District	Jefferson-Morgan School District	Southeastern Greene School District	West Greene School District	Pennsylvania Statewide Average
District-wide Enrollment*	1,065	2,086	836	609	823	N/A
District-wide Math Proficiency Test	75.0%	72.0%	61.0%	71.0%	63.0%	75.0%
District-wide Reading Proficiency Test	69.0%	67.0%	64.0%	61.0%	53.0%	72.0%
District-wide Attendance Rate	91.0%	92.0%	92.0%	90.0%	92.0%	94.0%
District-wide Graduation Rate	87.0%	88.0%	92.0%	80.0%	97.0%	90.0%

Source: Pennsylvania Department of Education

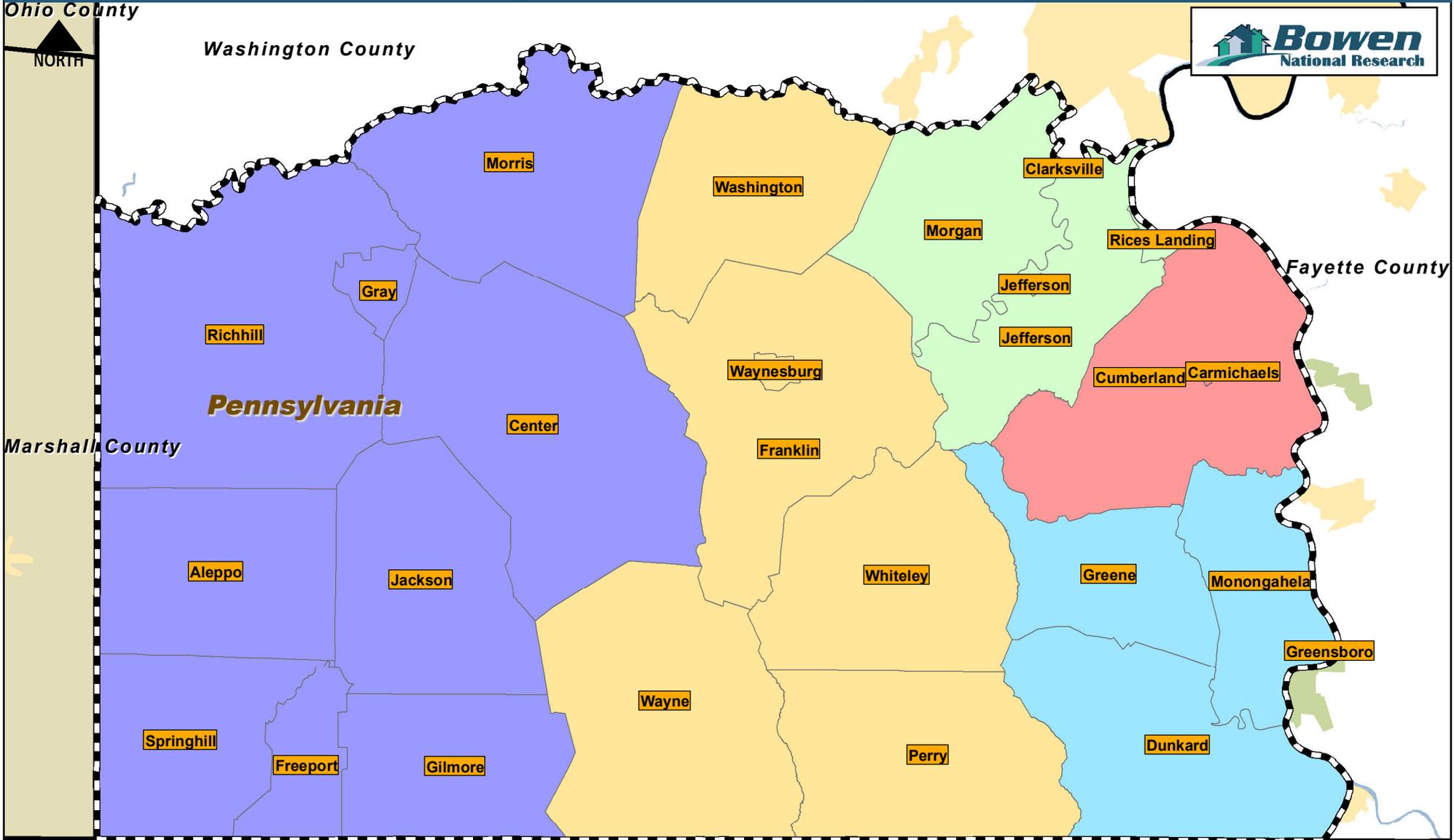
* Excludes vocational-technical school students

The performance of public school districts is a major contributing factor in how households select a place to live. Thus, we have compared the five Greene County school districts with statewide performance data.

Data from the preceding table indicates that Greene County public schools score at or below state levels with regard to math proficiency, and clearly below state levels with regard to reading. Carmichaels Area schools appear to perform the highest, while West Greene schools the lowest. Attendance and graduation rates for Greene County public schools are similar to statewide averages. In summary, Greene County public schools, on average, perform no better than the state as a whole.

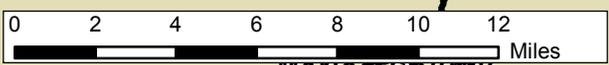
A map illustrating the boundaries of the five public school systems within Greene County follows.

Greene County, PA: Greene County School Districts



Legend

- Greene County
- Municipalities**
- School Districts**
- Carmichaels
- Central Greene
- Jefferson-Morgan
- Southeastern Greene
- West Greene



1:300,000

G. CRIME RISK

The primary source for Crime Risk data is the FBI Uniform Crime Report (UCR). The FBI collects data from roughly 16,000 separate law enforcement jurisdictions across the country and compiles this data into the UCR. The most recent update showed a 95% coverage rate of all jurisdictions nationwide.

Applied Geographic Solutions uses the UCR at the jurisdictional level to model seven crime types at specific levels of geography. Risk indexes are standardized based on the national average. A Risk Index value of 100 for a particular crime type indicates that, for the area, the relative probability of the risk is consistent with the average probability across the United States.

It should be noted that aggregate indexes for total crime, personal crime and property crime are not weighted, and a murder is no more significant statistically in these indexes than petty theft. Thus, caution should be exercised when using them.

In Greene County, the Total Crime Risk value of 44 is well below the national average of 100, with indexes for personal and property crime of 45 and 48, respectively.

	Crime Risk Index Greene County
Total Crime	44
Personal Crime	45
Murder	57
Rape	81
Robbery	14
Assault	36
Property Crime	48
Burglary	57
Larceny	40
Motor Vehicle Theft	38

Source: Applied Geographic Solutions

Given that the Greene County Crime Risk Index is only half the national average, crime is considered very low in the county. This is a positive selling point for Greene County and will appeal to both developers of housing and prospective Greene County residents.

A map illustrating the crime risk within the Waynesburg/Franklin Township area (the only region in Greene County with significant population) follows this page.

H. COMMUTING PATTERNS

The following tables show two commuting pattern attributes for Greene County residents in 2000, transit mode and travel time:

Mode of Transportation	Workers Age 16+	
	Number	Percent
Drove Alone	14,572	81.5%
Carpooled	1,964	11.0%
Public Transit	26	0.1%
Walked	601	3.3%
Motorcycle	0	0.0%
Bicycle	0	0.0%
Other Means	135	0.8%
Worked at Home	585	3.3%
Total	17,883	100.0%

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

Nearly 93% of all workers living in Greene County used a car for their daily commute, with 81.5% driving alone and 11.0% carpooling. Only 3.5% of the workforce used public transit or walked for their commute. The share of Greene County at-home workers (not just homemakers) was typical at 3.3% of the workforce. Clearly, most (9 out of 10) Greene County residents rely on a car to commute to work.

Travel times to and from work (one-direction) for employed Greene County residents are illustrated as follows:

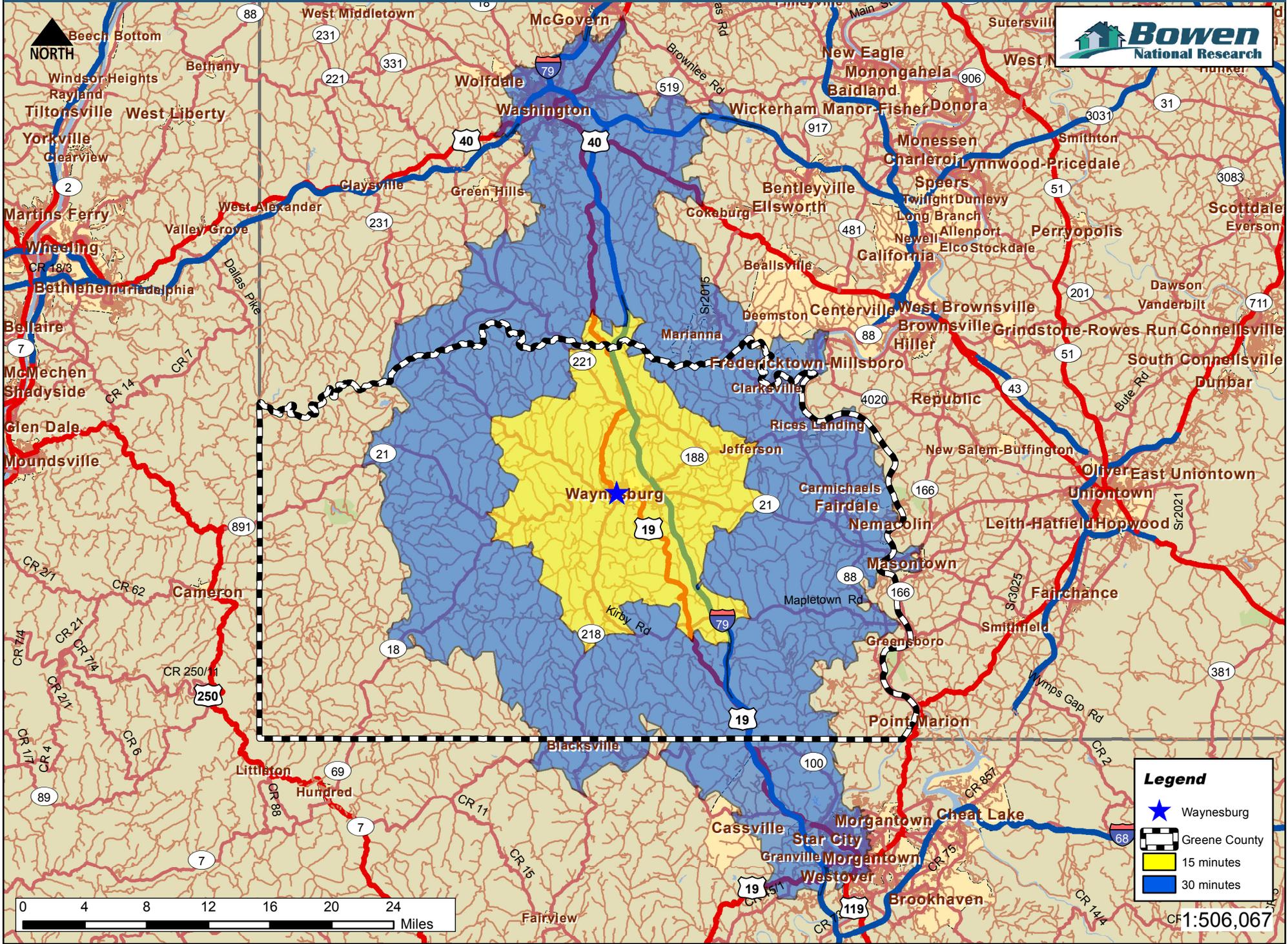
Travel Time (2000)	Workers Age 16+	
	Number	Percent
Less Than 15 Minutes	5,546	31.0%
15 to 29 Minutes	4,874	27.2%
30 to 44 Minutes	3,356	18.8%
45 to 59 Minutes	1,559	8.7%
60 or More Minutes	1,963	11.0%
Worked at Home	585	3.3%
Total	17,883	100.0%

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

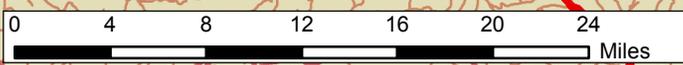
Of all employed Greene County residents in 2000, 61.5% required less than 30 minutes to reach their jobs, while 38.5% (one-third) need 30 minutes or more to travel to work. One in ten area commuters spends over an hour to reach work. Since Greene County is approximately 25.0 miles wide in all directions, most people who live and work in Greene County should be able to reach their jobs within 30 minutes. Thus, nearly 40% of Greene County residents may be leaving the county each day to work.

A drive-time map showing travel times from the Waynesburg Borough follows this page.

Greene County, PA: Drive Time from Waynesburg



- Legend**
- ★ Waynesburg
 - ▭ Greene County
 - 15 minutes
 - 30 minutes



Scale: 1:506,067

I. POPULATION TRENDS

The population bases for years 1990 and 2000 are presented in the following table for the six boroughs and three geographically-grouped township zones (western, central, and eastern) comprising Greene County:

		Year	
		1990 (Census)	2000 (Census)
Carmichaels Borough	Population	532	556
	Population Change	-	24
	Percent Change	-	4.5%
Clarksville Borough	Population	220	234
	Population Change	-	14
	Percent Change	-	6.4%
Greensboro Borough	Population	312	295
	Population Change	-	-17
	Percent Change	-	-5.4%
Jefferson Borough	Population	326	337
	Population Change	-	11
	Percent Change	-	3.4%
Rices Landing Borough	Population	483	443
	Population Change	-	-40
	Percent Change	-	-8.3%
Waynesburg Borough	Population	4,270	4,184
	Population Change	-	-86
	Percent Change	-	-2.0%
Western Townships (7)*	Population	3,722	3,484
	Population Change	-	-238
	Percent Change	-	-6.4%
Central Townships (7)**	Population	12,817	14,930
	Population Change	-	2,113
	Percent Change	-	16.5%
Eastern Townships (6)***	Population	16,867	16,209
	Population Change	-	-658
	Percent Change	-	-3.9%
Greene County Total	Population	39,549	40,671
	Population Change	-	1,122
	Percent Change	-	2.8%

Source: 2000 Census; ESRI

* Includes the townships of Richhill, Aleppo, Springhill, Gray, Jackson, Freeport, and Gilmore.

** Includes the townships of Washington, Franklin, Whiteley, Wayne, Perry, Center, and Morris.

*** Includes the townships of Morgan, Jefferson, Cumberland, Greene, Monongahela, and Dunkhard.

A map illustrating the population levels of the 20 townships (and their associated boroughs) within Greene County in 2000 follows this page.

III. STAKEHOLDER INTERVIEWS OVERVIEW

A. INTRODUCTION

We conducted nearly two dozen telephone interviews with area stakeholders to gain local perspective on numerous factors and perceptions that impact or potentially influence development of housing in Greene County. The stakeholders that were contacted are from a broad spectrum of positions and areas of expertise. Since these stakeholders are from a variety of backgrounds, we asked questions related to their specific field and knowledge base in addition to general questions about Greene County that all participants were asked.

The following summarizes the general content and consensus (when applicable) of the interviews we conducted and are not necessarily the opinions or conclusions of Bowen National Research.

B. SUMMARY OF STAKEHOLDER INTERVIEWS

Housing

According to many local sources we interviewed, the growth of the energy extraction industry has had a pronounced impact on the housing market within Greene County. Generally, the greatest need is perceived to be market-rate rentals, either apartments or hotel/motel units, for individuals at moderate income levels. There is also a large demand for RV/Trailer Park lots.

Hotels/Motels

A portion of the need for additional hotel units may be addressed by two proposed hotels that have been approved through Franklin Township Planning but have, to date, not begun the permitting process.

RV/Trailer Parks

Due to the mobile nature of employment within a portion of the energy extraction industry, RV's offer a practical housing option. There are very few vacancies at local RV/trailer parks in Greene County. This also appears to be an attractive option for EEI employees who have small children as opposed to renting a hotel/motel room.

Modular Homes

The energy extraction industry has not created growth in the modular home market in Greene County or the Southwestern region of Pennsylvania. At this time, housing market investors are reluctant to develop due to the volatile nature of the natural gas market. The risk associated with a possible downturn in the market is perceived as too great.

The lack of existing infrastructure in rural counties make some developers reluctant to invest or develop, due to the high start up costs associated with constructing water/sewer and roadways. Without a clear indication that growth of the energy extraction industry will be sustained, there is concern that investors may not be able to recoup their investment. Financial assistance to develop infrastructure from the natural gas companies or the government would greatly diminish a major obstacle to housing development.

Also, with short commute times to some of the more developed areas surrounding Greene County, demand for housing and development has not been as critical as in other parts of Pennsylvania. The greatest demand for modular housing is currently in Lycoming County where commute times to a larger city is greater.

Market-Rate Rental Units/Apartments/SFH Rentals

Many individuals familiar with the local rental housing market indicated that, as a result of the growth of the energy extraction industry and the increasing demand for market-rate rentals, there has been an increase in rents ranging from 30% to 40%. Prior to the energy extraction industry's rapid growth, rentals typically ranged from \$350 to \$750 dependent on unit size. Currently, rents for these same units range from \$500 to \$1,000, with some rents as high as \$1,200. At this point in time, rental vacancies are extremely low and availability is a major issue for local residents and energy extraction industry workers alike. For many who have been unable to obtain quality, affordable housing in Greene County, they are seeking housing in larger cities in surrounding counties, such as Washington, Pennsylvania and Morgantown, West Virginia. These communities have more available diverse housing options, offer a greater number of community services, and are within an easy commute from Greene County along Interstate 79.

Single Family Housing

Some area realtors stated that the local housing market has experienced increases in property values for both acreage and single family homes. With approximately 12,000 single family homes in Greene County, but only a limited number of homes currently listed for sale, there is clearly a demonstrated lack of single family homes on the market. A moderate quality home priced between \$100,000 and \$200,000 is typically on the market for less than a few weeks and most sell for full to slightly below full asking price. Some housing stock has remained on the market for longer periods of time; however, these homes are typically older, less energy efficient, poor quality homes.

Contributing to the demand for single family homes in the western portion of the county is a new coal mine that is in the permitting stage near Holbrook, Pennsylvania. As a result of this expansion, the coal company has purchased many of the single family homes in the area at a premium price. A coal company employee may live in the purchased residence for a short period of time, but often these homes remain vacant. Eventually, the homes are demolished to combat issues associated with subsidence.

Former home owners that are employed in the area are often unable to find available quality replacement housing within Greene County and typically relocate to cities within a reasonable commute such as Washington, Pennsylvania or Morgantown, West Virginia. Residents that are either retired or unemployed are more likely to leave the Greene County area entirely. Due to the shortage of available housing in Western Greene County and removal of some housing stock, there has been a marked decline in school enrollment and population.

There is also a coal mine in the permitting stage in Jefferson, Pennsylvania. However, they have not experienced the housing situation that has occurred in the Holbrook, Pennsylvania area.

Affordable Housing

Local housing authority representatives believe that there is little need for additional units of most types of affordable housing in Greene County. The greatest need is for individuals age 18 to 55 seeking one bedroom accessible apartment units. If there is a gap in the housing supply, it would be for low-middle to middle income families that fall outside affordable housing parameters.

Residents, in general, would be more receptive to smaller, possibly scattered site apartments with eight or fewer units. Renovation of existing buildings into apartment units would be a good fit in the area.

A recent single family home affordable housing project proposed by Woda Development received considerable grass roots opposition. The proposed project would have included 50 single-family homes on a 17-acre parcel off Powell Lane in Franklin Township targeting low and moderate income residents. A family moving into one of the houses would had to have met income requirements ranging from \$22,780 to \$40,000, depending on the number of people in the household and be able to pay \$630 to \$690 a month in rent including utilities. Concerns voiced by residents regarding the project were, an increase in crime in the township and lower property values. Due to resident opposition, Woda Development decided to discontinue the project.

In May of 2011, Franklin Township adopted changes to the zoning ordinances that increase minimum lot sizes particularly in regard to single-family residences.

Homelessness

According to area supportive service providers, prior to the rapid growth of the energy extraction industry in Greene County, there was little issue with homelessness. This is no longer the case. Recent Point in Time Studies provided evidence of this increase, as demonstrated in the 2008-2010 Summary of Point-In-Time Count for Pennsylvania Southwest Region by county (<http://www.pahousingchoices.org/county-housing-planning/data/>) and the 2011 Greene County Human Services Department, Unsheltered Point-In-Time Survey of the Homeless – January 26, 2011.

From 2008 to 2010, incidences of homelessness were rare with only one unsheltered homeless individual being reported. However, in 2011 the number of unsheltered single individuals increased to eleven. In previous surveys, there were zero reported incidences of family unsheltered homelessness. In 2011, the number of unsheltered homeless families increased to 10 families consisting of 19 adults and 10 children.

In rural areas where the coal extraction industry is expanding, coal companies have purchased the majority of single family homes where mining will occur, leaving some homes vacant for a period of time. The coal industry typically demolishes these properties, but many of the homeless are living in these abandoned structures at least for a short time period until the demolition is completed.

As a result of the increase in energy extraction industry employees, rents at apartments in Greene County have increased from \$400 to approximately \$600 (depending on unit size), and sometime as high as \$1,200 for a four-bedroom rental. Grants received by Greene County Housing Coordination Services provide assistance for homeless individuals. These grants provide landlords with guaranteed fair market rents for a one-year term; often these grants are extended. Landlords have chosen to either not renew the leases of tenants on the grant program or to not accept them in the first place, in order to charge inflated rents to energy extraction industry employees. The increase in cost of living is not limited to rents but goods as well.

Senior Housing

Based on interviews with local housing professionals and supportive service providers, there is a lack of affordable senior housing which is being addressed by a coalition between the Area Agency on Aging, developers, and businesses within the community. Recently a fire at Avalon Court apartments, a senior public housing project, precipitated the need to find temporary housing for residents until the project could be renovated. As a result of the increase in employment associated with the energy extraction industry there was little or no available housing when the need arose.

With the reopening of the Avalon Court apartments, the issue of additional senior housing will be addressed to some degree. The reopening of these apartments is slated to occur in August.

Senior housing outside of the areas of Waynesburg and Carmichaels would likely not be greatly successful due to the lack of community services in outlying areas.

Currently, there is no public transportation and only limited shared ride transportation within the county, making it difficult for seniors outside these larger communities to access needed services. There is a greater need for additional rental housing, not necessarily designated to seniors only, but for low to moderate income individuals in general.

Impediments to developing housing

According to a variety of local sources, one of the most significant impediments to building additional housing in Greene County is the lack of in place infrastructure, primarily in regards to access to public water and sewer systems.

Due to the rural nature of the county as well as topography, public water and sewer service is not widespread. It is predominantly found in the central and eastern portions of Greene County; there is no public service in the western region of the county.

All six boroughs are served by a public water system, but some of these systems are at or over capacity. Recently, Carmichaels had an issue with water contamination (bromide) and were under a boil alert for a month. Although Carmichaels is interconnected with the Southwestern Pennsylvania Water Authority, Southwestern did not have the capacity to provide all water needed by the community because of the water allocation permit they currently have through the Pennsylvania Department of Environmental Protection (DEP). In order for them to provide sufficient water to Carmichaels, Southwestern would have to re-apply to the Pennsylvania DEP for a permit to increase water allocation to the authority. Waynesburg and much of Franklin Township are well served in regard to public water and currently have additional capacity.

Therefore, public water is much more readily available than public sewer service and conventional septic systems are not a good fit in this area due to the presence of hydric soil. The Pennsylvania Department of Environmental Protection is requiring more expensive septic treatment options (i.e. sand mound systems). Within the past five years only four to five conventional septic system permits have been issued and brought online. Any on-lot septic system for a major development would have to be very carefully thought through.

Wildcat sewers (sewer lines running directly to the ground or streams) can be found throughout the county and pose health and safety hazards to residents. Sewer enforcement officers are often unable to locate and police these wildcat systems which contribute to contamination of local water sources.

The lack of public water has had little impact on the Energy Extraction Industry as the water they use for drilling and the fracking process is purchased from bulk water suppliers and is trucked to the drilling sites.

The lack of adequate roadways to handle both the increased volume of traffic and road deterioration caused by vehicle weights is a major issue.

Funding to implement expansions and develop new water/sewer systems is lacking. This is also the case for roadway expansions and repairs, which makes an expedient solution to these problems more difficult. Although impact fees or additional taxes have been discussed at state and local levels, no definitive plan has been proposed.

Secondary to the infrastructure issue is the culture/attitudes of some local residents in regard to housing development and the growth of the energy extraction industry in general. The perception of some area residents is that increased housing development would lower property values and that additional affordable housing will bring with it an increase in crime. This perception was the main obstacle blocking the Woda Development project in Franklin Township.

Uncertainty regarding environmental impacts from new drilling processes is cause for concern among residents. Issues experienced in the Carmichaels area with water contamination substantiate this concern for residents.

Employment

Local sources indicated that a major positive impact of the growth of the energy extraction industry in Greene County has been increased employment opportunities as well as increased revenue to local businesses. Increases in property values and revenue from the lease of drilling rights and natural gas production have also had a positive impact on the local economy.

Jobs within the energy extraction industry are spread throughout the area with the majority of drilling sites located in the more rural western region of the county; however, the regional natural gas extraction industry offices are predominately located along Interstate 79 and in Mt. Morris, Pennsylvania. The belief of the majority of stakeholders is that this will continue to be the case over the next five years.

Ancillary job growth has mainly consisted of trucking and security jobs in the past, but recently there is growth in the need for welding sub-contractors.

Secondary job growth spurred by the energy extraction industry has, for the most part, occurred within the retail and hospitality industries. Within these industries specific businesses experiencing the greatest increases in traffic and revenue would be the restaurants, hotels, grocers, and gasoline stations.

Initially the majority of energy extraction industry employees were from outside of the county. However, as the industry has progressed and local residents have received training, this trend has reversed. According to statistics provided by the Pennsylvania Department of Labor and Industry, 48,000 new jobs have been created by the expansion of the EEI statewide. According to data compiled through the federally mandated new hire tracking program, 71% of these jobs have been filled by Pennsylvania residents. The trend in the southwestern region of Pennsylvania indicates that approximately 65% to 70% of jobs in the area are being filled by Pennsylvania residents. Currently the split between short-term and long-term jobs is about 50:50, but this is beginning to shift toward recruitment for more long-term positions.

The transient, short-term employees in the EEI were characterized as ranging from 20 to 30 years of age, mostly male and single. Those workers who were married either do not have children or do not have school-age children. Individuals in this group that have school-age children have typically not relocated to the county, preferring to commute rather than uproot their families. Income for these employees falls mostly in the \$40,000 to \$80,000 range and most have had on-the-job training or some technical school/college. Typically, Natural Gas Industry employees at the drilling sites are expected to work a 12-hour shift, many working seven days a week. The Coal Extraction Industry requires employees to work nine to 10 hours a day.

The long-term employees range from 20 to 50 years old. They are typically better educated having some type of degree (associates, bachelors or advanced degree), and income for these employees range from \$60,000 to \$200,000 and up for those in upper management positions. These individuals are more likely to move to the area if they are from outside the state or outside a commutable distance. Therefore, many of these individuals are choosing to commute from larger municipalities such as Washington, Pennsylvania or Morgantown, West Virginia as these communities have a greater number of services and housing choices available.

Since the larger cities of Morgantown and Washington are relatively close to Greene County (20.0 miles and 25.0 miles respectively), many EEI employees that choose not to live within the county or are unable to find housing are carpooling from these nearby communities

Although Greene County has made strides in developing recreational areas, such as the new water park and skating rink in Waynesburg, other nearby municipalities outside of the county offer more community services.

In outlying areas of the county, especially western Greene County, there is a notable lack of basic community amenities, such as grocery stores or gas stations which necessitate traveling to Waynesburg or other larger cities anyway.

It was also noted that the EEI workers residing in hotels are often bussed from the hotels to the work site. Local area restaurants in Waynesburg have begun providing shuttle service from the hotels to their restaurants as some of these EEI employees do not have their own transportation at the hotel where they are staying.

Education

For the most part, enrollment within the five Greene County school districts has remained stable with some slight fluctuations in enrollment. These enrollment changes are considered to be unassociated with the energy extraction industry.

The only exception to this stability is within the West Greene School District, where they are experiencing declining enrollment due to the coal extraction industry's purchase of large numbers of single family homes in the rural western region of the county. Companies within the coal extraction industry are purchasing single family homes at a premium price and, although a coal employee may reside in one of these homes for a short period of time, at some point these houses are typically demolished. The majority of residents that have chosen to sell have relocated outside of the county as well. One of the main factors contributing to this choice to relocate outside the county is the difficulty in obtaining quality affordable housing.

The most noticeable impact of the energy extraction industry on the school districts has been heavy truck traffic and the student transportation delays associated with the increase. However, the energy companies have been very responsive in trying to schedule truck traffic around the start and ending of the school day to minimize delays.

Due to statewide education budget cuts of \$1.1 billion, Central Greene School District and Carmichaels Area School District are experiencing a \$2.35 million and a \$1.1 million budget shortfall, respectively.

One possible proposal to balance the Central Greene School District budget would be to close Perry Elementary School as well as furloughing three full-time and two part-time teaching positions and eliminating three support staff positions. The closing of the elementary school has not been well received by local community members.

The Carmichaels Area School District will eliminate a total of nine support staff positions, two through attrition and seven employees would be furloughed.

Three of the five school districts, Carmichaels Area, Jefferson-Morgan and Southeastern Greene, have received a preliminary feasibility report conducted to investigate the possibility of sharing services among the districts in an effort to save money. This study is still ongoing at this time and no recommendations have been finalized.

Due to the rural nature of the western portion of the county, the statewide education budget cuts had little impact on the West Greene School District since little state subsidy is received by them.

The growth of the Natural Gas Extraction Industry has not provided any increase in tax revenue to the school systems in Greene County.

Each of the school districts within Greene County participated in a one-day Natural Gas Expo that was offered to students at the middle school level and provided basic information on the Marcellus Shale Play as well as energy extraction information.

The Central Greene School District offered a high school elective course in 2010 outlining what is involved in natural gas extraction and production. Thirty students participated in the class and, based on its success, the school district is considering expansion of this course offering in the future. They also offer a course to obtain CDL licensing.

There has been discussion among the superintendents of the school districts related to offering courses in response to the growth of the energy extraction industry. Most likely these classes would be offered at the Greene County Career and Technology Center, but no curriculum change has been made to date.

Crime

According to both public and private sector sources, no increase in crime has been associated with the boom in the energy extraction industry in Greene County. Based on experience with the large energy extraction companies working in the area, safety is their number one priority and there is zero tolerance for misconduct by employees or for repeated traffic violations. This holds true for both short-term, more transient employees and the longer term employees.

Traffic

From time to time, GPS systems will route large trucks through rural areas that are not made to handle this type of traffic. Narrow and hilly roadways cause difficulty for large trucks attempting to navigate in these areas and damage to power lines and property has occurred.

The largest negative impact experienced by the growth of the Energy Extraction Industry has been the increase in the volume of truck traffic causing the deterioration of roadways.

C. CONCLUSIONS

Stakeholder interviews were conducted with nearly two dozen representatives of the Greene County community, including those involved with housing, education, public safety, and other local and county government services. These interviews provided valuable information of individual communities and the overall county, allowing us to supplement statistical analysis with local insight and perspectives of those factors that influence the community and impact development of housing.

Based on the interviews we conducted with numerous stakeholders in Greene County, the general consensus is that the energy extraction industry has had a notable impact on the overall community in the form of increased traffic and traffic congestion, availability of housing, rapid reduction in the escalating rents, increased property values, substantial increases in homelessness, notable wear and tear on roads, greater concern over environmental implications, increased concerns over potential impact on infrastructure, and increased employment opportunities. Areas where most stakeholders do not believe the energy extraction industry has impacted the overall community include notable changes in crime or public school enrollment. Overall, while several legitimate concerns were expressed over potential or perceived negative impacts the energy extraction industry is having or could have on several quality of life issues in Greene County, most respondents believed that the presence of the energy extraction industry could have a positive impact on the county. Most of the respondents that provided positive feedback towards the energy extraction industry's impact on the community, however, indicated that careful planning and well-conceived government policy decisions will be critical to the county maximizing the benefits and minimizing the detriments the energy extraction industry's growth could have on the county.

IV. EMPLOYEE/EMPLOYER SURVEY OVERVIEW

A. INTRODUCTION

To gain information, perspective and insight about Greene County employment and housing trends, Bowen National Research (BNR), in cooperation with Greene County Department of Economic Development (GCDED), conducted two surveys as part of this study.

The first survey involved prospective employees (job seekers) who attended the Tri-County Employment Expo on June 17, 2011 at the Greene County Fairgrounds near Waynesburg. The survey was designed to elicit personal, housing, and employment information from Expo attendees. BNR staff members intercepted 220 of the 921 registered job seekers at the Expo, and asked them to complete a 12-question hard-copy survey instrument. The survey instrument (with results) appears as Addendum F at the end of this study. A further discussion of this survey occurs in Subsection B below.

The second survey involved energy extraction employers who operate within Greene County. The survey was structured to elicit business, housing, and employment information from local employers. BNR and GCDEC developed a 28-question survey instrument and a list of 50 Greene County energy extraction-related employers. The survey was administered over the phone and via email between July 29 and August 10, 2011. Of the 50 employers contacted, fifteen energy extraction employers responded to the survey and an additional four employers were in the process of compiling data at the time the study was released. Thirteen of the employers contacted had no employees currently working in Greene County or the business was unrelated to the energy extraction industry. The survey instrument (with results) appears as Addendum E at the end of this study. A further discussion of this survey occurs in Subsection C below.

B. PROSPECTIVE EMPLOYEE SURVEY

To develop a profile of the potential new workforce in Greene County by 2015 and to measure the non-Greene County residents' interest in moving to Greene County, 220 of 921 attendees (a 23.6% sample) of the Tri-County Employment Expo were randomly intercepted and surveyed. Key results from the prospective employee survey include:

- Of those survey respondents answering (219), 50.7% were employed at the time of the Expo.
- Of those unemployed survey respondents answering (45), the average time since last employment was 7.7 months.

- Of those unemployed survey respondents answering (76), 92% were not previously in the energy extraction industry.
- Of those survey respondents answering (205), 70% lived within a 30-mile radius of Waynesburg, Pennsylvania.
- Of all survey respondents (220), the two age cohorts providing the most answers were 20-29 years (28.6%) and 50-59 years (27.7%). Median age of respondents was approximately 40 years.
- Of all survey respondents (220), nearly 60% were earning less than \$40,000 per year, while nearly 15% were earning over \$60,000 per year. Median annual wage of respondents was approximately \$35,000 per year. When asked what they anticipated to earn if they were hired by the energy extraction industry, the median answer increased to \$50,000 per year. Over 25% of survey respondents thought they could make more than \$60,000 per year in the energy extraction industry.
- Of all survey respondents (220), the highest level of education attainment was as follows: 30.9% were high school graduates, 26.8% were attending college, and 40.0% were college graduates.
- Of those survey respondents answering (218), 17.0% lived with parents/relatives, 28.4% rented, and 54.6% owned. None of the respondents resided in a daily-rate or non-permanent living arrangement (boat, campground, motel, van, RV, boarding house, etc.).
- Of those survey respondents answering, 59.4% were single, while 40.6% were married (212 answered); 46.2% were childless, while 53.8% had children at home (117 answered); and 24.3% lived alone, while 75.7% lived with others (74 answered).
- Of those survey respondents answering (213), 70.4% indicated that they lived within a commutable distance of a new job in Greene County (21.1% within Greene County), while 29.6% did not. Of those respondents who were not within a commutable distance of a new Greene County job (63), 70.5% indicated they would rent a new residence, 25.9% would buy a new residence, and 3.6% would live in temporary living arrangement.

- Of those survey respondents answering (112), 28.6% said that Greene County’s housing market was “good”, 57.1% said it was “fair,” and 14.3% said it was “poor.” Nearly 50% of all respondents (108) did not “grade” the local housing market. Of those survey respondents who did “grade” the local housing market (40), “location” was perceived as the biggest housing issue with 40% of the answers, “quality” was next with 30% of the answers, “affordability” followed with 25% of the answers, and “availability” was last with only 5% of the answers.
- Of those survey respondents answering (132), 26.5% said that Greene County was a “desirable” place to live, 69.7% said it was “fair” and 3.8% said it was “undesirable”. Nearly 40% of all respondents (88) did not provide an opinion on the local quality of life.

Survey Conclusions

Based on the prospective employee survey results, the following generalizations can be made about the potential new members of Greene County’s future workforce:

- Half of job seekers will likely be unemployed (for about six months).
- Most job seekers will likely have had no experience in the energy extraction industry.
- Job seekers will likely be evenly distributed by age (between 20 and 60 years old). Very few will be below 20 or above 60 years of age.
- Most job seekers will likely expect their annual wages to increase significantly if they secure a position in the energy extraction industry.
- A minority of job seekers will likely be college graduates.
- A majority of job seekers will likely own their residence, and commute to a new job in Greene County without having to relocate.
- Most job seekers who must relocate for a new job in Greene County will likely rent their new residence.
- A majority of job seekers will likely be single.
- A notable share (over 70%) of job seekers will likely have concerns with the existing housing market in Greene County.
- A notable share (nearly 75%) of job seekers will likely have concerns with the existing quality of life in Greene County.

C. EMPLOYER SURVEY

To develop a profile of the employers in Greene County and to determine the housing needs of their workers, 50 energy extraction-related companies operating in Greene County were asked to participate in a 28-question phone survey. Of the 50 employers contacted, 15 (30.0%) completed the survey by the study's release date. Key results from the employer survey include:

- Of those employers responding (15), 93.3% have operational offices in southwestern Pennsylvania and 73.3% are located within Greene County.
- Of those employers responding (15), 73.3% are involved in the development (drilling/pre-production) phase of the EEI and 80.0% are involved in the production phase.
- Of those employers responding (15), 80.0% are national or international companies.
- Of those employers responding (15), 80.0% are involved with natural gas extraction and 53.3% with coal mining.
- Of those employers responding (12), 41.7% started operating in Greene County before 2000, 41.7% between 2005 and 2009, and only 16.6% since January 2010.
- Of those employers responding (9), the average number of workers during their first year of operation was 42. By 2010 (14 employers responding), this average increased to 189 workers per company (a 350% increase). For the next five years (2011 to 2015), 86.7% of those employers responding (15) expect to increase their workforce, of which four employers cited job growth numbers totaling 455 new employees in Greene County by 2015.
- Of those employers responding (13), most report that their current workforce is involved in the development and production phases of the industry.
- Of those employers responding (14), most report that their current workforce falls within the 20- to 40-year age group. Very few workers are below 20 and above 60 years of age.
- Of those employers responding (8), most report that their current workforce is married with children living at home.

- Of those employers responding (15), most report that their current workforce has high school diplomas, but no college degrees.
- Of those employers responding (13), most report that their current workforce is earning between \$40,000 and \$60,000 per year.
- Of those employers responding (10), most report that their current workforce is living in an owned house. The next most likely living arrangement is lodging, while the third most likely living arrangement is a rental apartment.
- Of those employers responding (12), on average, 47.6% of their current workforce lived inside Greene County at the time of hiring. Today, 67.9% of their workforce lives inside the county on average.
- Of those employers responding (15), 71.4% said that they have workers living in Morgantown, West Virginia; 57.1% said they have workers living in Washington, Pennsylvania; and 50.0% said they have workers living in Fayette County, Pennsylvania.
- Of those employers responding (14), 54.6% of their current workforce has jobs lasting more than seven years on average.
- Of those employers responding (9), 58.1% of their current workforce owns a residence, while 41.9% rents a residence.
- Of those employers responding (12), 75.0% said that their workforce has difficulties finding suitable housing within Greene County. The most significant problem cited was lack of availability.
- Of those employers responding (11), 63.6% said that their workforce needed more single-family homes in the housing market. This was followed by apartments at 45.5%.
- Of those employers responding (12), 91.7% said that Waynesburg would be the best community within Greene County to serve the housing needs of their workforces.
- Of those employers responding (15), 33.3% said that they offer housing allowances to their Greene County workers. This takes the form of relocation payments and lodging/food reimbursements.

- Of those employers responding (15), 46.7% said that they offer transportation to their Greene County workers. This takes the form of shuttle service to work sites and company vehicles.
- Of those employers responding (14), none said that they offer, or plan to offer, workforce housing for their Greene County workers.
- Of those employers responding (12), 25.0% said that their workforce perceives Greene County as having a desirable quality of life, while the same share (25.0%) perceives Greene County as having an undesirable quality of life. Half of the employers said that their workforces find the quality of living in Greene County to be fair.

Survey Conclusions

Based on the employer survey results, the following generalizations can be made about the employer/employee trends within Greene County:

- Most employers have offices in Greene County (nearly all are within the southwestern Pennsylvania region) and do business in the development and production phases of the energy extraction industry. Most operate nationally or internationally and started doing business within Greene County before 2000 or after 2005. All employers have increased their workforce size since starting operations in Greene County and most employers plan to add new jobs over the next five years.
- Most employers describe their workforce as: (1) 20 to 40 years old, (2) married with children, (3) high school graduates with no college degrees, (4) earning \$40,000 to \$60,000 per year, (5) homeowners, (6) Greene County residents, and (7) long-term job holders.
- Most employers report that their workforce is having difficulties finding suitable housing within Greene County, primarily due to a lack of modern product. According to employers, there is a shortage of newer single-family homes and apartments. Waynesburg is cited as the best community within Greene County to develop needed housing.
- Employers are providing housing and transportation incentives to attract qualified workers, but they are not offering workforce housing (housing built and operated by employers).
- Three out of four employers believe their employees find the quality of life in Greene County to be “desirable” or “fair.” One in four believes their employees find Greene County’s quality of life to be “undesirable.”

V. EMPLOYMENT & WORKFORCE ANALYSIS

A. INTRODUCTION

The need for housing (demand) within a given geographic area is driven by the number of households choosing to live there. Although the number of households within Greene County at any given time is a function of many factors, one of the primary reasons for residency is job availability. In this section, Greene County's workforce and employment are examined. With the discovery of the Marcellus Shale gas play and the resulting rapid growth of the energy extraction industry in Southwestern Pennsylvania at the end of the past decade (2008 to 2010), Greene County's workforce needs are undergoing rapid transformation.

In Section B below, an overview of Greene County's workforce is provided through three descriptors: employment by industry, wages by occupation, and total employment and unemployment rates. Greene County data is compared statistically with both statewide Pennsylvania and the United States data. In Section C, the recent growth of the Marcellus Shale energy extraction industry within Greene County is addressed together with its impact on the county's workforce. Finally, in Section D, a Greene County workforce summary is presented including projected employment numbers necessary for calculating future housing demand in 2015.

B. WORKFORCE OVERVIEW

1. EMPLOYMENT BY INDUSTRY

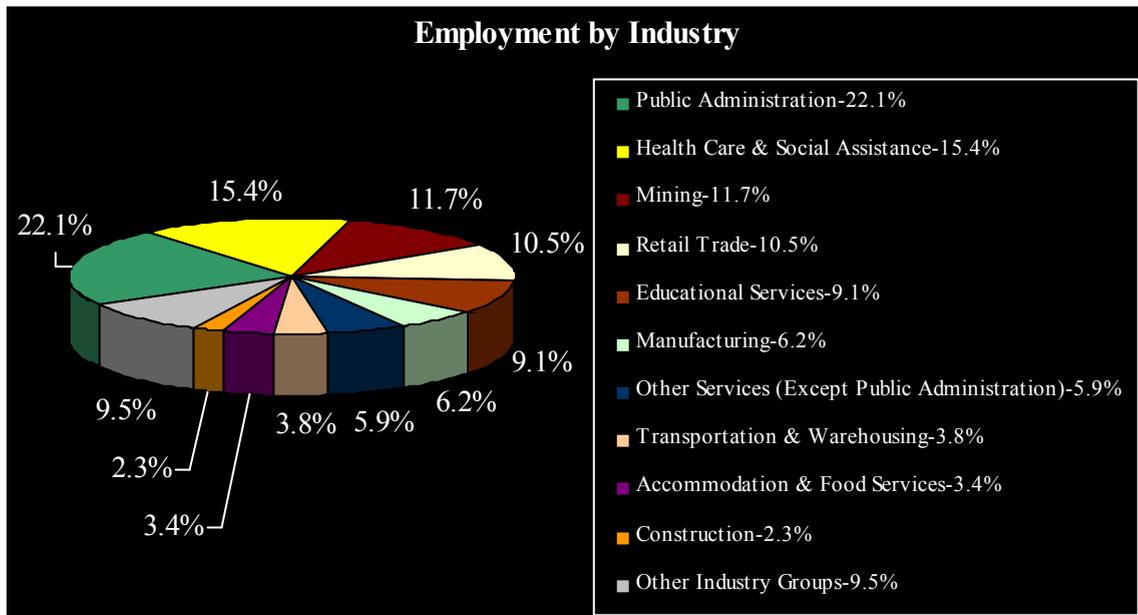
As of January 2010, the labor force within Greene County was based primarily in four sectors: Public Administration (22.1%), Health Care & Social Assistance (15.4%), Mining (11.7%) and Retail Trade (10.5%). These four industries comprised nearly 60% of the county's total labor force. Employment in Greene County, as of January 2010, was distributed as follows:

NAICS Group	Establishments	Percent	Employees	Percent	E.P.E.
Agriculture, Forestry, Fishing, & Hunting	11	0.7%	6	<0.1%	0.5
Mining	24	1.6%	1,589	11.7%	66.2
Utilities	20	1.4%	102	0.8%	5.1
Construction	101	6.8%	318	2.3%	3.1
Manufacturing	40	2.7%	844	6.2%	21.1
Wholesale Trade	48	3.2%	274	2.0%	5.7
Retail Trade	221	14.9%	1,423	10.5%	6.4
Transportation & Warehousing	55	3.7%	515	3.8%	9.4
Information	16	1.1%	73	0.5%	4.6
Finance & Insurance	46	3.1%	273	2.0%	5.9
Real Estate & Rental & Leasing	40	2.7%	141	1.0%	3.5
Professional, Scientific & Technical Services	61	4.1%	242	1.8%	4.0
Management of Companies & Enterprises	1	0.1%	40	0.3%	40.0
Administrative, Waste Management & Remediation Services	35	2.4%	56	0.4%	1.6
Educational Services	41	2.8%	1,236	9.1%	30.1
Health Care & Social Assistance	113	7.6%	2,081	15.4%	18.4
Arts, Entertainment & Recreation	29	2.0%	71	0.5%	2.4
Accommodation & Food Services	91	6.1%	465	3.4%	5.1
Other Services (Except Public Administration)	299	20.2%	799	5.9%	2.7
Public Administration	172	11.6%	3,002	22.1%	17.5
Nonclassifiable	17	1.1%	4	<0.1%	0.2
Total	1,481	100.0%	13,554	100.0%	9.2

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

E.P.E. - Average Employees Per Establishment

Note: Since this survey involved establishments and not residents, some employees may not live within Greene County. These employees, however, are included in our labor force calculations, because their places of employment were located within Greene County.



2. WAGES BY OCCUPATION

Typical annual wages by job category for the Far Western Pennsylvania Nonmetropolitan Area (includes Greene County) as of May, 2011 are compared with those of statewide Pennsylvania in the following table:

Typical Wage by Occupation Type		
Occupation Type	Far Western Pennsylvania Nonmetropolitan Area	Pennsylvania
Management Occupations	\$80,840	\$104,110
Business and Financial Occupations	\$52,030	\$66,120
Computer and Mathematical Occupations	\$52,900	\$73,780
Architecture and Engineering Occupations	\$59,920	\$69,610
Community and Social Service Occupations	\$36,550	\$39,250
Art, Design, Entertainment and Sports Medicine Occupations	\$35,310	\$45,830
Healthcare Practitioners and Technical Occupations	\$56,370	\$67,380
Healthcare Support Occupations	\$23,370	\$26,820
Protective Service Occupations	\$45,390	\$42,110
Food Preparation and Serving Related Occupations	\$19,970	\$21,660
Building and Grounds Cleaning/Maintenance Occupations	\$23,340	\$26,090
Personal Care and Service Occupations	\$21,260	\$23,910
Sales and Related Occupations	\$29,460	\$37,250
Office and Administrative Support Occupations	\$28,810	\$33,220
Construction and Extraction Occupations	\$40,900	\$44,430
Installation, Maintenance and Repair Occupations	\$38,580	\$41,550
Production Occupations	\$33,800	\$34,830
Transportation and Moving Occupations	\$29,300	\$32,740

Source: U.S. Department of Labor, Bureau of Labor Statistics

With the exception of Protective Service occupations, all other wages in the Far Western Pennsylvania Nonmetropolitan Area (FWPNA) are below statewide Pennsylvania wages for the same occupations. FWPNA wages range from 3.1% to 39.5% below statewide values. FWPNA blue-collar wages average \$30,380 per year, while comparable statewide wages average \$33,146 (9.1% more). FWPNA white-collar wages average \$53,417 per year, while comparable statewide wages average \$66,583 (24.7% more). Clearly, wages paid in Greene County are below statewide averages.

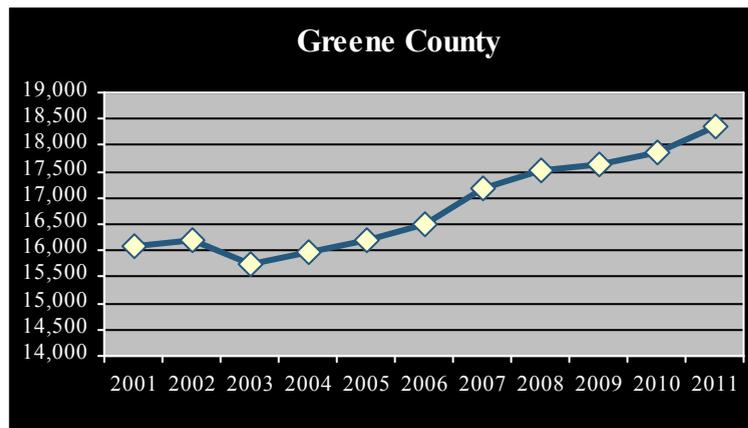
3. EMPLOYMENT TRENDS

Data for this section was generated from the U.S. Department of Labor, Bureau of Labor Statistics and reflects employment trends within Greene County. The following table and graph present the total employment base (number of employed people living in a specified area, not jobs) over the past 11+ years for Greene County, statewide Pennsylvania and the United States:

Year	Total Employment					
	Greene County		Pennsylvania		United States	
	Total Number	Percent Change	Total Number	Percent Change	Total Number	Percent Change
2000	15,698	-	5,830,902	-	138,117,867	-
2001	16,070	2.4%	5,874,153	0.7%	138,241,767	0.1%
2002	16,207	0.9%	5,869,224	-0.1%	137,936,674	-0.2%
2003	15,731	-2.9%	5,795,701	-1.3%	138,386,944	0.3%
2004	15,974	1.5%	5,859,561	1.1%	139,988,842	1.2%
2005	16,215	1.5%	5,958,238	1.7%	142,328,023	1.7%
2006	16,516	1.9%	6,021,084	1.1%	145,081,526	1.9%
2007	17,197	4.1%	6,054,254	0.6%	146,505,036	1.0%
2008	17,513	1.8%	6,095,678	0.7%	146,198,120	-0.2%
2009	17,924	2.3%	5,869,594	-3.7%	140,870,684	-3.6%
2010	17,876	-0.3%	5,791,061	-1.3%	138,432,739	-1.7%
2011*	18,339	2.6%	5,814,824	0.4%	139,288,076	0.6%

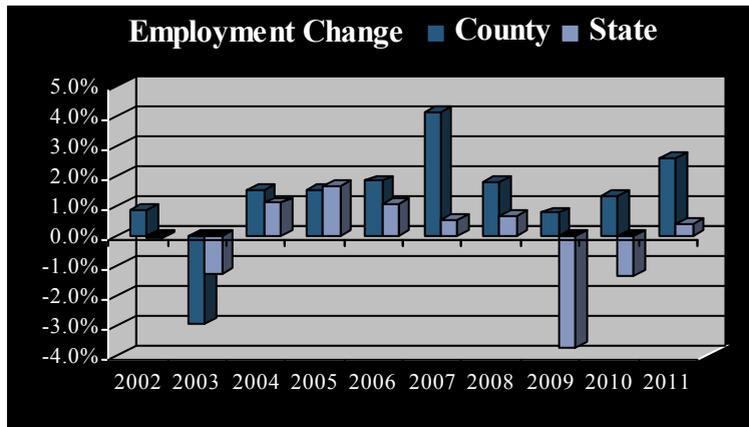
Source: U.S. Department of Labor; Bureau of Labor Statistics

* Through May, 2011



As shown in the preceding graphics, Greene County's employment base increased by 2,641 from 2000 through May, 2011. This represents a 16.8% increase in the number of employed people living in the county. During this same period, employment for Pennsylvania decreased slightly by 0.3%, while the United States increased by a meager 0.2%. Greene County has had a significantly higher growth rate of employed persons since 2000 than did either Pennsylvania or the United States. Most of the employment growth in Greene County has occurred since 2005 (13.1% prior to 2005 versus 16.8% since 2005). Statewide Pennsylvania and the United States declined by 2.4% and 2.7%, respectively, during this same period.

The following table compares the percent change in employment in Greene County to statewide Pennsylvania since 2002.

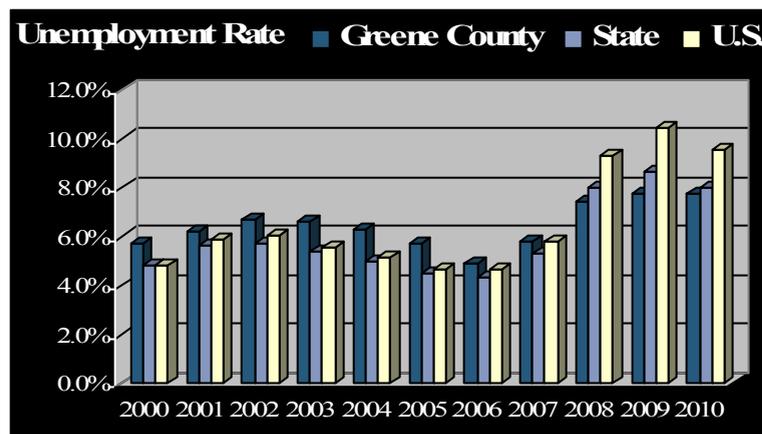


Unemployment rates for Greene County, statewide Pennsylvania and the United States since 2000 are presented below:

Year	Unemployment Rate		
	Greene County	Pennsylvania	United States
2000	5.9%	4.2%	4.0%
2001	5.7%	4.8%	4.8%
2002	6.2%	5.6%	5.8%
2003	6.7%	5.7%	6.0%
2004	6.6%	5.4%	5.6%
2005	6.3%	5.0%	5.2%
2006	5.7%	4.5%	4.7%
2007	4.9%	4.3%	4.7%
2008	5.8%	5.3%	5.8%
2009	7.5%	8.0%	9.3%
2010	7.8%	8.7%	10.4%
2011*	6.9%	8.0%	9.6%

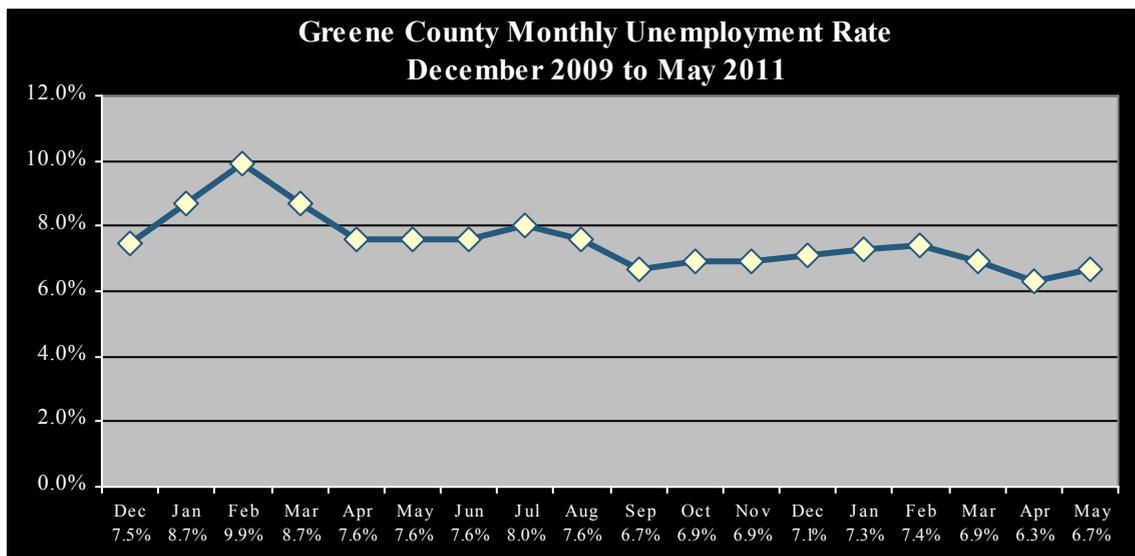
Source: U.S. Department of Labor, Bureau of Labor Statistics

* Through May, 2011



The unemployment rate in Greene County has ranged from a low of 4.9% (2007) to a high of 7.8% (2010) since 2000. From 2000 through 2007, Greene County's unemployment rate was higher than both statewide Pennsylvania and the United States. However, in 2008, Greene County's rate became even with statewide and national figures. Since 2008, Greene County's unemployment rate has dropped well below both the state and national averages. This reversal indicates employment gains in Greene County that did not occur in other areas of Pennsylvania or the United States during this time period. This is most likely explained by the recent job growth in the energy extraction industry within Southwestern Pennsylvania which started in earnest in 2008 and has escalated every year since.

The following table illustrates the monthly unemployment rate in Greene County for the most recent 18-month period for which data is currently available.



The graph on the previous page indicates that from December 2009 through May 2011 (last 18 months) the unemployment rate in Greene County dropped nearly 11% (7.5% to 6.7%). This decrease indicates that a significant number of unemployed Greene County residents found jobs. Much of this job growth can be attributed to increased activity in the energy extraction industry.

The next data set, in-place employment, reflects the total number of jobs within Greene County (regardless of workers' places of residence). The following table illustrates the total in-place employment base for the county over the past 10 years:

In-Place Employment Greene County			
Year	Employment	Change	Percent Change
2001	11,723	-	-
2002	11,727	4	0.0%
2003	11,521	-206	-1.8%
2004	11,682	161	1.4%
2005	11,788	106	0.9%
2006	12,028	240	2.0%
2007	12,675	647	5.4%
2008	12,829	154	1.2%
2009	13,297	468	3.6%
2010	13,589	292	2.2%

Source: U.S. Department of Labor, Bureau of Labor Statistics

The total number of jobs within Greene County has increased every year since 2004. This represents a healthy job market, given the late-decade recession felt by the rest of the nation. Year-end 2010 values indicate that in-place employment (jobs) in Greene County was 76.0% of the total Greene County employment base (employed people living in the county). This means that Greene County had more employed residents than it did jobs. If all of the jobs in Greene County were filled by people living in Greene County, a minimum of 4,287 workers would have left the county on a daily basis to work in 2010. Since this 24% share (one in four) was a minimum, it is very possible that even more Greene County residents were leaving the county to work. As this share increases, it can have an adverse impact on in-county residency given increasing commuting costs.

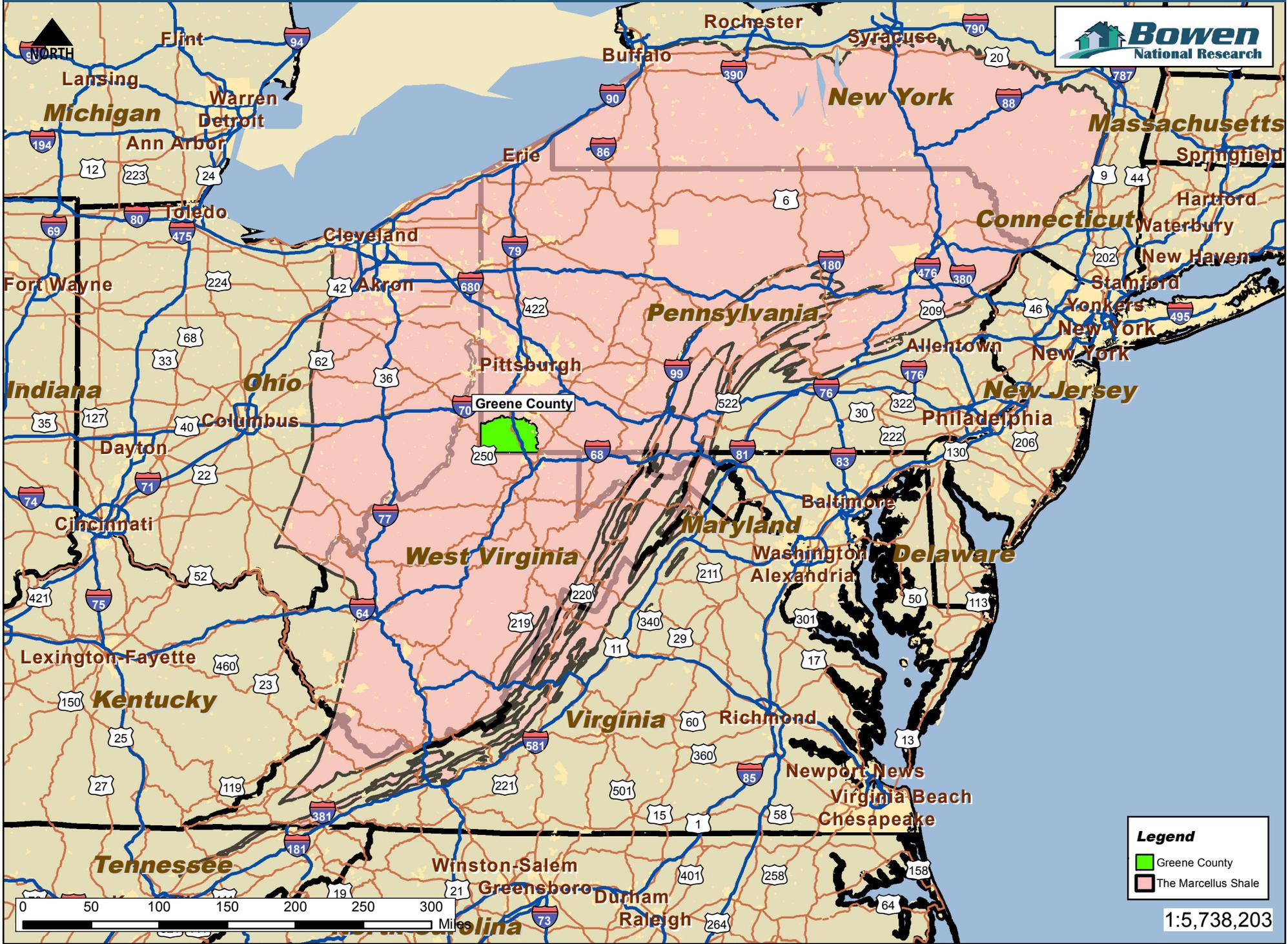
C. ENERGY EXTRACTION INDUSTRY'S IMPACT ON WORKFORCE

The most significant impact on Greene County's workforce over the past five years has emanated from the energy extraction industry's efforts to tap the Marcellus Shale natural gas play, and to a lesser degree, increase coal production.

Greene County, along with its adjoining Pennsylvania counties of Fayette and Washington, is located within the Marcellus Shale, believed to be the nation's largest and the world's second largest natural gas reserve. The Marcellus Shale rock formation extends across two-thirds of Pennsylvania and into parts of New York, West Virginia, Virginia, and Ohio at a depth of 5,000 to 8,000 feet. This brittle shale formation is believed to contain trillions of cubic feet of natural gas trapped between its layers. Recent advances in drilling technology and favorable natural gas prices have attracted new interest in this untapped formation/energy source. The geology suggests that areas in northcentral and southwestern Pennsylvania may be the most productive.

A map illustrating the location of the Marcellus Shale Formation follows:

Greene County, PA: Marcellus Shale Formation



Legend

- Greene County
- The Marcellus Shale

1:5,738,203

In 2003, development of Pennsylvania’s Marcellus Shale play began in two primary regions, the north central counties of Tioga, Bradford, and Susquehanna (along the common border with New York) and the southwestern counties of Greene, Washington, and Fayette. Marcellus Shale gas extraction activity grew steadily in these two hubs until 2008, when it dramatically expanded in 2009. Evidence of this rapid expansion within Greene County is seen in the number of permits issued and wells drilled between 2008 and 2009. In 2008, 43 permits were issued and 18 wells were drilled. In the following year (2009), 182 permits were issued and 91 wells were drilled. This represented one-year increases of 423% (permits) and 506% (wells), respectively.

During 2010, 1,624 permits were issued and 504 wells were drilled in the three northcentral counties, while 504 permits were issued and 238 wells were drilled in the three southwestern counties (includes Greene, Washington, and Fayette). During 2010, Greene County alone had 178 permits issued and 80 wells drilled within its borders, placing it sixth in the state in terms of Marcellus Shale gas development (Bradford County was first). It should be noted that well drilling activity in Greene County leveled off between 2009 and 2010 (91 versus 80 wells, respectively).

The following table illustrates permit and well activity in Greene County, its adjoining two counties of Fayette and Washington, and the north central counties of Bradford, Tioga, and Susquehanna from January, 2008 through July, 2011:

Greene County, Pennsylvania										
Gas Permits Issued and Gas Wells Drilled by Year and County										
	2008		2009		2010		2011*		Totals	
County	Permits Issued	Wells Drilled								
Greene	43	18	182	91	178	80	66	60	469	249
Washington	92	32	209	68	249	139	119	89	669	328
Fayette	45	18	88	55	77	19	32	16	242	108
Bradford	57	14	439	113	830	386	222	241	1,548	754
Tioga	32	8	304	114	564	266	152	146	1,052	534
Susquehanna	69	32	158	60	230	92	73	82	530	266

Source: Pennsylvania Department of Environmental Protection

*Through July 31, 2011

A map illustrating the number of gas wells drilled by county between January 2008 and May 2011 follows this page.

According to a 2010 study by Penn State University, entitled *The Economic Impacts of the Pennsylvania Marcellus Shale Natural Gas Play: An Update*, a survey of gas producers revealed that total statewide Marcellus Shale spending is expected to increase from an actual \$3.2 billion in 2008 to an estimated \$11.0 billion in 2011. This would represent a 344% increase over a three year period (115% per year average). This same study forecasts that gas production will increase from an actual 0.3 billion cubic feet per day (bcf/day) in 2009 to an estimated 7.6 bcf/day in 2015. Further, the study estimates that the number of wells drilled per year within the Pennsylvania Marcellus Shale will go from an actual 710 in 2009 to a projected 2,903 in 2015 (409% increase).

These forecasts taken collectively indicate that the Pennsylvania Marcellus Shale gas industry is poised for a substantial expansion in development activity, and that Greene County would be a participant in that growth.

When analyzing employment growth in the energy extraction industry, it is critical to understand the four major phases involved in the extraction process and the nature of the jobs associated with each phase. These four phases include: (1) planning, (2) development, (3) production, and (4) reclamation. Planning includes all activities required to locate the best areas to develop (before disturbing the land) and to secure the rights and permits to drill (gas) or excavate (coal). Development includes all activities required to locate the product underground and to install the necessary infrastructure to extract and move the product to a point-of-sale on a permanent basis. Production includes all activities required to remove, process and transport the product to market for as long as the site remains active. Reclamation includes all activities required to recycle materials and return the disturbed land to its original condition (this can be an ongoing process throughout the development and production phases).

Jobs associated with each phase are numerous and varied. They can differ in duration, wages paid, physicality, education level, amount of travel, and industry experience. Generally speaking, planning, development and reclamation jobs are more transient and scattered, while production (including processing) jobs are more permanent and regionalized. Planning, development and reclamation jobs tend to be more blue-collar, lower paid, more physically demanding, and less managerial (site-specific). Conversely, production jobs tend to be more white-collar, higher paid, less physically demanding, and more managerial (serve a large geographic area). Planning, development and reclamation jobs comprise nearly 97% of the total energy extraction workforce, and usually require frequent relocation (sites are typically placed into production within a year). Production/processing jobs generally constitute only 3% of the total energy extraction workforce, and usually involve permanent residency.

When discussing Marcellus Shale employment, two industry groupings are typically used: (1) core and (2) ancillary. Core industries/occupations are those that are directly involved in the energy extraction process. Ancillary industries/occupations support or serve the core industries/occupations. For purposes of this study, both core and ancillary industries/occupations are considered “primary” or energy extraction-related, while “secondary” industries/occupations support or serve “primary” industries/occupations. Secondary jobs are not involved in the energy extraction industry; rather, they result from the growth of primary jobs (both core and ancillary). Examples of secondary jobs are teachers, cooks, police officers, realtors, mechanics, nurses, and bankers.

To illustrate primary (core and ancillary) business and employment growth created by Marcellus Shale activity in Pennsylvania, data from the Pennsylvania Department of Labor & Industry is presented in the following table:

**Statewide Pennsylvania
Marcellus Shale Related Primary Industries - Employment Data**

	2007 4 th Quarter		2010 4 th Quarter		Change	
	Estab.	Emp.	Estab.	Emp.	Estab.	Emp.
Core Industries						
Crude Petroleum & Natural Gas Extraction	172	2,292	222	3,781	50	1,489
Natural Gas Liquid Extraction	14	81	23	366	9	285
Drilling Oil & Gas Wells	64	1,620	118	3,620	54	2,000
Support Activities for Oil & Gas Operations	105	2,127	274	6,483	169	4,356
Oil & Gas Pipeline & Related Structures	60	2,142	97	3,288	37	1,146
Pipeline Transportation of Natural Gas	130	1,287	130	1,299	0	12
Subtotal	545	9,549	864	18,837	319	9,288
Ancillary Industries						
Subtotal	12,288	202,996	12,494	199,377	206	-3,619
All Primary Industries						
Total	12,833	212,545	13,358	218,214	525	5,669

Source: Pennsylvania Department of Labor & Industry

Estab. = Business Establishments

Emp. = Employed Persons

Noteworthy observations from the above table include:

- Statewide Marcellus Shale primary/core industry employment nearly doubled (97.3% increase) between the 4th Quarter (Q4) of 2007 and the 4th Quarter (Q4) of 2010, while primary/ancillary employment decreased by 1.8% during the same period (lost 3,619 jobs). This could be explained by the fact that ancillary jobs support core jobs, thus, there is most likely a time delay for ancillary jobs to react and catch-up to core job growth.
- Statewide Marcellus Shale employment for all primary industries (core and ancillary) increased by 2.7% between 2007 Q4 and 2010 Q4.

**Marcellus Shale Regions of Pennsylvania
Marcellus Shale Related Primary Industries - Employment Data**

Region (Wells Drilled in 2010)	Persons Employed			
	2007 4 th Quarter	2010 4 th Quarter	Number Change	Percent Change
Southwest Corner * (220)**				
Core	627	1,425	798	127.3%
Ancillary	10,372	10,633	261	2.5%
Northern Tier (762)				
Core	87	1,422	1,335	1,534.5%
Ancillary	1,728	2,668	940	54.4%
Central (162)				
Core	117	1,283	1,166	996.6%
Ancillary	9,602	10,476	874	9.1%
North Central (108)				
Core	1,988	2,321	333	16.8%
Ancillary	4,039	4,198	159	3.9%
Tri County (76)				
Core	2,190	2,835	645	29.5%
Ancillary	8,530	8,761	231	2.7%
Westmoreland & Fayette (65)				
Core	415	1,059	644	155.2%
Ancillary	10,262	10,352	90	0.9%
All Regions (1,393)				
Core	5,424	10,345	4,921	90.7%
Ancillary	44,533	47,088	2,555	5.7%
All Primary (Core and Ancillary) Industries For All Regions				
Total	49,957	57,433	7,476	15.0%

Source: Pennsylvania Department of Labor & Industry

*Southwest Corner includes **Greene**, Washington, and Beaver counties

** (220) = Number of drilled wells in 2010

Key observations from the preceding table follow:

- Marcellus Shale primary/core industry employment for the Southwest Corner region (Greene, Washington, and Beaver counties) doubled (127.3% increase) between 2007 Q4 and 2010 Q4, while primary/ancillary employment in this region increased by only 2.5% during the same period. Again, this could be explained by the fact that ancillary job growth must react and catch-up to core job growth, as well as the fact that many of the ancillary jobs such as trucking and engineering already exist in the market supporting other industries.
- Of the six Pennsylvania Marcellus Shale regions, the Southwest Corner had the third largest job growth in primary industries between 2007 Q4 and 2010 Q4.

- During 2010 Q4, the ratio of core jobs to ancillary jobs ranged from a high of 1 to 9.8 in the Westmoreland/Fayette region to a low of 1 to 1.8 in the Northern Tier region. The Southwest Corner region had a ratio of 1 to 7.5. The statewide ratio in 2010 Q4 was 1 core job to 4.6 ancillary jobs.

Wage data for Pennsylvania's Marcellus Shale industries is presented below:

**Statewide Pennsylvania
Marcellus Shale Related Primary Industries - Wage Data**

		Average Wage in 2010
Core Industries		
Crude Petroleum & Natural Gas Extraction		\$87,292
Natural Gas Liquid Extraction		\$96,137
Drilling Oil & Gas Wells		\$73,546
Support Activities for Oil & Gas Operations		\$64,158
Oil & Gas Pipeline & Related Structures Construction		\$66,273
Pipeline Transportation of Natural Gas		\$80,358
	Average	\$73,150
Ancillary Industries		
	Average	\$61,871
All Primary Industries		
	Average	\$67,510

Source: Pennsylvania Department of Labor & Industry

The statewide Marcellus Shale primary/core industry wage average was 18.2% higher than the primary/ancillary wage average in 2010. According to the Pennsylvania Department of Labor & Industry, the average annual wages for Pennsylvania's Marcellus Shale primary (both core and ancillary) occupations ranged from a low of \$23,525 for helpers/production workers to a high of \$108,014 for engineering managers. The 2010 average annual wage across all Marcellus Shale primary occupations was \$46,739.

New hire data for Pennsylvania's Marcellus Shale industries from 2009 Q4 to 2011 Q1 (most recent 18 months with complete data) is included in the following tables (new hires represent newly created jobs in an area, regardless of job holder's residency):

**Statewide Pennsylvania
Marcellus Shale Related Primary Industries - New Hire Data**

	2009	2010				2011	Total
	Q4	Q1	Q2	Q3	Q4	Q1	
Core Industries							
Crude Petroleum & Natural Gas Extraction	103	254	423	235	223	216	1,454
Natural Gas Liquid Extraction	20	36	58	18	32	44	208
Drilling Oil & Gas Wells	263	308	351	390	382	309	2,003
Support Activities for Oil & Gas Operations	223	545	670	891	990	900	4,219
Oil & Gas Pipeline & Related Structures	64	115	202	131	126	176	814
Pipeline Transportation of Natural Gas	14	20	16	7	2	2	61
Subtotal	687	1,278	1,720	1,672	1,755	1,647	8,759
Ancillary Industries							
Subtotal	7,603	9,980	14,641	10,979	9,158	11,092	63,453
All Primary Industries							
Total	8,290	11,258	16,361	12,651	10,913	12,739	72,212

Source: Pennsylvania Department of Labor & Industry

**Marcellus Shale Regions of Pennsylvania
Marcellus Shale Related Primary Industries - New Hire Data**

Region (Wells Drilled)	2009	2010				2011	Total
	Q4	Q1	Q2	Q3	Q4	Q1	
Southwest Corner * (220)							
Core	28	81	196	163	240	336	1,044
Ancillary	273	242	391	314	173	200	1,593
Northern Tier (762) **							
Core	16	36	64	90	108	86	400
Ancillary	78	67	119	85	132	77	558
Central (162)							
Core	6	10	16	248	175	168	623
Ancillary	196	172	211	252	228	263	1,322
North Central (108)							
Core	188	198	285	394	497	372	1,934
Ancillary	35	53	116	120	108	79	511
Tri County (76)							
Core	65	103	214	140	111	124	757
Ancillary	312	362	507	338	296	440	2,255
Westmoreland & Fayette (65)							
Core	8	28	50	36	32	43	197
Ancillary	192	381	633	521	293	406	2,426
All Regions (1,393)							
Core	311	456	825	1,071	1,163	1,129	4,955
Ancillary	1,086	1,277	1,977	1,630	1,230	1,465	8,665
All Primary Industries For All Regions							
Total	1,397	1,733	2,802	2,701	2,393	2,594	13,620

Source: Pennsylvania Department of Labor & Industry

* Southwest Corner includes **Greene**, Washington, and Beaver counties

** (762) = Number of drilled wells in 2010

Noteworthy observations from the previous tables include:

- Statewide Marcellus Shale primary/core industries hired 8,759 new employees from 2009 Q4 through 2011 Q1 (18 month period). This represents nearly 1,500 new employees per quarter or nearly 500 per month. Primary/ancillary industries hired 63,453 new employees during the same period. This represents over 10,000 new employees per quarter or over 3,500 per month. The statewide ratio of new primary/core employees to new primary/ancillary employees is 1 to 7.2.
- Statewide Marcellus Shale new employees for all primary industries (core and ancillary) totaled 72,212 from 2009 Q4 through 2011 Q1. This represents over 12,000 new employees per quarter or over 4,000 per month.
- From 2009 Q4 through 2011 Q1, the most statewide primary/core new employees were hired in 2010 Q4, while the most statewide primary/ancillary employees were hired in 2010 Q2.
- Marcellus Shale primary/core industries in the Southwest Corner region (Greene, Washington, and Beaver counties) employed 1,044 new people from 2009 Q4 through 2011 Q1. This represents nearly 175 new hires per quarter or nearly 60 per month. Primary/ancillary industries employed 1,593 new people during the same period. This represents 265 new hires per quarter or nearly 90 per month. The Southwest Corner region ratio of new primary/core jobs to new primary/ancillary jobs was 1 to 1.5.
- Of the six Pennsylvania Marcellus Shale regions, the Southwest Corner had the second most new employees in primary/core industries, third most new employees in the primary/ancillary industries, and second most new employees in all primary industries from 2009 Q4 through 2011 Q1.
- The number of primary/core new employees for the Southwest Corner region has increased each quarter from 2009 Q4 through 2011 Q1, except for a slight dip in 2010 Q3. In 2011 Q1, the Southwest Corner region had the second most primary/core new employees within the Pennsylvania Marcellus Shale.

From the above historical data, Greene County's employment and workforce needs have steadily increased over the past five years, and, according to all current reports, should continue to increase at least over the next few years due to the expanding activity in the energy extraction industries. Since the energy extraction industry as a whole is ever-changing with regard to drilling technology, commodity pricing, and processing methods, workforce impact will be both dramatic and volatile. This is evidenced by a term commonly attached to the industry; "boom or bust". The often unpredictable and elusive nature of the energy extraction industry makes predictions of its future job growth very difficult and, at times, unreliable.

However, reasonable conclusions and assumptions can be made from data provided by secondary sources and from our own research in order to extrapolate household growth from employment growth for housing demand purposes.

In Section D below, our methodology and resulting employment growth numbers are presented.

D. EMPLOYMENT PROJECTIONS & WORKFORCE SUMMARY

As established in Section C, Greene County's employment and workforce numbers should continue to grow at least through the next five years. In order to accurately predict Greene County's future housing requirements, employment growth must be accurately estimated, and then converted into numbers of households. As stated in Section A, households require housing, not jobs or businesses. The number of households that choose to live (not just work) in Greene County contribute to Greene County's housing needs or demand.

Numerous approaches have been developed to estimate potential job growth due to the development of Marcellus Shale in Pennsylvania. Each approach has both sound reasoning and limitations. As stated in Section C, energy extraction industry jobs originate not only from energy industries directly (core), but also from various support/service industries (ancillary), such as trucking, construction, engineering, real estate, welding, and cartography. For purposes of this study, core and ancillary jobs have been combined into "primary" energy extraction jobs. All other job growth resulting from primary job growth is considered "secondary." Since the dynamics of primary and secondary job growth differ, we have separated their discussions, and then combined their results in the Workforce Summary subsection.

1. PRIMARY JOB PROJECTIONS (core & ancillary EEI industries)

Natural Gas Industry

While there have been many reports and studies released over the past few years projecting Marcellus Shale-related job growth on a state-wide or regional level, we have been unable to identify any that quantify job growth on a "county" level within Pennsylvania. As a result, we have taken energy extraction industry data from these statewide and regional reports, and incorporated it into our specific Greene County research to derive job growth estimates for the subject county.

One of the best known and most current sources for primary energy extraction industry job information is the *Pennsylvania Marcellus Shale Workforce Needs Assessment (Summer 2011)* written by the Marcellus Shale Educating & Training Center (MSETC). This report, dated June, 2011, estimates the number of primary energy jobs required to bring Pennsylvania Marcellus Shale wells into production for years 2008 through 2014. The report also divides the Pennsylvania Marcellus Shale gas play into three sub regions, one of which (the Southwest region) includes Greene County and 14 other contiguous counties.

The MSETC report makes a distinction between permanent (long-term) primary jobs and temporary (short-term) primary jobs. Most temporary primary jobs are in the planning, development and reclamation phases, while most permanent primary jobs are in the production and processing phases of the industry. On average, historical data indicates that 97% of all primary energy extraction jobs are temporary (relocate within a year), while 3% are permanent (multi-year duration). A breakdown of industry phases by duration of employment is shown in the table on the following page.

Due to the rapid growth of, and the unique skill set required by, the energy extraction industry, the existing workforce in Pennsylvania was not prepared to meet the initial needs of the industry. As a result, Pennsylvania saw an influx of out-of-state workers with the required experience to develop gas wells. Estimates from the MSETC report indicate that during the initial expansion of the industry into Pennsylvania, as many as 70% to 80% of the workers came from outside Pennsylvania. As industry activity continued to increase and interest by local job seekers became keen, governments (local and state), educators, and the industry itself strived to train the existing Pennsylvania workforce for these numerous primary energy extraction jobs. The MSETC Summer 2011 study now indicates that on average 65% to 75% of all new Marcellus Shale workers are current Pennsylvania residents. It is reasonable to conclude that, as the industry evolves and the local workforce continues to be trained, the share of out-of-state workers will decrease and the share of in-state workers will conversely increase, until such time as all qualified and trainable local applicants are exhausted.

After a careful review of the MSETC Summer 2011 report, it was selected as the best model and data source for developing a reliable primary energy extraction industry job projection methodology for Greene County. The premise for the MSETC study is that each drilled well requires 13.3 full-time equivalent (FTE) jobs to place it into production and operate it during its active life. Of these 13.3 FTE jobs, 12.9 are related to planning, development and reclamation activities (temporary in nature) and 0.4 are associated with production and processing activities (permanent in nature).

Full-Time Equivalent (FTE) Primary Jobs Needed by Industry Phase for Single Well Site		
Industry Phase	Primary Gas-Related FTE Jobs Needed	Share of Jobs (Rounded)
Planning (Pre-Drilling)	2.4 (T)	18%
Development (Drilling & Reclamation)	10.5 (T)	79%
Production/Processing (High-BTU Gas)	0.4 (P)	3%
Total	13.3	100.0%

Source: MSETC (Summer 2011 Report)
(T) = Temporary & (P) = Permanent

If this employment model is applied to future well site activity, projected primary job growth can be generated. The projection methodology for generating the number of new primary FTE gas jobs in Greene County by 2015 includes the following five steps (temporary FTE jobs are calculated differently than permanent FTE jobs):

Temporary FTE Primary Gas Jobs

1. Determine the number of projected wells to be drilled and placed into production within Greene County during Year 2015 (result = 200).
2. Determine the total number of projected temporary FTE jobs required to accomplish Item 1 above (result = 2,580).
3. Determine the baseline number of temporary FTE jobs in Greene County during Year 2010 (result = 1,902), and subtract it from the resulting number in Item 2 above. This yields the projected new temporary FTE primary gas jobs within Greene County by Year 2015 (result = 678).

Permanent FTE Primary Gas Jobs

4. Determine the number of projected wells to be placed into production within Greene County from Years 2011 through 2015 (result = 744).
5. Determine the number of projected new permanent FTE primary gas jobs required to operate Item 4 above (result = 298).

Projection Methodology Step 1

The MSETC Summer 2011 study does not project “wells drilled” for year 2015. It does provide the actual number of “wells drilled” in Greene County for years 2008, 2009, and 2010, but does not provide county-level projections for years 2011, 2012, 2013, and 2014. The report does provide “wells drilled” for the Southwest Region (Greene County and 14 other counties) for years 2008, 2009, and 2010 (actual) and years 2011, 2012, 2013, and 2014 (projected). This data is presented in the following table:

	Greene County, Pennsylvania Wells Drilled by Year (Actual 2008-2010 & Projected 2011-2014)						
	2008	2009	2010	2011	2012	2013	2014
Location							
Greene County	18	91	70	-	-	-	-
Other Counties in SWR*	85	279	288	-	-	-	-
Total Southwest Region	103	370	358	449	620	760	892
Greene County's Share of SWR	17.5%	24.6%	19.6%	-	-	-	-

Source: MSETC (Summer 2011 Report)

SWR = Southwest Region

*Includes Allegheny, Armstrong, Beaver, Bedford, Blair, Butler, Cambria, Fayette, Fulton, Huntington, Indiana, Somerset, Washington, and Westmoreland counties.

To project the wells drilled within Greene County during Year 2015, we first calculate the wells drilled in 2015 for the entire Southwest Region based on the MSETC projections for years 2012, 2013, and 2014. If the region's rate of change is carried forward from 2012 to 2013 (22.6%) and 2013 to 2014 (17.4%), the change from 2014 to 2015 would be approximately 12.2%. Applying this percentage to the 2014 “wells drilled” number for the entire Southwest Region (892) yields 1,001 projected wells drilled for 2015.

To generate the 2015 projected number of wells for Greene County, a historical share of 20% is used. This is based on the fact that, on average, Greene County has drilled approximately 20% of the wells in the Southwest Region. When this 20% share is applied to the 1,001 total projected wells drilled for the Southwest Region in 2015, Greene County should expect 200 gas wells to be drilled within its borders during Year 2015.

Projection Methodology Step 2

To determine the number of projected primary temporary FTE jobs required to drill and bring into production 200 wells within Greene County in 2015, the MSETC 12.9 FTE job multiplier is used (see earlier table; includes planning and development FTE job values). When applied, 2,580 primary temporary FTE gas jobs will be required to place 200 wells into production within Greene County during Year 2015.

Projection Methodology Step 3

To determine the number of projected new primary temporary FTE gas jobs within Greene County by Year 2015, we must deduct the number of primary temporary FTE gas jobs that were in existence within Greene County in Year 2010 from the total temporary jobs number for Year 2015 (Step 2). According to the Pennsylvania Department of Labor & Industry, 1,961 total workers were employed in primary gas jobs (core and ancillary) during the fourth quarter of 2010 in Greene County. Of these 1,961 workers, we consider 97% or 1,902 to be temporary primary gas jobs. When this value (1,902) is deducted from all primary temporary FTE gas jobs needed in Year 2015 (2,580), 678 new primary temporary FTE gas jobs potentially will be created in Greene County by 2015.

Projection Methodology Step 4

To determine the number of projected wells to be placed into production within Greene County from Years 2011 through 2015, the projected number of new wells within the Southwest Region for Years 2011 through 2015 (3,722) must be multiplied by Greene County's historic 20% drilling share.

Greene County, Pennsylvania						
Projected New Wells Placed in Production by Year (2011-2015)						
	2011	2012	2013	2014	2015**	Total
Location						
Total Southwest Region*	449	620	760	892	1,001	3,722
Times Greene County's Historic 20% Share	.20	.20	.20	.20	.20	.20
Greene County Projections	90	124	152	178	200	744

Source: MSETC (Summer 2011 Report)

*Includes Allegheny, Armstrong, Beaver, Bedford, Blair, Butler, Cambria, Fayette, Fulton, **Greene**, Huntington, Indiana, Somerset, Washington, and Westmoreland counties.

** BNR generated projections

The resulting cumulative number of projected wells to be placed into production within Greene County from Years 2011 through 2015 is 744.

Projection Methodology Step 5

To determine new primary permanent FTE gas jobs within Greene County by Year 2015, the MSETC 0.4 FTE job multiplier is used (from earlier table; includes production and processing FTE job values). When applied, 298 new primary permanent FTE gas jobs potentially will be created in Greene County by Year 2015.

When projected new temporary and permanent FTE gas jobs are combined, Greene County potentially could have 976 new gas extraction industry jobs by Year 2015 (see table below).

Greene County, Pennsylvania Projected Potential New Primary Gas Jobs by Duration (2015)		
	Permanent Primary FTE Jobs	Temporary Primary FTE Jobs
New Primary FTE Gas Jobs	298	678
Total	976	

Coal Mining

One other energy extraction industry is projecting significant job growth within Greene County by 2015, coal mining. According to recent newspaper articles and company filings, two coal companies, Alpha Resources and Dana Mining, are planning to open one new mine each within Greene County by 2015.

Dana Mining has filed permits with the State of Pennsylvania for a new Garards Fort Mine that will be located in Greene Township, but will also affect Dunkard Township (southeastern Greene County). This mine is expected to produce coal for 10 years, and require 60 new workers (not previously employed within the industry).

Alpha Resources is also in the permitting phase with the State of Pennsylvania for a new mine in Center, Richhill, and Jackson Townships (west central Greene County). Surface operations will occur near Holbrook in Center Township. This mine is expected to produce seven million tons of seam coal per year, and require 400 new workers (not previously employed within the industry).

Since these 460 new jobs are within the “core” mining industry, new “ancillary” mining jobs must be added. Applying the ancillary job multiplier (1.59) for the coal extraction industry (as determined by the Pennsylvania Department of Labor & Industry) to the 460 new core mining jobs, 732 new ancillary jobs will be generated by 2015. When the 460 new core jobs are added to the 732 new ancillary jobs, 1,192 new primary coal mining jobs could be added to the Greene County workforce by 2015. For purposes of this study, all 1,192 of these new primary mining jobs will be considered permanent (not temporary), since they will be based at long-term, site-specific locations within Greene County.

Primary EEI Job Summary

The following table combines all new primary FTE gas jobs with all new primary FTE coal jobs that are projected for Greene County in Year 2015:

Greene County, Pennsylvania Projected Potential New Primary EEI Jobs (2015)		
Industry Type / Calculation	Permanent EEI Jobs	Temporary EEI Jobs
New Primary FTE Gas Jobs	298	678
Plus New Primary FTE Coal Jobs	1,192	0
Equals Total New Primary Jobs by Duration	1,490	678
Potential Total New Primary EEI Jobs (2015)	2,168	

In summary, 1,490 new permanent primary EEI jobs and 678 new temporary primary EEI jobs could be added to the Greene County workforce by Year 2015, for a total of 2,168 new primary EEI jobs.

2. SECONDARY JOB PROJECTIONS (non-EEI related industries)

To complete the projection of total employment growth in Greene County by 2015 for use in calculating housing needs/demand, estimated secondary jobs must be added to the estimated primary jobs discussed above. As mentioned earlier in this section, secondary jobs, while not energy extraction related, are created by an increase in the number of primary jobs. For an example, if a large number of new gas well workers were hired to work near a town, they may need a realtor to find lodging, a grocery store worker to meet their grocery needs, a restaurant worker to serve them, or a doctor to provide their medical services. A review of published reports and our own research revealed corroborating sources that result in a common multiplier for generating the number of secondary jobs created by the number of primary jobs in the energy extraction industry.

In a March, 2011 study entitled *Local Labor Market Impacts of Energy Boom-Bust-Boom in Western Canada*, the author states, "...the generalized impact of a boom period is an increase of 33.2% in total non-energy employment...". In an April, 2010 report entitled, *Marcellus Shale Industry Snapshot*, the authors state, "for every job added in the six (core energy extraction) industries being examined, 3.55 total jobs are going to be added....across all industries." Finally, the State of Pennsylvania Career Link Office in Greene County stated that 30% of the job openings currently posted in Greene County is not energy extraction related.

When the data in the *Marcellus Shale Industry Snapshot* study are adjusted from "core" jobs to "primary" jobs (core and ancillary), these three statements result in an aggregate percentage of 32.4% or a multiplier of .324. Thus, according to these sources, it takes three new primary jobs to create one new secondary job.

Before applying this secondary job multiplier (.324) to the number of projected new primary EEI jobs for Greene County in Year 2015, it is important to note that temporary primary jobs (those in the planning, development and reclamation phases) require fewer secondary services than do permanent primary jobs (those in the production and processing phases). For example, a new temporary worker will only need goods/services that are procured on a daily, weekly or possibly monthly basis, since their residency may change within a year. On the other hand, a new permanent worker who expects to be in the same residency for three or more years will need not only the same goods/services as the temporary worker, but also furniture, lawn service, major appliances, and other goods/services typically procured on a yearly or multi-year basis. Thus, it is logical to assume that the baseline secondary job multiplier (.324) should decrease slightly for temporary primary jobs. It is our opinion that the secondary job multiplier should be .324 for new permanent primary EEI jobs and .250 for new temporary primary EEI jobs.

In the following table, the two secondary job multipliers are applied to their respective new primary FTE EEI jobs projected for Greene County in Year 2015:

Greene County, Pennsylvania Projected New Secondary Jobs (2015)		
Calculation	Permanent FTE Jobs	Temporary FTE Jobs
Projected New Primary Jobs by Duration	1,490	678
Times Secondary Job Multiplier	.324	.250
Equals Total New Secondary Jobs	483	170
Total New Secondary Jobs (2015)	653	

From the above table, it is estimated that 653 new secondary jobs could be added to Greene County by Year 2015 as a result of the projected 2,168 new primary EEI jobs.

For purposes of this study, all 653 of these new secondary FTE jobs will be considered permanent (not temporary), since they will be based at long-term, site-specific locations within Greene County.

3. **WORKFORCE SUMMARY** (primary and secondary)

When projected new primary jobs are added to projected new secondary jobs, **2,821 new workers could be added to the Greene County workforce by Year 2015** (see following table).

Greene County, Pennsylvania Projected Potential New Jobs by Source Type (2015)		
Source Type / Calculation	Number	Share
Projected New Primary EEI Jobs	2,168	76.8%
Plus Projected New Secondary Jobs	653	23.2%
Equals Total Projected New Jobs (2015)	2,821	100.0%

From the preceding table, over 75% of the projected new jobs in 2015 will be involved in the energy extraction industry (primary jobs), while nearly 25% will be supporting the overall job growth (secondary jobs).

In terms of job duration, new projected jobs in Greene County by Year 2015 will be split 76.0% for permanent jobs and 24.0% for temporary jobs. This assumes that 3% of new primary gas jobs, 100% of new primary coal jobs and 100% of new secondary jobs will be permanent, while 97% of new primary gas jobs will be temporary. Projected new jobs by source and type appear in the following table.

Greene County, Pennsylvania Projected Potential New Jobs by Source & Duration Type (2015)		
Source Type / Calculation	Permanent FTE Jobs	Temporary FTE Jobs
Projected Potential New Primary Jobs by Duration	1,490	678
Plus Projected Potential New Secondary Jobs	653	0
Equals Total Projected Potential New Jobs by Duration	2,143	678
Share by Duration	76.0%	24.0%
Total Projected Potential New Jobs (2015)	2,821	

As shown earlier in this section, not all current Greene County employees live in Greene County. Clearly, not all future Greene County workers will need or choose to live in Greene County. Before we can address housing needs/demand for Greene County in Year 2015, the projected new job numbers above must be adjusted for those future workers who potentially will relocate into Greene County (become new residents).

If a person or household secures a new job within Greene County, one of the following four (4) residency situations will exist at the time of hiring:

1. They live inside Greene County, and can commute to work without moving.
2. They live inside Greene County, but it is too far to commute.
3. They live outside Greene County, and can commute to work without moving.
4. They live outside Greene County, but it is too far to commute.

Given that Greene County is only 30 miles east-west and 20 miles north-south, most people living within Greene County will commute to a job in Greene County. Thus, the number of people fitting Residency Situation 2 previous will be insignificant. People fitting Residency Situations 1 or 3 will not have to relocate, since they will commute to work from their existing residence. Only those people in Residency Situation 4 will need to relocate to within a commutable distance to work. As stated earlier, only those non-Greene County households who elect to relocate inside Greene County will affect its housing market. Thus, the share of projected new jobs in Greene County by Year 2015 that will be filled by households who will relocate into Greene County must be determined.

Since direct empirical data could not be found to establish a Greene County relocation share, two secondary sources were used. First, in Section D1, reference is made to a MSETC report entitled *Pennsylvania Marcellus Shale Workforce Needs Assessment (Summer 2011)*. In this report, the authors state that on average **25% to 35%** of all new Marcellus Shale workers are not current Pennsylvania residents. Second, Bowen National Research (BNR) performed an intercept survey of over 200 job seekers at the June, 2011 Tri-County Employment Expo held in Waynesburg, Pennsylvania. When job seeker zip codes (residences) were plotted and overlaid with a 30-mile radius from Waynesburg, **30.2%** of respondents fell outside the radius. Most workers will not commute beyond a 30-mile radius. Also in the Employment Expo survey, job seekers were asked whether they would move to Greene County if they secured a job in Greene County. Of those who answered the question, **29.6%** said they would move.

After aggregating these three shares (percentages), approximately 30% of all new Greene County workers by Year 2015 potentially could move into Greene County from beyond its borders. When the number of potential new jobs in Greene County by Year 2015 (2,821) is multiplied by the aggregated 30% relocation (or new resident) share, **up to 846 new workers could seek living arrangements within Greene County by Year 2015**. Of these 846 potential new workers, 643 would likely have “permanent” type jobs (long-term residency for more than a year), while 203 would have “temporary” type jobs (short-term residency for less than a year). These new potential workers represent future potential residents of Greene County. As a result, we have accounted for these potential residents in our demographic projections for Year 2015, which are illustrated in Section VI of this report.

VI. DEMOGRAPHIC STATISTICS

This section of the report evaluates various demographic characteristics and trends as they relate to Greene County, as well as its neighboring Pennsylvania counties of Fayette and Washington. It is important to note that, while 1990, 2000 and most 2010 demographics are based on U.S. Census data, some 2010 data is based on demographic data (such as specific age and income distributions) are based on estimates provided by ESRI, a nationally recognized provider of demographics. Since ESRI does not fully take into account unique activities such as Marcellus Shale drilling in its long-term projections, we have integrated our job growth projections cited in Section V of this report into the demographic projections for Greene County for 2015. Since the focus of this report is on Greene County, we have not incorporated any potential impact the energy extraction industry may have on surrounding counties, the region or Pennsylvania overall.

It is critical in understanding the 2015 demographic projections for Greene County that several assumptions have been made. These assumptions include the following:

- The projected well activity for the next few years will materialize to the level included in Section V of this report;
- All demographic and economic projections made by secondary sources materialize;
- Greene County will offer sufficient housing and supporting infrastructure to substantiate the projected population and household growth.

A. HOUSING CHARACTERISTICS & TRENDS

The distributions of the area housing stock within Greene County in 2000 and estimated for 2010 are summarized in the following table:

Housing Status	2000 (Census)		2010 (Estimated)	
	Number	Percent	Number	Percent
Occupied Units	15,060	90.3%	14,724	88.1%
Owner-Occupied	11,159	74.1%	10,681	72.5%
Renter-Occupied	3,901	25.9%	4,043	27.5%
Vacant Units	1,618	9.7%	1,989	11.9%
Total	16,678	100.0%	16,713	100.0%

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

Based on a 2010 update of the 2000 Census, of the 16,713 total housing units in the market, 11.9% were vacant. In 2010, it was estimated that homeowners occupied 72.5% of all occupied housing units, while the remaining 27.5% were occupied by renters. The share of renters is considered moderate. The 4,043 renter-occupied units represent a good base of potential renters in the market for additional rental housing.

The following table shows the distribution of vacant units for the 2000 Census in Greene County.

Vacant Units	Number	Percent
For Rent	308	19.0%
For-Sale	226	14.0%
Rented/Sold, Not Yet Occupied	173	10.7%
Seasonal, Recreational	520	32.1%
Other Vacant	391	24.2%
Total	1,618	100.0%

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

“Seasonal, Recreational” housing comprise the largest share (32.1%) of vacant housing in the county. Based on the 2000 Census, the following is a distribution of all occupied housing units in Greene County by year built:

Year	Owner-Occupied		Renter-Occupied	
	Number	Percent	Number	Percent
1990 to March 2000	1,229	11.0%	338	8.7%
1980 to 1989	1,220	10.9%	429	11.0%
1970 to 1979	1,873	16.8%	728	18.7%
1960 to 1969	701	6.3%	353	9.0%
1940 to 1959	2,231	20.0%	685	17.5%
1939 or Earlier	3,905	35.0%	1,368	35.1%
Total	11,159	100.0%	3,901	100.0%

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

As evidenced by the preceding table, over 50% of the housing units in the county were constructed prior to 1960. This is indicative of an older housing market; especially considering more than one-third of the area's housing was built prior to 1940.

Based on the 2000 Census, the following is a distribution of all occupied housing by units in structure in Greene County.

Units in Structure	Owner-Occupied		Renter-Occupied	
	Number	Percent	Number	Percent
1	9,147	81.9%	1,721	44.1%
2 to 9	81	0.7%	916	23.5%
10 to 49	2	0.1%	426	10.9%
50+	0	0.0%	92	2.4%
Mobile Homes	1,920	17.2%	746	19.1%
Boats, RVs, and Vans	9	0.1%	0	0.0%
Total	11,159	100.0%	3,901	100.0%

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

Of all occupied housing units in the Greene County, 72.2% are permanent single-family structures, 10.1% are permanent multi-unit structures, and 17.7% are non-permanent movable structures (boats, trailers, RVs, and vans).

The owner- and renter-occupied household sizes within Greene County, based on the 2000 Census, are distributed as follows:

Household Size	Owner-Occupied		Renter-Occupied	
	Number	Percent	Number	Percent
1-Person	2,469	22.1%	1,359	34.8%
2-Person	3,907	35.0%	1,123	28.8%
3-Person	1,970	17.7%	718	18.4%
4-Person	1,871	16.8%	381	9.8%
5+-Person	942	8.4%	320	8.2%
Total	11,159	100.0%	3,901	100.0%

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

Owner-occupied units have a higher share of large-family (4-person or larger) household sizes, when compared with renter-occupied households. This is comparable to national trends.

The following reflects the gross rent reported among all rental units in the 2000 Census. Gross rents include shelter costs and all utilities.

Gross Rent	Number of Units	Distribution
< \$300	1,159	29.7%
\$300 - \$500	1,584	40.6%
\$500 - \$750	488	12.5%
\$750 - \$1,000	121	3.1%
\$1,000 - \$1,500	18	0.5%
\$1,500 - \$2,000	2	0.1%
\$2,000+	2	0.1%
No Cash Rent	527	13.5%
Total	3,901	100.0%

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

As evidenced in the above table, the majority (53.1%) of renters in the county paid between \$300 and \$749 in rent in 2000. Based on the rents collected in our field survey of Greene County, the vast majority of renters are paying rents at a slightly higher, but similar level.

The following table illustrates estimated housing values based on the 2000 Census and 2010 estimates for owner-occupied units within Greene County:

Estimated Home Values	2000 (Census)		2010 (Estimated)	
	Number	Percent	Number	Percent
Less Than \$20,000	1,318	11.8%	566	5.3%
\$20,000 to \$39,999	2,583	23.2%	961	9.0%
\$40,000 to \$59,999	2,125	19.0%	1,335	12.5%
\$60,000 to \$79,999	1,877	16.8%	1,624	15.2%
\$80,000 to \$99,999	1,314	11.8%	1,218	11.4%
\$100,000 to \$149,999	1,192	10.7%	2,702	25.3%
\$150,000 to \$199,999	432	3.9%	1,175	11.0%
\$200,000 to \$299,999	237	2.1%	716	6.7%
\$300,000 to \$399,999	48	0.4%	224	2.1%
\$400,000 to \$499,999	12	0.1%	85	0.8%
\$500,000 & Over	21	0.2%	75	0.7%
Total	11,159	100.0%	10,681	100.0%
Median Home Value	\$55,800		\$94,128	

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

In 2010, 46.6% of owner-occupied housing structures were valued over \$100,000. The median owner-occupied home value is \$94,128. It should be noted that the estimated home values are based on estimates provided by the property owners and, therefore, are likely not reflective of actual market value, particularly given the recent decline in the national housing market.

The following table summarizes housing costs, average number of rooms, and substandard units for Greene County based on the 2000 Census. Such data is currently not available for 2010.

Percent with Housing Cost > 30% of Income		Gross Monthly Housing Payment		Unit Configuration			Substandard Units	
				Average Number of Rooms		Average Number of Bedrooms		
Owner	Renter	Owner	Renter	Owner	Renter	All Households	Number	Percent
816 (11.7%)	1,192 (32.5%)	\$713	\$367	5.9	4.6	2.5	373	2.5%

Source: 2000 Census; ESRI; Bowen National Research

B. POPULATION CHARACTERISTICS & TRENDS

The population bases for 1990, 2000, 2010 (estimated), and 2015 (projected) are summarized for Greene County, adjoining Pennsylvania counties, and Pennsylvania are as follows:

		Year			
		1990 (Census)	2000 (Census)	2010 (Estimated)	2015 (Projected)
Greene County	Population	39,549	40,671	38,686	39,532
	Population Change	-	1,122	-1,985	846
	Percent Change	-	2.8%	-4.9%	2.2%
Washington County	Population	204,580	202,894	207,820	210,314
	Population Change	-	-1,686	4,926	2,494
	Percent Change	-	-0.8%	2.4%	1.2%
Fayette County	Population	145,335	148,628	136,606	134,147
	Population Change	-	3,293	-12,022	-2,459
	Percent Change	-	2.3%	-8.1%	-1.8%
Pennsylvania	Population	11,873,070	12,280,887	12,702,379	12,765,891
	Population Change	-	407,817	421,492	63,512
	Percent Change	-	3.4%	3.4%	0.5%

Source: 2000 Census; ESRI; Bowen National Research

Households in Greene County increased by 1,122 between 1990 and 2000, but lost nearly double that amount between 2000 and 2010. It is projected that this recent trend will reverse itself for the foreseeable future, as the county is expected to add 846 households between 2010 and 2015.

As noted in the introduction to this section of the report, because the focus of this report is on Greene County, we have only adjusted the demographic projections for 2015 to account for the potential job growth projections from the energy extraction industries. As such, growth projections for Washington and Fayette counties and Pennsylvania are likely underestimated.

The following table illustrates the population bases by age for the subject markets estimated for 2010 and then projected for 2015.

		Population By Age								
Year		< 19	20 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75>	Total
Greene County	2010	8,978	2,725	4,855	5,190	5,657	5,431	2,919	2,931	38,686
	2015	8,627	2,949	4,968	5,203	5,328	5,908	3,808	2,741	39,532
	% Change	-3.9%	8.2%	2.3%	0.3%	-5.8%	8.8%	30.5%	-6.5%	2.2%
Washington County	2010	48,638	11,659	20,697	26,105	33,089	29,636	18,090	19,906	207,820
	2015	48,162	11,988	21,242	24,186	29,654	32,388	23,135	19,559	210,314
	% Change	-1.0%	2.8%	2.6%	-7.4%	-10.4%	9.3%	27.9%	-1.8%	1.2%
Fayette County	2010	31,469	6,881	15,409	17,339	20,714	19,483	11,994	13,317	136,606
	2015	30,183	6,841	14,354	16,232	18,110	21,061	14,756	12,610	134,147
	% Change	-4.1%	-0.6%	-6.9%	-6.4%	-12.6%	8.1%	23.0%	-5.3%	-1.8%
Pennsylvania	2010	3,175,619	823,693	1,442,855	1,664,356	1,950,936	1,620,928	977,015	1,046,977	12,702,379
	2015	3,127,644	817,017	1,468,077	1,544,672	1,799,991	1,774,459	1,212,760	1,021,271	12,765,891
	% Change	-1.5%	-0.8%	1.8%	-7.2%	-7.7%	9.5%	24.1%	-2.5%	0.5%

Source: 2000 Census; ESRI; Bowen National Research

With the exception of the population under age 19 and over age 75, as well as the 45 to 54 age group, all other age cohorts in Greene County are projected to experience positive growth trends between 2010 and 2015. The greatest growth is projected to occur among those between the 65 to 74 age group and the 55 to 64 age group. This trend is primarily attributed to older persons aging in place and are similar to regional and state trends.

The following table summarizes key demographic characteristics of the Greene County population, including median age, gender distribution, education level and marital status.

	Median Age		Gender (Percent Male)		Education Level				Marital Status			
					2000		2010		2000		2010	
	2000	2010	2000	2010	Graduated High School	Graduated College	Graduated High School	Graduated College	Single	Married	Single	Married
Greene County	38.1	40.5	51.5%	51.4%	59.6%	16.2%	62.4%	21.4%	41.0%	59.0%	41.3%	58.7%
Washington County	40.8	43.9	48.0%	48.2%	57.3%	25.4%	57.1%	32.0%	40.1%	59.9%	42.5%	57.5%
Fayette County	40.2	43.5	47.9%	48.2%	59.8%	16.2%	62.5%	21.6%	42.8%	57.2%	45.2%	54.8%
Pennsylvania	38.0	40.7	48.3%	48.5%	53.6%	28.3%	53.6%	34.3%	43.5%	56.5%	45.8%	54.2%

Source: 2000 Census; ESRI; Bowen National Research

As the preceding table illustrates, the demographic characteristics of Greene County are very similar to regional and state trends.

C. HOUSEHOLD CHARACTERISTICS & TRENDS

The number of households for 1990, 2000, 2010 (estimated), and 2015 (projected) are summarized for Greene County, surrounding counties, and Pennsylvania in the following table:

		Year			
		1990 (Census)	2000 (Census)	2010 (Estimated)	2015 (Projected)
Greene County	Households	14,624	15,060	14,724	15,340
	Household Change	-	436	-336	616
	Percent Change	-	3.0%	-2.2%	4.2%
Washington County	Households	78,532	81,129	85,089	86,365
	Household Change	-	2,597	3,960	1,276
	Percent Change	-	3.3%	4.9%	1.5%
Fayette County	Households	56,102	59,961	55,997	56,781
	Household Change	-	3,859	-3,964	-784
	Percent Change	-	6.9%	-6.6%	-1.4%
Pennsylvania	Households	4,495,299	4,776,940	5,018,904	5,059,055
	Household Change	-	281,641	241,964	40,151
	Percent Change	-	6.3%	5.1%	0.8%

Source: 2000 Census; ESRI; Bowen National Research

The household base in Greene County experienced a positive growth trend between 1990 and 2000, adding 436 households. Between 2000 and 2010, Greene County underwent a reversal in household growth trends, declining by 336. It is projected that the county will increase by 616 households between 2010 and 2015. While job growth directly and indirectly related to the energy extraction industries (both gas and coal) will contribute to household growth, the full impact of EEI job growth will be diminished slightly by the job losses that are projected to occur in other job sectors.

The subject markets' household bases by age for 2010 (estimated) and 2015 (projected) are summarized as follows:

		Households by Age								
		Year	< 25	25 to 34	35 to 44	45 to 54	55 to 64	65 to 74	75 to 84	85>
Greene County	2010	556	1,953	2,470	2,943	3,097	1,780	1,538	587	14,724
	2015	611	2,036	2,439	2,771	3,362	2,309	1,242	570	15,340
	% Change	9.9%	4.2%	-1.3%	-5.8%	8.6%	29.7%	-19.2%	-2.9%	4.2%
Washington County	2010	2,555	8,969	13,617	18,393	17,083	11,462	8,972	4,038	85,089
	2015	2,418	9,328	12,523	16,409	18,569	14,509	8,550	4,059	86,365
	% Change	-5.4%	4.0%	-8.0%	-10.8%	8.7%	26.6%	-4.7%	0.5%	1.4%
Fayette County	2010	1,674	6,615	8,750	11,315	11,372	7,548	5,948	2,775	55,997
	2015	1,533	6,359	8,347	10,050	12,493	9,482	5,678	2,839	56,781
	% Change	-8.4%	-3.9%	-4.6%	-11.2%	9.9%	25.6%	-4.5%	2.3%	1.4%
Pennsylvania	2010	199,904	656,091	870,874	1,087,441	940,240	606,089	457,612	200,650	5,018,901
	2015	177,067	688,031	804,390	986,516	1,021,929	748,740	430,020	202,362	5,059,055
	% Change	-11.4%	4.9%	-7.6%	-9.3%	8.6%	23.5%	-6.0%	0.9%	0.8%

Source: 2000 Census; ESRI; Bowen National Research

Greene County households under the age of 35 are expected to increase between 2010 and 2015, adding a projected 138 households. Much of this growth is attributed to the energy extraction industry job growth, which is expected to attract a large number of younger adults seeking blue collar jobs. While those households between the ages of 35 and 54 are expected to decrease between 2010 and 2015, the actual household decline projected by ESRI for this age group was significantly greater than shown in the preceding table. It is believed that the projected EEI job growth in Greene County will help offset the projected job losses in other job sectors in Greene County and will therefore help offset some of household losses within this age group.

The following table summarizes various household characteristics of Greene County.

	Average Household Size		Percent Without Children		Percent Annual Turnover (2000)	
	2000	2010	2000	2010	Owner	Renter
Greene County	2.48	2.43	68.6%	N/A	4.8%	24.3%
Washington County	2.44	2.41	71.5%	N/A	4.7%	23.3%
Fayette County	2.43	2.39	71.2%	N/A	4.6%	22.2%
Pennsylvania	2.48	2.45	69.6%	N/A	5.7%	26.6%

Source: 2000 Census; ESRI; Bowen National Research
N/A – Not Available for 2010

As the preceding table illustrates, the household characteristics of Greene County are very similar to those of neighboring counties and overall Pennsylvania.

Households by tenure for the subject markets in 2010 are distributed as follows:

Tenure	2010 (Estimated)							
	Greene County		Washington County		Fayette County		Pennsylvania	
	Households	Percent	Households	Percent	Households	Percent	Households	Percent
Owner-Occupied	10,681	72.5%	64,541	75.9%	40,247	71.9%	3,491,722	69.6%
Renter-Occupied	4,043	27.5%	20,548	24.1%	15,750	28.1%	1,527,182	30.4%
Total	14,724	100.0%	85,089	100.0%	55,997	100.0%	5,018,904	100.0%

Source: 2000 Census; ESRI; Bowen National Research

The estimated 27.5% share of renter-occupied households within Greene County in 2010 falls between the 24.1% and 28.1% renter share of Washington and Fayette counties, respectively. This 27.5% renter share is slightly below, but comparable to, the Pennsylvania state average of 30.4%. As such, the share of renter households in Greene County is typical for a county in southwest Pennsylvania.

The household size within the subject markets, based on 2010 estimates, are distributed as follows:

Tenure	2010 (Estimated)							
	Greene County		Washington County		Fayette County		Pennsylvania	
	Households	Percent	Households	Percent	Households	Percent	Households	Percent
1 Person	3,755	25.5%	21,868	25.7%	16,183	28.9%	1,365,142	27.2%
2 Persons	4,844	32.9%	29,441	34.6%	18,199	32.5%	1,656,238	33.0%
3 Persons	2,753	18.7%	15,401	18.1%	9,911	17.7%	858,233	17.1%
4 Persons	2,150	14.6%	11,912	14.0%	7,448	13.3%	687,590	13.7%
5+ Persons	1,222	8.3%	6,467	7.6%	4,256	7.6%	451,701	9.0%
Total	14,724	100.0%	85,089	100.0%	55,997	100.0%	5,018,904	100.0%

Source: 2000 Census; ESRI; Bowen National Research

The estimated 22.9% share of Greene County households with four-person households or more is higher than the 21.6% share in Washington County and 20.9% share in Fayette County. The Pennsylvania state average of four-person or larger households is 22.7%. This higher than average share in Greene County is a potential indication of the need for housing that can accommodate large family households.

The distribution of households by income within the subject markets are summarized as follows:

Annual Household Income	2010 (Estimated)							
	Greene County		Washington County		Fayette County		Pennsylvania	
	Households	Percent	Households	Percent	Households	Percent	Households	Percent
Less than \$10,000	1,414	9.6%	5,871	6.9%	6,608	11.8%	341,285	6.8%
\$10,000 - \$19,999	2,253	15.3%	9,360	11.0%	9,071	16.1%	496,871	9.9%
\$20,000 - \$29,999	2,002	13.6%	9,785	11.5%	7,896	14.1%	521,966	10.4%
\$30,000 - \$39,999	1,870	12.7%	8,509	10.0%	7,168	12.8%	511,928	10.2%
\$40,000 - \$49,999	1,472	10.0%	9,105	10.7%	5,599	10.0%	506,909	10.1%
\$50,000 - \$59,999	1,134	7.7%	7,063	8.3%	4,144	7.4%	431,626	8.6%
\$60,000 - \$74,999	1,590	10.8%	10,891	12.8%	6,104	10.9%	637,401	12.7%
\$75,000 - \$99,999	1,826	12.4%	13,785	16.3%	5,543	9.9%	762,873	15.2%
\$100,000 and Higher	1,163	7.9%	10,721	12.6%	3,864	6.9%	808,044	16.1%
Total	14,724	100.0%	85,089	100.0%	55,997	100.0%	5,018,903	100.0%
Median Income	\$38,836		\$49,939		\$35,043		\$52,723	

Source: 2000 Census; ESRI; Bowen National Research

Compared with neighboring Pennsylvania counties, Greene County has a larger share of lower income households than Washington County but a smaller share of these households than Fayette County. Greene County's share of lower income households is significantly greater than the Pennsylvania share, indicating a larger base of households likely requiring affordable housing.

The following tables illustrate households by income by tenure in Greene County for 2000, 2010 (estimated), and 2015 (projected).

	Year	Renter Households by Income							Total
		\$0 to \$10,000	\$10,000 to \$20,000	\$20,000 to \$30,000	\$30,000 to \$40,000	\$40,000 to \$50,000	\$50,000 to \$60,000	\$60,000+	
Greene County	2000	1,060	1,159	651	435	223	135	238	3,901
	2010	941	1,065	589	472	288	182	506	4,043
	2015	930	1,045	700	574	386	265	596	4,496

Source: 2000 Census; Ribbon Demographics, ESRI; Bowen National Research

	Year	Owner Households by Income							Total
		\$0 to \$10,000	\$10,000 to \$20,000	\$20,000 to \$30,000	\$30,000 to \$40,000	\$40,000 to \$50,000	\$50,000 to \$60,000	\$60,000+	
Greene County	2000	994	1,719	1,835	1,552	1,229	1,057	2,774	11,159
	2010	652	1,093	1,380	1,315	1,204	1,025	4,012	10,681
	2015	632	1,026	1,412	1,357	1,263	1,077	4,077	10,844

Source: 2000 Census; Ribbon Demographics, ESRI; Bowen National Research

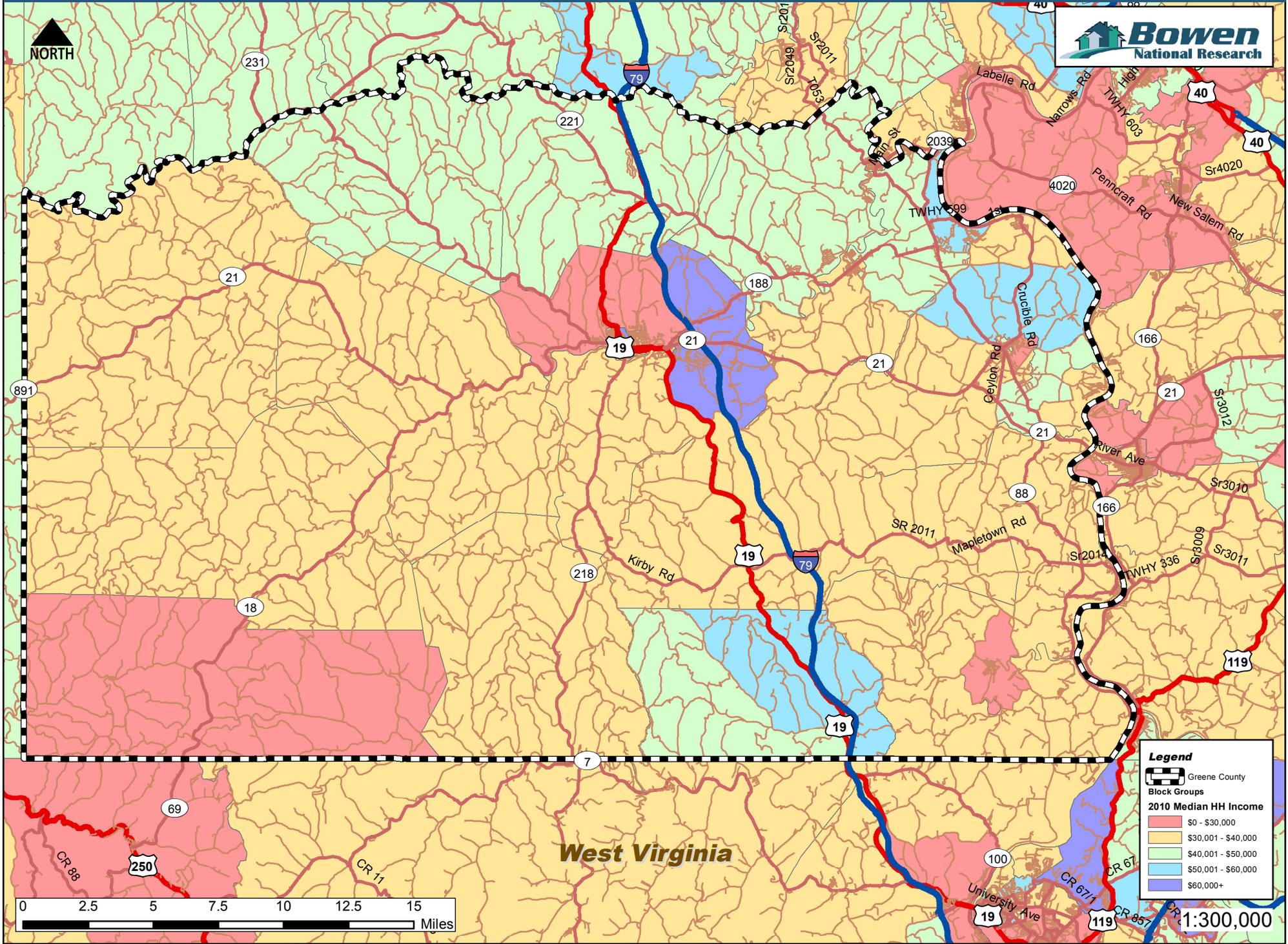
Data from the preceding table is used in our demand estimates.

Various demographic theme maps of Greene County follow this page.

Greene County, PA: 2010 Estimated Median Household Income

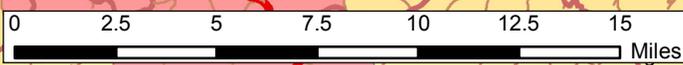


NORTH



Legend

- Greene County Block Groups
- 2010 Median HH Income**
- \$0 - \$30,000
- \$30,001 - \$40,000
- \$40,001 - \$50,000
- \$50,001 - \$60,000
- \$60,000+



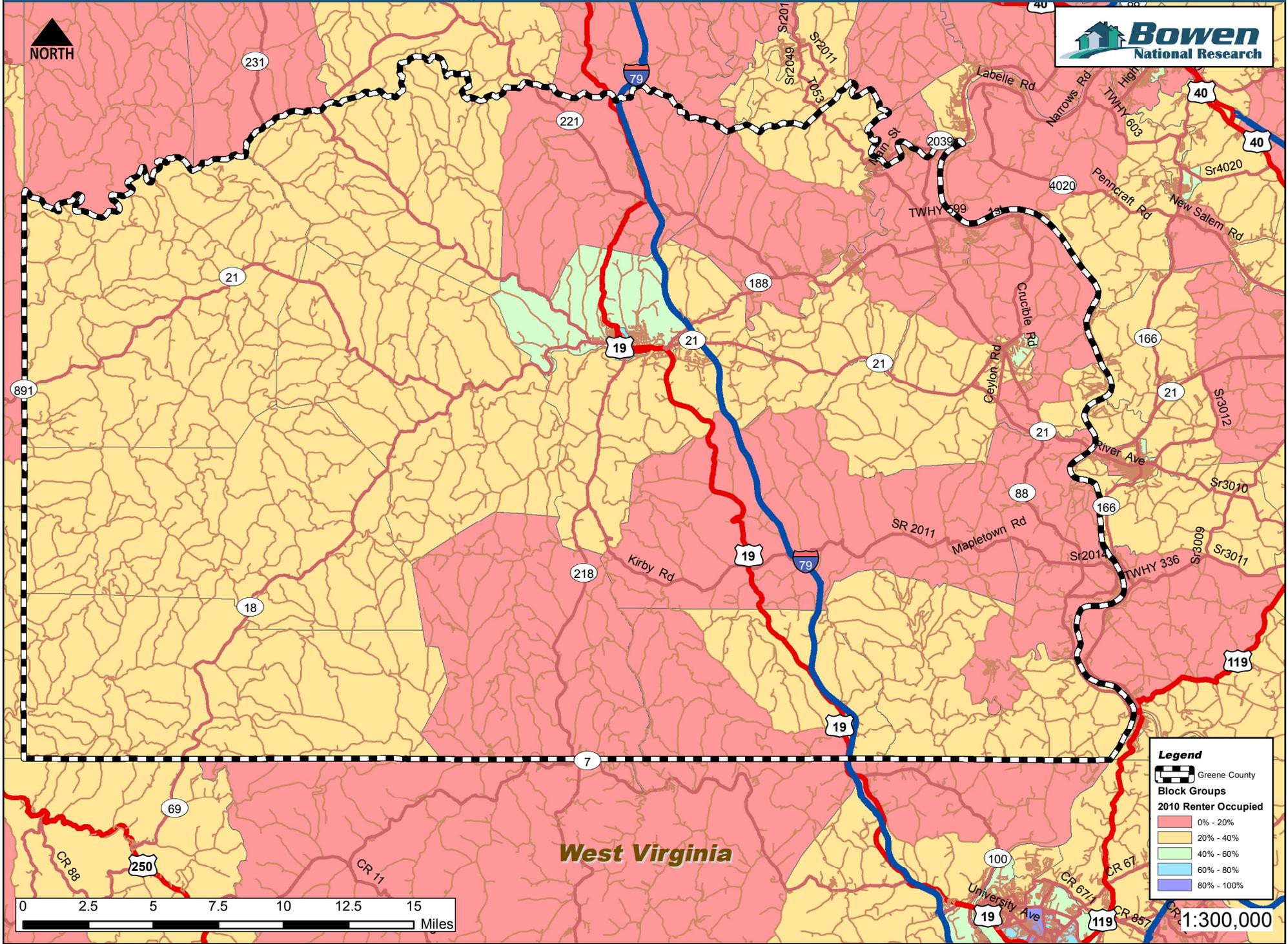
1:300,000

West Virginia

Greene County, PA: 2010 Estimated Renters' Share

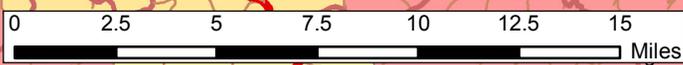


NORTH



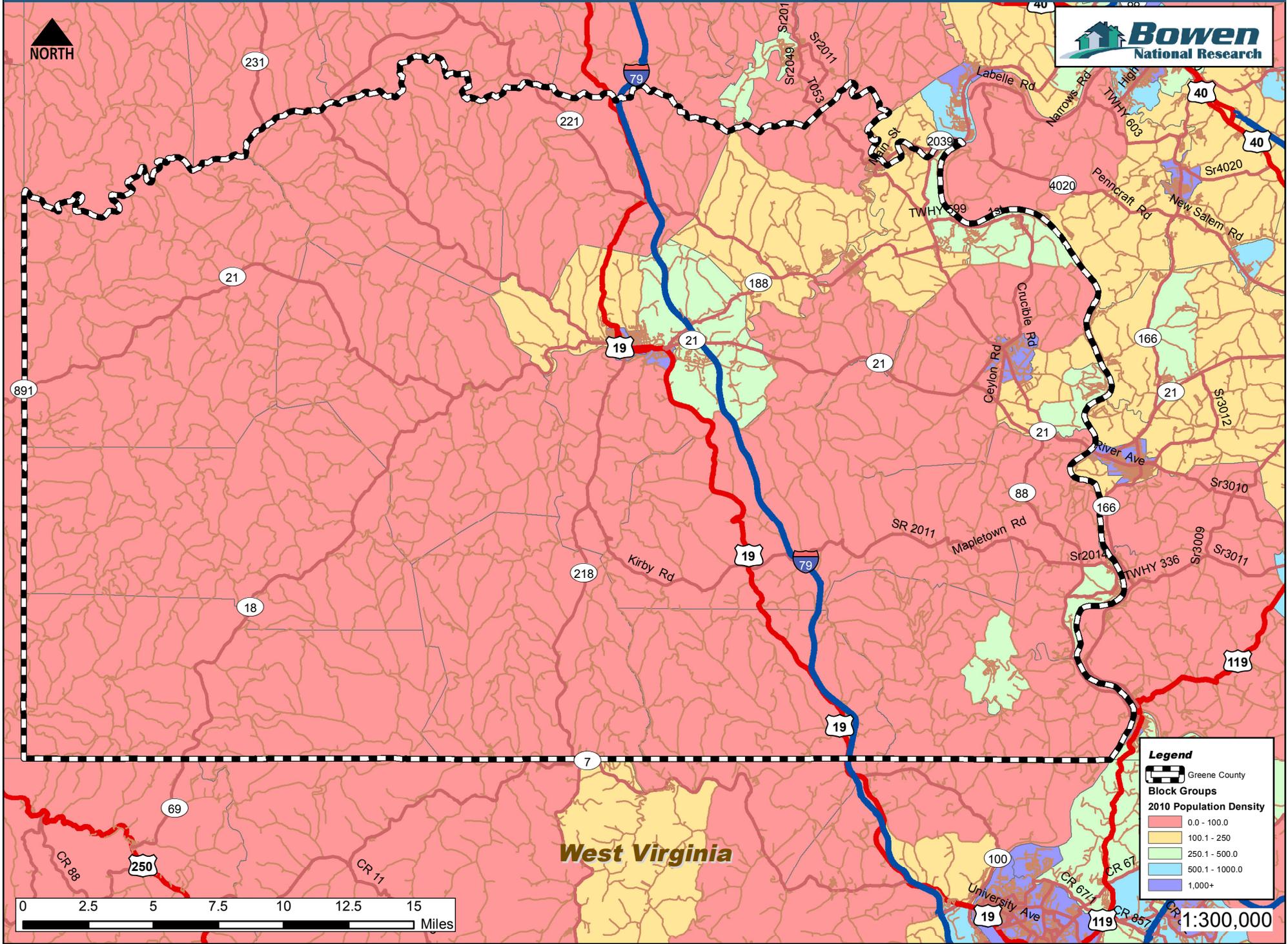
Legend

- Greene County
- Block Groups**
- 2010 Renter Occupied**
- 0% - 20%
- 20% - 40%
- 40% - 60%
- 60% - 80%
- 80% - 100%



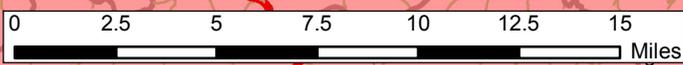
1:300,000

Greene County, PA: 2010 Estimated Population Density



Legend

- Greene County
- Block Groups**
- 2010 Population Density**
- 0.0 - 100.0
- 100.1 - 250
- 250.1 - 500.0
- 500.1 - 1000.0
- 1,000+

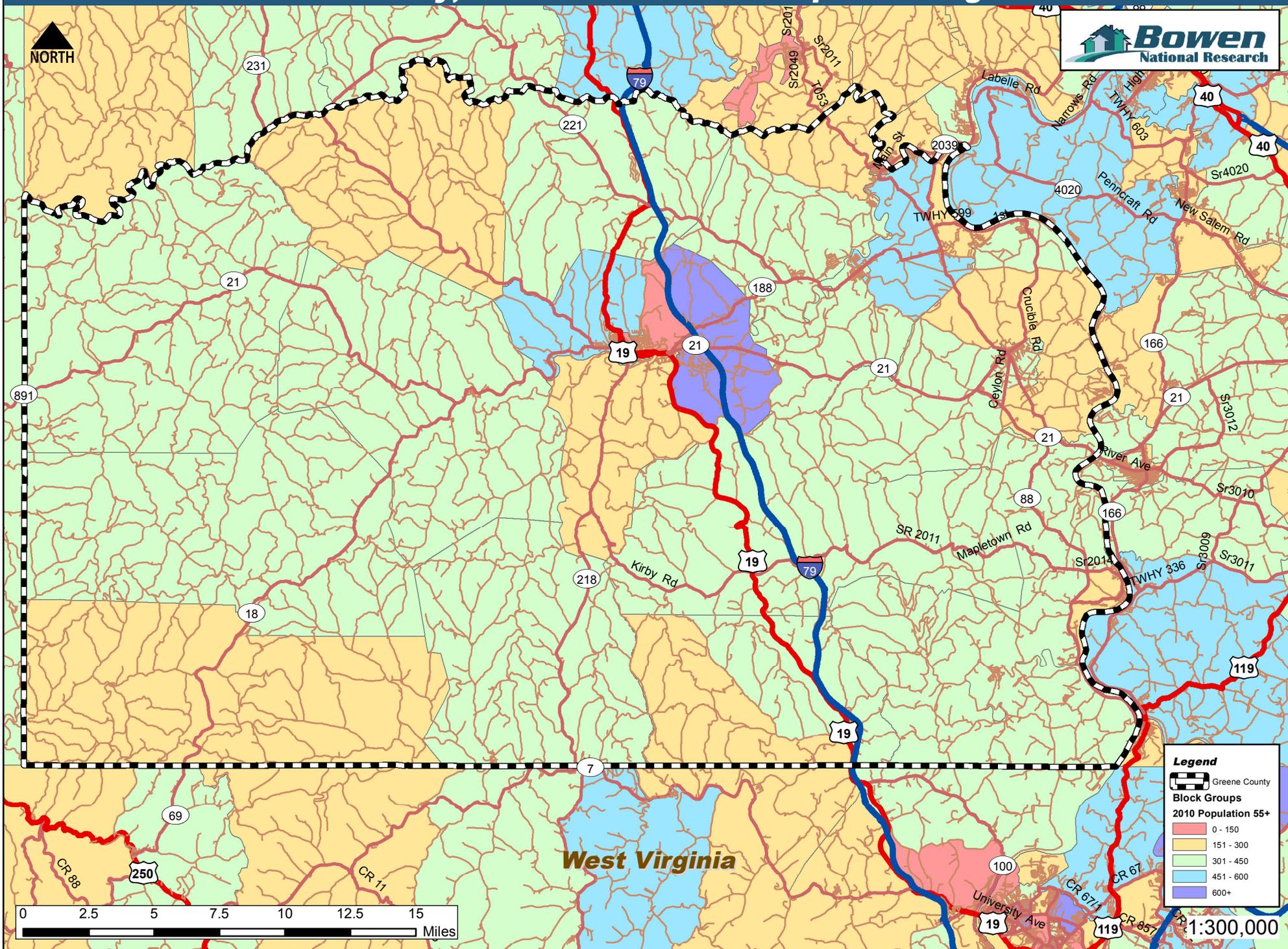


1:300,000

Greene County, PA: 2010 Estimated Population Age 55+



NORTH



VII. RENTAL HOUSING ANALYSIS (SUPPLY & DEMAND)

A. SUPPLY ANALYSIS

Overview Of Greene County Housing

The distributions of the area housing stock within Greene County in 2000 and estimated for 2010 are summarized in the following table:

Housing Status	2000 (Census)		2010 (Estimated)	
	Number	Percent	Number	Percent
Total-Occupied	15,060	90.3%	14,724	88.1%
Owner-Occupied	11,159	74.1%	10,681	72.5%
Renter-Occupied	3,901	25.9%	4,043	27.5%
Vacant	1,618	9.7%	1,989	11.9%
Total	16,678	100.0%	16,713	100.0%

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

Based on a 2010 update of the 2000 Census, of the 16,713 total housing units in the market, 11.9% were vacant. It should be noted that these vacant units encompass a variety of units and conditions, and include seasonal vacancies or vacant units in disrepair or that are uninhabitable. In 2010, it was estimated that homeowners occupied 72.5% of all occupied housing units, while the remaining 27.5% were occupied by renters. The share of renters is considered typical for a county of similar size of Greene County.

Based on the 2000 Census (the latest data available), the following is a distribution of all renter-occupied housing units in Greene County by year of construction.

Year	Renter-Occupied	
	Number	Percent
1999 to March 2000	4	0.1%
1995 to 1998	116	3.0%
1990 to 1994	218	5.6%
1980 to 1989	429	11.0%
1970 to 1979	728	18.7%
1960 to 1969	353	9.0%
1940 to 1959	685	17.5%
1939 or Earlier	1,368	35.1%
Total	3,901	100.0%

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

As evidenced by the table above, more than half of the housing units in Greene County were constructed prior to 1950, while approximately 80% of the housing was built prior to 1980. This is indicative of an older housing market.

Based on the 2000 Census, the following is a distribution of all renter-occupied housing by units in structure in Greene County.

Units in Structure	Renter-Occupied	
	Number	Percent
1; Detached	1,534	39.3%
1; Attached	187	4.8%
2 to 4	649	16.6%
5 to 9	267	6.8%
10 to 19	212	5.4%
20 to 49	214	5.5%
50+	92	2.4%
Mobile Homes	746	19.1%
Boat, RV, Vans	0	0.0%
Total	3,901	100.0%

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

Approximately 40% of the housing stock in 2000 consisted of single-family homes, while multifamily units comprise over one-third of the housing stock. Mobile homes represent nearly 20% of the housing stock.

The renter-occupied household sizes within Greene County, based on the 2000 Census, are distributed as follows:

Household Size	Renter-Occupied	
	Number	Percent
1-Person	1,359	34.8%
2-Person	1,123	28.8%
3-Person	718	18.4%
4-Person	381	9.8%
5+-Person	320	8.2%
Total	3,901	100.0%

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

Nearly two-thirds of the renter-occupied housing units were occupied by one- and two-person households. Large-family households, those consisting of four or more persons, represented 18% of the occupied units.

B. SURVEY OF GREENE COUNTY RENTAL PRODUCT

As part of this Housing Needs Assessment, we identified, surveyed, and evaluated a variety of rental housing alternatives, ranging in price points, program types, housing structures, and targeted household income levels.

The housing structures included in this analysis are:

- **Traditional Apartments, Duplexes, and Single-family Rentals** – While most of these rentals are four-unit structures or larger, we also surveyed some duplexes and single-family home rentals.
- **Lodging/Short-term Rentals** –These included hotels, motels, and bed and breakfast facilities.
- **Mobile Homes, RV, and Campground Parks** – We identified sites that house mobile homes, RVs, and campers. Some of these include actual housing units, while others only include lots.

Apartments, Duplexes, and Single-Family Home Rentals

As part of our analysis of rental housing, we identified and surveyed apartments, duplexes, and single-family home rentals. Such rental housing was segmented and evaluated based on the program type or targeted income levels such as market-rate, Tax Credit, and government-subsidized housing. These types of housing are defined as follows.

- Market-rate housing is housing that is not restricted in terms of rents or household income limits from a government program. Instead, the rents charged are based on ownership/management's discretion as to what the open market would yield for a particular rental unit.
- Tax Credit housing is product that is developed under the Federal Government's IRS Section 42 program. This program limits the maximum rent that can be charged and the income level requirements of prospective tenants of up to 60% of Area Median Household Income (AMHI). The program is operated at the state level. In Pennsylvania, the program is operated by the Pennsylvania Housing Finance Agency (PHFA).
- Government-subsidized housing functions under a variety of programs that generally limit household eligibility to households with incomes of up to 50% of Area Median Household Income (AMHI). Tenants of government-subsidized housing are generally required to pay 30% of their adjusted gross income towards rent.

We identified and personally surveyed 34 conventional housing projects containing a total of 826 units within Greene County. This survey was conducted to establish the overall strength of the rental market. These rentals have a combined occupancy rate of 98.9%, a very high rate for rental housing. Within these projects, there are 217 non-subsidized (market-rate and Tax Credit) units. These non-subsidized units are 97.7% occupied. The remaining 609 government-subsidized units are 99.3% occupied. There are 37 additional units either under construction or being renovated in Greene County.

The following table summarizes the breakdown of all units surveyed:

Project Type	Projects Surveyed	Total Units	Vacant Units	Occupancy Rate
Market-rate	22	211	5	97.6%
Market-rate/Government-Subsidized	1	120	0	100.0%
Tax Credit/Government-Subsidized	1	34	4	88.2%
Government-Subsidized	10	461	0	100.0%
Total	34	826	9	98.9%

The rental housing market in Greene County is performing extremely well with only nine vacancies among the 826 rental units identified in the market. The lone project with an 88.2% occupancy rate, Waynesburg House (Map ID 12), had 4 of its 34 units vacant at the time of our survey. This age-restricted project was constructed in 1900 and renovated into apartments using Tax Credit financing in 1995. Management indicated that the project has rental assistance on 30 units, which are all occupied. The project's four vacant units do not have rental assistance and the project does not accept Housing Choice Vouchers. Including this project, the Greene County market has an overall 98.9% occupancy rate. This is an extremely high occupancy rate and is a likely indication of a rental housing shortage. Typically, healthy and well-balanced rental markets have occupancy levels around 95%. When overall market occupancy levels exceed this and are 97.0% or higher, a housing shortage is often created. In such cases, it becomes more difficult for households seeking rental housing to find housing to meet their needs. These households are often forced to choose housing that does not meet their size, location or affordability requirements. The overall market, in situations where there is limited availability, often experiences rapid rent increases. The rapid rent increases then create rent overburden situations or force households to seek rental alternatives outside the market.

The following table summarizes the breakdown of market-rate, Tax Credit, and government-subsidized units within surveyed projects:

Market-rate						
Bedroom	Baths	Units	Distribution	Vacancy	Percent Vacant	Median Gross Rent
Studio	1.0	17	7.8%	0	0.0%	\$380
One-Bedroom	1.0	36	16.6%	0	0.0%	\$562
Two-Bedroom	1.0	133	61.3%	4	3.0%	\$842
Two-Bedroom	2.0	22	10.1%	0	0.0%	\$942
Three-Bedroom	1.0	9	4.1%	1	11.1%	\$852
Total Market-rate		217	100.0%	5	2.3%	-
Subsidized Tax Credit						
Bedroom	Baths	Units	Distribution	Vacancy	Percent Vacant	Median Gross Rent
One-Bedroom	1.0	32	94.1%	4	12.5%	N/A
Two-Bedroom	1.0	2	5.9%	0	0.0%	N/A
Total Subsidized Tax Credit		34	100.0%	4	11.8%	N/A
Government-Subsidized						
Bedroom	Baths	Units	Distribution	Vacancy	Percent Vacant	Median Gross Rent
Studio	1.0	36	6.3%	0	0.0%	N/A
One-Bedroom	1.0	237	41.2%	0	0.0%	N/A
Two-Bedroom	1.0	175	30.4%	0	0.0%	N/A
Three-Bedroom	1.0	31	5.4%	0	0.0%	N/A
Three-Bedroom	1.5	66	11.5%	0	0.0%	N/A
Four-Bedroom	1.5	30	5.2%	0	0.0%	N/A
Total Subsidized		575	100.0%	0	0.0%	N/A

N/A – Not available (rents are based on 30% of a households adjusted income)

Of the 826 rental units identified in the county, 43.4% consist of studio and one-bedroom units, 40.2% consist of two-bedroom units, and 16.4% are three-bedroom units. Generally, in established, well-balanced markets the distribution of one-bedroom units falls within 20% to 40% of the total supply, two-bedroom units comprise 40% to 60% of the supply, and three-bedroom units comprise roughly 10% to 30% of the supply. As such, the distribution of bedrooms of the Greene County traditional rental housing stock appears to generally fall within the acceptable range.

The following is a distribution of units surveyed by year built in Greene County.

Year Built	Projects	Units	Vacancy Rate
Before 1970	17	111	5.4%
1970 to 1979	6	253	0.0%
1980 to 1989	6	316	0.0%
1990 to 1999	2	46	6.5%
2000	0	0	0.0%
2001	0	0	0.0%
2002	1	96	0.0%
2003	0	0	0.0%
2004	0	0	0.0%
2005	0	0	0.0%
2006	0	0	0.0%
2007	1	2	0.0%
2008	0	0	0.0%
2009	1	2	0.0%
2010	0	0	0.0%
2011*	0	0	0.0%
Total	34	826	1.1%

*As of May

Approximately 40% of all rental units surveyed were built prior to 1980. These older apartments have a vacancy rate of 1.7%, slightly higher than the overall market. Only four conventional apartment units have been added to the market since 2002. As such, the existing rental housing stock is considered to be moderately old.

We rated each property surveyed on a scale of “A” through “F”. Properties were rated based on quality and overall appearance (i.e. aesthetic appeal, building appearance, landscaping and grounds appearance). Following is a distribution by quality rating, units and vacancies.

Market-rate			
Quality Rating	Projects	Total Units	Vacancy Rate
A- or Higher	1	96	0.0%
B+	1	16	18.8%
B	11	63	0.0%
B-	2	11	0.0%
C	3	17	5.9%
C-	2	13	0.0%
D or Lower	1	1	100.0%
Government-subsidized			
Quality Rating	Projects	Total Units	Vacancy Rate
A- or Higher	0	0	-
B+	1	34	11.8%
B	5	246	0.0%
B-	5	329	0.0%
C	0	0	-
C-	0	0	-
D or Lower	0	0	-

Among all surveyed product, there does not appear to be a direct correlation between the quality of product and occupancy, as vacancies are limited among the various quality ratings. The 18.8% vacancy rate among the B+ rated market-rate property is attributed to only three vacant units.

Generally, government-subsidized projects have very basic amenity packages and therefore were not evaluated. The distribution of unit amenities for all market-rate projects surveyed is as follows.

Distribution of Unit Amenities			
Project Amenities	Number of Projects	Percent Within Projects	Units
Stove Range	20	87.0%	194
Refrigerator	20	87.0%	194
Dishwasher	1	4.3%	96
Disposal	0	0.0%	0
Microwave	1	4.3%	96
AC-Central	5	21.7%	105
AC-Window	11	47.8%	84
Carpeting	23	100.0%	217
Window Treatments	19	82.6%	187
Washer/Dryer	6	26.1%	108
Washer/Dryer Hookups	13	56.5%	129
Patio/Balcony	7	30.4%	115
Ceiling Fans	2	8.7%	17

The most common unit amenities offered among the market-rate supply include stove/range, refrigerator, carpeting, and window treatments. Slightly over one-half of the units offer washer and dryer hookups. Based on this analysis, the market-rate unit amenity packages are considered to be very basic and upscale features are not common.

The distribution of project amenities for all non-subsidized projects surveyed is as follows.

Distribution of Project Amenities			
Project Amenities	Number of Projects	Percent Within Projects	Units
Pool	0	0.0%	0
On-Site Management	5	21.7%	127
Laundry	8	34.8%	81
Club House	0	0.0%	0
Meeting Room	1	4.3%	96
Fitness Center	1	4.3%	96
Jacuzzi/Sauna	0	0.0%	0
Playground	2	8.7%	102
Tennis Court	0	0.0%	0
Sports Court	1	4.3%	6
Storage	2	8.7%	25
Elevator	1	4.3%	10
Business Center	0	0.0%	0
Picnic Area	1	4.3%	96

Project amenities in this market are also minimal. This is not unusual given that most projects are small in size (number of units) and do not warrant many project amenities.

Lodging (Hotels, Motels, and Bed & Breakfast) Rentals

Given the high demand for rentals and the transient nature of many temporary energy extraction workers in the area, short-term lodging accommodations are a viable rental housing option that must be considered. These rentals included hotels, motels, and bed and breakfast facilities.

We identified 10 lodging facilities in Greene County with a total of 340 rooms. These projects range in size from a three-unit bed and breakfast to a 72-unit hotel. A majority of the standard daily room rates fall with the \$75 to \$99 range. According to the seven facility managers who disclosed the share of Extraction Energy Industry (EEI) workers occupying rooms, approximately two-thirds of the rooms are occupied by EEI workers in a typical work week. Overall, the area's lodging facilities are performing well with a combined 88.2% weekday occupancy rate and five of the 10 lodging facilities operating at 100.0% occupancy most weeks.

The following is a distribution of units and occupancy levels by year built.

Distribution of Units and Occupancy Rates by Year Built				
Year Built	Projects	Rooms	Weekday Occupancy	Weekend Occupancy
Before 1970	4	54	79.6%	83.4%
1970 to 1979	2	34	100.0%	100.0%
1980 to 1989	1	60	65.0%	45.0%
1990 to 1999	2	128	93.7%	93.7%
2000 to 2009	0	0	-	-
2010 and 2011	1	64	100.0%	85.0%
Total	10	340	88.2%	82.3%

Over one-half of the lodging rooms identified were built since 1990. While four of the lodging facilities were built prior to 1970, two of the projects (both bed and breakfast facilities) are historic buildings that were built prior to 1900. There does not appear to be a correlation between the age of product and occupancy level.

We rated each lodging facility from “A” to “F”, based on the general appearance and upkeep. The following table summarizes the distribution of lodging rooms by quality rating.

Distribution of Units by Quality Rating			
Quality Ratings	Projects	Rooms	Share of Rooms
A- or Higher	0	0	-
B+	1	64	18.8%
B	4	138	40.6%
B-	1	10	2.9%
C+	0	0	-
C	0	0	-
C-	3	113	33.2%
D+ or Lower	1	15	4.4%
Total	10	340	100.0%

Nearly two-thirds of all lodging rooms were rated B- or better, while the remaining third were rated C- or lower.

Lodging facilities have a variety of fee structures, including different rates between weekdays and weekends. Some projects offer daily rates, while others offer extended-stay weekly or monthly rates. For the purposes of this study and for ease of comparison, we have included the distribution of daily rates for a standard room in the following table.

Distribution of Units by Daily Rates			
Base Daily Rates	Projects	Rooms	Share of Rooms
Less than \$50	1	10	3.3%
\$50 to \$74	1	29	9.6%
\$75 to \$99	6	262	87.1%
\$100 or Higher	0	0	-
Total	8	301	100.0%

Of the 8 lodging facilities that offer daily rates, most have fees ranging from \$75 to \$99. The six projects within this price range comprise the majority (87.1%) of the lodging units with daily rates. The two projects not accounted for in the table above charge weekly rates ranging from \$175 to \$350 and monthly rates ranging from \$200 to \$800.

As part of our analysis, we asked lodging facility managers to estimate the share of units occupied by Energy Extraction Industry (EEI) workers. While the actual share may fluctuate on a nightly or weekly basis, managers were able to estimate the typical share of units occupied by EEI workers on any given day during the week. The following is an estimate of the EEI worker-occupied units of the seven facilities that reported estimates.

Distribution of Units by Share of EEI Workers			
Share of EEI Workers	Projects	Rooms	EEI Occupied Units
Less than 25%	1	3	0
25% to 49%	1	60	27
50% to 74%	3	87	44
75% or Higher	2	136	116
Total	7	286	187

Five of the projects that reported data estimated 50% or more of the rooms were occupied by EEI workers. Overall, the 286 rooms at the seven reporting projects have an estimated average of 187 units occupied by EEI workers on any given weekday night. These 187 units represent 65.4% of the total units.

Mobile/Manufactured Homes and RV and Campground Parks

We identified 10 sites in Greene County that house mobile/manufactured homes, RVs, or campers. As part of our research, we identified the number of lots offered at each site, the rental rates, the year established, and the amenities and utilities offered. We also evaluated the quality and location of each site. While these sites generally do not include the actual housing unit to rent and prospective residents must provide their own mobile home, RV or camper, it is important to understand the accommodations of these sites and their capacity to accommodate the housing needs of Greene County.

Nine of these 10 projects, containing the capacity for 536 housing units, are existing, while one new project is planned for the market that will include space for 30 housing units. Of these 10 sites, five are mobile/manufactured home parks and five are RV parks or campground sites. Overall, this market is 79.3% occupied.

Distribution of Units and Occupancy Rates by Year Built				
Location Type	Projects	Capacity (Number of Units)	Vacant	Occupancy (Summer 2011)
Mobile/Manufactured Home Parks	5	399	61	84.7%
RV Parks or Campgrounds	5	137 + 30 U/C	50	52.1%
Total	10	536	111	79.3%

U/C – Under Construction (units not included in occupancy rate)

Nearly three fourths of the capacity is located within mobile/manufactured homes sites. Occupancy rates during our survey of early June 2011 were 84.7% for the mobile/manufactured home parks and 52.1% for the RV parks and campgrounds. Occupancies for the mobile/manufactured home parks remains generally stable, while the RV parks and campground sites experience increased occupancy during the warmer months.

The following is a distribution of units and occupancy levels by year built.

Distribution of Units and Occupancy Rates by Year Built			
Year Built	Projects	Capacity (Number of Units)	Occupancy (Summer 2011)
Before 1970	4	260	78.5%
1970 to 1979	2	120	89.2%
1980 to 1989	1	91	58.2%
1990 to 1999	0	0	-
2000 to 2009	2	65	93.9%
2010 and 2011	1*	30	-
Total	10	566	79.3%

*Under construction/development

Most of the sites identified were built or developed prior to 1980. Only 3 sites have been developed since 1990.

We rated each site from “A” to “F”, based on the general appearance and upkeep. The following table summarizes the distribution of lodging rooms by quality rating.

Distribution of Units by Quality Rating			
Quality Ratings	Projects	Capacity (Number of Units)	Share of Capacity
A- or Higher	0	0	-
B+	0	0	-
B	3	122	21.6%
B-	3	206	36.4%
C+	0	0	-
C	4	238	42.0%
C- or Lower	0	0	-
Total	10	566	100.0%

Four of the sites with over half of the county’s housing capacity were rated C. Generally, the sites are considered to be in fair condition.

The rates to use a lot at the mobile/manufactured homes site or at the RV parks or campground sites range significantly. Rates for lots start as low as \$15 a day to \$30 a day for a campground site. Monthly rates for a site range from \$85 to \$504. Sites with a mobile/manufactured home included range from \$450 to \$500 a month.

Planned & Proposed Rental Housing Development

Based on our interviews with local building and planning representatives in various municipalities within Greene County, as well as with Greene County Planning Department officials, it was determined that a few rental projects are currently underway or proposed for development within the County. While a few single-unit projects are being developed or renovated, the larger, more notable projects include the following:

- There are currently 34 units being developed at Avalon Court, which involves the substantial rehabilitation of an existing Public Housing project. The project is expected to be complete in the latter half of 2011.
- The development of an 80-unit Hampton Inn is proposed in Franklin Township. At the time of our research, the project still had to go through the planning commission process.
- A 40-unit Nikita Lodging facility is proposed in Waynesburg. The project was still pending planning commission review at the time of our research.
- Rohanna’s is an RV park currently under development in Waynesburg that will have the capacity to accommodate 30 housing units. The site should be ready to house units in the latter half of 2011.

D. DEMAND ANALYSIS

Since the development of rental housing in Greene County could include a variety of financing options, our estimates for the number of units that can be supported consider a variety of income levels. For the purposes of this analysis, we have segmented demand into three levels of affordability: 1.) Government-subsidized, 2.) Tax Credit, and 3.) market-rate. Further, because of the unique dynamics associated with the household growth created by the projected energy extraction industry job growth, the market will experience both long-term and short-term housing needs. As a result, we have evaluated demand for both long-term and short-term housing alternatives.

1. Long-term Housing Needs

Housing to meet the long-term housing needs of the more permanent households of Greene County will likely take the shape of apartment, duplex and single-family rental alternatives. There are a variety of financing mechanisms that can support the development of such rental housing alternatives ranging from federal government programs and state programs, as well as conventional financing through lending institutions. These different financing alternatives have specific income and rent restrictions, which are summarized below.

Determination of Income-Eligibility

We have evaluated the Greene County market's ability to support rental housing based on three levels of affordability. While there may be overlap among these three levels due to program targeting and rent levels charged, we have established specific income stratifications that are exclusive of each other in order to eliminate double-counting demand. Further, while state and federal housing programs establish the income limits depending on the household size applying for residency at a project, we have used a five-person household income limit for a family/general occupancy unit and two-person household income limits for senior projects. The three levels of affordability are described below:

- Government-subsidized – There are a variety of government-subsidized programs such as HUD Sections 8, 202, and 236, Public Housing, Rural Development Section 515, and Housing Choice Vouchers. Most of these programs limit eligibility to households with incomes of up to 50% of Area Median Household Income (AMHI). Typically, however, most residents of subsidized housing have annual incomes below 40% of AMHI. For the purposes of this analysis, we have limited our demand estimates for government-

subsidized housing to households within incomes up to 40% of AMHI and lower.

- Tax Credit – Development of Low-Income Housing Tax Credit (LIHTC) housing is limited to households with incomes of up to 60% of AMHI. While the minimum income requirement is based on the lowest gross rent that a Tax Credit project would charge, for the purposes of this analysis, we have limited the minimum income requirement to 40% of AMHI.
- Market-rate – Projects that are not limited by federal and state government programs are considered market-rate housing. Market-rate units can fall within the entire spectrum of affordability, as it is up to ownership and management of a market-rate project to determine the rents to charge and the corresponding income qualifications of prospective residents. For the purposes of this analysis, we assume households with incomes above 60% of AMHI will respond to market-rate housing.

The following table summarizes the three income segments used in this analysis to estimate potential demand.

Category	Income Range	
	Senior Housing	Family Housing
Government-subsidized	\$0 to \$15,000	\$0 to \$15,000
Tax Credit	\$15,001 to \$27,500	\$15,001 to \$37,500
Market-rate	\$27,501+	\$37,501+

While different state and federal housing programs establish income and rent restrictions for their respective programs, in reality, there is potential overlap between windows of affordability between the programs. Further, those who respond to a certain product or program type vary. This is because housing markets are highly dynamic, with households entering and exiting by tenure and economic profile. Further, qualifying policy of property owners and management impact the households that may respond to specific project types. As such, while a household may prefer a certain product, ownership/management qualifying procedures (i.e. review of credit history, current income verification, criminal background checks, etc.) may affect housing choices.

Regardless, we have used the preceding income segmentations as the ranges that a typical project would use to qualify residents, based on their household income. Ultimately, any new product added to the market will be influenced by many decisions made by the developer and management. This ranges from eligibility requirements, design type, location, rents, amenities

and other features. As such, our estimates assume that the rents, quality, location, design and features are marketable and will appeal to most renters.

Long-term Housing Demand Estimates

There are generally three sources of demand for new long-term housing. These sources include 1.) A positive increase in renter households, 2.) Replacement of functionally obsolete product, and 3.) the number of units required to have a balanced market. The first source of demand is generally easily quantifiable, and includes the net change in renter households between the baseline year of 2010 and the projection year of 2015. Demand for new units as replacement housing takes into consider that while some properties are adequately maintained and periodically updated, a portion of the existing stock reaches a point of functional obsolescence over time and needs to be replaced. Based on own research and on secondary studies, approximately 0.3% of existing housing stock should be replaced annually. In older, more established markets, this share is usually higher; however, for the purposes of this analysis, we conservatively use a 0.3% annual replacement share in our calculations. The third demand component considers the number of units a market requires to offer balanced market conditions, which is usually a market with 5% of the rental supply available (95% occupied). Healthy markets require approximately 4% to 6% of the rental market to be available in order to allow for inner-market mobility and encourage competitive rental rates. Markets with vacancy rates below a healthy rate often suffer from rapid rent increases, minimal tenant turnover (which may result in deferred maintenance), and residents being forced into housing situations that do not meet their housing needs.

The table on the following page includes a demand calculation for rental units targeting the three income segments considered in this analysis. This demand calculation includes projected households growth, replacement housing and units required to have a balanced market.

**Greene County
2010 - 2015 Demand (Renter Households)**

	Senior Housing			Family/General Occupancy		
	Subsidized \$0-\$15,00	Tax Credit \$15,001- \$27,500	Market Rate \$27,501+	Subsidized \$0-\$15,000	Tax Credit \$15,001- \$37,500	Market Rate \$37,501+
I. Growth Demand Household-Based:						
2010 Total Income-Qualified Renter Households	719	475	778	755	755	560
2015 Total Estimated Income-Qualified Renter Households	709	511	974	744	846	712
New Income-Qualified Renter Household Growth Over Projection Period (5 Years)	-10	+36	+196	-11	+91	+152
II. Total Units Needed For Balanced (95.0% Occupied) Market						
2010 Occupied Rental Housing Units	719	475	778	755	755	560
Estimated Vacant Units in 2015*	4	17	97	34	53	139
Occupancy Rate Required for Optimal Market	723	492	875	789	808	699
Estimated Occupancy Rate for 2015 based on current and planned units	95%	95%	95%	95%	95%	95%
Total Targeted Rental Units Needed For Balanced Market	757	500	819	795	795	589
Additional/Fewer Rental Housing Units Needed for Balanced Market	+34	+8	-56	+6	-13	-110
III. Replacement of Existing Rental Product						
Total Occupied Rental Units in 2010	719	475	778	755	755	560
Multiplied by the Share of Replacement Housing Needed ***	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%
Total Replacement Housing Needed by 2015	+11	+7	+12	+11	+11	+8
IV. Total Supply And Demand						
New Income-Qualified Renter Household	-10	+36	+196	-11	+91	+152
Units Needed for Balanced Market	+34	+8	-56	+6	-13	-110
Total Replacement Housing Needed by 2015	+11	+7	+12	+11	+11	+8
Total Targeted Units Needed Over Projection Period (5 Years)	+35	+51	+152	+6	+89	+50

*Vacancy based on our field survey of each rental housing alternative and identification of planned or proposed projects that might be built in the market

***Considers a 0.3% annual replacement rate of existing rental product, or 1.5% of all rental housing between 2010 and 2015

Summary of Long-term Housing Demand Estimates

The table below provides a housing demand estimate for new units between 2010 and 2015. Note that we have summarized the data into three income groupings by Area Median Household Income (AMHI) level (0% to 40%, 41% to 60%, and 61% and higher). Units targeting households earning up to 40% of AMHI are generally represent households in need of subsidized housing. Units targeting households earning up to 60% of AMHI, but not less than 40% of AMHI generally serve potential demand for unsubsidized Tax Credit housing. Units targeting households earning above 60% of AMHI serve potential demand for market-rate housing.

Greene County Long-Term Rental Housing Demand Estimates Summary		
Income Segment	Senior	Family
Total Net Demand For Subsidized Rental Units (0%-40% AMHI)	35	6
Total Net Demand For Tax Credit Rental Units (41%-60% AMHI)	51	89
Total Net Demand For Market-Rate Rental Units (61%+ AMHI)	152	50

It is critical to understand that these estimates represent potential units of demand by targeted income level. The actual number of rental units that can be supported will ultimately be contingent upon a variety of factors including the location of a project, proposed features (i.e. rents, amenities, bedroom type, unit mix, square footage, etc.), product quality, design (i.e. townhouse, single-family homes, or garden-style units), management and marketing efforts. As such, each targeted segment outline in the table above may be able to support more or less than the number of units shown in the table. The potential number of units of support should be considered a general guideline to residential development planning.

2. Short-term Housing Needs

Finally, as shown in Section VIII of this report, the Greene County for-sale housing supply has a large surplus of available product priced below \$140,000. Since there should be minimal change in the number of people seeking to purchase a home at this lower price point, much of this housing stock will remain available for an extended time. As a result, we anticipate that these homes will represent a viable rental alternative for many families and new EEI workers. Because of this, we believe a portion of the demand for new rental units, particularly the market-rate rentals for families, will likely be met by the available low-end for-sale product in Greene County. Therefore, the demand estimates for new rental units in Greene County should be considered a best case scenario.

Housing to meet the housing needs of the more transient, short-term households of Greene County will likely take the shape of non-conventional rental alternatives such as units over storefronts, lodging facilities (i.e. hotels and motels), or temporary workforce housing.

Because the housing needs of this base of transient and temporary residents varies and the needs of a single household may change as circumstances of the households change from time to time, the housing stock needed for this segment of residents will need to vary and be flexible.

Unlike the demand for new units to meet the needs for long-term households, demand for short-term housing will not originate from the need for replacement of old housing or from need for a balanced market. Instead, short-term housing demand should primarily be created by new household formations resulting from new short-term/transient workers expected to be added to Greene County over the next several years. Finally, since virtually all of the demand for short-term housing will be generated by new working-age individuals (under age 65), the housing supply needed will need to accommodate these younger workers.

As shown in section V of this report, we project that the market will have approximately 203 new temporary workers/households that will likely seek short-term housing alternatives as opposed to more permanent housing options such as apartments or for-sale product. Instead, we anticipate these new temporary households will seek short term housing that provides them flexibility to move from one place to another without a long-term lease. As such, these households will likely prefer lodging facilities (i.e. hotels and motels) or other short-term housing alternatives.

Based on our field survey of rental housing alternatives, there are approximately 40 vacancies among the short-term rental units we identified and surveyed in the market. These include typical vacancies among the lodging facilities. Overall, by 2015, if no other short-term housing units or sites are developed, the market will have the ability to absorb 40 of the projected 203 new temporary workers added to the county by 2015, leaving approximately 163 temporary workers without accommodations. While 120 hotel rooms are proposed for the market, these units will likely only meet a portion of the short-term housing needs in the market. Further, lodging should not be considered a housing solution.

3. Special Needs Housing

We have also identified the potential housing needs for special needs households, which are those households requiring special assistance or who are under unusual circumstances requiring housing that would allow residents to eventually transition into a more permanent housing alternative. We have evaluated senior housing needs for those requiring assistance with daily living (i.e. bathing, eating, dressing, medication reminders, etc.) or nursing care in Section IX of this report.

A special needs population that has developed a growing housing need over the past year has been the homeless. As a result, we evaluated the number of homeless as part of this housing needs assessment. Prior to 2011, documented homelessness was virtually non-existent, with only 1 homeless person reported in the county in 2010. By 2011, there was a notable increase in the number of homeless persons, as 21 households with a total of 40 people were reported to be homeless at that time. The table on the following page summarizes homeless population data for Greene County.

Summary of Point-in-time Count Homeless Individuals Greene County, Pennsylvania

Source: PITS, 1/30/08		Source: PITS, 1/28/09		Source: PITS, 1/27/10		Source: PITS, 1/26/11	
Family	Individuals	Family	Individuals	Family	Individuals	Family	Individuals
0	1	0	1	0	1	29	11

Source: Pennsylvania Regional Continuums of Care & Greene County Human Services Department

As the preceding table illustrates, the incidence of unsheltered homelessness from 2008 to 2010 in Greene County was rare, with only one individual reported as being homeless. However, according to the 2011 Point-In-Time data provided by the Greene County Human Services Department, the number of unsheltered homeless increased dramatically. Eleven homeless individuals and ten homeless families (includes nineteen adults and ten children) were identified in the study conducted on January 26, 2011.

Local supportive service agency representatives confirmed that there is no emergency shelter or transitional housing within Greene County and individuals in need of assistance are referred to emergency shelters in Washington or Fayette counties in Pennsylvania or Morgantown, WV. Often these shelters are at or above capacity and are unable to assist with housing. The Salvation Army of Greene County, on a case by case basis, provides short term vouchers for a hotel/motel room. All funds for this are provided by private donations to the Salvation Army.

Permanent Supportive Housing in Greene County is provided through the Southwestern Pennsylvania Human Services – Connect Program. While there is no specific structure designated in the county to meet the needs of the homeless population, there are privately owned apartment units scattered throughout Greene County that contract with the Connect Program to provide housing.

Veterans, people released from the criminal justice program and youth 16 to 21 years of age with a history of foster care/residential placement are able to obtain vouchers through the HPRP program (Homeless Prevention and Rapid Re-housing). Although vouchers are available, individuals within this program are having difficulty finding available housing that meet HUD housing standards. In addition, based on our field survey of all rental housing alternatives in the county, there appear to be few vacancies from which homeless individuals can choose. Contributing to this problem is the fact that private property owners are able to obtain rents that are above the fair market rents set by HUD for Greene County and many of the apartment units that were available in the past no longer accept vouchers of any kind.

With 21 households reported as being homeless in Greene County at the beginning of 2011, there is clear and growing need for housing for the homeless. Because of the lack of available rental alternatives in the market, even homeless households with vouchers are having difficulty finding housing. As such, the market requires new housing to accommodate approximately 20 homeless households (approximately 40 people). This may include emergency shelters, transitional housing or permanent supportive housing, or some combination of these housing alternatives. Because of the nature of homeless households, most of these households likely have very low or no incomes. As such, any housing developed to meet the housing needs of the homeless population will require a project based subsidy.

VIII. FOR-SALE HOUSING ANALYSIS (SUPPLY & DEMAND)

A. FOR-SALE SUPPLY

Based on the 2000 Census, the following is a distribution of all owner-occupied housing units in Greene County by year of construction.

Year	Owner-Occupied	
	Number	Percent
1999 to March 2000	194	1.7%
1995 to 1998	466	4.2%
1990 to 1994	569	5.1%
1980 to 1989	1,220	10.9%
1970 to 1979	1,873	16.8%
1960 to 1969	701	6.3%
1940 to 1959	2,231	20.0%
1939 or Earlier	3,905	35.0%
Total	11,159	100.0%

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

As evidenced by the table above, 55% of the owner-occupied housing units in the county were constructed before 1960, while nearly 90% of the housing was built prior to 1990.

Based on the 2000 Census, the following is a distribution of all owner-occupied housing by units in structure in Greene County.

Units in Structure	Owner-Occupied	
	Number	Percent
1; Detached	8,853	79.3%
1; Attached	294	2.6%
2 units or larger	83	0.8%
Mobile Homes	1,920	17.2%
Boat, RV, Vans	9	0.1%
Total	11,159	100.0%

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

Most of the owner-occupied housing units consisted of single-family homes; while a notable share (17.2%) are comprised of mobile homes.

The owner-occupied household sizes within Greene County, based on the 2000 Census, are distributed as follows:

Household Size	Owner-Occupied	
	Number	Percent
1-Person	2,469	22.1%
2-Person	3,907	35.0%
3-Person	1,970	17.7%
4-Person	1,871	16.8%
5+-Person	942	8.4%
Total	11,159	100.0%

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

Bowen National Research surveyed Greene County to identify for-sale housing product. These housing units were identified through a variety of sources including internet listings, published reports, interviews with local realtors and our personal on-site evaluations. We identified 106 housing units that were available for sale in May and June of 2011. While these homes likely do not represent all available homes, we believe our research yields a large majority of the for-sale housing supply. These homes generally consist of houses on infill lots and homes on scattered lots. We were not able to identify any recently developed and active single-family home subdivisions or condominium projects. “Active” projects are those with new product that have never been occupied and are usually within planned developments, such as subdivisions, often with spec homes or model units. Development of for-sale housing in Greene County appears to be comprised of individually developed homes and the available housing stock appears to be dominated by resales of existing homes.

As part of our research we collected and analyzed the following of the available for-sale housing stock in Greene County:

- Location
- Bedrooms and bathrooms offered
- Square footage (living space)
- Year built
- Price point (asking price)
- Days on market

The following table summarizes the composition of Greene County's available for-sale housing stock.

Summary of Available For-Sale Housing Supply						
Bedrooms	Number of Units	Average Baths	Average Year Built	Price Range	Average Price	Average Days on Market
One-Br.	1	1.0	1921	\$29,000	\$29,900	61.0
Two-Br.	24	1.25	1934	\$32,000-\$245,000	\$69,104	141.3
Three-Br.	53	1.7	1947	\$19,900-\$395,000	\$130,900	167.0
Four-Br.	22	2.4	1952	\$39,900-\$385,000	\$164,736	165.3
Five-Br.	6	2.4	1964	\$39,500-\$375,000	\$224,717	105.7
Total/Average	106	1.8	1945	\$19,900-\$395,000	\$128,289	154.9

Of the 106 available for-sale housing units identified in the market, the overall average asking price is \$128,289. The price range of identified product is \$19,900 to \$395,000; however, most product is priced below \$140,000. The market offers a variety of bedrooms, ranging from one- to five-bedroom units, though most offer two- to four-bedroom units. A detailed analysis of available units by price point and bedroom type is included later in this section. Much of the available supply was built prior to 1950, with an overall average year built of 1945. The overall average time of housing currently being on the market is around five months, or 154.9 days.

The following table summarizes the distribution of available housing stock by year built.

Available For-Sale Housing by Year Built				
Year Built	Number of Units	Price Range	Average Price	Average Days on Market
Prior to 1950	58	\$21,500-\$395,000	\$119,162	162.7
1950 to 1959	6	\$39,500-\$259,900	\$114,310	78.5
1960 to 1969	3	\$85,000-\$229,000	\$158,000	53.0
1970 to 1979	14	\$37,500-\$292,000	\$112,971	189.3
1980 to 1989	5	\$19,900-\$120,740	\$120,740	136.6
1990 to 1999	7	\$43,900-\$269,000	\$155,943	169.1
2000 to 2009	8	\$44,000-\$319,000	\$152,078	163.9
2010 and 2011	5	\$38,000-\$385,000	\$230,600	113.8
Total	106	\$19,900-\$395,000	\$128,289	154.9

Since half of the available housing stock is over 60 years old and only 13 available housing units have been built since 2000, the existing housing stock is considered old. Based on our observations, much of this older housing stock is of lower quality and likely in need of repair. While much of this older stock is affordable to low-income households, the costs to repair and maintain these homes may be a challenge for some low-income households.

The following table details the available for-sale housing supply in Greene County by bedroom type and price point:

Available For-Sale Housing by Bedroom Type and Price Point						
Price Range	Number of Units	One-Br.	Two-Br.	Three-Br.	Four-Br.	Five-Br.
Less than \$100,000	51	1	20	20	8	2
\$100,000 to \$139,999	19	0	3	15	1	0
\$140,000 to \$199,999	18	0	0	12	6	0
\$200,000 to \$299,999	13	0	1	5	5	2
\$300,000 to \$399,999	5	0	0	1	2	2
\$400,000 and Higher	0	0	0	0	0	0
Total	106	1	24	53	22	6

The majority of Greene County’s available for-sale housing supply consists of three-bedroom units, which comprise one-half of the identified housing stock. Two- and four-bedroom units comprise nearly equal shares of the available housing stock. Approximately two-thirds of the available for-sale housing stock is priced below \$140,000. As such, Greene County has a good base of affordable for-sale housing.

The following table summarizes the available for-sale housing stock by community.

Available For-Sale Housing by Location				
Community	Number of Units	Price Range	Average Price	Average Days on Market
Waynesburg/Franklin Township	43	\$37,900-\$319,000	\$134,730	141.5
Carmichaels/Cumberland Township	24	\$21,500-\$279,900	\$121,752	168.2
Jefferson/Mather	12	\$19,900-\$265,000	\$94,525	160.1
Kirby/Mt. Morris	5	\$80,000-\$375,000	\$186,760	168.6
Dry Tavern/Rices Landing	5	\$37,500-\$159,900	\$94,240	253.8
Bobtown/Dilliner	4	\$34,500-\$395,000	\$187,350	150.5
Clarksville	4	\$39,500-\$149,000	\$102,875	71.0
Crucible	3	\$38,000-\$385,000	\$168,500	227.7
Other	6	\$32,000-\$299,000	\$144,133	142.3
Total	106	\$19,900-\$395,000	\$128,289	154.9

Most of the for-sale housing stock identified in Greene County was within the Waynesburg/Franklin Township area, representing 40.6% of the units identified. The homes in this area have an average price of \$134,730, which is comparable to the Greene County average sales price of \$128,289. The average sales prices by community range from \$94,240 in Dry Tavern/Rices Landing to a high of \$187,350 in Bobtown/Dilliner. It is important to note that of each of the communities with available for-sale housing offers a fairly wide spectrum of a pricing, with virtually each community offering product under \$40,000 and product over \$200,000. This enables each

community the ability to attract householders from a variety of income levels, though a majority of the housing stock is priced below \$140,000.

Planned For-Sale Developments

According to interviews with planning officials in various municipalities within Greene County, there are no newly planned single-family home subdivisions within Greene County.

B. FOR-SALE DEMAND ESTIMATES

This section of the report addresses the market demand for for-sale housing alternatives in Greene County. There are a variety of factors that impact the demand for new homes within an area. In particular, area and neighborhood perceptions, quality of school districts, demographics, mobility patterns, and active builders all play a role in generating new home sales. Support can be both internal (households moving within the market) and external (households new to the market).

While new household growth alone is often the primary contributor to demand for new for-sale housing, the lack of significant development of such housing in Greene County over recent decades and the age of the existing housing stock are indicators that demand for new housing will also be generated from the need to replace some of the older housing stock. As a result, we have considered two specific sources of demand for new for-sale housing in Greene County:

- New Housing Needed to Meet Projected Household Growth
- Replacement Housing for Functionally Obsolete Housing

For the purposes of this analysis, we conservatively assume that a homebuyer will be required to make a minimum down payment of \$10,000 or 10.0% of the purchase price for the purchase of a new home. Further, we assume that a reasonable down payment will equal approximately 35.0% to 45.0% of a household's annual income. Using this methodology, the following represents the potential purchase price by income level (this analysis also assumes a fixed rate of 6.25% financed over a period of 30 years):

Income Level	Down Payment	Maximum Purchase Price
Less Than \$29,999	\$10,000	Up to \$100,000
\$30,000-\$39,999	\$15,000	\$100,000-\$139,999
\$40,000-\$49,999	\$20,000	\$140,000-\$199,999
\$50,000-\$74,999	\$25,000	\$200,000-\$299,999
\$75,000-\$99,999	\$30,000	\$300,000-\$399,999
\$100,000 And Over	\$35,000	\$400,000+

Naturally, there are cases where a household can afford a higher down payment to purchase a more expensive home. There are also cases in which a household purchases a less expensive home although they could afford a higher purchase price. This broad analysis provides the basis in which to estimate the *potential* sales of new single-family homes or condominiums within Greene County.

New Household Growth

The following represents a distribution of estimated 2010 and projected 2015 income levels of households and corresponding affordable price points of housing within Greene County:

Income Level	Housing Price Range	2010 Households	2015 Households	Household Growth
Less than \$35,000	Less than \$140,000	3,782	3,749	-33
\$35,000 - \$49,999	\$140,000-\$199,999	1,862	1,941	79
\$50,000 and Higher	\$200,000 and Higher	5,037	5,154	117
Total		10,681	10,844	163

Source: ESRI and Bowen National Research

As the preceding table illustrates, there will be a net loss of 33 households in Greene County with sufficient incomes to afford housing below \$140,000. This does not necessarily mean that lower income households are leaving the market, but instead, many of these households are expected to experience income growth that would move them into a higher income segment. It is projected that 79 new households that can afford housing priced between \$140,000 and \$199,999 and 117 new households that can afford housing priced \$200,000 or higher will potentially be added to the market. These households have been considered in our overall demand estimates.

Replacement Housing

Given the limited development of new housing units in Greene County over the past couple of decades, homebuyers have primarily been limited to choosing from the established housing stock, much of which is more than 60 years old. Based on our on-site analysis of the existing housing stock, however, it appears that, while much of the supply is old, most units are generally well-maintained. This will contribute to the longevity and lifespan of the area's housing stock. Nationally, approximately 0.3% of all housing stock is considered functionally obsolete or uninhabitable on an annual basis. Certainly, factors such as the quality and type of housing originally constructed, local perceptions and expectations, seasonal climate influences, scope of city building and property maintenance codes, and political and other socioeconomic factors influence the need and rate for replacement housing. For the purpose of this analysis, we have applied an annual 0.3% housing replacement ratio to the existing stock to estimate the number of for-sale units that should be replaced in Greene County over the study's projection period (2010 to 2015).

Based on the 2010 Census, there were 10,681 owner-occupied housing units within Greene County. Applying the estimated 0.3% annual rate of functionally obsolete housing to the 10,681 owner-occupied housing units in Greene County yields an estimated 32 owner-occupied units that should be replaced annually in Greene County. Between 2010 and 2015, there will be a potential need to replace approximately 168 older, owner-occupied housing units in Greene County. While the housing values of these homes is unknown, it is reasonable to assume that most (80%) of this housing stock is likely priced under \$140,000, though a small share (20%) may be priced between \$140,000 and \$200,000.

Demand Estimates

The following table summarizes the potential market support for new for-sale housing in Greene County between 2010 and 2015.

Greene County For-Sale Demand Estimates			
	For-Sale Housing Price Range		
	Less than \$140,000	\$140,000 - \$199,999	\$200,000 or Higher
I. Growth of Owner-Occupied Households:			
2010 Total Income-Qualified Owner-Occupied Households	3,782	1,862	5,037
2015 Total Income-Qualified Owner-Occupied Households	3,749	1,941	5,154
New Owner-Occupied Household Growth (2010 to 2015)	-33	79	117
II. Replacement of Existing Product			
Total Owner-Occupied Units in 2010	10,681	10,681	10,681
Multiplied by Share of Replacement Housing Needed *	1.5%	1.5%	1.5%
Multiplied by Share of Estimated Demand by Income Segment	80%	20%	0%
Total Replacement Housing Needed by 2015	128	32	0
III. Total Supply And Demand			
New Income-Qualified Owner-Occupied Households	-33	79	117
Plus Total Replacement Housing Needed by 2015	+128	+32	0
Less Estimated Vacant For-sale Units in 2015**+	-264	-68	-68
Total Potential Units Needed Over Projection Period (5 Years)	-169	43	49

*Considers a 0.3% annual replacement rate of existing rental product, or 1.5% of all rental housing between 2010 and 2015

**Vacancy based on our field survey of advertised for-sale housing and an estimate of non-advertised for-sale housing units

As the preceding table illustrates, there is a large surplus of available product priced below \$140,000 within Greene County. Therefore, it is our opinion that the market does not require additional housing priced below \$140,000. It should be noted, however, that new product developed in the market that is priced below \$140,000 may have some success, as there may be some prospective buyers who would respond to newly developed low-end priced product. We do believe, however, that absorption of such product would likely be very slow, given the abundance of available product at this price point. There appears to be market potential for up to 43 new units priced between \$140,000 and \$199,999, and for 49 new units priced at \$200,000 and higher.

It is important to note that to achieve maximum levels in various sale price categories requires the market to offer all price points, locations, and product alternatives. Our estimate of demand for Greene County takes this hypothetical scenario into account. However, note that this scenario is highly unlikely except in overbuilt markets. The large majority of new for-sale housing activity in Greene County involves estate lots, meaning that a buyer is responsible for purchasing the lot, then selecting a builder to construct a home on this lot. Due to the lengthy time period it takes to build a home on an estate lot, this type of home is typically not an option for a first-time homebuyer. Therefore, first-time homebuyers typically purchase in a production subdivision or, more likely in Greene County, among the existing homes at in-fill lots throughout the county where the lot and home are purchased as part of the same transaction. Since there appear to be no available production homes in Greene County, homebuyers are opting for purchasing existing homes. While there is abundant supply of older, lower-

priced for-sale product in Greene County, we believe that as job and population growth occur over the next few years, the available for-sale housing stock could diminish to such a degree that home prices may escalate to levels that make them unaffordable to many modest income, working family households. It will be important for area decision-makers to monitor housing availability and pricing over the next few years to determine if additional low-end priced housing will be required in the market.

C. CONCLUSIONS

Based on the current and projected demographic data, we estimate the current inventory of available for-sale housing supply in Greene County is sufficient to meet current housing needs of area residents. In fact, there appears to be a large surplus of for-sale housing priced below \$140,000, which typically consists of older product. However, based on the projected household growth, we estimate overall, Greene County has the potential to support approximately 92 new for-sale housing units by 2015. We estimate that about 43 units of the demand will be for product priced between \$140,000 and \$199,999, and 49 units will be priced at \$200,000 and higher.

In most markets, if there is support for new housing at a particular price point or concept, and such product is not offered in a specific area, households may leave the area seeking this housing alternative elsewhere, defer their purchase decision, or seek another housing alternative. Currently, Greene County's for-sale housing stock is dominated by older, pre-1950, product, though some modern and higher priced product is available. While the available housing stock will be sufficient to meet current demand, some additional modern, higher-end product will likely be required to attract middle and upper-middle income households to Greene County by 2015.

IX. SENIOR RESIDENTIAL CARE ANALYSIS (SUPPLY & DEMAND)

INTRODUCTION

The senior housing alternatives surveyed include housing most attractive to older adults who are either seeking a more leisurely lifestyle, or who need assistance with Activities of Daily Living (ADL). Typically, four levels of care exist that respond to older adults seeking, or who need, alternatives to their current living environment. They include, in order of increasing care requirements, independent living, congregate care, Personal Care Homes (PCH), and nursing care.

Independent living and congregate care have often been used to describe the same type of housing. Independent living (in its purest form) is shelter only without services. Congregate care provides shelter and services such as meals and housekeeping. Note that this analysis did not focus on supply or demand for independent living or congregate care components, as this type of housing is not need-based driven. Seniors entering independent living or congregate care types are doing so by choice, as their health has not declined to a point warranting supervised care within PCH or nursing care facilities.

Personal Care Homes are a major component of Pennsylvania's continuum of long-term care facilities. Following the passage of Act 56 of 2007, a separate licensure was created for assisted living. Act 56 directed the Department of Public Welfare (DPW) to issue regulations governing the licensure of assisted living residences. Assisted living residences offer a long term care option between the personal care home and nursing home levels of care. They provide food, shelter, personal care assistance, and some health coverage to elderly and disabled residents who do not have such declining health warranting stay within a nursing care facility. Note that Pennsylvania law requires assisted living residences to serve significantly higher care needs than the PCH facilities are legally authorized to serve.

Pennsylvania has announced that it intends to submit an application to the Centers for Medicare and Medicaid Services (CMS) seeking a Medicaid Waiver that will allow the state Medicaid program to pay for services in an assisted living residence for qualified individuals with limited income.

Also note that more individuals with lower incomes will be able to receive assisted living services via the Home and Community Based Waiver (HCBW) program. Under Act 56, licensed assisted living facilities would be eligible to accept HCBW payments.

A greater number of single-occupancy than double-occupancy rooms will be developed within new or newly licensed assisted living facilities. According to a 2008 report issued by the Pennsylvania Health Law project, “the marketplace in Pennsylvania has demanded a more private, home-like setting in which to age in place and obtain nursing facility level of care”.

The advent of the assisted living concept in the 1980s and its continued diversification will continue to diminish demand/support for long-term nursing care beds, particularly with the allowance for home and community based services covered by Medicaid waivers.

As seniors age in their homes later in life, they are entering residential care settings older and sicker than even 10 years ago. Short-term patients are an increasingly large share of nursing care residents; however, turnover and rehospitalization rates are also increasing.

According to a recent national study (Charlene Harrington, Ph.D., Helen Carrillo, M.S., Brandee Woelagle Blank, M.A. , University of California San Francisco Department of Social and Behavioral Sciences 2009), the percentage of total residents primarily paid for by Medicaid declined from 66.2% to 63.6% of the total residents in a 2003-2008 reporting period. Medicare paid for 14.1% of the total residents in 2008, an increase from 11.7% in 2003. Private payers and other sources have increased slightly from 22.0% in 2003 to 22.4% in 2008). Even though most nursing facility beds are dually certified for either Medicare or Medicaid residents, the care for the majority of residents is still paid for by Medicaid.

A recent report has found that rehospitalization rates due to selected conditions are on the rise, contributing to the increased incidence of payment by Medicare. According to the Medicare Payment Advisory Commission (2006), approximately 25% of Medicare skilled nursing facility residents are readmitted to the hospital (MedPAC 2006a). Rehospitalization rates were found to have increased across five potentially preventable conditions, including electrolyte imbalance, congestive heart failure, respiratory infection, urinary tract infection, and sepsis. Although the report notes that hospitalizations are often medically necessary, expert evaluation suggests that 28% to 40% of such admissions might be avoided with high-quality Skilled Nursing Facility (SNF) care (MedPAC 2006a; Saliba et al. 2000). A governmental and market response to these trends is imminent.

A federally sponsored research project, Abt Associates (2001), found that hospitalization rates were lower among short-stay patients in skilled facilities that provided a minimum of 2.4 hours of care by nursing aides and 1.15 hours of care by licensed nurses per resident per day. Although increased SNF staffing would not be cost-effective solely to reduce rehospitalizations for selected conditions (except in facilities with high hospitalization rates), it could be justified to support wider improvements in quality of care and residents' quality of life (Ganz et al. 2005).

Neither the MedPAC nor Abt report addresses financial feasibility and/or staffing issues within nursing care. But, based upon market demand for well staffed nursing care beds within facilities capable of providing somewhat specialized levels of care, it is our opinion that a new senior care facility developed in Greene County could garner increased support from short-term nursing care patients.

B. FIELD SURVEY

In the second quarter of 2011, we identified and surveyed nine personal care homes (PCH) and two nursing facilities within Greene County. The following table summarizes the projects, units/beds, and occupancies among the facilities surveyed:

Facility Type	Greene County			National Rate*
	Total Projects	Total Units/Beds	Occupancy Rate	
Personal Care Homes	9	177	95.5%	93.3%
Nursing Care	2	232	89.7%	-

*Source: American Seniors Housing Assn. *The State of Seniors Housing 2007* (average for assisted living)

Based upon the results of our field survey, Greene County appears to be a good market for a variety of senior housing and residential care types.

At 95.5%, Greene County is maintaining a PCH occupancy rate that is comparable to the national figure, 93.3%.

The overall occupancy rate of the nursing care facilities surveyed is 89.7%, considered moderate for nursing care, given that this facility type tends to experience the highest degree of turnover among all senior residential care types. The low acuity and generally fragile health of residents contribute to this high turnover rate, as does the inclusion in most nursing care facilities of a component of short-term stay residents. The moderate to high occupancy rate among surveyed nursing care facilities is an indication of demand for additional beds catering to elderly individuals in need of assistance with Activities of Daily Living. If there is a lack of supply of assisted living beds,

many seniors will prematurely enter nursing care when they would be more appropriately placed in an assisted living facility.

Assisted living (Personal Care Homes)

The following table summarizes the licensed Personal Care Homes identified within Greene County:

Map I.D.	Name	Year Open	Total Beds	Number Vacant	Percent Occupied
A-1	Evergreen Assisted Living	2002	38	3	92.1%
A-2	Braun’s Personal Care Home	1891	10	0	100.0%
A-3	Ewing Manor	1911	16	2	87.5%
A-4	Ewing Manor West	1911	16	0	100.0%
A-6	Haney’s Personal Care Home	1975	8	0	100.0%
A-7	McDaniel’s Personal Care Home	1950	30	0	100.0%
A-8	Precious Moments	1999	7	0	100.0%
A-9	Respicenter West	1951	32	2	93.8%
A-11	Scenic View Retirement Home	1940	20	1	95.0%
Total			177	8	95.5%

The personal care homes identified in Greene County have an overall occupancy rate of 95.5%. This is a very high rate compared to the rate found in a national survey. In the annual survey, *The State of Seniors Housing (2007)*, the American Seniors Housing Association reports a 93.3% median occupancy rate among all assisted living facilities surveyed. The high occupancy rate of existing Personal Care Homes identified in Greene County is an indication of demand for additional residential units targeting seniors that are in need of assistance with Activities of Daily Living (ADL).

Fees at all of the facilities include all three daily meals, all utilities (except phone, but including cable), regular housekeeping services, laundry/linen services, scheduled transportation, a social director and/or social activities, lounge areas or community rooms, and a public dining room. Select assisted living facilities include beauty/barber shops, banking facilities, private dining rooms, courtyards, and walking paths.

Basic unit amenities include air conditioning, window blinds, carpet, and an emergency call system. Select facilities include a microwave, refrigerator, porch/patio, and washer/dryer hookups.

According to our experience surveying assisted living facilities, most residents need assistance with at least three ADLs per day (this most commonly involves medication reminders, mobility assistance, meal monitoring, dressing and grooming assistance, and/or personal laundry).

Fees for ADL assistance can be bundled in levels of care, offered as a la carte services, based upon a point system or included in the base monthly fee. Typically, assisted living facilities conduct regular assessments of residents to ensure that their assistance needs are being met.

The following table outlines the distribution of monthly fees, including additional fees for assistance services and occupancy rates for the Personal Care Homes surveyed:

Assisted Living Monthly Fees								
Map I.D.	Project Name	Extra Fees for ADL Assistance	Sleeping Room	Studio	One-Br.	Two-Br.	Alz. / Dem	Occupied Percent
A-1	Evergreen Assisted Living	\$150-Level 1	\$3,200	-	-	-	-	92.1%
A-2	Braun's Personal Care Home	Inclusive	\$1,500	-	-	-	-	100.0%
A-3	Ewing Manor	Inclusive	\$1,500	-	-	-	-	87.5%
A-4	Ewing Manor West	\$200-Level 1 \$300-Level 2	\$1,500	-	-	-	-	100.0%
A-6	Haney's Personal Care Home	Inclusive	\$1,200 - \$2,400	-	-	-	-	100.0%
A-7	McDaniel's Personal Care Home	Inclusive	\$1,013 - \$1,033	-	-	-	-	100.0%
A-8	Precious Moments	Inclusive	\$1,475	-	-	-	-	100.0%
A-9	Respicenter West	Inclusive	\$1,800	-	-	-	-	93.8%
A-11	Scenic View Retirement Home	Inclusive	\$2,000	-	-	-	-	95.0%
Range/Average			\$1,013 - \$3,200	-	-	-	-	95.5%

ALZ./DEM. – Alzheimer's/dementia units

Note that all Personal Care Homes identified in Greene County offer only sleeping room unit configurations. The base monthly fees range from \$1,013 to \$3,200. Evergreen Assisted Living (located in Waynesburg) is considered an outlier in the data set as it is charging the highest base monthly fee of \$3,200. Haney's Personal Care Home (Map ID 6) is charging the next highest base monthly fee of \$2,400. Most of the Personal Care Homes identified in Greene County are charging base monthly fees in the \$1,500 range.

It is not surprising that Evergreen Assisted Living is charging the highest rents among the nine Personal Care Homes identified in Greene County. Evergreen Assisted Living is the newest project in the market with a year built of 2002. Most of the Personal Care Homes identified in Greene County are reconfigured single-family homes that are of early 20th century vintage. Evergreen Assisted Living follows a more traditional “licensed assisted living” design concept with covered vehicular entry with separate dining facilities and ample community space that promotes social interaction. The design of Evergreen Assisted Living (interior and exterior) is more conducive to senior living in which residents require assistance with ADLs. The design of Evergreen Assisted Living is also more appealing to resident sponsors (typically children of residents) who are generally the decision makers in choosing an elderly relative’s place of residency.

As illustrated in the previous table, all of the PCH beds in this survey are within sleeping unit types. These could be either single- or double-occupancy units. Based upon this distribution and current occupancy rates, we anticipate that additional larger one- and two-bedroom assisted living units would be well received in this market.

Traditionally, the two-bedroom unit type has not been offered in assisted living and is more prevalent in independent and congregate care projects. We expect that, with the trend of seniors staying in their units for longer periods of time, this unit type will become more popular. We expect both singles and couples to respond favorably to this unit type. Couples who may have different health issues or require different levels of care are able to occupy the same unit. This will aid aging couples in maintaining their family unit and living more independent and dignified lives.

Based upon a national survey (*The State of Seniors Housing 2005*), Alzheimer’s beds comprised between 15.0% and 18.0% of assisted living beds surveyed. The fact that none of the PCH projects identified in Greene County offered Alzheimer-specific units nor are there any existing licensed assisted living developments in Greene County suggests that there is a market for this product type and that a new assisted living facility should offer a share of memory care units to respond to a segment of the market which is not currently being served in the region.

The following table details unit type distribution and square footages for the nine Personal Care Homes identified in Greene County:

Personal Care Homes		
Map I.D.	Project Name	Unit Square Footage (Number of Units)
		Sleeping Room
A-1	Evergreen Assisted Living	250 (38)
A-2	Braun's Personal Care Home	300 – 350 (10)
A-3	Ewing Manor	250 (16)
A-4	Ewing Manor West	250 (16)
A-6	Haney's Personal Care Home	200 – 250 (8)
A-7	McDaniel's Personal Care Home	225 (30)
A-8	Precious Moments	300 (7)
A-9	Respicenter West	250 (32)
A-11	Scenic View Retirement Home	250 (20)

Our research indicates that senior residents and their families increasingly prefer larger unit sizes for assisted living, and often when entering a facility, seniors opt for private occupancy rooms. Based upon this research, as well as development trends nationwide, the inclusion of a substantial share of larger one-bedroom units (at least 500 square feet), as well as a smaller share of two-bedroom units, would likely boost marketability of a new assisted living facility.

Existing Facilities-Nursing Care

The two nursing facilities in our survey are licensed by the Pennsylvania Department of Health (DOH). Both facilities identified are Medicare certified, and also accept Medicaid. The following table summarizes base daily fees, occupancy rates, and distribution of beds within the nursing care projects surveyed:

Nursing Care Facilities						
Bed Type	Daily Rate		Beds	Share	Vacant	Percent Occupied
	Private	Semi-Private				
Sleeping Room	\$204 - \$213	\$204 - \$213	188	81.0%	19	89.9%
Alzheimer/ Dementia	\$230	\$230	44	19.0%	5	88.6%
Total			232	100.0%	24	89.7%

The overall occupancy rate among the nursing care facilities surveyed is 89.7%, considered moderate for nursing care, given that this facility type tends to experience the highest degree of turnover among all senior residential care types. The low acuity and generally fragile health of residents contribute to this high turnover rate, as does the inclusion in most nursing facilities of a component of short-term stay residents. The moderate occupancy rate among surveyed nursing care facilities is an indication of demand for additional beds catering to elderly individuals in need of assistance with Activities of Daily Living. If there is a lack of supply of assisted living beds, many seniors will prematurely enter nursing care when they would be more appropriately placed in an assisted living facility.

Base daily private pay fees range from \$204 to \$230. Daily fees include three meals, all utilities, room cleaning and linen service, scheduled transportation, activities and use of community facilities. All rooms are equipped with beds and dressers, private or semi-private half baths (no shower), as well as emergency call systems.

The two surveyed nursing care projects identified in Greene County are summarized as follows:

Nursing Care Facilities Greene County						
Map I.D.	Project Name	Year Open	Total Beds	Percent Occ.	Daily Rate*	Unit Size**
N-5	Golden Living Center - Waynesburg	1986	111	87.4%	\$213	250
N-10	Rolling Meadows	1997	121	91.7%	\$204	250
Total			232	-	\$204 - \$213	250

*Private-pay range

**Square feet

Note that there has not been a nursing care project developed in Greene County in nearly 15 years. The economic lifespan of a nursing care facility is generally estimated between 25 and 30 years. Once a project is approaching 25 to 30 years old, it is typically in need of modernization or updating to avoid becoming functionally obsolete.

Planned and Proposed

According to planning and zoning officials in various municipalities within Greene County, there are no senior care developments in the planning stage at this time.

C. SENIOR RESIDENTIAL CARE DEMAND

In the demand calculations to follow, the term assisted living is used as synonymous with PCH. We recognize that in Pennsylvania specifically, the two types of care are not the same. We have also applied a higher disability rate (three or more ADLs) in our demand calculation.

The market for personal care and nursing care development is based on trends in healthcare, reimbursement for healthcare services, availability of services in the market, level of competition in terms of facilities and other factors. We have conducted a quantitative demand analysis using the most current data (2010) and projections (2015) available. It is our responsibility to provide a quantitative recommendation for beds by care type, including assisted living (PCH) and memory care alternatives.

We have conducted extensive interviews with local facility administrators, directors of nursing care facilities, marketing directors, care coordination/discharge planning professionals and other experts on geriatric care. We have focused on issues specifically pertaining to PCH and NC in these interviews.

Summary of Interviews with Local Geriatric Healthcare Experts

Increasingly, providers on a national level are seeing the value in retrofitting existing facilities, or building new facilities, that offer special wings, or areas, devoted to short-term rehabilitative (skilled nursing) care. Many larger providers are attempting to specialize in orthopedic rehabilitation within nursing care facilities. Orthopedic patients are some of the easiest short-term patients for which to care. Conversely, discharge workers comment that it is increasingly difficult to place medically complex patients and those who need acute post-operative care.

Few facilities have the preference or capacity to provide care for more critical care rehabilitation patients. Discharge representatives from area hospitals commented that high acuity patients with the following conditions are difficult to place:

- Chronic obstructive pulmonary disorder (COPD)
- Ventilator/breathing tube
- Other respiratory care
- Bariatric care
- Cardiac care
- Dialysis
- Feeding tube

All hospital officials interviewed commented that they observe increased turnover from patients who have been to short-term rehab, home and then require hospitalization again. This includes patients with the conditions mentioned above, as well as hospice patients who have outlived the hospital inpatient days provided by Medicare/hospice. One administrator noted, “readmissions are filling up hospitals and producing lower revenues.” Therefore, hospital administrators are seeking ways to provide a smooth and comprehensive continuum of care following discharge.

With advances in medical procedures, medicines and preventative therapy, this trend is expected to continue. As opposed to entering long-term care, many seniors are now returning home. As positive as this trend seems, administrators and researchers report an increasing incidence of patients returning to hospitals and subsequently to rehabilitation within nursing care.

Post-surgery patients make up the majority of rehab patients. A typical length of stay can range up to three months, maxing out the 100-day Medicare coverage limit. Most opt to continue to recover at home rather than spending down their assets in long-term care.

Several administrators and discharge social workers noted that stroke victims, those with incontinence issues and those with Alzheimer’s/dementia make up a significant portion of younger (55 to 75 years old) PCH and nursing home residents.

Within both PCH and NC, specialized Alzheimer’s beds maintain higher occupancy rates than non-memory care beds across many U.S. markets, including Greene County and the surrounding area where we conducted our survey. As life expectancies grow, so does the risk of Alzheimer’s disease.

Increasingly, demand/preference for single-occupancy beds is driving consumer choices for both short- and long-term care. As the Baby Boomer generation ages into assisted living and nursing care, we anticipate that this demand will increase exponentially.

Demand/preference for single-occupancy beds comes not only from short-term residents anymore. Private-pay residents as well as those with long-term care insurance prefer single-occupancy beds. All of the facility administrators interviewed commented that if/when they added new nursing care and PHC beds, there would be a component of single-occupancy beds.

It is likely that within the next five years, licensed PCH facilities will be legally certified to accept Medicaid. Nationally, Medicaid certification programs have been widely implemented and, for facility residents, the availability of Medicaid reimbursement can be a tremendous benefit. The design and implementation of these programs, however, often leads to discrimination against Medicaid-eligible residents and lower levels of care. Medicaid eligibility standards often are not well designed for assisted living, and low allocations for room and board may leave the resident or the facility, or both, in a financially untenable position. Discrimination occurs because facilities often have the right to refuse Medicaid reimbursement. Lastly, poor care often results from the absence of standards, including standards in care provided by staff and standards in the physical environment.

As within nursing care, there is expected to be a heightened need for care for higher acuity residents within PCH. This is not to say that the guidelines for admission to PCH will change drastically; this is to say that PCH facilities should expect to draw a much larger *share* of higher acuity residents over the next 10 to 20 years.

Estimates of Support for PCH

The market for additional assisted living (PCH) product in Greene County is based on current and anticipated market conditions. Several variables should be considered when analyzing the need for additional senior residential care units/beds. These variables include units or beds proposed, fees for occupancy, community and referring agency, need for additional services and anticipated absorption levels. Typically, the number of units or beds and occupancy costs are provided. The analyst provides the time period to establish stabilized occupancy.

The following factors are used to establish the anticipated absorption levels:

- Site quality, visibility and access
- Demographic factors
- Prevalence of disability
- Need of referring agency (hospital or medical center)
- Income- and asset-qualified households
- Competition
- Management

Management skill and experience have a significant impact on the viability of any housing development. For senior housing, skilled management is especially important. In many markets, the full potential of the market is not realized because of incompetent management. However, the market analyst has little opportunity to evaluate the skills of management at a proposed site, or of management at competitive facilities. Assuming that the subject property will have competent and responsive management, sensitive to the needs of the target market, this factor can be considered.

The market for senior living alternatives is very segmented. In recent years, independent living and congregate care facilities have become more desirable among healthy, older adults, as new concepts, locations and services have been introduced. Previously, this housing alternative only attracted those adults who needed to move out of their homes due to health or maintenance concerns. Today, it is often sought after by older households who seek a residential choice that offers meals, laundry, housekeeping and maintenance services, yet affords residents a truly independent lifestyle.

Conversely, assisted living (Personal Care Homes) continues to attract residents who may have been reluctant to move from their current housing. Often, these potential residents have exhausted home health options and family care. As evidenced by the fact that the average occupancy is just 19.6 months, these people are often at the end of their lives. As a result, caregivers, resident sponsors and potential residents often are willing to spend a higher share of income (in many cases, spending down all of their income) and assets toward quality, comfort and dignified care.

Residents and their families will often use existing assets to purchase quality care. For this reason, analysts consider both income *and* asset values when calculating the number of qualified households. Note that when calculating assisted living support levels, this income- and asset-qualified group is further segmented to only those residents who have significant need for assistance with three or more ADLs. This is the group who can no longer be cared for by home health providers or family members and that needs care within an assisted living facility or nursing care facility. Increasingly, medical model assisted living facilities are being developed with the capacity to house residents who formerly would have had to opt for nursing care, for lack of a less institutional alternative.

Assisted Living Support

Assisted living facilities cater to residents who need assistance with Activities of Daily Living (ADL) on a frequent basis, but do not have a high enough level of infirmity to warrant residency at a nursing care center. The need for assistance with Instrumental Activities of Daily Living (IADL) is not as predictive as the need for ADL assistance. Often, IADLs are accomplished with help from friends and family members. These ADLs and IADLs include walking, bathing or showering, transferring, dressing, using the toilet, eating, preparing meals, managing money and doing light housework. It is of note that many organizations now use more detailed definitions for ADL. Following are some primary activities included within these definitions.

Activities Of Daily Living (ADL)	Instrumental Activities Of Daily Living (IADL)
Transferring Between Locations (From Chair To Bed)	Management Of Medications
Moving From One Place To Another (From Room To Room)	Shopping
Dressing	Arranging For Transportation
Eating	Managing Finances
Toilet Use	Preparing Snacks And Meals
Maintaining Personal Hygiene	Housework

Disability Rates

To establish the universe of older adults who require assistance with Activities of Daily Living (ADL), we have applied affliction rates based upon a national survey conducted by the Medicare Current Beneficiary Survey (2003), as reported by the National Center for Health Statistics. According to the survey report, 12.9% of the non-institutional population age 75 to 84, and 32.7% of the non-institutional population age 85 and older, needed help with between three and six ADLs. Assistance with Activities of Daily Living includes help with walking, bathing or showering, transferring, dressing, using the toilet, eating, preparing meals, managing money, medication reminders and light housework.

The following table estimates the projected number of older adults age 75 and older requiring some assistance with ADLs within Greene County projected to 2015.

Greene County			
Age Category	2015 (Projected) Population	Share With 3 To 6 ADLs	Estimate Of Share With 3 To 6 ADLs
75 To 84	1,878	12.9%	242
85+	863	32.7%	282
Total	2,741	19.1%	524

Source: ESRI; National Center For Health Statistics; Medicare Current Beneficiary Survey

Based upon the calculations in the previous table, there will be a projected 524 persons age 75 and older within Greene County in 2015 who need assistance with *at least three Activities of Daily Living*. We expect that this is the primary population who would make a decision to enter an assisted living facility, rather than receive home healthcare services or be cared for by family members. These individuals represent 19.1% (the overall affliction rate) of the total population age 75 and older.

The Alzheimer's Association (2004) reports that, of the estimated 4.5 million Americans with Alzheimer's disease, seven out of 10 live at home where family and friends provide approximately three-quarters of their care.

Since Alzheimer's disease cannot be definitively diagnosed until an autopsy is performed, the estimate of the number of people afflicted with the disease varies. Further, since the disease is progressive, many individuals diagnosed with Alzheimer's will not need specialized care. Finally, Alzheimer's is not limited to any specific demographic characteristics, so the entire population is at risk of developing the disease.

Based on research at Boston's Brigham and Women's Hospital, 7.4% of those between the ages of 65 and 85, and 47.0% of those over age 85 suffer from probable Alzheimer's.

Financially Qualified Population

We have evaluated support for additional beds assuming a base monthly fee of \$2,500 for assisted living beds and \$4,500 for memory care beds.

- Eighty percent (80.0%) of a resident's income would be paid toward monthly fees (with much of the remaining 20.0% going toward medications and personal items). This income could come from a variety of sources, including income, assets from the sale of a home, benefits, long-term insurance and gifts/subsidies from family and friends. We have only considered income and assets in this estimate of support.

- We have assumed a 2.5-year stay within the assisted living facility. There have been a number of studies conducted to identify the length of stay at an assisted living facility. According to a study prepared by ALFA/NIC entitled *National Survey of Assisted Living Residents: Who is the Customer?*, the median length of stay in 1998 was 19.6 months. Another study, *The State of Seniors Housing*, reports a median length of stay between 25.5 to 30.8 months.
- According to a survey conducted by the National Academy of Science (2001), home values typically finance up to 50.0% of a senior's stay within chronic care (assisted living and nursing care) facilities. We assume that a portion of the remaining proceeds from the home sale would go toward other housing types, either prior to or after the assisted living stay. Note that, to be conservative in our demand estimates, we assume that the sale of a home will pay for 75.0% of a senior's stay in an assisted living facility.
- Individuals with three to six ADL needs are most likely to reside within an assisted living facility, as opposed to home healthcare.

The following is a summary of our demand estimates:

Greene County Age Cohort = 75+ for Assisted Living and 85+ for Memory Care	Assisted Living (PCH) Base Monthly Fee	
	\$2,500 (Assisted Living)	\$4,500 (Memory Care)
Income-Qualified	694	91
Non-Income-Qualified	1,118	479
Total Expenses (2.5-Year Stay)	\$93,750	\$168,750
Housing Assets Needed	\$70,313	\$126,563
Share Of Homeowners	77.2%	74.2%
Share Of Homes Valued >Housing Assets Needed	77.8%	48.5%
Total Asset-Qualified Households	671	172
Total Income- And Asset-Qualified Households	694 + 671 = 1,365	91 + 172 = 263
Income- And Asset-Qualified Households % Of All Households	1,365 / 1,812 = 75.3%	263 / 570 = 46.1%
Households To Individuals Based Upon 1.0 Persons Per Household	1,365 X 1.0 = 1,365	263 X 1.0 = 263
Total Income- And Asset-Qualified Individuals	1,365	263
Share Of Above With 3 To 6 ADL Assistance Needs	19.1%	32.7%
Share Of Memory Care Support	N/A	47.0%
=Total Estimated Support*	261	40

*Does not consider existing supply
PCH – Personal Care Home

The total support estimates detailed in the preceding table represent the maximum demographic support for assisted living and memory care beds within Greene County, assuming that all income- and asset-qualified households that have affliction with at least three to six ADLS (and within the specified age cohort) choose to reside within an assisted living or memory care facility. Note that the preceding table does not consider existing supply that is already serving the demographic support base.

It is unlikely that any one project can capture all of the support deficit within Greene County. A senior individual who is income-eligible and has declining health warranting a stay within an assisted living facility has other care options, including support from a spouse, in-home health care, nursing care (high-level of attention assisted living resident) or even care in a congregate care facility. As there are a variety of living alternatives for individuals who are typical respondents to the assisted living concept, a reasonable share of support that an assisted living facility can capture is estimated at approximately 50%. Applying a 50% share is also referred to as a “double-deep” market of support. Applying this support share to the total estimated support for assisted living and memory care beds yields the maximum number of beds that we believe can be supported in the market to produce a double-deep market based on the preliminary support estimates calculated in the preceding table.

The following table summarizes the estimated number of beds that can be supported in Greene County considering the share of individuals that will respond to assisted living or memory care housing alternatives (double-deep market):

Age Cohort = 75+ for Assisted Living and 85+ for Memory Care	Assisted Living Base Monthly Fee	
	\$2,500 (Assisted Living)	\$4,500 (Memory Care)
= Total Estimated Support*	261	40
(X) Supported Penetration Rate (Double-Deep Market)	50.0%	50.0%
(-) Number Of Competitive Beds**	89	0
(-) Number Of Planned Beds***	0	0
= Number Of Additional Assisted Living / Memory Care Beds That Can Be Supported At Site (double-deep market)	42	20

*Does not factor in competitive supply from existing and planned projects.

**Considers one-half of marketed beds (Subject to change)

***Subject to change

We conclude that there is potential demographic demand for an additional 42 assisted living beds with a base monthly fee of \$2,500 and an additional 20 memory care beds with a base monthly fee of \$4,500 within Greene County. These support estimates assume a double-deep market of support. Note that the demand estimates for memory care units conservatively assume that support will originate from those individuals ages 85 and older. It is likely that additional support will originate from individuals under the age of 85 yielding higher demand estimates.

X. CASE STUDIES – BOOM/BUST MARKETS

A. INTRODUCTION

In an effort to understand the various potential impacts that the energy extraction industry can have on a community such as Greene County, we have conducted case studies of three geographic areas in the United States that are within some phase of the energy extraction boom cycle. Each of these communities is experiencing the impacts of natural gas extraction, and therefore are considered comparable to Greene County.

There are a variety of differences between Greene County and the selected case study communities, such as existing infrastructure, workforce size and education/training level, topography characteristics, boom cycle phase, government restrictions/regulations, public perceptions, and volume of energy extraction activity. We believe, however, these communities provide valuable insight into the evolution of the energy extraction industry within each community, how both the public and private sectors responded, and lessons learned from actions taken by the local governments.

The three case study communities include:

- Bradford County, Pennsylvania
- Wise County, Texas
- Sublette County, Wyoming

Each case study evaluates the demographic composition, energy extraction industries' history, employment and household growth, impact on housing, and actions taken, as well as lessons learned, by the local government. We conclude our overall analysis by providing suggestions on what Greene County can take from the experience of other communities that have been impacted by the energy extraction industry.

B. CASE STUDY FINDINGS

Energy Extraction Industry Boom Case Study #1

Location: Bradford County, Pennsylvania

Time Period: 2008 to present

Boom Cycle Phase: Development

Energy Extraction Industry: Natural gas

Overview/Background

While the discovery of the Marcellus Shale has resulted in an increase in natural gas extraction across much of Pennsylvania, Bradford County has led the state in gas drilling and production. In fact, according to the Marcellus Shale Education & Training Center and reporter Andrew Maykuth, Pennsylvania Department of Environmental Protection data show that, of the 1,368 Marcellus Shale wells drilled in Pennsylvania during 2010, 355 wells were in Bradford County. Drilling activity in Bradford is two to three years into its 10- to 15-year (and potentially 20-year) development cycle and since 2008, 482 wells have been drilled within the county. Today, the Progress Authority, an economic development agency serving Bradford and Susquehanna counties, reports that the county is home to 24 rigs.

Rural and agricultural in nature, the county's population was estimated by the U.S. Census Bureau to be 62,622 in 2010. Furthermore, in 2007, Bradford County was ranked the state's 10th largest farm county in measured sales (Marcellus Shale Education & Training Center). Due to its small population and rural character, drilling activity has had a profound impact on this otherwise quiet county.

Chesapeake Energy Corporation is the largest leaseholder in Bradford County. Regionally headquartered in Towanda, the county seat of Bradford, the drilling operator has based its local operations in a former Ames department store. According to the Progress Authority, of the 1,666 wells permitted in the county (as of April 11, 2011), 889 belong to Chesapeake. Other major gas players include Talisman (526 wells permitted), EOG Resources (82 wells permitted), Southwestern (46), and Chief Oil & Gas (44).

Employment & Household Growth

Drilling activity in Bradford County has brought with it an influx of workers. While they have been difficult to track and the number of workers associated with gas drilling activities remains uncertain, they have had a pronounced effect on the county, particularly given Bradford's small population, rural character, and limited services. Initially, drilling operators staffed their rigs almost entirely with out-of-state workers. Today, however, nearly 50% of workers are local, which has helped drive Bradford County's unemployment rate down from a high of 10.8% in March 2009 to just 5.9% in March 2011. This compares to a statewide unemployment rate of 8.0%. As reported by Philadelphia Inquirer reporter Andrew Maykuth, trained rig workers earn approximately \$60,000 after their first year.

Another beneficiary of recent gas drilling activity has been Bradford County's service sector, which has expanded, but with mostly minimum wage jobs. According to a recent survey conducted among existing Bradford County businesses by the Marcellus Shale Education & Training Center, 100% of survey respondents within the Hotels & Campgrounds industry have seen an increase in sales due to natural gas drilling. Furthermore, 44% of retailers and 38% of eating and drinking places have encountered higher sales. Overall, only 8% of respondents have increased or decreased employment as a result of gas drilling. Therefore, of the businesses that have had a change, 80% have increased, rather than decreased, their headcounts. With regard to hiring and worker retention, 13% have had difficulty finding and hiring employees, while 9% have experienced an increase in employee turnover due to drilling.

Out-of-state rig workers have not been the only workers to invade Bradford County from elsewhere. In addition, title researchers have arrived in large numbers. They have come to examine deeds for gas leases and in his recent article, "Marcellus Shale Gas Development Fueling Bradford County Boom," Andrew Maykuth reported that, "so many title researchers have descended on the Bradford County Courthouse...that the county extended office hours and installed tables in the hallways to accommodate the crowds. The rotunda looks like a college library during finals."

The rise in out-of-state workers has created demand for housing. In their recent study "The Impacts of Natural Gas Development on the Cost, Availability, and Quality of Housing," Zack Patton, Christin Leigh Lencsak, and Sara Lepori reported that most rig workers have chosen to live within an hour of the well sites due to their long working hours. For these workers, the most appealing cities and towns have been those that are within close proximity to the rigs, offer a variety of supportive services, and are relatively isolated from equally attractive and potentially competitive population centers. As an example, many gas workers have gravitated toward Athens, Pennsylvania, which can be characterized as having these features.

Although the gas play's development phase is expected to continue for another 10 to 15 years, out-of-state workers have shown a strong preference for rental properties and hotels, rather than home ownership. Since their arrival two to three years ago, rig workers have occupied nearly every hotel room in Bradford County, forcing other travelers to find lodging 30 or more miles away in Elmira (New York), Scranton, Clarks Summit, and Williamsport. As for apartments, they have been similarly snatched up. Other examples of worker housing include dedicated worker dormitories, which have been (and continue to be) developed by gas companies and related businesses, RV and mobile home parks, vacation trailers, campgrounds, and in one instance, a vacant senior housing facility.

Impact on Housing

To say that the Marcellus gas play has had an impact on housing in Bradford County would be a vast understatement. As mentioned above, hotel rooms in the county have been booked by drilling operators since their arrival nearly three years ago. Furthermore, apartment availability has dropped significantly, which has resulted in skyrocketing rents. In fact, rents today are two to three times higher than what they were just a few years ago. For instance, Patton et al found that apartments that once rented for \$375 per month now rent for \$800. Even more astonishing, in his testimony to the Pennsylvania State Senate, James F. McRath of the Bradford and Tioga County Housing Authority reported that rents for a typical two-bedroom apartment have soared from \$400 per month to between \$1,000 and \$1,200 per month. These figures compare to HUD's Fair Market Rent of just \$579 for Bradford County (\$450 without utilities).

While many of the gas workers earn sufficient incomes to afford the higher rents, long-time Bradford County residents have been priced out of the market. In fact, Patton et al found that rather than allocating the typical 30% of income toward housing costs, county residents must now set aside 60% and in some cases 90% of their incomes. Furthermore, with the rise in rents, most landlords have chosen to no longer participate in the Housing Choice Voucher program, which has not only left voucher holders without a supply of available housing to choose from, but has also left voucher program administrators without the ability to fully utilize their allocations, thereby putting them at risk of losing future funding. With many local families unable to pay the higher rents, a number have faced evictions, leaving them with no choice but to double up with other family members, reside in tents (though, campgrounds are reportedly full), or become homeless.

As Bradford County's housing crisis has evolved, social services have become increasingly strained. For instance, Patton et al reported a 20% increase in homelessness, with local shelters at full capacity. Furthermore, hotel rooms, which have been historically used by social services agencies for temporary housing in smaller communities without shelters, have been fully occupied by gas workers. Separately, it has been found that without safe and affordable housing options available to them, families have been forced to split up. According to Bradford County Children Services, there has been a 10% increase in placements. It is also worth noting that domestic violence has been up, as victims have been unable to seek protection in shelters. These societal ills are unfortunate side effects of Bradford County's economic boom resulting from the gas play.

While it would seem that a practical solution to Bradford County's housing issues would be to develop additional housing units (and efforts are underway to do so), a lack of infrastructure has been the greatest impediment to new development. Roadways have become strained with heavy truck traffic, which has led not only to congestion, but also to widespread wear-and-tear. More importantly, water and sewer availability is limited to larger cities and towns, leaving much of the county to rely on wells and septic systems, thereby making large-scale residential developments infeasible in many areas. These factors, as well as initial uncertainty with regard to the longevity of the gas play's development phase, have made developers reluctant to pursue new residential development.

Actions Taken

In response to the housing crisis and related issues brought on by the gas play, actions have been taken by gas companies, non-profit organizations, and local governments to mitigate the side effects. For instance, Philadelphia Inquirer reporter Andrew Maykuth noted that to directly address the lack of housing, Chesapeake Energy Corporation recently constructed its Nomac Eastern Training Center & Housing Facility, a 276-bed dormitory and training complex in Athens Township. Known locally as the "man-camp," the \$7 million facility consists of 11 prefabricated metal buildings, including six dormitories, a cafeteria, a training center, a non-smoking recreational center, a smaller recreational center for smokers, and a laundromat. It is available to both out-of-state and local rig workers. Residents of the facility are provided unlimited free food, free laundry service, and transportation to rigs. Furthermore, the training center allows the company to recruit and train more local workers. While Chesapeake's use of the facility will likely continue through much of the drilling phase, which is expected to continue for at least another decade, the modular nature of the facility will allow it to be moved and/or dismantled at the end of its useful life.

The development of Chesapeake's man-camp has not only alleviated some of the pressures felt among the local housing market, but it has also freed up many hotel rooms in the county. Prior to completion of the complex last November, Chesapeake had leased virtually every room in five motels. While gas operators continue to occupy the majority of Bradford County's hotel rooms, new hotel development is occurring. In fact, the Progress Authority has sponsored Recovery Zone bonds to assist with the financing of at least two new hotels. According to a representative of the Progress Authority, two hotels are currently under construction within the county, including a 60-room Best Western in North Towanda and a 40-room unbranded hotel in Wysox. In addition, upon the completion of a water line extension in Wysox later this year, an 80-room Fairfield Inn will be constructed.

As previously highlighted, the greatest impediment to new residential development within the county has been its lack of infrastructure. In response, a water line is being extended along U.S Highway 6 (the county's "commercial corridor") and State Route 187, toward Lake Wesauking. Upon its completion toward the end of this year, a wave of new development in Wysox is anticipated (including the Fairfield Inn noted above). Separately, the extension of water and sewer in Asylum Township is being explored. As for local roadways, drilling operators routinely repair damaged roadways. Furthermore, an increase in rail utilization has helped alleviate some of the truck traffic associated with bulk deliveries.

While infrastructure remains insufficient to support widespread new development, at least two housing developments and one shelter are planned. They include a 150-unit apartment and townhome development in Athens Township, a 37-unit affordable housing development in Towanda, and a homeless shelter in Troy. The apartments in Athens have been proposed by Raven Holding Co., while the affordable units in Towanda are being pursued by Trehab, a non-profit organization focused on housing issues in northern Pennsylvania. Trehab's proposal includes the acquisition and conversion of the old Mulberry School, which has been vacant since 2007. Interestingly, despite on-going incidents of vandalism since the school's closure, neighbors have expressed concern of the new housing development's potential impact on their otherwise quiet neighborhood and property values. Separately, Partners in Family & Community Development has applied for \$20,000 in state funds to convert a former group home owned by Martha Lloyd School into a homeless shelter. Still in the initial planning stages, the shelter would allow for short-term emergency shelter on the lower level and longer-term (i.e., 30 to 60 days) shelter on the upper two floors. Only two families could be accommodated at one time and state funding is uncertain.

Current Situation, Unresolved Issues & Lessons Learned

Two to three years into the gas play's development phase, gas companies and local communities have responded to the issues that have emerged and, as noted, actions have been taken. For instance, gas companies are working to increase their headcount of local workers. Furthermore, roadways are being repaired, water and sewer lines are being extended, apartments and shelters are being proposed, and hotels are being built. Some familiar with the local housing market have even reported rents to be stabilizing. However, Bradford County's housing crisis is far from over. Rents remain two to three times higher than what they were just a few years ago, hotels remain filled with out-of-state gas workers, new housing projects remain few and far between (though developers continue to express interest), and infrastructure remains insufficient to accommodate widespread development. Furthermore, budget limitations prevent the county planning office from expanding its small staff, despite its increased workload.

In preparation for the onset of gas drilling several years ago, Bradford County constituents and local officials worked hard to educate themselves of its potential impact on local housing and supportive services. Although a housing shortage was foreseen, a lack of infrastructure prevented the county from adequately preparing for the anticipated increase in demand. Local coffers have been insufficient to fund all of the necessary infrastructure improvements. There is concern that those in the state government are unaware of the severity of the county's issues. As a result, there has been a concerted effort to lobby for state assistance. Fortunately, the gas play is still early in its development. Provided Bradford County can obtain the necessary funding, it will have ample time to enjoy its economic boom once issues related to infrastructure and housing diminish.

Energy Extraction Industry Boom Case Study #2

Location: Wise County, Texas

Time Period: Late 1990s to present

Boom Cycle Phase: Development and production

Energy Extraction Industry: Natural gas

Overview/Background

Located in Texas, the Barnett Shale is one of the nation's largest producing, on-shore, domestic, natural gas fields. Though smaller than Pennsylvania's Marcellus Shale, the Barnett Shale covers 5,000 square miles (The Institute for Public Policy & Economic Development) and 20 counties (The Perryman Group) within the Dallas/Fort Worth area. It was discovered in 1981, but development was delayed until the late 1990s, when improvements in recovery methods made significant production possible.

According to The Perryman Group, a Texas-based economic research and analysis firm, the core area of the Barnett Shale extends across Wise, Denton, Parker, and Tarrant counties. "Core" counties are those where the location and geology of the shale allow for drilling, while "adjacent" counties are those that border core counties, but have limited or no shale drilling. Still, their proximity to the core area allows them to experience spillover economic benefits. Wise County has been compared to many Pennsylvania counties, such as Bradford and Tioga, and cited as being similar with regard to its economy, small towns, rural nature, and community characteristics. However, unlike many of Pennsylvania's rural counties within the Marcellus Shale region, Wise County is part of the much larger and more urban Fort Worth metropolitan area.

Though development of the Barnett Shale started in the late 1990s, rapid expansion occurred between 2001 and 2008. By 2008, The Perryman Group reported there to be 10,500 leases in the Barnett Shale region, as well as 94 rigs. In Wise County alone, there were 2,300 leases and four rigs. Of the 1.396 trillion cubic feet produced in 2008, 178,368 million cubic feet were produced in Wise County.

Now 10 years into the Barnett Shale play, there are upwards of 20 more years of activity and potentially decades more production. However, with the drop in natural gas prices, there has been a corresponding decline in drilling and production. Still, the Barnett Shale region continues to benefit economically from the gas play and job creation remains prevalent. However, as Wise County was among the first counties to be developed, much of its acreage has been exhausted and many gas operators have moved to nearby counties with untapped resources. As such, the slowdown in gas-related activities has been more pronounced in Wise than in other counties within the Barnett Shale region.

Overall, the Barnett Shale play can be considered mature and during the course of its development, Texas has received praise in its ability to master the shale industry. Over time, the gas play has produced a significant number of businesses, new jobs, and economic opportunities within the shale region and throughout the state. Royalty and bonus payments have been extended to residents, municipalities, school districts, and others. Furthermore, fiscal revenue has increased with rising sales taxes, property taxes, and others sources. While there have been inconveniences and other social costs associated with the gas play, they seem to have been outnumbered by the many benefits and investments in community well-being that have resulted.

Employment & Household Growth

The Barnett Shale play has been a catalyst for new jobs. In its 2009 study, The Perryman Group found that the shale contributed to the creation of 327,000 new jobs within the 20-county region between 2001 and 2008. Annual gains during this period ranged from 3,700 in 2001 to 111,100 in 2008. In Wise County, the annual increase was reported by the Joint Urban Studies Center in its 2008 essay to be upwards of 7,100 new jobs.

Development of the Barnett Shale has had a ripple effect on the region and as gas companies moved into the area, gains in output were noted across a broad spectrum of industries. While those involved directly in the gas play noticed a clear expansion in local operations, particularly during the 2001 to 2008 period, others also benefited. For instance, restaurants and retailers experienced sales increases; hotels and motels experienced higher occupancy; attorneys, accountants, and engineers had client bases grow; finance and insurance companies noticed a boost in activity; those specializing in healthcare and social assistance witnessed a jump in the need for their services; transportation and warehousing businesses has an increase in activity; and construction companies and real estate developers saw demand escalate for new pipelines, roadways, commercial space, and homes. As such, in addition to positions created directly by gas companies and their affiliates (e.g., rig workers, scientists and engineers, marketing and public relations professionals, human resources, and government relations specialists), significant job gains occurred among a variety of industries.

The increase in jobs resulted in a corresponding increase in population. Data from the U.S. Census Bureau show that between 1990 and 2010, Wise County's permanent population jumped from 35,000 to 59,000, a 70.5% increase. This compares to a statewide increase of 48%. While a 70.5% gain over a 20-year period is by no means insignificant, the annual average growth rate of 2.7% is far below the average "boomtown" growth rate, which was reported by Brooklynn Anderson and Gene Theodori to range from 10% to 15% per year. Such high growth rates were often encountered by western towns during

conventional natural gas development. In contrast to their conventional counterparts, unconventional natural gas reservoirs, such as the Barnett Shale, require a smaller surface footprint for development, thereby allowing them to be developed in more urban and densely populated areas with larger labor pools. Therefore, it is not unusual for the surge in population to be far less than in traditional western boomtowns. Still, in an otherwise rural county such as Wise, the increase in population did not go unnoticed.

Impact on Housing

The impact of the Barnett Shale play on the local housing market has been rather positive, while negative consequences have been relatively minimal. In fact, in his 2006 survey on local residents' perceptions of the Barnett Shale development, Brooklynn Wynveen found that cost of living increases and housing shortages were not cited as concerns among Wise County residents. According to a representative of the Decatur Economic Development Corporation, the region had ample time to prepare for the gas play and following the initial discovery of the Barnett Shale in 1981, the technology was not in place for widespread development until the late 1990s. Furthermore, energy development was not foreign to North Central Texas, where two prior oil field developments were active during the 1960s and 1970s. As such, developers and local officials familiar with the gas industry and its cyclical and temporary characteristics were conservative with new residential development. Still, with the population gains noted, a corresponding increase in housing units was inevitable. Demand for new homes was further supported by higher incomes, as local residents benefited not only from rising wages, but also from royalty, bonus, and lease payments made by gas companies.

Nearly 80% of Wise County households own their homes (U.S. Census Bureau) and the rental market is small. In fact, there are only a few apartment communities and there is no Section 8 voucher program within the county. While the influx of gas workers added some strain to the already tight rental market, widespread housing shortages, skyrocketing rents, and increases in homelessness were generally not observed and any that did occur were short-lived. Among gas workers, management level employees often purchased nicer quality single family homes in the area, whereas temporary rig workers typically resided in trailers and hotels. The demand for hotels was greatest in Decatur, the county seat of Wise, where gas workers were accompanied by title researchers needing to access records on file at the county courthouse.

While issues of housing shortages and rising rents were largely avoided, other impacts of the Barnett Shale play on housing, as well as on residents' overall quality of life, were reported. Some were positive, such as the drop in the percentage of individuals and families living below the poverty level, the surge in royalty and lease payments made by gas companies to landowners, cities, school districts, and others, and the rise in donations to local charities. On the other hand, there were a number of negative consequences worth noting. Among the most commonly cited concerns were traffic and road conditions. In her article, "What to Expect with Drilling the Marcellus," Sue Smith-Heavenrich of Broader View Weekly found that to drill a well, an average of 137 truck trips are required. Moreover, nearly 1,000 truck trips are needed to haul fracking ingredients and another 215 are necessary to tow away wastewater. The heavy volume of trucks associated with these activities resulted in traffic congestion and considerable wear-and-tear on local roadways. Other costs and concerns related to the gas play included crime (particularly increases in DUIs and thefts from drilling sites), water, noise, safety, and aesthetics. In his survey on local residents' perceptions of the Barnett Shale development, Mr. Wynveen found that many respondents were uneasy about water quality and supplies. Specifically, they expressed worries of contamination (resulting from the proximity of gas wells to residential areas) and depletion of resources (due to the large volume of freshwater required for fracturing). In addition, Mr. Wynveen found that proximity of wells to residential areas led to other disturbances, such as noise (associated with round-the-clock drilling) and a decline in natural beauty (drilling equipment and wells often spoiled otherwise scenic parcels of land). In regard to safety, explosions, while rare, made nearby residents apprehensive.

One of the most interesting consequences of the gas play was the shift in wealth and power that occurred among local residents, as well as the conflict that developed among owners of mineral and surface rights. Royalty payments surged with the onset and continuation of natural gas production; however, they were made to owners of subsurface mineral rights. As landowners sold and transferred their properties to new owners, many retained rights to the minerals below the surface. While new owners with surface rights were able to negotiate surface lease payments with gas companies, they were ineligible for royalty payments if they did not own the mineral rights. Furthermore, they lacked the ability to prevent and/or control drilling activities. In Texas, the mineral estate has precedence over the surface estate and, therefore, royalty payments and control over drilling activities were restricted to gas companies and owners of mineral rights.

As royalty, lease, and bonus payments were made to landowners, a clear shift in wealth distribution developed. Many citizens became wealthy with these payments and unlike some of their less fortunate, ineligible neighbors, the newfound wealthy were willing to overlook many of the inconveniences and social costs associated with the gas play. In their 2006 survey of local leaders' perceptions of the Barnett Shale development, Brooklynn Anderson and Gene Theodori found that respondents often expressed concern that as the shift in wealth distribution occurred, those that benefited financially often sought positions of leadership, resulting in a change in the local power structure. Informants feared that once in power, these new leaders had the potential to make choices and decisions without the best interests of the entire community in mind.

Actions Taken

Knowing that energy development is both cyclical and temporary, local officials and real estate developers were cautious. Despite expectations of an influx of gas workers and a corresponding need for shelter, they feared that additional housing, particularly rental housing, would become unnecessary and obsolete at the end of the shale's labor-intensive, yet short-lived development phase. Conversations with representatives of the Decatur Economic Development Corporation, the Decatur Housing Authority, and the City of Bridgeport confirmed that even without a surge in new rental housing supply, Wise County did not encounter a significant increase in occupancies and corresponding jump in rents.

The local rental market had been tight prior to the Barnett Shale development. Without a large supply of available apartments, many gas drillers and others coming into the area chose to reside in hotels, motels, and trailers. To accommodate the heightened demand for rooms, a number of hotels were developed throughout the county, including seven in Decatur, where demand was greatest, and three in Bridgeport, as reported by local officials. Most were chains and many were designed for extended stays.

To address other concerns and impacts of the gas play on Wise County, investments were made in infrastructure and community amenities. The onset of natural gas production resulted in royalty, bonus, and lease payments made to residents, municipalities, school districts, and others. The additional revenues from these payments were used to fund road and bridge repairs and many quality of life enhancements, such as park improvements. Fiscal revenues received further boosts from higher sales and property taxes, which resulted from increases in retail sales and property values, as well as from severance taxes charged to gas companies. Separately, added income allowed higher education institutions to fund scholarships and provide new programs, while charities benefited from a rise in donations.

Aside from funded improvements in infrastructure and community amenities, municipalities also addressed concerns of noise, water quality, and safety with new legislation. For instance, in Decatur, an ordinance was created to classify well drilling based on the proximity of gas wells to homes, schools, and drinking water wells.

Current Situation, Unresolved Issues & Lessons Learned

With the drop in natural gas prices and movement of development to other counties within the Barnett Shale region, Wise County has experienced a slowdown in gas-related activity. As such, there has been a notable decline in truck traffic. However, traffic congestion and road deterioration continue to be problematic. Furthermore, the county government has not had the same degree of access to funds for infrastructure improvements as its municipal counterparts. As such, county roads remain inferior to those in the cities (Anderson & Theodori).

The drop-off in shale activity has resulted in a decrease in demand for hotel rooms. In response, a Best Western in Bridgeport recently closed and currently sits vacant, as reported by the city's mayor. Hotels remain open in Decatur, where they are better insulated from energy-related volatility due to the city's location along U.S. Highway 287, which runs from Fort Worth to Wichita Falls and beyond.

Finally, despite increased legislation to mitigate the potential adverse impact of the shale play, Brooklynn Wynveen found that local residents believed further regulation of gas drilling and production was needed to address safety, water quality, and other concerns.

Lessons learned from the Barnett Shale play include investments in infrastructure, encouragement of appropriate legislation, and partnerships with gas companies and educational institutions to ensure adequate training. Also, governments and economic development officials should recognize potential gaps in goods and services resulting from the gas play so that efforts can be made to appropriately recruit new businesses and grow existing ones. Furthermore, companies that could lose employees to the gas industry should be identified so that officials can help them recruit, train, and retain new employees. Separately, community leaders should work to ensure appropriate distribution of revenue for equitable funding of road repairs throughout the county.

Despite the costs associated with the Barnett Shale development, Wise County's economy and many of its residents have benefitted tremendously from the gas play. Although issues remain, the county has prospered, as has the entire Barnett Shale region.

Energy Extraction Industry Boom Case Study #3

Location: Sublette County, Wyoming

Time Period: Late 1990s to present

Boom Cycle Phase: Development and production

Energy Extraction Industry: Natural gas

Overview/Background

Located in Southwestern Wyoming, Sublette County is a small rural county (population 10,247) that has seen substantial growth in recent years due to the development of two of the nation's largest natural gas fields, namely the Pinedale Anticline and Jonah Fields. Pinedale Anticline Field is the largest of the two and according to Ecosystem Research Group (as reported in its 2008 Sublette County Socioeconomic Impact Study), approximately 91% of the field is situated in Sublette County. ERG further noted that 80% of the land within the county is public, owned by the Bureau of Land Management, the U.S. Forest Service, and the State of Wyoming. Sublette County is home to three incorporated municipalities, including Pinedale (the county seat with a 2010 population of 2,030 and center of retail and government services), Big Piney, and Marbleton. Pinedale is within one mile of the Pinedale Anticline Field, whereas Big Piney and Marbleton are about 15 miles from the fields, but are positioned at the eastern terminus of State Route 351, a major access road to the fields.

Oil and gas exploration and development are not new to Sublette County and low-level energy extraction has occurred in the county since the late 19th century. However, many of the discovered fields were not developed in earnest until the mid-20th century. Furthermore, prior to development of the Pinedale Anticline and Jonah Fields, some areas of the county had been more exposed to the industry than others. During the late 1970s and early 1980s, a short-lived, much smaller gas boom occurred in the extreme southwest portion of the county, near the towns of Big Piney and Marbleton. A bust followed and the two towns consequently developed a boom-bust mentality. In contrast, Pinedale was largely unexposed to the 1980s boom (and subsequent bust) and until recently, the town maintained a ranching and recreation-based culture.

The most recent gas boom commenced in 1998, after the decision was made to drill the Jonah Field. Approval to develop the Pinedale Anticline Field followed shortly thereafter and by 2000, the number of rigs had increased from two to 18. Growth in development intensified during the first half of the decade and in his 2009 study, “Energy Boomtowns & Natural Gas: Implications for Marcellus Shale Local Governments & Rural Communities,” Jeffrey Jacquet reported that the number of drilling rigs in the fields jumped to 24 by mid-2001, to 34 by 2003, and to 56 by 2006 (following Hurricane Katrina and the corresponding spike in the price of natural gas). Toward the end of the decade, the number of rigs fluctuated with demand, but hovered in the 40s.

During the initial years of development, industry offices and infrastructure were concentrated in Rock Springs, a larger city in Sweetwater County, just south of the Sublette County fields. With a 2010 population of 23,036, Rock Springs is less rural and with more amenities than the towns of Sweetwater’s northern neighbor. Furthermore, the city is strategically located along Interstate 80 and has rail access. Once activity peaked in 2006, many of the gas companies established local offices in Pinedale and started to develop temporary housing, industrial yards, and other industry-related infrastructure.

Within the last 10 years, Sublette County has been transformed from being a rural county to the largest gas-producing county in Wyoming. Using data from the Wyoming Oil & Gas Conservation Commission, Ecosystem Research Group reported that, in 2006, Sublette County produced 44% of Wyoming’s gas. Because of its extremely rural and isolated nature, the county has been particularly susceptible to the impacts of its growing gas industry and the result has been tremendous economic benefits, coupled with numerous socioeconomic costs. More than 10 years into play’s development, the Pinedale Anticline and Jonah Fields continue to be developed and over the next 15 years, 1,000’s of additional wells are expected to be drilled. Now that the initial years of rapid expansion have passed, activity has started to stabilize. Still, with a total projected lifespan (including production and reclamation) of as many as 40 years, the county will continue to be influenced by the energy extraction industry.

Employment & Household Growth

Exploration and drilling of the natural gas fields resulted in rapid economic development within Sublette County and with it came an influx of new jobs directly associated with the gas industry, as well as hundreds of indirect jobs. In response, Sublette County’s mining sector surged, as did its construction sector (largely due to pipeline and other related infrastructure development). With the shift in employment composition, the county’s culture, and the town of Pinedale in particular, transformed from one based on ranching and recreation to one based on mining and having “blue collar” characteristics.

A typical gas play involves three phases, including the development phase, when wells are drilled and related infrastructure is developed, the production phase, and the reclamation phase, when wells run dry and equipment is removed. The development phase is the most labor-intensive of the three, with each drilling rig in Sublette County requiring an average of 22 rig workers at any one time, as reported by Collins Planning Associates in its 2008 “Sublette County Assessment of Current Housing Conditions.” Factoring in weekly rotations, each rig required 44 direct workers, as well as additional workers needed to provide support and services to the rigs. With the number of rigs increasing from 18 to 24 by 2001, to 34 by 2003, and to 56 by 2006 (Jacquet), it is not surprising that Ecosystem Research Group found employment in the county to have jumped from 2,592 to 4,376 between 2000 and 2004, a change of 69% and nearly three times the state average. Furthermore, as reported by the Bureau of Labor Statistics, the county’s unemployment rate plummeted to just 1.4% by 2007. Although the initial expansionary period has passed, the development phase will carry on for years to come. Specifically, projections call for it to continue through 2018, followed by additional development and production and a pronounced slowdown in activity by 2025. However, with the Bureau of Land Management’s approval of year-round drilling, coupled with fluctuations in natural gas demand and prices, the gas play’s timeline is subject to change.

During the initial years of development, gas companies and their affiliates tend to employ thousands of workers. Most are transient workers and are typically younger males in their 20s and 30s. In Sublette County, Jeffrey Jacquet reported 1,500 transients to be working at any one time during the peak of development, with 3,000 rotating in and out each month due to weekly rotations. While the number of transient workers remained high throughout the development phase, once energy companies and their affiliates established local offices in the county in 2004 and production intensified, the number of permanent employees began to grow.

The surge in employment and influx of workers led to significant population growth in Sublette County. Collins Planning Associates found that during the 1980s gas boom, the county’s population jumped by two-thirds, after which it plummeted by 20% in just three years. By 2003, rapid growth resumed and according to Ecosystem Research Group, Sublette’s permanent population increased 24% between 2000 and 2006. By 2007, it was Wyoming’s fastest growing county. Driven almost entirely by gas field development, the rise in population was still vastly understated due to the number of transient workers, which went largely unaccounted for within the population. Transients tend to be employed by companies headquartered outside of the county and often stay in industry-supplied temporary “man-camps,” motels, and RV parks, which are overlooked by the U.S. Census Bureau in its population estimates. Factoring in the transient workforce temporarily residing in the area, Jeffrey Jacquet

estimated an additional 20% increase in perceived population growth within the county. Although temporary, transient workers have placed added strains on the county's limited resources, resulting in a variety of socioeconomic costs.

Just south of Sublette County and still within close proximity to the gas fields, Sweetwater County encountered similar, though slightly more moderate growth in employment and population. Due to its larger size, less rural nature, and greater amenities, as well as its interstate and rail accessibility, Sweetwater (and Rock Springs, in particular) was not only the home base for many gas companies during the initial years of development, but it was also the choice of residence for many gas workers. During interviews conducted among community members and local leaders of Sweetwater, Headwaters Economics received feedback, such as "everyone who works on the anticline (Pinedale Anticline Project Area) lives in Rock Springs." And when Sublette County's unemployment rate dropped to 1.4%, Sweetwater's unemployment followed suit but to a lesser degree, falling to 2.2% in 2007. Feeling the impacts of Sublette County's boom, Sweetwater County encountered similar challenges.

Impact on Housing

The economic benefits of Sublette County's gas boom were tremendous, with rising business and government revenues, wages, and employment opportunities. However, they were accompanied by a variety of socioeconomic costs. Specifically, with the influx of workers, widespread housing shortages developed. Also, there were increases in crime, demand for emergency services, and traffic, as well as strains on social services and school capacity.

The gas industry's effect on Sublette County's housing market was significant, as was its impact on hotels. Typically, there is a one- to two-year lag between demand and new housing development. As workers rapidly descended upon the county in large numbers during the initial years of the gas play's development, housing availability plummeted. Ecosystem Research Group found that, of the average 156 employees per well, 83 chose to reside in industry-supplied man-camps, motels, and RV parks. Others occupied nearly every available house and apartment for rent. By 2007, Jeffrey Jacquet reported demand for homes priced between \$150,000 and \$250,000 to be three times greater than supply. As the years progressed, residential development in the county increased and new housing units were built; however, most were higher-end homes, which tend to be most profitable for developers, leaving affordable housing in short supply.

As residential vacancy rates dropped to 0% and hotel occupancies neared 100%, housing prices and rental rates surged. According to Ecosystem Research Group, the average house price increased \$24,000 per year in Sublette County between 2000 and 2006, which compares to a \$12,000 average annual increase statewide. Furthermore, it was more than 30% greater than the average price in Wyoming. In regard to rents, the average monthly cost of a detached single family house for rent jumped 90% during this period and, by 2006, it was 60% greater than the average rent for similar homes across Wyoming. Apartment rents increased 80%. In nearby Sweetwater County, Headwaters Economics found that the rental vacancy rate fell from 18% in 2000 to less than 1% by 2006. It further reported that in a survey among rental property managers, the waiting list of potential renters in Sweetwater County exceeded 200. Between 2002 and 2006, apartment rents in Sweetwater County doubled.

The surge in housing costs priced many residents out of the market. Collins Planning Associates found that, while the median income grew by 6.6% per year during the 2000 to 2006 time period, the increase was dwarfed by the 12.3% annual increase in the average home cost. Gas workers tend to be well paid, with most earning two to three times more than those employed by other industries (Collins Planning Associates). As such, they were able to afford the higher prices. Others were less fortunate and Ecosystem Research Group reported just 16% of homes listed for sale on January 1, 2007 to be affordable to those earning the median family income of \$59,400. Those on fixed incomes, as well as service sector workers, were hit particularly hard. While the median income was \$59,400, some service sector workers, such as those in food service and accommodations, earned just \$16,000 on average. On this subject, Collins Planning Associates compared mean housing prices to annual wages. Typically, housing prices are considered affordable when their costs are three times annual incomes. In 2006, the mean housing price in Sublette County was 9.5 times non-oil and gas wages, while it was just 3.3 times oil and gas wages. With the increase in housing prices, Sublette County's overall cost of living followed suit and became the second highest in the state, according to Ecosystem Research Group. In Sweetwater County, the cost of living rose to the fourth highest in Wyoming (Headwaters Economics).

The expansion of Sublette County's gas industry had a multiplier effect on area businesses and, consequently, demand for local products and services surged. However, with the county's low unemployment rate, rising cost of living, and shortage of housing and hotel rooms, businesses had difficulty recruiting new employees from other areas. They were unable to compete with wages paid by the gas industry and many were forced to shut their doors. Sweetwater County suffered similar consequences and when a Wal-Mart in Rock Springs expanded from a traditional store to a "supercenter," it took years to staff. Furthermore, the City of Rock Springs lost its entire Engineering Department to the higher paying gas industry.

Housing shortages and surging prices were not the only socioeconomic costs resulting from the gas play. To address a few, crime in Sublette County surged by 30% between 2000 and 2006, with most infractions occurring among gas workers. According to Ecosystem Research Group, the county jail's inmate population increased from an average of just 7.9 to as many as 40 during this time period. In Sweetwater County, the jail was expanded in 2005, but it reached capacity once again by 2006 (Headwaters Economics). The demand for emergency services in Sublette County also grew. Typically, a high risk of injuries accompanies a gas play's development phase and between 2000 and 2006, the number of EMS runs swelled by 168%. Furthermore, in 2006, 25% of all EMS runs were made to oil fields (Ecosystem Research Group). Medical resources were similarly strained and staffing was particularly hindered by Wyoming's high cost of malpractice insurance, coupled with the county's large number of patients on Medicare and Medicaid, which typically reimburse at lower rates than traditional health insurance. In regard to traffic, it jumped by 79% between 2000 and 2006. Much of the increase was due to a rise in heavy truck traffic attributed almost entirely to gas play development. The result was significant wear-and-tear on local roadways. Sweetwater County had less road deterioration, as many of its roadways (Interstate 80 in particular) were built for heavy usage. However, U.S. Highway 191, which links the interstate to Sublette County, suffered some wear-and-tear. With needed infrastructure maintenance and upgrades, such as road repairs and water/sewer enhancements, Sublette County and local government budgets increased by triple digits and as much as 60% to 90% was set aside by each for capital expenditures (Ecosystem Research Group). Separately, Sublette County school districts became overcrowded and understaffed due to the influx in workers and their families, while the local tourism industry struggled with a lack of available hotel rooms for vacationers.

It should be noted that Pinedale and its residents seemed to take on the greatest burden. As the county seat and largest population center in Sublette County, it served as the hub of activity and encountered numerous challenges stemming from the gas play development. Pinedale, unlike Big Piney and Marbleton, had not experienced prior gas booms and was, therefore, less familiar with the effects of such rapid cultural and economic changes. As its culture shifted from having a ranching and recreation-based mentality to having more "blue collar" characteristics, anxiety levels elevated and concerns developed. This impacted not only the quality of life for long-time residents, but also their receptiveness to newcomers. It is likely that this effect has dissipated, given that the initial shock of the changes has passed.

Actions Taken

To address the housing shortage that emerged, several initiatives have been undertaken. Perhaps most impactful has been an increase in the industry-sponsored man-camps to house gas workers, which has given hotels some breathing room. This, along with the development of additional hotel rooms, has pushed occupancies to more acceptable levels, allowing for shorter waiting lists and continued support of tourism. In addition, several large master planned subdivisions have been proposed in the Pinedale and Big Piney-Marbleton area. In Sweetwater County, an affordable housing development for seniors has been proposed and construction commenced on an assisted living facility. To further tackle the issue of housing, legislation was proposed (and approved) in 2007 for the creation of the Wyoming Workforce Housing Infrastructure Loan Program. The program was an attempt by the state to confront the urgent need for housing, not just in Sublette and Sweetwater counties, but in all of Wyoming's energy-boom areas. A revolving loan program, its purpose was to assist communities in the development of infrastructure needed to support new residential development. According to Headwaters Economics, allocation for the bill was just \$1 million, which was short of the \$30 million being sought.

To confront other issues that arose from development of the gas play, county and local governments have funded a number of improvements with revenues generated by the gas play. To tackle the increase in crime, strain on medical services, rise in student enrollment, deterioration in roads, and the need for infrastructure, revenues from mineral royalties, severance taxes, gross products taxes, and sales taxes have been used to hire new police officers, build a new 50-bed jail and courthouse, renovate medical clinics in Pinedale and Big Piney-Marbleton, develop an EMS rescue center, recruit teachers, renovate schools, repair roads, and upgrade water and sewer systems. Furthermore, Sublette County used additional funds to build a \$17 million aquatic center. In nearby Sweetwater County, voters approved a one-cent sales tax in 2006 to fund local infrastructure improvements and a hospital expansion. (Prior to the approval, the county lost potential business due to insufficient infrastructure and in 2004, a Wal-Mart distribution center chose to locate in Utah rather than Rock Springs for this reason.) To recruit workers in the high cost environment and compete with wages paid by the gas industry, Sublette County school districts offered salaries that were 11% to 12% higher than the state average (Ecosystem Research Group), while in Sweetwater County, Rock Springs used mineral revenues to increase salaries of city employees by 40% (Headwaters Economics). Unfortunately, many private employers have been unable to match the higher salaries.

As previously noted, governments have used mineral revenues to fund many of the needed improvements. For the Pinedale Anticline and Jonah gas play, mineral revenues include state and federal mineral royalties, state severance taxes, and county gross products taxes. Only a small percentage of royalties and severance taxes have been distributed to municipalities. Instead, cities and towns have relied heavily on revenue generated from county gross products taxes, as well as from sales taxes. There was a lag between the initial expansionary period and the generation of mineral revenues and, as such, municipalities were faced with budget shortfalls during the early years of the gas play's development. To fill the gap, additional funds have been contributed directly by the gas industry to support infrastructure development and community enhancements. For instance, Headwaters Economics reported that in Sweetwater County, the Town of Wamsutter received \$4 million from BP for a childcare center and other improvements. While industry funding has helped many municipalities, it has been inconsistent in its geographic distribution (Sweetwater's Rock Springs and Green River did not see similar contributions) and unreliable as a consistent revenue source.

Current Situation, Unresolved Issues & Lessons Learned

Activity related to the gas play has stabilized in recent years. Not only has the initial expansionary period of development passed, but also demand for natural gas has dropped and its price has fallen from its high of \$12 per Mcf just three or four years ago to about \$4 per Mcf today. As such, many drilling rigs have left. Nevertheless, further development is anticipated and more rigs are due to arrive in the months and years ahead.

In recent months, Sublette County's housing issues have been mitigated by both the slowdown in activity and the expansion of industry-supplied man-camps. Housing availability has increased and prices, while still high, have declined modestly. According to a representative of the Sweetwater Economic Development Association, Sweetwater County has seen similar trends. Within the last year, the association's director has seen prices fall by 3% and inventory rise for homes priced at \$300,000 and above. Despite the recent softening, county officials are not concerned of an impending bust and a corresponding near-term housing glut. Natural gas demand remains strong and development of the gas play is expected to continue for the foreseeable future, which will keep employment and population numbers elevated and the need for housing high. Furthermore, residential development has slowed and several planned projects have been shelved due to a lack of available financing. A 900-unit planned subdivision, which would have effectively doubled the size of Pinedale, has been tabled for this reason.

The slowdown in activity, coupled with the expansion of man-camps, has impacted the local hotel industry. Until recently, hotel occupancies had been at 100% with waiting lists for rooms. Today, however, they are much lower, particularly during the winter months when tourism is down. According to a representative of the Sublette Economic Resource Council, a few hotels have closed, many have reverted to seasonal, rather than year-round, operations, and others have struggled. To overcome the drop in occupancy rates and to help diversify the local economy, voters approved a lodging tax to support the new Pinedale Travel & Tourism Commission and its efforts to boost year-round tourism in the area. Sweetwater's hotel market has fared better (as reported by its economic development association's director) due to its interstate accessibility and proximity to Utah. Even with several new hotels, branded hotels in Sweetwater County continue to see occupancy rates of 80% to 90% during the summer months (with the best hotel maintaining 100% occupancy) and 76% during the winter. Unbranded hotels, which tend to be occupied by gas workers, see year-round occupancies of about 65%.

As the gas play has stabilized, employers have found employment conditions (labor availability in particular), to have improved slightly. After rising from an annual low of 1.4% in 2007 to an annual high of 4.6% in 2010, Sublette County's unemployment rate averages 3.5% today, according to the Bureau of Labor Statistics. Still, it remains low relative to the statewide average of 5.9%. With continued low unemployment, as well as further increases in wages and a persistently high cost of living, many small businesses still struggle to recruit workers and empty storefronts can be found along local avenues.

Financially, Sublette and Sweetwater counties are reportedly healthy and their coffers continue to be largely supported by mineral revenues. On the other hand, local governments, though in relatively good shape, are faced with budget shortfalls, as well as potential cuts in funding sources. According to a Pinedale town councilmember, the county may cut the town's funding due to a drop in oil production. As for other sources, the town maintains good revenue streams from sales taxes and sees a share of state and federal mineral royalties. That said, the distribution of funds from state and federal governments is not in direct proportion to the burdens placed on Pinedale by the gas play's development and, as such, the town has difficulty funding all of the needed improvements. Due to the delay in funding from mineral revenues during the initial expansionary years, many infrastructure improvements were delayed and Pinedale struggles to catch up on and keep pace with necessary projects.

C. CONCLUSIONS

Case studies of Wise County, Texas (population 59,127); Sublette County, Wyoming (population 10,247); and Bradford County, Pennsylvania (population 62,622) revealed some common themes with regard to energy extraction and its impacts on counties and their municipalities. While all three of the counties studied have rural characteristics, they vary in their sizes, locations and proximity to larger metropolitan areas, land compositions, and boom cycle phases. For instance, most of the land in Sublette County is publicly owned, whereas privately owned land prevails in both Wise and Bradford counties. Furthermore, Wise County's gas play can be considered the most mature of the three, with Sublette just a few years behind and Bradford's gas play still in its infancy. As such, while many similarities exist among the actions taken to address socioeconomic and other costs associated with gas play development, some of the issues and lessons learned were unique to a particular county.

In all instances, gas plays began with a labor-intensive development phase. During the initial, expansionary years of development, the three counties witnessed a surge in employment as gas workers descended upon them in large numbers. With the resulting increase in population, they were faced with short, medium, and long-term challenges. To address the short-term, they needed to consider housing for the new residents. For the medium-term, they needed to address concerns of the entire community, including rising costs of living and other socioeconomic costs. For the long-term, they needed to focus on the temporary and volatile nature of the gas play and to approach new development such that the chances of a post-boom bust and corresponding glut of housing would be diminished following the end of the development phase. While similar approaches to confront these challenges were taken by some, others were faced with unique circumstances that resulted in different actions and/or consequences.

Most of the workers involved in the early stages of drilling and development were transients, with their permanent residencies and employers' headquarters based elsewhere. Although unaccounted for in local Census population estimates, temporary residents had a profound effect on local housing markets and social services. Usually leaving their families behind, transient gas workers typically sought temporary accommodations and consumed nearly every available hotel room, apartment, house for rent, and trailer. As such, housing availability plummeted and with the supply-demand imbalance, coupled with higher wages paid to gas workers, housing costs soared. As gas development continued and permanent workers emerged, similar trends in rising prices were seen in the for-sale housing markets. While gas workers could afford the higher costs, local residents (particularly those on fixed incomes and service sector incomes) struggled to make ends meet and were often priced out of local housing markets.

Aside from housing, other impacts occurred including increases in crime, traffic, road deterioration, school enrollment, and demand for social services and medical care. Furthermore, plummeting unemployment during the labor-intensive development phase, along with skyrocketing costs of living and lower wages paid by non-gas industries, hindered local businesses' ability to recruit and retain employees, forcing many to go out of business and others to reduce operating hours and/or require overtime among workers. It should be noted that following the end of the development phase, labor market conditions can be expected to ease, as was evident in Sublette County, where the annual unemployment rate increased from just 1.4% in 2007 to a still low, but more sustainable rate of 4.6% in 2010.

While all counties encountered impacts with the gas plays, the degree to which they struggled varied. Both Sublette and Bradford counties witnessed severe housing crises, with vacancy rates plummeting to 0%, housing costs soaring to as much as nine times non-gas incomes, and hotel occupancies reaching 100%. Furthermore, although residential development eventually increased in Sublette County, much of it was high-end, rather than the much-needed affordable housing. More recently, Sublette County, which is further along in its gas play than Bradford County, has found that widespread increases in temporary industry-supplied man-camps, as well as new hotel development, have helped to alleviate some of the pressures on the local housing market. Those increases, coupled with a recent slowdown in gas field development, have led to an uptick in housing availability in Sublette County and a decline in hotel occupancies. In order to address softening in the hotel market and to further diversify its economy, Sublette County created a Tourism Commission to stimulate year-round leisure travel in the county. Bradford County, with its gas play still in the initial years of rapid expansion, continues to struggle with an undersupply of housing, as well as costs so high that many local residents have been priced out of the market.

In contrast to Sublette and Bradford counties, the impact on Wise County's housing market was far less extreme. Unlike the others, Wise County had many years to plan for development of the gas field. Discovered in 1981, the Barnett Shale was not developed in earnest until the late 1990s, when the technology was developed to make significant production possible. As such, the county and its municipalities had ample time to plan and took a conservative approach with rental housing development. Instead, it focused on hotel development to house the influx of transient workers and, therefore, a glut in hotel rooms, rather than an over-supply of housing, emerged once the initial years of rapid expansion passed and gas development slowed. Impacts resulting from the gas play were further mitigated by Wise County's proximity to the larger and heavily-populated Dallas-Fort Worth area.

To further address housing issues and other costs associated with gas play development, early investment in infrastructure is key. Without adequate roadways and water/sewer capacities, new housing development to accommodate the arrival of gas workers can be severely hindered. And as noted above, without additional housing, which can be in the form of apartments, hotel rooms, man-camps, etc., widespread housing shortages can develop. A lack of infrastructure has been among the most significant barriers to development in Bradford County, where a housing crisis is in full force today. Funding for infrastructure during the initial years of development can be challenging, as mineral revenues are typically not generated until gas production begins. Furthermore, for land that is publicly owned, such as in Sublette County, the distribution of mineral revenues from federal and state governments to counties and municipalities is not in direct proportion to the costs incurred. In the case of publicly owned land, the share of mineral revenues ending up in the coffers of local governments can be minimal relative to those received at the federal and state levels. (Instead, Sublette County and its municipalities relied more on funding from county gross products taxes and local sales taxes.) Although Bradford County is comprised primarily of privately owned land and has not been subjected to the inequitable distribution of federal and state royalty payments, some assistance is currently needed to fund the necessary improvements until gas production and mineral revenue generation become more widespread.

Once production began and mineral revenues increased, both Wise and Sublette counties used them to “catch up” on needed infrastructure and to address other issues. For instance, a new jail was developed and police officers were hired in Sublette County to confront the increase in crime. Furthermore, medical clinics were expanded, teachers were recruited, roads were repaired, water and sewer systems were upgraded, and community amenities were built. In Wise County, where the land is predominantly privately owned, landowners (and those with ownership of subsurface rights in particular) were direct recipients of mineral royalty payments. While governments, businesses, and schools used these revenues to fund a number of enhancements and community investments, many local residents gained newfound affluence as well.

Despite the various socioeconomic and other costs associated with gas field development, the accompanying benefits can be tremendous. All three counties witnessed increases in employment opportunities, rising wages, and growing service sectors. Once gas production began, business, government, and in some cases, personal revenues surged with the distribution of royalty payments, bonuses, and taxes. Therefore, a county's potential to benefit from gas play is largely driven by its ability to mitigate the short-, medium-, and long-term negative impacts. To do so, immediate investment in infrastructure and prudent development with a focus on temporary and affordable accommodations are key strategies to employ. Furthermore, officials should work to diversify local economies and governments should partner with gas companies, local businesses, and educational facilities to ensure a healthy supply of available skilled labor.

XI. QUALIFICATIONS

A. THE COMPANY

Bowen National Research is a national real estate research and consulting firm specializing in market feasibility evaluation for a variety of development alternatives. The staff at Bowen National Research has evaluated market conditions for every type of real estate alternative, including: affordable rental housing projects, upscale market-rate apartment properties, single-family subdivisions, for-sale condominium communities, senior assisted and independent living facilities, student-housing communities, commercial and retail developments and self-storage facilities. Each staff member has hands-on experience evaluating sites and comparable properties, analyzing market characteristics and trends, and providing realistic recommendations and conclusions.

B. THE STAFF

Patrick Bowen is the President of Bowen National Research. He has prepared and supervised thousands of market feasibility studies for all types of real estate products, including affordable family and senior housing, multifamily market-rate housing and student housing, for 14 years. He has also prepared various studies for submittal as part of HUD 221(d)(3) & (4), HUD 202 developments and applications for housing for Native Americans. Mr. Bowen has worked closely with many state and federal housing agencies to assist them with their market study guidelines. Mr. Bowen has his bachelor's degree in legal administration (with emphasis on business and law) from the University of West Florida.

Nathan Young is Vice President of Bowen National Research and has six years of experience in the real estate profession. He has conducted field research and written market studies in hundreds of rural and urban markets throughout the United States. Mr. Young's real estate experience includes analysis of apartment (subsidized, Tax Credit and market-rate), senior housing (i.e. nursing homes, assisted living, etc.), student housing, condominium, retail, office, self-storage facilities and repositioning of assets to optimize feasibility. Mr. Young has experience in working with the U.S. Department of Housing and Urban Development and has attended FHA LEAN program training. Mr. Young has a bachelor's degree in Engineering (Civil) from The Ohio State University.

Benjamin J. Braley, Market Analyst, has conducted on-site market evaluations for over four years in more than 200 markets. He has completed work in 37 states and tribal reservations throughout the U.S. Mr. Braley has analyzed apartments (subsidized, Tax Credit and upscale market-rate), senior housing (i.e. nursing homes, assisted living, etc.), student housing, condominiums, single-family homes and marina developments. In addition, he has studied retail, office and hotel markets. Mr. Braley has a bachelor's degree in Economics from Otterbein College.

Walt Whitmyre is a Market Analyst for Bowen National Research. Two of his most notable projects involved a comprehensive student housing analysis for The Ohio State University, and a 15-city downtown housing assessment for the State of Michigan. Mr. Whitmyre has directed 165 real estate development projects in 15 different states. During his 30 years as a real estate professional, Mr. Whitmyre has been heavily involved in nearly every aspect of the industry. From concept design to construction, he has been responsible for real estate developments totaling \$400,000,000 and has acquired valuable insights from the perspectives of both developer and development team member. Mr. Whitmyre's expertise includes development team management, market feasibility studies, site due diligence, design evaluation, project budgeting, and jurisdictional entitlements. Mr. Whitmyre holds a bachelor's degree in Environmental Design/Architecture from the University of Colorado.

Amy Tyrrell is a Market Analyst for Bowen National Research and is based out of Washington, DC. She has 16 years experience in the real estate and construction industries, with 11 years specializing in the research field. She has researched, analyzed, and prepared reports on a variety of trends, industries, and property types, including industrial, office, medical office, multifamily apartments and condominiums, and senior housing. Prior to her focus on research, Ms. Tyrrell performed financial analysis for retail developments throughout the United States. She holds a Masters in Business Administration with concentrations in real estate and marketing from the University of Cincinnati and a Bachelor of Arts in economics with a minor in mathematics from Smith College.

Christi Kramer is the Marketing Director at Bowen National Research. She has conducted qualitative and quantitative research in markets nationwide for apartments, student housing, condominiums, single-family, self-storage and retail developments. In addition, Ms. Kramer has been involved in the production of over 2,500 studies and is familiar with the guidelines and requirements of state housing agencies. She has a bachelor's degree in Marketing from the University of Dayton School of Business Administration where she was also the Marketing Assistant.



Stephanie Viren is the Research Director at Bowen National Research. Ms. Viren focuses on collecting detailed data concerning housing conditions in various markets throughout the United States. Ms. Viren has extensive interviewing skills and experience and also possesses the expertise necessary to conduct surveys of diverse pools of respondents regarding population and housing trends, housing marketability, economic development and other socioeconomic issues relative to the housing industry. Ms. Viren's professional specialty is condominium and senior housing research. Ms. Viren earned a Bachelor of Arts in Business Administration from Heidelberg College.

Jack Wiseman, a Market Analyst with Bowen National Research, has conducted extensive market research in over 200 markets throughout the United States. He provides thorough evaluation of site attributes, area competitors, market trends, economic characteristics and a wide range of issues impacting the viability of real estate development. He has evaluated market conditions for a variety of real estate alternatives, including affordable and market-rate apartments, retail and office establishments, educational facilities, marinas and a variety of senior residential alternatives. Mr. Wiseman has a Bachelor of Arts in Economics from Miami University.

June Davis, Office Manager of Bowen National Research, has 22 years experience in market feasibility research. Ms. Davis has overseen production on over 13,000 market studies for projects throughout the United States.

Addendum A: Field Surveys of Rental Housing

- Conventional Rentals
- Manufactured Housing
- Hotels/Motels

FIELD SURVEY OF CONVENTIONAL RENTALS

GREENE COUNTY, PENNSYLVANIA

The following section is a field survey of conventional rental properties. These properties were identified through a variety of sources including area apartment guides, yellow page listings, government agencies, the Chamber of Commerce, and our own field inspection. The intent of this field survey is to evaluate the overall strength of the existing rental market, identify trends that impact future development, and identify those properties that would be considered most comparable to the subject site.

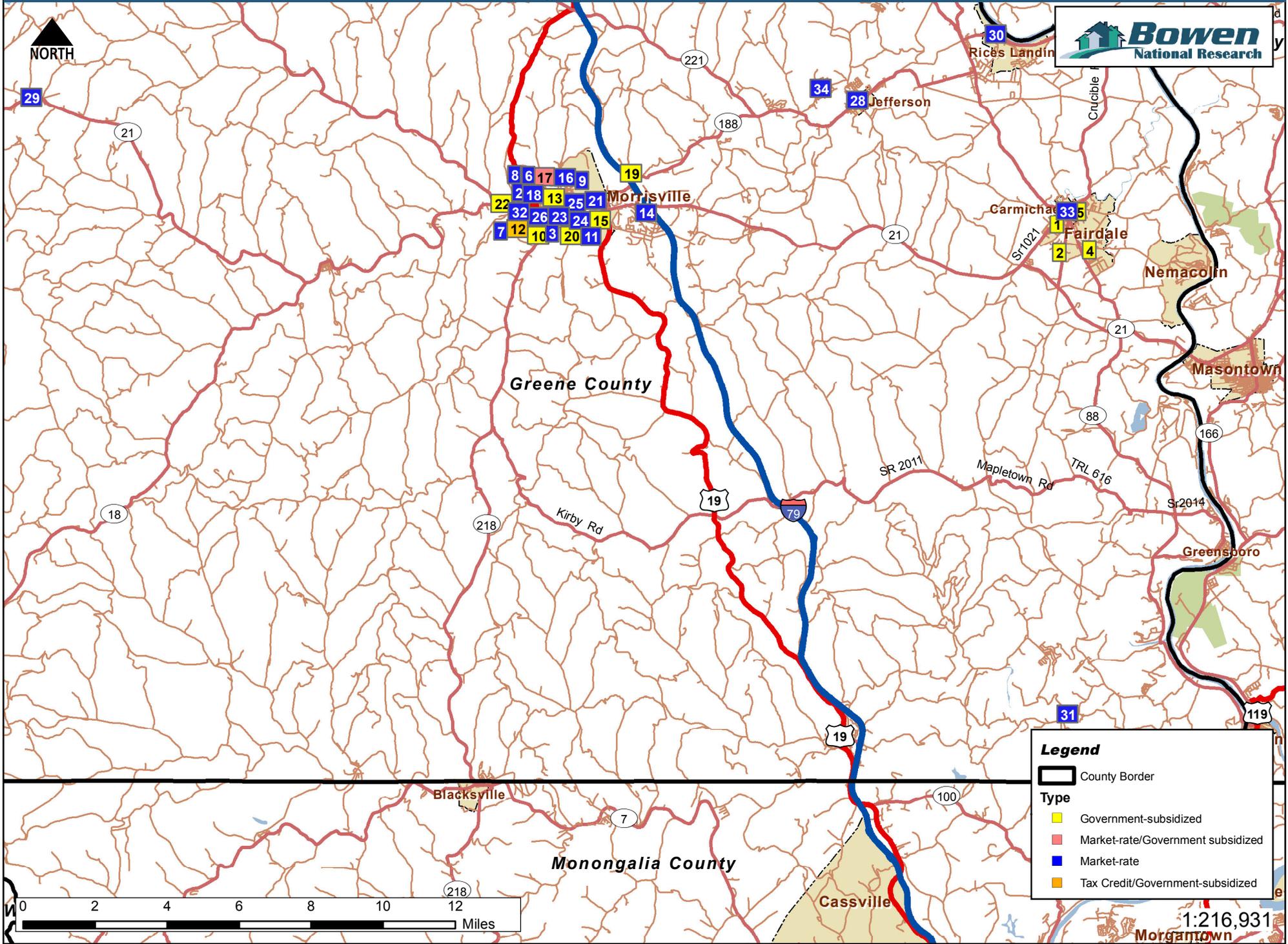
The field survey has been organized by the type of project surveyed. Properties have been color coded to reflect the project type. Projects have been designated as market-rate, Tax Credit, government-subsidized, or a combination of the three project types. The field survey is organized as follows:

- A color-coded map indicating each property surveyed and the project type followed by a list of properties surveyed.
- Properties surveyed by name, address, telephone number, project type, year built or renovated (if applicable), number of floors, total units, occupancy rate, quality rating, rent incentives, and Tax Credit designation. Housing Choice Vouchers and Rental Assistance are also noted here. Note that projects are organized by project type.
- Distribution of non-subsidized and subsidized units and vacancies in properties surveyed.
- Listings for unit and project amenities, parking options, optional charges, utilities (including responsibility), and appliances.
- Collected rent by unit type and bedrooms.
- Unit size by unit type and bedrooms.
- Calculations of rent per square foot (all utilities are adjusted to reflect similar utility responsibility). Data is summarized by unit type.
- An analysis of units, vacancies, and median rent. Where applicable, non-subsidized units are distributed separately.
- An analysis of units added to the area by project construction date and, when applicable, by year of renovation.
- Aggregate data and distributions for all non-subsidized properties are provided for appliances, unit amenities and project amenities.

- A rent distribution is provided for all market-rate and non-subsidized Tax Credit units by unit type. Note that rents are adjusted to reflect common utility responsibility.
- Aggregation of projects by utility responsibility (market-rate and non-subsidized Tax Credit only).
- A utility allowance worksheet.

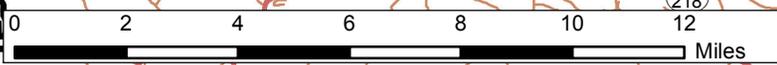
Note that other than the property listing following the map, data is organized by project types. Market-rate properties (blue designation) are first followed by variations of market-rate and Tax Credit properties. Non-government subsidized Tax Credit properties are red and government-subsidized properties are yellow. See the color codes at the bottom of each page for specific project types.

Greene County, PA: Apartment Location



Legend

- County Border
- Type**
- Government-subsidized
- Market-rate/Government subsidized
- Market-rate
- Tax Credit/Government-subsidized



1:216,931

MAP IDENTIFICATION LIST - GREENE COUNTY, PENNSYLVANIA

MAP ID	PROJECT NAME	PROJ. TYPE	QUALITY RATING	YEAR BUILT	TOTAL UNITS	VACANT	OCC. RATE
◆ 1	Woodside Manor	GSS	B	1984	50	0	100.0%
2	Parkview Knoll	GSS	B	1981	75	0	100.0%
3	Victoria Square Complex	MRR	B	1975	10	0	100.0%
4	Cedarwood	GSS	B	1983	31	0	100.0%
◆ 5	Carmichaels Arbors	GSS	B-	1978	75	0	100.0%
6	554 N. Richhill St.	MRR	B	1932	4	0	100.0%
7	53 S. Morris St.	MRR	C	1929	7	0	100.0%
8	440 N. Richhill St.	MRR	C-	1963	5	0	100.0%
9	395 Sherman Ave.	MRR	B	1959	4	0	100.0%
10	Avalon Court	GSS	B-	1967	0	0	U/C
11	Bonar Apts.	MRR	B	1960	20	0	100.0%
◆ 12	Waynesburg House	TGS	B+	1900	34	4	88.2%
◆ 13	Bridge Street Commons	GSS	B	1991	30	0	100.0%
14	Cedar Ridge	MRR	A-	2002	96	0	100.0%
◆ 15	Thompson Gardens	GSS	B-	1973	60	0	100.0%
16	Oak Ridge Apts.	MRR	B+	1992	16	3	81.3%
17	Mountainview Gardens	MRG	B-	1982	120	0	100.0%
18	160 E. High St.	MRR	B	1949	2	0	100.0%
19	Grandview	GSS	B-	1981	40	0	100.0%
20	Scattered Sites	GSS	B-	1972	40	0	100.0%
21	Walnut Avenue Townhomes	MRR	C	1974	8	0	100.0%
22	Wayne Village	GSS	B	1972	60	0	100.0%
23	75 Liberty St.	MRR	B-	1939	5	0	100.0%
24	112 N. Maiden St.	MRR	B	1931	2	0	100.0%
25	123 N. Maiden St.	MRR	B	1933	2	0	100.0%
26	151 S. Washington St.	MRR	B	2009	2	0	100.0%
27	136 E. High St.	MRR	B+	1848	0	0	U/C
28	1421 Jefferson Rd.	MRR	C	1911	0	0	U/C
29	1117 W. Roy Furman Hwy.	MRR	B	2007	2	0	100.0%
30	104 Walnut Ave.	MRR	B	1912	1	0	100.0%
31	657 Taylortown Rd.	MRR	D	1911	1	1	0.0%
32	294 W. Lincoln St.	MRR	C	1938	2	1	50.0%
33	Hartley Inn on the Square	MRR	B	1865	14	0	100.0%
34	Company Store Apts.	MRR	C-	1920	8	0	100.0%

◆	Senior Restricted
■	Market-rate
■	Market-rate/Tax Credit
■	Market-rate/Government-subsidized
■	Market-rate/Tax Credit/Government-subsidized
■	Tax Credit
■	Tax Credit/Government-subsidized
■	Government-subsidized

Survey Date: May 2011

MAP IDENTIFICATION LIST - GREENE COUNTY, PENNSYLVANIA

PROJECT TYPE	PROJECTS SURVEYED	TOTAL UNITS	VACANT	OCCUPANCY RATE	U/C
MRR	22	211	5	97.6%	3
MRG	1	120	0	100.0%	0
TGS	1	34	4	88.2%	0
GSS	10	461	0	100.0%	34

Total units does not include units under construction.

◆	Senior Restricted
■	Market-rate
■	Market-rate/Tax Credit
■	Market-rate/Government-subsidized
■	Market-rate/Tax Credit/Government-subsidized
■	Tax Credit
■	Tax Credit/Government-subsidized
■	Government-subsidized

* - Drive Distance (Miles)

Survey Date: May 2011

DISTRIBUTION OF UNITS - GREENE COUNTY, PENNSYLVANIA

MARKET-RATE						
BEDROOMS	BATHS	UNITS	DISTRIBUTION	VACANT	%VACANT	MEDIAN GROSS RENT
0	1	17	7.8%	0	0.0%	\$380
1	1	36	16.6%	0	0.0%	\$562
2	1	133	61.3%	4	3.0%	\$842
2	2	22	10.1%	0	0.0%	\$942
3	1	9	4.1%	1	11.1%	\$852
TOTAL		217	100.0%	5	2.3%	

3 UNITS UNDER CONSTRUCTION

TAX CREDIT, GOVERNMENT-SUBSIDIZED						
BEDROOMS	BATHS	UNITS	DISTRIBUTION	VACANT	%VACANT	MEDIAN GROSS RENT
1	1	32	94.1%	4	12.5%	N.A.
2	1	2	5.9%	0	0.0%	N.A.
TOTAL		34	100.0%	4	11.8%	

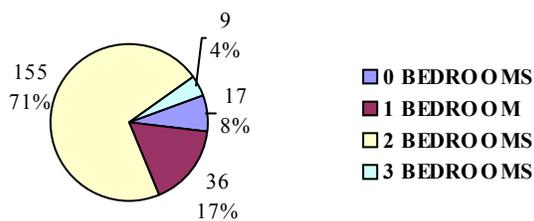
GOVERNMENT-SUBSIDIZED						
BEDROOMS	BATHS	UNITS	DISTRIBUTION	VACANT	%VACANT	
0	1	36	6.3%	0	0.0%	N.A.
1	1	237	41.2%	0	0.0%	N.A.
2	1	175	30.4%	0	0.0%	N.A.
3	1	31	5.4%	0	0.0%	N.A.
3	1.5	66	11.5%	0	0.0%	N.A.
4	1.5	30	5.2%	0	0.0%	N.A.
TOTAL		575	100.0%	0	0.0%	

34 UNITS UNDER CONSTRUCTION

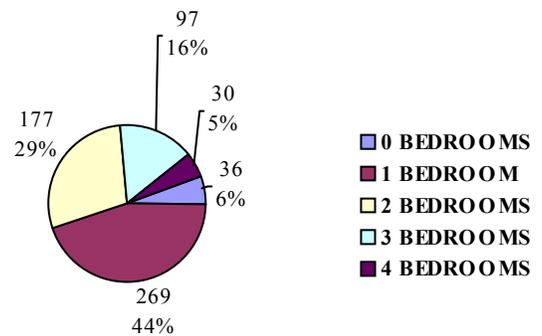
GRAND TOTAL		826	-	9	1.1%	
--------------------	--	------------	----------	----------	-------------	--

DISTRIBUTION OF UNITS BY BEDROOM

NON-SUBSIDIZED



SUBSIDIZED



SURVEY OF PROPERTIES - GREENE COUNTY, PENNSYLVANIA

1 Woodside Manor			
	Address 50 W. South St. Carmichaels, PA 15320	Phone (724) 627-6523 (Contact in person)	Total Units 50
	Year Built 1984 Comments Public Housing; Operated by the Housing Authority of Greene County	Contact Janet	Vacancies 0 Occupied 100.0% Floors 1 Quality Rating B Senior Restricted (62+) Waiting List 56 households
2 Parkview Knoll			
	Address 317 Parkview Dr. Carmichaels, PA 15320	Phone (724) 966-8667 (Contact in person)	Total Units 75
	Year Built 1981 Renovated 2004 Comments HUD Section 8; Townhomes & ground level garden units have patios	Contact David	Vacancies 0 Occupied 100.0% Floors 1,2 Quality Rating B Waiting List 2-12 months
3 Victoria Square Complex			
	Address 95 E. High St. Waynesburg, PA 15370	Phone (724) 344-1535 (Contact in person)	Total Units 10
	Year Built 1975 Comments 1st floor commercial; Does not accept HCV; Square footage estimated by mgr.	Contact Phil	Vacancies 0 Occupied 100.0% Floors 4, 5 Quality Rating B Waiting List 3 months
4 Cedarwood			
	Address 403 Cedarwood Dr. Carmichaels, PA 15320	Phone (724) 966-5860 (Contact in person)	Total Units 31
	Year Built 1983 Comments RD 515, no RA; HUD Section 8; Square footage estimated	Contact Steve	Vacancies 0 Occupied 100.0% Floors 2 Quality Rating B Waiting List 25 households
5 Carmichaels Arbors			
	Address 211 Liberty St. Carmichaels, PA 15320	Phone (724) 966-7321 (Contact in person)	Total Units 75
	Year Built 1978 Comments HUD Section 8	Contact Michelle	Vacancies 0 Occupied 100.0% Floors 1 Quality Rating B- Senior Restricted (62+) Waiting List 4 years

Project Type

Market-rate
Market-rate/Tax Credit
Market-rate/Government-subsidized
Market-rate/Tax Credit/Government-subsidized
Tax Credit
Tax Credit/Government-subsidized
Government-subsidized

Survey Date: May 2011

SURVEY OF PROPERTIES - GREENE COUNTY, PENNSYLVANIA

6	554 N. Richhill St.		
	Address 554 N. Richhill St. Waynesburg, PA 15370 Year Built 1932 Comments 1-br include gas for heat & hot water; 2-br have washer/dryer hookups; Year built & square footage estimated	Phone (724) 627-9132 <small>(Contact in person)</small> Contact Mary	Total Units 4 Vacancies 0 Occupied 100.0% Floors 2 Quality Rating B Waiting List None
7	53 S. Morris St.		
	Address 53 S. Morris St. Waynesburg, PA 15370 Year Built 1929 Comments 2-br units include washer/dryer; Year built, unit mix & square footage estimated	Phone (724) 852-1823 <small>(Contact in person)</small> Contact Susie	Total Units 7 Vacancies 0 Occupied 100.0% Floors 2, 3 Quality Rating C Waiting List None
8	440 N. Richhill St.		
	Address 440 N. Richhill St. Waynesburg, PA 15370 Year Built 1963 Renovated 2009 Comments Does not accept HCV; All utilities included with 2-br; Year built & square footage estimated by mgr.	Phone (724) 627-5857 <small>(Contact in person)</small> Contact June	Total Units 5 Vacancies 0 Occupied 100.0% Floors 2 Quality Rating C- Waiting List None
9	395 Sherman Ave.		
	Address 395 Sherman Ave. Waynesburg, PA 15370 Year Built 1959 Comments Does not accept HCV; Year built & square footage estimated	Phone (724) 852-1823 <small>(Contact in person)</small> Contact Susie	Total Units 4 Vacancies 0 Occupied 100.0% Floors 3 Quality Rating B Waiting List None
10	Avalon Court		
	Address 170 E. Greene St. Waynesburg, PA 15370 Year Built 1967 Renovated 2011 Comments Public Housing; Fire in 4/2010, all 34 units under construction, entire building has been gutted, new roof going on soon, expect to re-open 8/2011	Phone (724) 627-6523 <small>(Contact in person)</small> Contact Janet	Total Units 0 Vacancies 0 Occupied 0 Floors 3 Quality Rating B- Waiting List 56 households

Project Type

■	Market-rate
■	Market-rate/Tax Credit
■	Market-rate/Government-subsidized
■	Market-rate/Tax Credit/Government-subsidized
■	Tax Credit
■	Tax Credit/Government-subsidized
■	Government-subsidized

Survey Date: May 2011

SURVEY OF PROPERTIES - GREENE COUNTY, PENNSYLVANIA

11 Bonar Apts.			
	Address 75 Bonar Ave. Waynesburg, PA 15370	Phone (724) 852-1557 (Contact in person)	Total Units 20
	Year Built 1960 Comments Not designated for seniors, but seniors are preferred	Contact Joe	Vacancies 0 Occupied 100.0% Floors 2.5 Quality Rating B
			Waiting List None
12 Waynesburg House			
	Address 75 W. Lincoln St. Waynesburg, PA 15370	Phone (724) 627-5031 (Contact in person)	Total Units 34
	Year Built 1900 Renovated 1995 Comments 60% AMHI; RD 515, has RA (30 units); Does not accept HCV; Waitlist for RA units: 1-br 22 households, 2-br 10 households; Vacancies due to inability to accept HCV at this time	Contact Denise	Vacancies 4 Occupied 88.2% Floors 2.5 Quality Rating B+ Senior Restricted (62+) Waiting List 32 households
13 Bridge Street Commons			
	Address 600 Bridge St. Waynesburg, PA 15370	Phone (724) 747-7161 (Contact in person)	Total Units 30
	Year Built 1991 Comments HUD Section 8	Contact Joyce	Vacancies 0 Occupied 100.0% Floors 4 Quality Rating B Senior Restricted (62+) Waiting List 6-12 months
14 Cedar Ridge			
	Address 101 Glade Ave. Waynesburg, PA 15370	Phone (724) 852-6415 (Contact in person)	Total Units 96
	Year Built 2002 Comments Phase II (21 units) 2-br/2ba opened in 2006 include fireplaces & garages; Unit mix estimated	Contact Pam	Vacancies 0 Occupied 100.0% Floors 2 Quality Rating A-
			Waiting List None
15 Thompson Gardens			
	Address 1250 Walnut Ave. Waynesburg, PA 15370	Phone (724) 627-6523 (Contact in person)	Total Units 60
	Year Built 1973 Renovated 2002 Comments Public Housing	Contact Janet	Vacancies 0 Occupied 100.0% Floors 1 Quality Rating B- Senior Restricted (62+) Waiting List 56 households

Project Type

Market-rate
Market-rate/Tax Credit
Market-rate/Government-subsidized
Market-rate/Tax Credit/Government-subsidized
Tax Credit
Tax Credit/Government-subsidized
Government-subsidized

Survey Date: May 2011

SURVEY OF PROPERTIES - GREENE COUNTY, PENNSYLVANIA

16	Oak Ridge Apts.		
	Address 1010 Oak Ridge Rd. Waynesburg, PA 15370 Year Built 1992 Comments Does not accept HCV; Blinds & ceiling fans only in a few units; Lower rent on 3-br due to long term tenant; Vacancies attributed to high rent	Phone (724) 627-5857 <small>(Contact in person)</small> Contact Gwen	Total Units 16 Vacancies 3 Occupied 81.3% Floors 2 Quality Rating B+ Waiting List None
17	Mountainview Gardens		
	Address 300 Mountainview Blvd. Waynesburg, PA 15370 Year Built 1982 Renovated 1997 Comments Market-rate (6 units); HUD Section 8 (114 units); Does not accept HCV	Phone (724) 627-3869 <small>(Contact in person)</small> Contact Pam	Total Units 120 Vacancies 0 Occupied 100.0% Floors 2.5 Quality Rating B- Waiting List 3-12 months
18	160 E. High St.		
	Address 160 E. High St. Waynesburg, PA 15370 Year Built 1949 Renovated 2008 Comments Year built & square footage estimated	Phone (724) 627-6396 <small>(Contact in person)</small> Contact Jane	Total Units 2 Vacancies 0 Occupied 100.0% Floors 2 Quality Rating B Waiting List None
19	Grandview		
	Address 13 Grandview Dr. Waynesburg, PA 15370 Year Built 1981 Comments Public Housing	Phone (724) 627-6523 <small>(Contact in person)</small> Contact Janet Blair	Total Units 40 Vacancies 0 Occupied 100.0% Floors 2 Quality Rating B- Waiting List 3-24 months
20	Scattered Sites		
	Address 155 Woodland Ave. Waynesburg, PA 15370 Year Built 1972 Renovated 1988 Comments Public Housing	Phone (724) 627-6523 <small>(Contact in person)</small> Contact Janet Blair	Total Units 40 Vacancies 0 Occupied 100.0% Floors 1, 2 Quality Rating B- Waiting List 3-24 months

Project Type

■	Market-rate
■	Market-rate/Tax Credit
■	Market-rate/Government-subsidized
■	Market-rate/Tax Credit/Government-subsidized
■	Tax Credit
■	Tax Credit/Government-subsidized
■	Government-subsidized

Survey Date: May 2011

SURVEY OF PROPERTIES - GREENE COUNTY, PENNSYLVANIA

21 Walnut Avenue Townhomes			
	Address 1260 Walnut Ave. Waynesburg, PA 15370	Phone (724) 627-6808 (Contact in person)	Total Units 8
	Year Built 1974 Comments	Contact Joan	Vacancies 0 Occupied 100.0% Floors 2 Quality Rating C
Waiting List None			
22 Wayne Village			
	Address 120 Locust St. Waynesburg, PA 15370	Phone (724) 627-6523 (Contact in person)	Total Units 60
	Year Built 1972 Comments Public Housing	Contact Janet Blair	Vacancies 0 Occupied 100.0% Floors 1, 2 Quality Rating B
Waiting List 3-24 months			
23 75 Liberty St.			
	Address 75 Liberty St. Waynesburg, PA 15370	Phone (724) 627-9132 (Contact in person)	Total Units 5
	Year Built 1939 Comments Year built, unit mix & square footage estimated	Contact Mary	Vacancies 0 Occupied 100.0% Floors 2 Quality Rating B-
Waiting List None			
24 112 N. Maiden St.			
	Address 112 N. Maiden St. Waynesburg, PA 15370	Phone (724) 627-9132 (Contact in person)	Total Units 2
	Year Built 1931 Comments Year built & square footage estimated	Contact Mary	Vacancies 0 Occupied 100.0% Floors 2 Quality Rating B
Waiting List None			
25 123 N. Maiden St.			
	Address 123 N. Maiden St. Waynesburg, PA 15370	Phone (724) 627-9132 (Contact in person)	Total Units 2
	Year Built 1933 Comments Year built & square footage estimated	Contact Mary	Vacancies 0 Occupied 100.0% Floors 2 Quality Rating B
Waiting List None			

Project Type

■	Market-rate
■	Market-rate/Tax Credit
■	Market-rate/Government-subsidized
■	Market-rate/Tax Credit/Government-subsidized
■	Tax Credit
■	Tax Credit/Government-subsidized
■	Government-subsidized

Survey Date: May 2011

SURVEY OF PROPERTIES - GREENE COUNTY, PENNSYLVANIA

26 151 S. Washington St.			
	Address 151 S. Washington St. Waynesburg, PA 15370	Phone (724) 627-3729 (Contact in person)	Total Units 2
	Year Built 2009 Comments Square footage estimated	Contact Frank	Vacancies 0 Occupied 100.0% Floors 2 Quality Rating B
Waiting List None			
27 136 E. High St.			
	Address 136 E. High St. Waynesburg, PA 15370	Phone (724) 833-1513 (Contact in person)	Total Units 0
	Year Built 1848 Renovated 2011 Comments 2 units under construction, available 6/2011; 1st floor commercial	Contact Mary	Vacancies 0 Occupied 0 Floors 2 Quality Rating B+
Waiting List None			
28 1421 Jefferson Rd.			
	Address 1421 Jefferson Rd. Jefferson, PA 15344	Phone (724) 883-2223 (Contact in person)	Total Units 0
	Year Built 1911 Renovated 2011 Comments 1st floor commercial; Washer only provided; One unit under renovation, available 6/2011; Year built & square footage estimated by mgr.	Contact Candy	Vacancies 0 Occupied 0 Floors 2 Quality Rating C
Waiting List None			
29 1117 W. Roy Furman Hwy.			
	Address 1117 W. Roy Furman Hwy. Graysville, PA 15337	Phone (724) 428-4361 (Contact in person)	Total Units 2
	Year Built 2007 Comments Square footage estimated	Contact Belinda	Vacancies 0 Occupied 100.0% Floors 1 Quality Rating B
Waiting List None			
30 104 Walnut Ave.			
	Address 104 Walnut Ave. Rices Landing, PA 15357	Phone (724) 592-5327 (Contact in person)	Total Units 1
	Year Built 1912 Renovated 2007 Comments House attached to tri-unit, house is owner occupied	Contact Gary	Vacancies 0 Occupied 100.0% Floors 2 Quality Rating B
Single-Family Home Waiting List None			

Project Type

■	Market-rate
■	Market-rate/Tax Credit
■	Market-rate/Government-subsidized
■	Market-rate/Tax Credit/Government-subsidized
■	Tax Credit
■	Tax Credit/Government-subsidized
■	Government-subsidized

Survey Date: May 2011

SURVEY OF PROPERTIES - GREENE COUNTY, PENNSYLVANIA

31 657 Taylortown Rd.			
	Address 657 Taylortown Rd. Dunkard, PA 15327	Phone (724) 324-9152 (Contact in person)	Total Units 1
	Year Built 1911 Comments Year built & square footage estimated	Contact Joe	Vacancies 1 Occupied 0.0% Floors 1 Quality Rating D Single-Family Home Waiting List None
32 294 W. Lincoln St.			
	Address 294 W. Lincoln St. Waynesburg, PA 15370	Phone (724) 554-6906 (Contact in person)	Total Units 2
	Year Built 1938 Comments Year built & square footage estimated	Contact Denny	Vacancies 1 Occupied 50.0% Floors 2 Quality Rating C Waiting List None
33 Hartley Inn on the Square			
	Address 102 S. Market St. Carmichaels, PA 15320	Phone (724) 966-2813 (Contact in person)	Total Units 14
	Year Built 1865 Renovated 2011 Comments 1st floor has restaurant; SRO with community kitchen; Higher rent on 4 rooms with private bath; Rest of units share common bath; Square footage estimated	Contact Renee	Vacancies 0 Occupied 100.0% Floors 2 Quality Rating B Waiting List None
34 Company Store Apts.			
	Address SW Corner of 3rd St. & Main St. Mather, PA 15346	Phone (724) 883-4752 (Contact in person)	Total Units 8
	Year Built 1920 Renovated 1970 Comments Accepts HCV (0 currently); Utility responsibility varies among units, some units (unknown amt.) include all utilities; Year built, renovation year & square footage estimated	Contact Don	Vacancies 0 Occupied 100.0% Floors 2 Quality Rating C- Waiting List None

Project Type

■	Market-rate
■	Market-rate/Tax Credit
■	Market-rate/Government-subsidized
■	Market-rate/Tax Credit/Government-subsidized
■	Tax Credit
■	Tax Credit/Government-subsidized
■	Government-subsidized

Survey Date: May 2011

COLLECTED RENTS - GREENE COUNTY, PENNSYLVANIA

MAP ID	GARDEN UNITS					TOWNHOUSE UNITS			
	STUDIO	1-BR	2-BR	3-BR	4+ BR	1-BR	2-BR	3-BR	4+ BR
3		\$500 to \$625	\$750	\$900					
6		\$440	\$450						
7		\$475	\$600						
8		\$425	\$550						
9		\$375	\$575						
11		\$650	\$695						
14			\$675 to \$775						
16			\$650	\$600					
17		\$300							
18		\$650	\$725						
21							\$425		
23	\$475	\$525							
24							\$640	\$640	
25		\$450		\$450					
26			\$900						
27									
28									
29			\$1200						
30							\$300		
31				\$300					
32			\$400						
33	\$300 to \$400								
34	\$350	\$350	\$390	\$500					

◆	Senior Restricted
■	Market-rate
■	Market-rate/Tax Credit
■	Market-rate/Government-subsidized
■	Market-rate/Tax Credit/Government-subsidized
■	Tax Credit
■	Tax Credit/Government-subsidized
■	Government-subsidized

Survey Date: May 2011

PRICE PER SQUARE FOOT - GREENE COUNTY, PENNSYLVANIA

STUDIO UNITS					
MAP ID	PROJECT NAME	BATHS	UNIT SIZE	GROSS RENT	\$ / SQ. FT.
23	75 Liberty St.	1	425	\$475	\$1.12
33	Hartley Inn on the Square	1	350 to 400	\$280 to \$380	\$0.80 to \$0.95
34	Company Store Apts.	1	425	\$439	\$1.03
ONE-BEDROOM UNITS					
MAP ID	PROJECT NAME	BATHS	UNIT SIZE	GROSS RENT	\$ / SQ. FT.
3	Victoria Square Complex	1	500 to 600	\$480 to \$605	\$0.96 to \$1.01
6	554 N. Richhill St.	1	525	\$577	\$1.10
7	53 S. Morris St.	1	650	\$627	\$0.96
8	440 N. Richhill St.	1	650	\$562	\$0.86
9	395 Sherman Ave.	1	550	\$512	\$0.93
11	Bonar Apts.	1	600	\$650	\$1.08
18	160 E. High St.	1	700	\$650	\$0.93
23	75 Liberty St.	1	675	\$525	\$0.78
25	123 N. Maiden St.	1	825	\$602	\$0.73
27	136 E. High St.	1	550	\$852	\$1.55
34	Company Store Apts.	1	500	\$464	\$0.93
17	Mountainview Gardens	1	580	\$300	\$0.52
TWO-BEDROOM UNITS					
MAP ID	PROJECT NAME	BATHS	UNIT SIZE	GROSS RENT	\$ / SQ. FT.
3	Victoria Square Complex	1	600 to 650	\$730	\$1.12 to \$1.22
6	554 N. Richhill St.	1	675	\$617	\$0.91
7	53 S. Morris St.	1	900	\$784	\$0.87
8	440 N. Richhill St.	1	800	\$717	\$0.90
9	395 Sherman Ave.	1	800	\$742	\$0.93
11	Bonar Apts.	1	750	\$695	\$0.93
14	Cedar Ridge	1	858	\$842	\$0.98
		2	858	\$942	\$1.10
16	Oak Ridge Apts.	1	800	\$797	\$1.00
18	160 E. High St.	2	850	\$725	\$0.85
21	Walnut Avenue Townhomes	1	950	\$627	\$0.66
24	112 N. Maiden St.	1	1100	\$824	\$0.75
26	151 S. Washington St.	1	850	\$1098	\$1.29
29	1117 W. Roy Furman Hwy.	1	700	\$1200	\$1.71
30	104 Walnut Ave.	1	1200	\$491	\$0.41
32	294 W. Lincoln St.	1	750	\$584	\$0.78

◆	Senior Restricted
■	Market-rate
■	Market-rate/Tax Credit
■	Market-rate/Government-subsidized
■	Market-rate/Tax Credit/Government-subsidized
■	Tax Credit
■	Tax Credit/Government-subsidized
■	Government-subsidized

Survey Date: May 2011

PRICE PER SQUARE FOOT - GREENE COUNTY, PENNSYLVANIA

TWO-BEDROOM UNITS					
MAP ID	PROJECT NAME	BATHS	UNIT SIZE	GROSS RENT	\$ / SQ. FT.
34	Company Store Apts.	1	600	\$532	\$0.89
THREE-BEDROOM UNITS					
MAP ID	PROJECT NAME	BATHS	UNIT SIZE	GROSS RENT	\$ / SQ. FT.
3	Victoria Square Complex	1	800 to 850	\$880	\$1.04 to \$1.10
16	Oak Ridge Apts.	1	950	\$774	\$0.81
24	112 N. Maiden St.	1	1100	\$852	\$0.77
25	123 N. Maiden St.	1	1200	\$662	\$0.55
28	1421 Jefferson Rd.	1	1200	\$1045	\$0.87
31	657 Taylortown Rd.	1	1100	\$495	\$0.45
34	Company Store Apts.	1	850	\$667	\$0.78

◆	Senior Restricted
■	Market-rate
■	Market-rate/Tax Credit
■	Market-rate/Government-subsidized
■	Market-rate/Tax Credit/Government-subsidized
■	Tax Credit
■	Tax Credit/Government-subsidized
■	Government-subsidized

Survey Date: May 2011

AVERAGE GROSS RENT PER SQUARE FOOT - GREENE COUNTY,
PENNSYLVANIA

MARKET-RATE			
UNIT TYPE	ONE-BR	TWO-BR	THREE-BR
GARDEN	\$0.89	\$1.00	\$0.86
TOWNHOUSE	\$0.00	\$0.64	\$0.77

TAX CREDIT (NON-SUBSIDIZED)			
UNIT TYPE	ONE-BR	TWO-BR	THREE-BR
GARDEN	\$0.00	\$0.00	\$0.00
TOWNHOUSE	\$0.00	\$0.00	\$0.00

COMBINED			
UNIT TYPE	ONE-BR	TWO-BR	THREE-BR
GARDEN	\$0.89	\$1.00	\$0.86
TOWNHOUSE	\$0.00	\$0.64	\$0.77

TAX CREDIT UNITS - GREENE COUNTY, PENNSYLVANIA

ONE-BEDROOM UNITS						
MAP ID	PROJECT NAME	UNITS	SQUARE FEET	# OF BATHS	% AMHI	COLLECTED RENT
◆ 12	Waynesburg House	32	603	1	60%	\$686 - \$895
TWO-BEDROOM UNITS						
MAP ID	PROJECT NAME	UNITS	SQUARE FEET	# OF BATHS	% AMHI	COLLECTED RENT
◆ 12	Waynesburg House	2	800	1	60%	\$736 - \$945

◆ - Senior Restricted

QUALITY RATING - GREENE COUNTY, PENNSYLVANIA

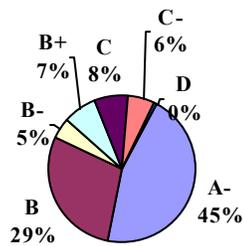
MARKET-RATE PROJECTS AND UNITS

QUALITY RATING	PROJECTS	TOTAL UNITS	VACANCY RATE	MEDIAN GROSS RENT				
				STUDIOS	ONE-BR	TWO-BR	THREE-BR	FOUR-BR
A-	1	96	0.0%			\$842		
B+	1	16	18.8%			\$797	\$774	
B	11	63	0.0%	\$280	\$650	\$695	\$880	
B-	2	11	0.0%	\$475	\$300			
C	3	17	5.9%		\$627	\$627		
C-	2	13	0.0%	\$439	\$562	\$532	\$667	
D	1	1	100.0%				\$495	

DISTRIBUTION OF UNITS BY QUALITY RATING

MARKET-RATE UNITS

TAX CREDIT UNITS



YEAR BUILT - GREENE COUNTY, PENNSYLVANIA *

YEAR RANGE	PROJECTS	UNITS	VACANT	% VACANT	TOTAL UNITS	DISTRIBUTION
Before 1970	16	77	2	2.6%	77	35.5%
1970 to 1979	2	18	0	0.0%	95	8.3%
1980 to 1989	1	6	0	0.0%	101	2.8%
1990 to 1999	1	16	3	18.8%	117	7.4%
2000	0	0	0	0.0%	117	0.0%
2001	0	0	0	0.0%	117	0.0%
2002	1	96	0	0.0%	213	44.2%
2003	0	0	0	0.0%	213	0.0%
2004	0	0	0	0.0%	213	0.0%
2005	0	0	0	0.0%	213	0.0%
2006	0	0	0	0.0%	213	0.0%
2007	1	2	0	0.0%	215	0.9%
2008	0	0	0	0.0%	215	0.0%
2009	1	2	0	0.0%	217	0.9%
2010	0	0	0	0.0%	217	0.0%
2011**	0	0	0	0.0%	217	0.0%
TOTAL	23	217	5	2.3%	217	100.0 %

YEAR RENOVATED - GREENE COUNTY, PENNSYLVANIA *

YEAR RANGE	PROJECTS	UNITS	VACANT	% VACANT	TOTAL UNITS	DISTRIBUTION
Before 1970	0	0	0	0.0%	0	0.0%
1970 to 1979	1	8	0	0.0%	8	22.2%
1980 to 1989	0	0	0	0.0%	8	0.0%
1990 to 1999	1	6	0	0.0%	14	16.7%
2000	0	0	0	0.0%	14	0.0%
2001	0	0	0	0.0%	14	0.0%
2002	0	0	0	0.0%	14	0.0%
2003	0	0	0	0.0%	14	0.0%
2004	0	0	0	0.0%	14	0.0%
2005	0	0	0	0.0%	14	0.0%
2006	0	0	0	0.0%	14	0.0%
2007	1	1	0	0.0%	15	2.8%
2008	1	2	0	0.0%	17	5.6%
2009	1	5	0	0.0%	22	13.9%
2010	0	0	0	0.0%	22	0.0%
2011**	3	14	0	0.0%	36	38.9%
TOTAL	8	36	0	0.0%	36	100.0 %

Note: The upper table (Year Built) includes all of the units included in the lower table.

* Only Market-Rate and Tax Credit projects. Does not include government-subsidized projects.

** As of May 2011

APPLIANCES AND UNIT AMENITIES - GREENE COUNTY, PENNSYLVANIA

APPLIANCES			
APPLIANCE	PROJECTS	PERCENT	UNITS*
RANGE	20	87.0%	194
REFRIGERATOR	20	87.0%	194
ICEMAKER	0	0.0%	
DISHWASHER	1	4.3%	96
DISPOSAL	0	0.0%	
MICROWAVE	1	4.3%	96
UNIT AMENITIES			
AMENITY	PROJECTS	PERCENT	UNITS*
AC - CENTRAL	5	21.7%	105
AC - WINDOW	11	47.8%	84
FLOOR COVERING	23	100.0%	217
WASHER/DRYER	6	26.1%	108
WASHER/DRYER HOOK-UP	13	56.5%	129
PATIO/DECK/BALCONY	7	30.4%	115
CEILING FAN	2	8.7%	17
FIREPLACE	1	4.3%	96
BASEMENT	2	8.7%	2
INTERCOM SYSTEM	1	4.3%	20
SECURITY SYSTEM	0	0.0%	
WINDOW TREATMENTS	19	82.6%	187
FURNISHED UNITS	2	8.7%	7
E-CALL BUTTON	0	0.0%	

* - Does not include units where appliances/amenities are optional; Only includes market-rate or non-government subsidized Tax Credit.

PROJECT AMENITIES - GREENE COUNTY, PENNSYLVANIA

PROJECT AMENITIES			
AMENITY	PROJECTS	PERCENT	UNITS
POOL	0	0.0%	
ON-SITE MANAGEMENT	5	21.7%	127
LAUNDRY	8	34.8%	81
CLUB HOUSE	0	0.0%	
MEETING ROOM	1	4.3%	96
FITNESS CENTER	1	4.3%	96
JACUZZI/SAUNA	0	0.0%	
PLAYGROUND	2	8.7%	102
COMPUTER LAB	0	0.0%	
SPORTS COURT	1	4.3%	6
STORAGE	2	8.7%	25
LAKE	0	0.0%	
ELEVATOR	1	4.3%	10
SECURITY GATE	0	0.0%	
BUSINESS CENTER	0	0.0%	
CAR WASH AREA	0	0.0%	
PICNIC AREA	1	4.3%	96
CONCIERGE SERVICE	0	0.0%	
SOCIAL SERVICE PACKAGE	0	0.0%	

DISTRIBUTION OF UTILITIES - GREENE COUNTY, PENNSYLVANIA

UTILITY (RESPONSIBILITY)	NUMBER OF PROJECTS	NUMBER OF UNITS	DISTRIBUTION OF UNITS
HEAT			
LANDLORD			
ELECTRIC	3	122	14.8%
GAS	10	245	29.7%
TENANT			
ELECTRIC	8	261	31.6%
GAS	13	198	24.0%
			100.0%
COOKING FUEL			
LANDLORD			
ELECTRIC	8	211	25.5%
GAS	4	122	14.8%
TENANT			
ELECTRIC	20	445	53.9%
GAS	2	48	5.8%
			100.0%
HOT WATER			
LANDLORD			
ELECTRIC	2	2	0.2%
GAS	11	365	44.2%
TENANT			
ELECTRIC	10	263	31.8%
GAS	11	196	23.7%
			100.0%
ELECTRIC			
LANDLORD	12	333	40.3%
TENANT	22	493	59.7%
			100.0%
WATER			
LANDLORD	17	561	67.9%
TENANT	17	265	32.1%
			100.0%
SEWER			
LANDLORD	18	562	68.0%
TENANT	16	264	32.0%
TRASH PICK-UP			
LANDLORD	29	774	93.7%
TENANT	5	52	6.3%
			100.0%

UTILITY ALLOWANCE - GREENE COUNTY, PENNSYLVANIA

BR	UNIT TYPE	HEATING				HOT WATER		COOKING		ELEC	WATER	SEWER	TRASH	CABLE
		GAS	ELEC	STEAM	OTHER	GAS	ELEC	GAS	ELEC					
0	GARDEN	\$40	\$33		\$76	\$14	\$9	\$5	\$3	\$32	\$16	\$18	\$14	\$20
1	GARDEN	\$53	\$44		\$106	\$19	\$13	\$8	\$4	\$38	\$18	\$20	\$14	\$20
1	TOWNHOUSE	\$53	\$44		\$106	\$19	\$13	\$8	\$4	\$38	\$18	\$20	\$14	\$20
2	GARDEN	\$65	\$55		\$139	\$24	\$17	\$9	\$5	\$48	\$20	\$22	\$14	\$20
2	TOWNHOUSE	\$65	\$55		\$139	\$24	\$17	\$9	\$5	\$48	\$20	\$22	\$14	\$20
3	GARDEN	\$75	\$65		\$168	\$29	\$21	\$11	\$7	\$56	\$22	\$23	\$14	\$20
3	TOWNHOUSE	\$75	\$65		\$168	\$29	\$21	\$11	\$7	\$56	\$22	\$23	\$14	\$20
4	GARDEN	\$92	\$82		\$211	\$36	\$26	\$14	\$9	\$74	\$25	\$26	\$14	\$20
4	TOWNHOUSE	\$92	\$82		\$211	\$36	\$26	\$14	\$9	\$74	\$25	\$26	\$14	\$20

FIELD SURVEY OF MANUFACTURED HOUSING

The following section is a field survey of manufactured housing conducted in Greene County. These projects were identified through a variety of sources including area realtors, yellow page listings, government agencies, and the Chamber of Commerce. The intent of this field survey is to evaluate the characteristics and overall strength of the manufacturing housing market.

The field survey consists of the following:

- A list of properties surveyed including name and address.
- Date of opening and quality rating for each development.
- Daily, weekly and monthly rates for both the vacant pad/lot and with a housing unit.
- A listing of all amenities offered.
- A listing of utility responsibilities.
- Occupancy rates at each community including number of available pads/lots.
- Aggregation of collected data to provide a comprehensive profile of the area manufactured housing market.
- A map indicating the location of all properties, as well as the subject site.

The information for each project was obtained through various sources including interviews with on-site management. We consider these sources to be reliable. Whenever possible, multiple sources were used to corroborate information of individual properties.

**Manufactured Housing
Project Listing
Greene County, Pennsylvania
May 2011**

Map I.D.	Name	Year Open	Capacity/Lots	Occupied	Quality Rating	Photograph
1	Brodak's Mobile Home Village 120 Park Ave. Carmichaels, PA 15320 (724) 966-7335 Contact Person: Sandy	1987	91	53	C	
2	Firehouse RV Campgrounds 1483 Jefferson Rd. Jefferson, PA 15344 (724) 883-3901 Contact Person: Jacob	2004	45	45	B-	
3	Kurtz Mobile Home Park 105 Kurtz Lane Jefferson, PA 15344 (724) 883-2186 Contact Person: Agnes	1972	20	13	B	
4	Mobile Home Park 100 Easy St. Waynesburg, PA 15370 (724) 627-3125 Contact Person: Jim & Doug	1960	72	65	B	
5	Mobile Home Park Northwest Corner of State Route 1021 & State Route 21 Carmichaels, PA 15320 (724) 966-7118 Contact Person: James Webb	1968	116	116	B-	
6	Mt. Morris Campground 455 Mt. Morris Rd. Mt. Morris, PA 15349 (724) 324-2432 Contact Person: Ruth	1967	27	23	C	
7	Reesman's Mobile Home Park Memorial Park Rd. & Country Club Rd. Morgan, PA 15370 (412) 466-4921 Contact Person: Tim	1970	100	94	C	No Picture On File

Ratings

- A – Excellent condition, well maintained and landscaped, units in very good condition
- B – Good condition, moderately well maintained, units in average condition
- C – Fair/Poor condition, limited aesthetic appeal, grounds and units require upkeep

**Manufactured Housing
Project Listing
Greene County, Pennsylvania
May 2011**

Map I.D.	Name	Year Open	Capacity/Lots	Occupied	Quality Rating	Photograph
8	Rohanna's (RV & Campground Park) 1005 Rolling Meadows Rd. Waynesburg, PA 15370 (724) 833-3592 Contact Person: Gary Rohanna	2011*	30	U/C*	B	
9	Ryerson Station State Park 361 Bristoria Rd. Wind Ridge, PA 15380 (724) 428-4254 Contact Person: Alan	1967	45	0	B-	
10	Two Rivers Marina & Campground 2866 S. Eighty-Eight Rd. Dilliner, PA 15327 (724) 943-3745 Contact Person: Herman	2000	20	16	C	

*Under construction, electric service soon to be provided then ready to break ground; 100% pre-leased

Ratings

- A – Excellent condition, well maintained and landscaped, units in very good condition
- B – Good condition, moderately well maintained, units in average condition
- C – Fair/Poor condition, limited aesthetic appeal, grounds and units require upkeep

**Manufactured Housing
Lot Price and Mobile Home Fees
Greene County, Pennsylvania
May 2011**

Map I.D.	Name	Number of Lots	Number of Lots with Utilities	Lot Price			Lot & Mobile Home Price			Rate Includes Utilities?
				Day	Week	Month	Day	Week	Month	
1	Brodak's Mobile Home Village	91	91			\$85-\$125				No
2	Firehouse RV Campgrounds	45	45	\$30	\$130	\$400	\$45	\$170	\$500	Yes
3	Kurtz Mobile Home Park	20	20			\$170				No
4	Mobile Home Park	72	72			\$180				No
5	Mobile Home Park	116	116			\$180-\$185			\$450	No
6	Mt. Morris Campground	27	27	\$30	\$126	\$504				No
7	Reesman's Mobile Home Park	100	100			\$265				No
8	Rohanna's	30	30			\$700				Yes
9	Ryerson Station State Park	45	22	\$15-\$26	\$98-\$148					Yes
10	Two Rivers Marina & Campground	20	20			\$400				Yes

**Manufactured Housing
Occupancy
Greene County, Pennsylvania
May 2011**

Map I.D.	Name	Occupancy				
		Lots/Capacity	Occupied	Occupancy Rate	Mobile Home	RV
1	Brodak's Mobile Home Village	91	53	58.2%	53	0
2	Firehouse RV Campgrounds	45	45	100.0%	0	45
3	Kurtz Mobile Home Park	20	13	65.0%	13	0
4	Mobile Home Park	72	65	90.3%	65	0
5	Mobile Home Park	116	116	100.0%	116	0
6	Mt. Morris Campground	27	23	85.2%	0	23
7	Reesman's Mobile Home Park	100	94	94.0%	91	3
8	Rohanna's	30	U/C	100% Preleased	0	30 Preleased
9	Ryerson Station State Park	45	0	0.0%	0	0
10	Two Rivers Marina & Campground	20	16	80.0%	0	16

*U/C – Under Construction, all units are preleased.

**Manufactured Housing
Amenities and Utilities
Greene County, Pennsylvania
May 2011**

Map ID	Name	Amenities			Utilities							
		Office	Laundry	Other	Elec.	Gas	Water	Sewer	Trash	Cable	Internet	Telephone
1	Brodak's Mobile Home Village	X			T	T	T	T	L	T	T	T
2	Firehouse RV Campgrounds	X	X	X	L	T	L	L	L	L	L	T
3	Kurtz Mobile Home Park	X			T		T	T	L	T	T	T
4	Mobile Home Park				T	T	T	T	L	T	T	T
5	Mobile Home Park	X	X		T	T	T	T	L	T	T	T
6	Mt. Morris Campground	X	X	X	T		T	T	L	T	T	T
7	Reesman's Mobile Home Park				T	T	L	L	L	T	T	T
8	Rohanna's	X		X	L		L	L	L	T	T	T
9	Ryerson Station State Park	X		X	L				L			
10	Two Rivers Marina & Campground	X	X	X	L		L	L	L	T	T	T

T – Tenant pays

L – Landlord pays

**Manufactured Housing
Additional Information
Greene County, Pennsylvania
May 2011**

Map ID	Name	Comments
1	Brodak's Mobile Home Village	24 lots have gas utilities; \$85 rent is grandfathered rate; One-year lease required; No RV's permitted; No oil and gas workers currently
2	Firehouse RV Campgrounds	All RV's, no mobile homes; Other amenity is a shower/restroom facility; Each site has a water tap
3	Kurtz Mobile Home Park	No RV's permitted; No oil and gas workers currently
4	Mobile Home Park	Mobile homes are metered; Hookups to underground water/sewer line; No RV's permitted
5	Mobile Home Park	Water meter on each home; Laundry facility adjacent to property; 60% of lots have gas connections; Newer lots have higher rates
6	Mt. Morris Campground	Other amenities are shower/restroom facility, hiking trails, and picnic areas; All tenants are gas workers from Texas; City provides water and sewer; 11 sites have sewer hookups
7	Reesman's Mobile Home Park	Gas utilities are propane
8	Rohanna's	Property is under construction; Rates provided are not established; City provides water/sewer; Other amenity is a restaurant
9	Ryerson Station State Park	Rates dependent upon residency, time of year, and electric hookups; Campers can stay 14 consecutive days from Memorial Day to Labor Day and 21 consecutive days during the remainder of year.
10	Two Rivers Marina & Campground	Other amenities are a restaurant & pool; 20% vacant; Year open estimated by manager; 30%-40% of tenants are energy-related workers

FIELD SURVEY OF HOTELS & MOTELS

The following summary represents data from the field survey of the modern lodging facilities in the Greene County, Pennsylvania market area.

Each development was surveyed by:

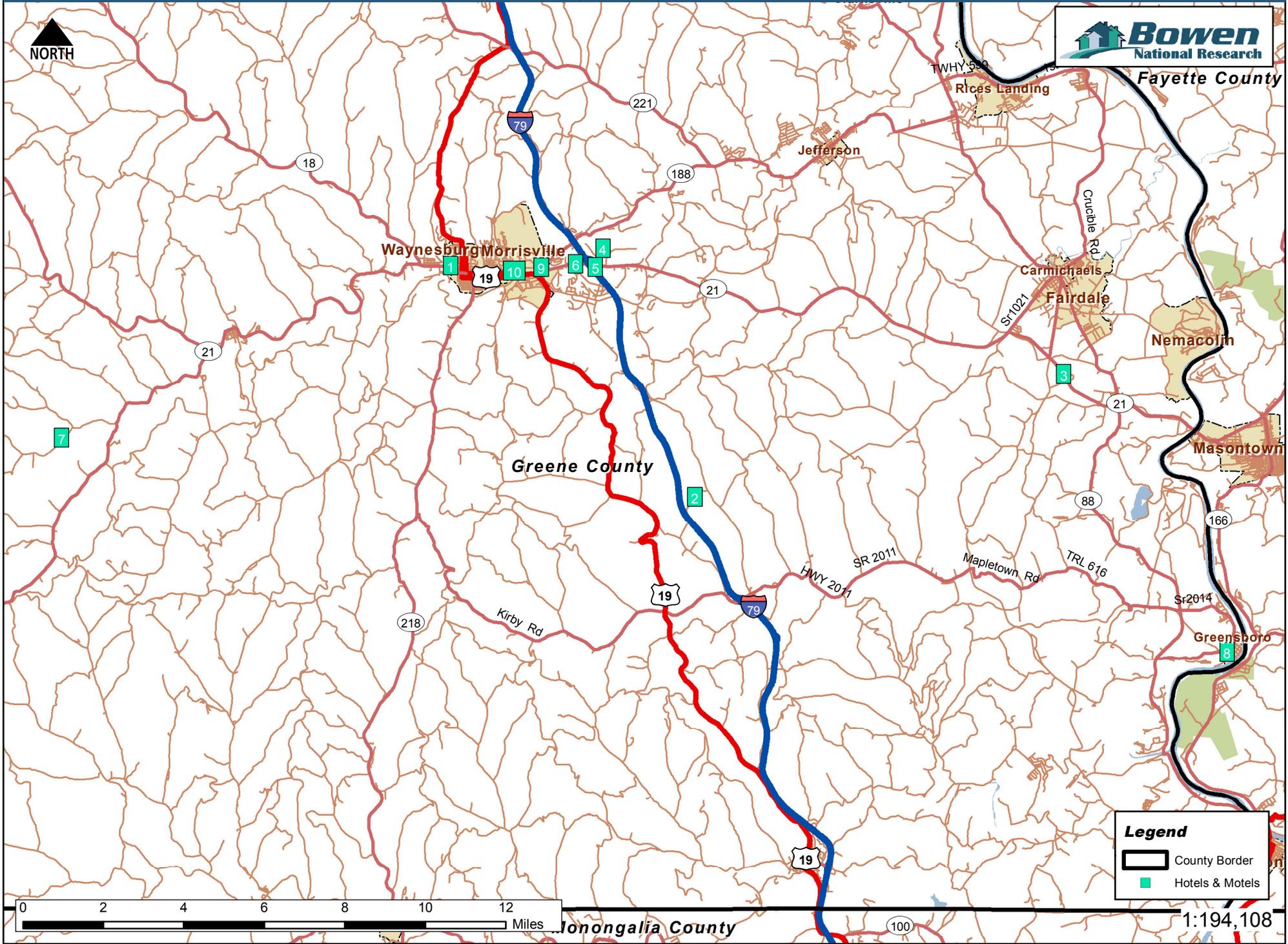
- Room rate
- Number of rooms
- Occupancy rates (weekday and weekend)
- Type of customer
- Unit and facility amenities

The lodging facilities are identified by map code on the following page.

Greene County, PA: Hotels & Motels



NORTH



Legend

- County Border
- Hotels & Motels



1:194,108

**Hotels, Motels & Bed/Breakfast Listings
Greene County, Pennsylvania
May 2011**

Map ID	Facility Name/Address	Year Built/ Renovated	Number of Buildings	Number of Floors	Interior Corridor Entrance	Exterior Corridor Entrance	Photograph
1	Buddy's 555 W. High St. Waynesburg, PA 15370 (724) 627-8129 Contact Person: Lou Operator: Not Available	1971	1	2		X	
2	Econolodge 126 Miller Lane Waynesburg, PA 15370 (724) 627-5544 Contact Person: Nathan Operator: Vidula Patel	1986	1	2		X	
3	Top Hat Lounge Motel 2639 E. Roy Furman Hwy. Carmichaels, PA 15320 (724) 966-8919 Contact Person: Tina Operator: Enterprise	1971	1	1		X	
4	Microtel Inn & Suites 300 Comfort Lane Waynesburg, PA 15370 (724) 627-0310 Contact Person: Marsha Operator: McNay-Williams, LLC	2010	1	4	X		
5	Comfort Inn 100 Comfort Lane Waynesburg, PA 15370 (724) 627-3700 Contact Person: Ashley Operator: John McNay	1997	1	3	X		
6	Super 8 100 Stanley Dr. Waynesburg, PA 15370 (724) 627-8880 Contact Person: Neyne Operator: Dhruv Hospitality	1996	1	3	X		
7	So' Journey Farm/B&B 1841 Bristoria Rd. Holbrook, PA 15341 (724) 499-5680 Contact Person: Sandra Operator: Not Available	1860 / 2005	1	2	X		

**Hotels, Motels & Bed/Breakfast Listings
Greene County, Pennsylvania
May 2011**

Map ID	Facility Name/Address	Year Built/ Renovated	Number of Buildings	Number of Floors	Interior Corridor Entrance	Exterior Corridor Entrance	Photograph
8	Captain's Watch Bed & Breakfast 105 County St. Greensboro, PA 15338 (724) 943-3131 Contact Person: Bill Operator: Not Available	1858 / 2000	1	2	X		
9	Triangle Hotel/Tommy Boy Tavern 120 Bill George Dr. Waynesburg, PA 15370 (724) 627-3150 Contact Person: Marcy Operator: Not Available	1960	1	1 & 2	X		NO PICTURE ON FILE
10	Holiday Motel 1135 E. High St. Waynesburg, PA 15370 (724) 627-5600 Contact Person: Jay Operator: Not Available	1960 / 2009	1	1 & 2		X	NO PICTURE ON FILE

**Hotels, Motels & Bed/Breakfast
Ratings and Number of Rooms/Suites
Greene County, Pennsylvania
May 2011**

Map ID	Facility Name	Confidence Rating	Quality Rating	Neighborhood Rating
1	Buddy's	A	C-	B-
2	Econolodge	B	C-	B-
3	Top Hat Lounge Motel	A	B-	B
4	Microtel Inn & Suites	A	B+	B
5	Comfort Inn	A	B	B
6	Super 8	D	B	B
7	So' Journey Farm/B&B	A	B	B
8	Captain's Watch Bed & Breakfast	A	B	B
9	Triangle Hotel/Tommy Boy Tavern	A-	D	B
10	Holiday Motel	C	C-	C

Ratings

A – Excellent
B – Good
C – Fair/Satisfactory
D – Poor

Map ID	Facility Name	Number of Standard Rooms	Number of Suites	Total Rooms
1	Buddy's	24	0	24
2	Econolodge	60	0	60
3	Top Hat Lounge Motel	10	0	10
4	Microtel Inn & Suites	49	15	64
5	Comfort Inn	67	5	72
6	Super 8	55	1	56
7	So' Journey Farm/B&B	3	0	3
8	Captain's Watch Bed & Breakfast	7	0	7
9	Triangle Hotel/Tommy Boy Tavern	15	0	15
10	Holiday Motel	29	0	29

**Hotels, Motels & Bed/Breakfast
Standard Room and Suite Rates and
Percent of Occupancy
Greene County, Pennsylvania
May 2011**

Map ID	Facility Name	Standard Room Rate						Weekly Rate Include Weekends?
		Daily Low	Daily High	Weekly Low	Weekly High	Monthly Low	Monthly High	
1	Buddy's			\$175.00	\$250.00	\$600.00	\$800.00	Yes
2	Econolodge	\$76.25	\$76.25					No
3	Top Hat Lounge Motel	\$45.00	\$45.00	\$195.00	\$195.00			Yes
4	Microtel Inn & Suites	\$79.00	\$99.00					No
5	Comfort Inn	\$92.99	\$92.99					No
6	Super 8	\$99.00	\$99.00					No
7	So' Journey Farm/B&B	\$79.00	\$140.00					No
8	Captain's Watch Bed & Breakfast	\$85.00	\$185.00	\$350.00	\$350.00			Yes
9	Triangle Hotel/Tommy Boy Tavern					\$200.00	\$200.00	No
10	Holiday Motel	\$53.99	\$57.99	\$275.00	\$325.00			Yes

Map ID	Facility Name	Suite Room Rate	
		Daily Low	Daily High
1	Buddy's		
2	Econolodge		
3	Top Hat Lounge Motel		
4	Microtel Inn & Suites	\$109.00	\$109.00
5	Comfort Inn	\$102.99	\$102.99
6	Super 8	\$129.00	\$129.00
7	So' Journey Farm/B&B		
8	Captain's Watch Bed & Breakfast		
9	Triangle Hotel/Tommy Boy Tavern		
10	Holiday Motel		

Map ID	Facility Name	Occupancy				
		Weekday Average Occupancy	Weekend Average Occupancy	Percent Pay Daily	Percent Pay Weekly	Percent Pay Monthly
1	Buddy's	100%	100%		80%	20%
2	Econolodge	65%	45%	100%		
3	Top Hat Lounge Motel	100%	100%	50%	50%	
4	Microtel Inn & Suites	100%	85%	100%		
5	Comfort Inn	100%	100%	100%		
6	Super 8	85%	85%	100%		
7	So' Journey Farm/B&B	5%	5%	100%		
8	Captain's Watch Bed & Breakfast	10%	50%	100%		
9	Triangle Hotel/Tommy Boy Tavern	100%	100%			100%
10	Holiday Motel	93%	93%		100%	

**Hotels, Motels & Bed/Breakfast
Amenities and Additional Information
Greene County, Pennsylvania
May 2011**

Map ID	Facility Name	Amenities						
		Elevator	On-Site Dining	Nearby Dining	Business Center	Coin-Op Laundry	In-Room Kitchen	Large Vehicle Parking
1	Buddy's		X					
2	Econolodge			X	X			X
3	Top Hat Lounge Motel		X				X	X
4	Microtel Inn & Suites	X		X	X	X	X	X
5	Comfort Inn	X		X	X	X	X	
6	Super 8			X				
7	So' Journey Farm/B&B		X					
8	Captain's Watch Bed & Breakfast							
9	Triangle Hotel/Tommy Boy Tavern		X					
10	Holiday Motel		X				X	

Map ID	Facility Name	Comments
1	Buddy's	Rates are based on double-occupancy; has a waiting list for 6-7 people; 40%-50% of tenants are gas workers
2	Econolodge	Business center only has a computer. 40-45% of tenants are gas workers
3	Top Hat Lounge Motel	Mini-fridge in each room, microwaves coming soon; Limited large vehicle parking; Year built estimated
4	Microtel Inn & Suites	Suites include a microwave, sofa, and mini-fridge; About 80% of tenants are gas workers
5	Comfort Inn	Suites include king-size bed and whirlpool tub; Kitchenette includes microwave and mini-fridge; Business center includes computer and printer; 85%-90% of tenants are gas workers
6	Super 8	Year built estimated; Majority of tenants are oil & gas workers
7	So' Journey Farm/B&B	5% average occupancy for weekdays in both winter & summer; Contact reports 5% occupancy for weekends in winter and 75% in summer; Very few tenants are workers
8	Captain's Watch Bed & Breakfast	Winter (off-season) occupancy: 25% for weekdays and weekends; Summer (peak-season) occupancy: 10% weekdays, 50%-75% weekends; 15% pay daily & 85% pay weekly in winter; Majority of tenants are workers
9	Triangle Hotel/Tommy Boy Tavern	Year built estimated
10	Holiday Motel	Small mini-fridge & microwave in rooms; year built estimated

ADDENDUM B – FIELD SURVEY OF FOR-SALE HOUSING

The following section is field survey of for-sale housing properties. These properties were identified through a variety of sources including area public advertisements, Internet listings, interviews with realtors, and our own field inspection. The intent of this field survey is to evaluate the overall strength of the existing for-sale market and to identify trends that impact future development.

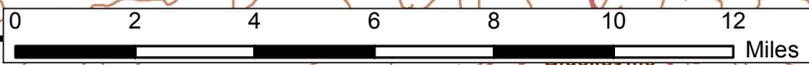
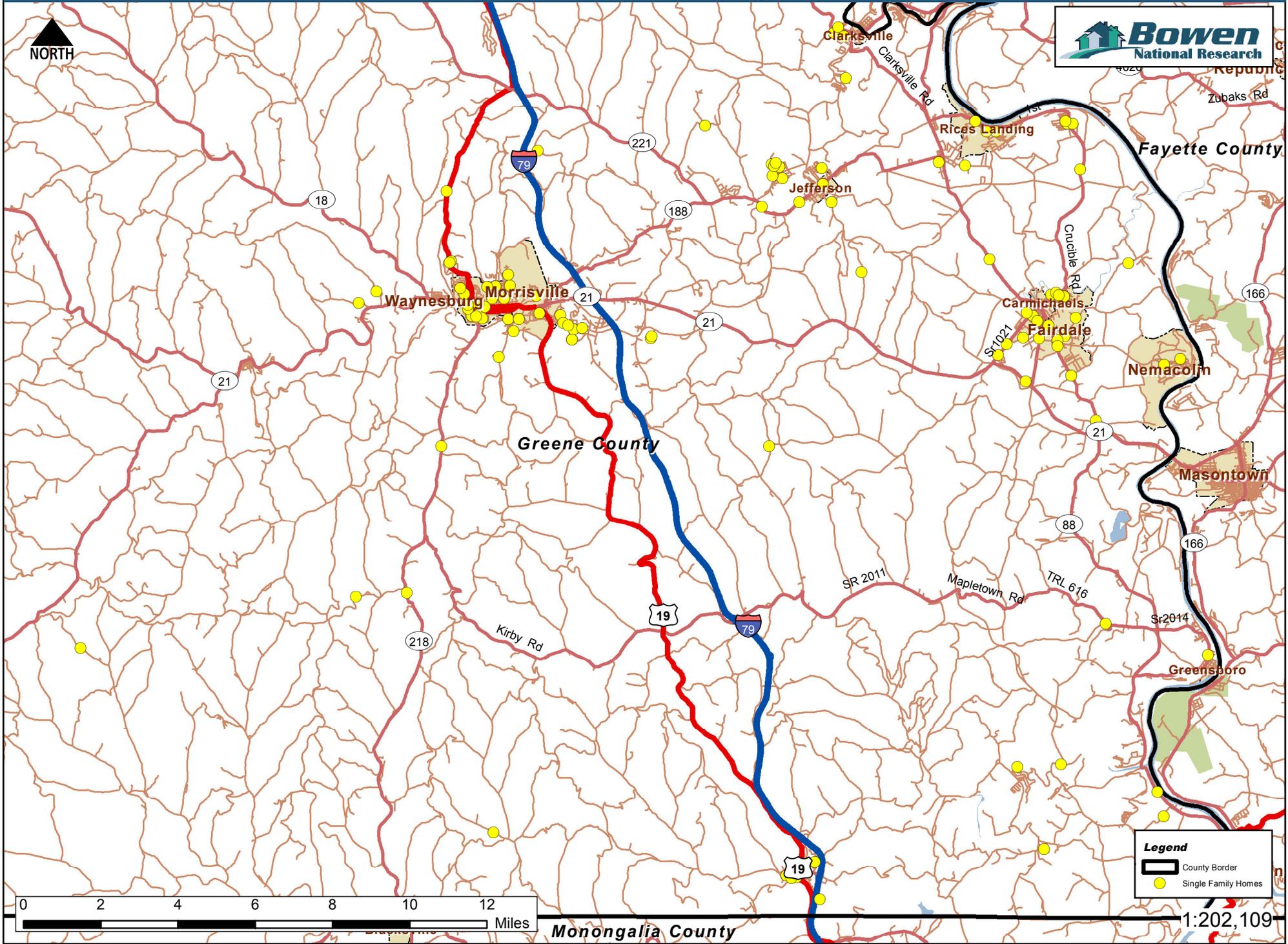
The field survey is organized as follows:

- A map illustrating the location of each property identified followed by a list of properties surveyed.
- Properties surveyed by address, year built or renovated (if applicable), number of floors, and days on market.
- Asking price by bedrooms.
- Square footage of each property.

Greene County, PA: For Sale Single Family Homes



NORTH



Legend
County Border
Single Family Homes

1:202,109

Monongalia County

Single-Family Housing Summary Tables
Project Listing, Year Built and Select Property Photographs
Greene County, Pennsylvania
May 2011

Map ID	Address	Year Built	Select Property Photographs
1	100 Barn Owl Dr. Carmichaels, PA 15320	1975	-
2	101 N. Main St. Mt. Morris, PA 15349	1901	-
3	102 4th St. Jefferson, PA 15344	1921	-
4	102 Marianna Rd. Clarksville, PA 15322	1931	-
5	104 Water St. Rices Landing, PA 15357	1975	-
6	106 Bliss Ave. Nemacolin, PA 15351	1936	-
7	106 Bonnell St. Rices Landing, PA 15357	1946	
8	1087 Jefferson Rd. Waynesburg, PA 15370	1951	-
9	11 Circle St. Mather, PA 15346	1917	-
10	110 Crago Ave. Waynesburg, PA 15370	1973	-
11	111 Dulaney Ln. Waynesburg, PA 15370	1934	
12	111 Independent Ridge Rd. Waynesburg, PA 15370	1978	-
13	112 Suburban Acres Carmichaels, PA 15320	1996	-

Single-Family Housing Summary Tables
Project Listing, Year Built and Select Property Photographs
Greene County, Pennsylvania
May 2011

Map ID	Address	Year Built	Select Property Photographs
14	115 East St. Carmichaels, PA 15320	1973	-
15	115 Monongahelia Ave. Rices Landing, PA 15357	1976	-
16	115 Porter Way Waynesburg, PA 15370	2009	-
17	1155 Park Ave. Waynesburg, PA 15370	1979	
18	117 Haver Hill Rd. Jefferson, PA 15344	1794	
19	119 Beal Rd. Dilliner, PA 15327	1998	-
20	12 Cumberland Village Carmichaels, PA 15320	1944	-
21	122 1st St. Mather, PA 15346	1921	-
22	122 Elizabeth Ave. Jefferson, PA 15344	1981	

Single-Family Housing Summary Tables
Project Listing, Year Built and Select Property Photographs
Greene County, Pennsylvania
May 2011

Map ID	Address	Year Built	Select Property Photographs
23	122 Nemacon Rd. Carmichaels, PA 15320	1945	-
24	123 Linden St. Mt. Morris, PA 15349	1970	
25	124 Cross St. Carmichaels, PA 15320	1930	-
26	126 Highland Ave. Waynesburg, PA 15370	1955	
27	127 Noaks Hill Rd. Waynesburg, PA 15370	1912	-
28	127 S. Morgan St. Waynesburg, PA 15370	1915	-
29	130 S. Oakview Dr. Waynesburg, PA 15370	2001	-
30	1310 Toms Run Rd. Holbrook, PA 15341	1932	-
31	133 Shelby Ln. Dilliner, PA 15327	1900	-
32	137 Orchard Rd. Waynesburg, PA 15370	1981	-

Single-Family Housing Summary Tables
Project Listing, Year Built and Select Property Photographs
Greene County, Pennsylvania
May 2011

Map ID	Address	Year Built	Select Property Photographs
33	141 Carmichaels St. Rices Landing, PA 15357	1958	
34	143 A St. Clarksville, PA 15322	1951	-
35	149 Woodland Ave. Waynesburg, PA 15370	1900	-
36	150 Barton Hollow Rd. Waynesburg, PA 15370	1894	-
37	154 E. Elm St. Waynesburg, PA 15370	1900	-
38	160 Hill Schoolhouse Rd. Waynesburg, PA 15370	1970	
39	1615 Smithcreek Rd. Waynesburg, PA 15370	1936	

Single-Family Housing Summary Tables
Project Listing, Year Built and Select Property Photographs
Greene County, Pennsylvania
May 2011

Map ID	Address	Year Built	Select Property Photographs
40	162 Happy Valley Rd. Waynesburg, PA 15370	1974	-
41	1625 Jefferson Rd. Jefferson, PA 15344	1914	-
42	1696 N. Porter Waynesburg, PA 15370	1979	
43	1740 Morris St. Waynesburg, PA 15370	1905	-
44	186 Locust Ave. Mt. Morris, PA 15349	1900	-
45	189 Freesoil Rd. Mt. Morris, PA 15349	1987	-
46	199 Ferncliff Rd. Rices Landing, PA 15357	1979	-
47	2 Eddy Ct. Waynesburg, PA 15370	2006	-
48	200 Hewitt Ave. Carmichaels, PA 15320	2006	-
49	203 Randolph Ave. Carmichaels, PA 15320	1940	-
50	205 E. High St. Waynesburg, PA 15370	1893	-
51	206 Water St. Carmichaels, PA 15320	1979	

Single-Family Housing Summary Tables
Project Listing, Year Built and Select Property Photographs
Greene County, Pennsylvania
May 2011

Map ID	Address	Year Built	Select Property Photographs
52	21 Circle St. Mather, PA 15346	1917	-
53	212 Victoria Dr. Waynesburg, PA 15370	1997	
54	215 Cemetery Hill Greensboro, PA 15327	1948	-
55	22 Cumberland Village Carmichaels, PA 15320	1944	-
56	228 Washington St. Jefferson, PA 15344	1949	-
57	245 S. Morris St. Waynesburg, PA 15370	1886	-
58	250 Bridge St. Waynesburg, PA 15370	1904	-
59	2541 E. Roy Furman Hwy. Carmichaels, PA 15320	1854	-
60	255 S. Washington St. Waynesburg, PA 15370	1912	-
61	2620 Smith Creek Rd. Waynesburg, PA 15370	1912	-
62	270 4 th Ave. Crucible, PA 15325	N/A	-
63	278 Duff St. Bobtown, PA 15315	1928	-
64	2810 S. 88 Rd. Dilliner, PA 15327	1939	-
65	286 4 th Ave. Crucible, PA 15325	N/A	-
66	310 Main St. Garards Fort, PA 15334	N/A	-

Single-Family Housing Summary Tables
Project Listing, Year Built and Select Property Photographs
Greene County, Pennsylvania
May 2011

Map ID	Address	Year Built	Select Property Photographs
67	320 Colonial Dr. Waynesburg, PA 15370	2009	-
68	322 1/2 Colonial Dr. Waynesburg, PA 15370	2011	
69	360 Zimmer Ln. Waynesburg, PA 15370	2001	
70	378 Stringtown Rd. Carmichaels, PA 15320	1901	-
71	385 Zimmer Ln. Waynesburg, PA 15370	1997	
72	392 N. West St. Waynesburg, PA 15370	1898	-

Single-Family Housing Summary Tables
Project Listing, Year Built and Select Property Photographs
Greene County, Pennsylvania
May 2011

Map ID	Address	Year Built	Select Property Photographs
73	40 Johnson Ln. Waynesburg, PA 15370	1996	-
74	400 E. Green St. Carmichaels, PA 15320	1960	-
75	413 Route 88 Carmichaels, PA 15320	1940	-
76	420 Race St. Waynesburg, PA 15370	1995	-
77	427 Washington Rd. Waynesburg, PA 15370	1944	-
78	430 4th St. Greensboro, PA 15338	1924	-
79	440 Rolling Meadows Rd. Waynesburg, PA 15370	1966	-
80	457 S. 88 Rd. Carmichaels, PA 15320	1922	-
81	498 E. College St. Waynesburg, PA 15370	1921	-
82	515 E. Greene St. Carmichaels, PA 15320	1984	-
83	518 5th St. Mather, PA 15346	1921	-
84	52 S. Richill Waynesburg, PA 15370	1901	-
85	523 N. 88 Rd. Carmichaels, PA 15320	2007	-
86	570 Huffman St. Waynesburg, PA 15370	1915	-
87	570 Sharps Run Rd. Waynesburg, PA 15362	1999	-
88	580 Bonar Ave. Waynesburg, PA 15370	1938	

Single-Family Housing Summary Tables
Project Listing, Year Built and Select Property Photographs
Greene County, Pennsylvania
May 2011

Map ID	Address	Year Built	Select Property Photographs
89	607 Crucible Rd. Crucible, PA 15325	2000	-
90	62 Pine St. Clarksville, PA 15322	1944	-
91	62 Teagarden Plan Clarksville, PA 15322	1941	-
92	631 6th St. Mather, PA 15346	1920	-
93	64 Church St. Waynesburg, PA 15370	1925	
94	672 Ceylon Rd. Carmichaels, PA 15320	1986	-
95	675 Rolling Meadows Rd. Waynesburg, PA 15370	1978	-
96	718 7th St. Mather, PA 15346	1917	-
97	76 E St. Carmichaels, PA 15320	1944	-
98	76 N. Richill Waynesburg, PA 15370	1900	-
99	802 Pershing Blvd. Carmichaels, PA 15320	1919	
100	802 W. George St. Carmichaels, PA 15320	1968	-

Single-Family Housing Summary Tables
Project Listing, Year Built and Select Property Photographs
Greene County, Pennsylvania
May 2011

Map ID	Address	Year Built	Select Property Photographs
101	82 2nd St. Crucible, PA 15325	1915	-
102	840 Bonar Ave. Waynesburg, PA 15370	1951	-
103	895 Bluff Ridge Rd. Waynesburg, PA 15370	1909	
104	927 S. 88 Rd. Carmichaels, PA 15320	N/A	-
105	954 Mapletown Rd. Mapletown, PA 15338	1900	-
106	976 W. George St. Carmichaels, PA 15320	1953	-

Single-Family Housing Summary Tables
Distribution of Bedroom Type, Number of Baths,
Number of Floors, Price, Square Footage and Number of Days on Market
Greene County, Pennsylvania
May 2011

Map ID	Address	Number of Bedrooms	Number of Baths	Number of Floors	Price	Square Footage	Number of Days on Market
1	100 Barn Owl Dr.	3	2.5	1	\$225,000	N/A	111
2	101 N. Main St.	2	1.5	2	\$139,000	1,200	231
3	102 4th St.	3	1.5	1.5	\$127,500	1,180	300
4	102 Marianna Rd.	3	1.5	1	\$91,000	1,026	42
5	104 Water St.	3	2	1	\$69,000	1,392	380
6	106 Bliss Ave.	3	2	2	\$299,000	755	307
7	106 Bonnell St.	3	2	1	\$124,900	1,254	279
8	1087 Jefferson Rd.	2	1.5	1	\$69,900	984	81
9	11 Circle St.	4	2	1	\$66,200	1,020	81
10	110 Crago Ave.	2	1.5	2	\$50,000	848	233
11	111 Dulaney Ln.	2	1.5	1	\$49,000	1,010	70
12	111 Independent Ridge Rd.	3	1	2	\$49,000	1,344	276
13	112 Suburban Acres	3	1.5	1	\$43,900	962	314
14	115 East St.	2	1.5	1	\$39,900	1,986	50
15	115 Monongahelia Ave.	2	1	1	\$37,500	1,080	282
16	115 Porter Way	3	1	1	\$82,500	1,080	94
17	1155 Park Ave.	2	1.5	1	\$49,900	864	67
18	117 Haver Hill Rd.	2	1.5	1	\$62,000	840	110
19	119 Beal Rd.	3	2.5	2	\$124,900	840	115
20	12 Cumberland Village	2	1	2	\$79,000	N/A	350
21	122 1st St.	4	2	2	\$40,000	N/A	154
22	122 Elizabeth Ave.	3	1.5	2	\$19,900	N/A	78
23	122 Nemaquin Rd.	4	1	2	\$65,000	1,424	21
24	123 Linden St.	3	1	2	\$80,000	1,584	278
25	124 Cross St.	3	1	2	\$21,500	1,344	280
26	126 Highland Ave.	3	2.5	2	\$259,900	1,634	22
27	127 Noaks Hill Rd.	4	1.5	1	\$59,900	N/A	308
28	127 S. Morgan St.	2	1.5	1	\$55,000	1,301	83
29	130 S. Oakview Dr.	2	2	1	\$49,500	618	311
30	1310 Toms Run Rd.	2	1	1	\$32,000	N/A	56
31	133 Shelby Ln.	3	2.5	1	\$195,000	1,856	34
32	137 Orchard Rd.	4	3	1	\$149,000	1,022	27
33	141 Carmichaels St.	3	1.5	2	\$79,900	1,670	83
34	143 A St.	5	1.5	2	\$39,500	N/A	44
35	149 Woodland Ave.	3	2	1	\$149,000	1,080	50
36	150 Barton Hollow Rd.	2	1	2	\$44,000	472	165
37	154 E. Elm St.	3	1.5	2	\$114,900	N/A	372

Single-Family Housing Summary Tables
Distribution of Bedroom Type, Number of Baths,
Number of Floors, Price, Square Footage and Number of Days on Market
Greene County, Pennsylvania
May 2011

Map ID	Address	Number of Bedrooms	Number of Baths	Number of Floors	Price	Square Footage	Number of Days on Market
38	160 Hill Schoolhouse Rd.	3	2	1	\$79,500	N/A	320
39	1615 Smithcreek Rd.	4	1	2	\$70,000	N/A	380
40	162 Happy Valley Rd.	4	3	2	\$292,000	3,190	47
41	1625 Jefferson Rd.	4	3.5	2	\$265,000	1,912	139
42	1696 North Porter	3	2.5	2	\$205,000	1,308	248
43	1740 Morris St.	3	1	1	\$194,900	N/A	22
44	186 Locust Ave.	3	2	1	\$179,900	1,968	215
45	189 Freesoil Rd.	3	2	2	\$159,900	1,080	39
46	199 Ferncliff Rd.	3	2	1	\$159,900	1,334	245
47	2 Eddy Ct.	3	1.5	1	\$137,720	1,992	34
48	200 Hewitt Ave.	3	1	1	\$135,000	1,040	201
49	203 Randolph Ave.	3	1	2	\$129,900	1,667	130
50	205 E. High St.	3	1.5	2	\$124,500	1,972	91
51	206 Water St.	3	2	2	\$120,000	1,192	32
52	21 Circle St.	2	1.5	2	\$120,000	N/A	18
53	212 Victoria Dr.	3	2	2	\$109,900	N/A	276
54	215 Cemetery Hill	4	2	2	\$99,000	1,972	25
55	22 Cumberland Village	3	2.5	1	\$89,900	2,080	117
56	228 Washington St.	3	2	1	\$89,900	1,203	350
57	245 S. Morris St.	3	1	2	\$85,000	810	55
58	250 Bridge St.	2	1	1	\$73,900	666	5
59	2541 E. Roy Furman Hwy.	2	1	1	\$65,000	1,005	292
60	255 S. Washington St.	3	1.5	1	\$37,900	N/A	125
61	2620 Smith Creek Rd.	2	1	1	\$39,900	696	129
62	270 4th Ave.	2	1	1	\$38,000	N/A	125
63	278 Duff St.	2	1	1	\$34,500	N/A	390
64	2810 S. 88 Rd.	3	2.5	2	\$395,000	2,008	63
65	286 4th Ave.	4	4	2	\$385,000	3,490	230
66	310 Main St.	5	3.5	2	\$375,000	2,779	80
67	320 Colonial Dr.	5	4	2	\$319,000	N/A	164
68	322 1/2 Colonial Dr.	4	2.5	2	\$315,000	2,730	79
69	360 Zimmer Ln.	5	2.5	1	\$299,900	N/A	162
70	378 Stringtown Rd.	4	3	1	\$279,900	3,596	241
71	385 Zimmer Ln.	4	2.5	2	\$269,000	3,079	272
72	392 N. West St.	3	3	2	\$258,000	2,744	377
73	40 Johnson Ln.	2	1.5	1	\$245,000	2,150	24
74	400 E. Green St.	4	2.5	2	\$229,000	N/A	N/A

Single-Family Housing Summary Tables
Distribution of Bedroom Type, Number of Baths,
Number of Floors, Price, Square Footage and Number of Days on Market
Greene County, Pennsylvania
May 2011

Map ID	Address	Number of Bedrooms	Number of Baths	Number of Floors	Price	Square Footage	Number of Days on Market
75	413 Route 88	5	1.5	2	\$225,000	3,048	140
76	420 Race St.	4	3.5	1	\$199,900	1,332	71
77	427 Washington Rd.	3	1.5	3	\$199,500	1,971	362
78	430 4th St.	3	1.5	3	\$189,900	1,788	28
79	440 Rolling Meadows Rd.	3	2	1	\$160,000	1,152	21
80	457 S. 88 Rd.	3	2.5	1	\$159,500	1,216	60
81	498 E. College St.	3	2	1	\$159,000	1,724	31
82	515 E. Greene St.	4	2	1	\$149,900	925	234
83	518 5th St.	1	1	2	\$29,900	2,351	61
84	52 S. Richill	2	1	2	\$42,000	1,248	97
85	523 N. 88 Rd.	2	1	2	\$44,000	1,331	56
86	570 Huffman St.	2	1	1	\$75,000	672	56
87	570 Sharps Run Rd.	3	2	2	\$99,000	1,718	112
88	580 Bonar Ave.	3	1	1	\$141,900	1,308	90
89	607 Crucible Rd.	4	3	3	\$149,000	1,854	289
90	62 Pine St.	4	1.5	3	\$149,000	1,800	129
91	62 Teagarden Plan	3	2	1	\$132,000	1,836	69
92	631 6th St.	3	2	1	\$129,000	1,792	264
93	64 Church St.	2	1	2	\$129,000	1,170	74
94	672 Ceylon Rd.	4	1.5	3	\$125,000	2,912	305
95	675 Rolling Meadows Rd.	3	2	2	\$124,900	1,232	81
96	718 7th St.	3	1.5	2	\$115,000	1,656	285
97	76 E St.	3	1.5	3	\$104,900	1,828	262
98	76 N. Richill	3	1.5	1	\$99,000	1,344	61
99	802 Pershing Blvd.	5	1.5	2	\$89,900	1,909	44
100	802 W. George St.	4	2	2	\$85,000	2,280	85
101	82 2nd St.	3	1.5	2	\$82,500	1,460	328
102	840 Bonar Ave.	3	1	2	\$78,000	1,344	40
103	895 Bluff Ridge Rd.	3	1	1	\$75,000	893	348
104	927 S. 88 Rd.	3	1	2	\$40,000	784	55
105	954 Mapletown Rd.	4	2	1	\$39,900	1,828	190
106	976 W. George St.	2	1	1	\$39,500	672	201

ADDENDUM C: FIELD SURVEY OF SENIOR FACILITIES

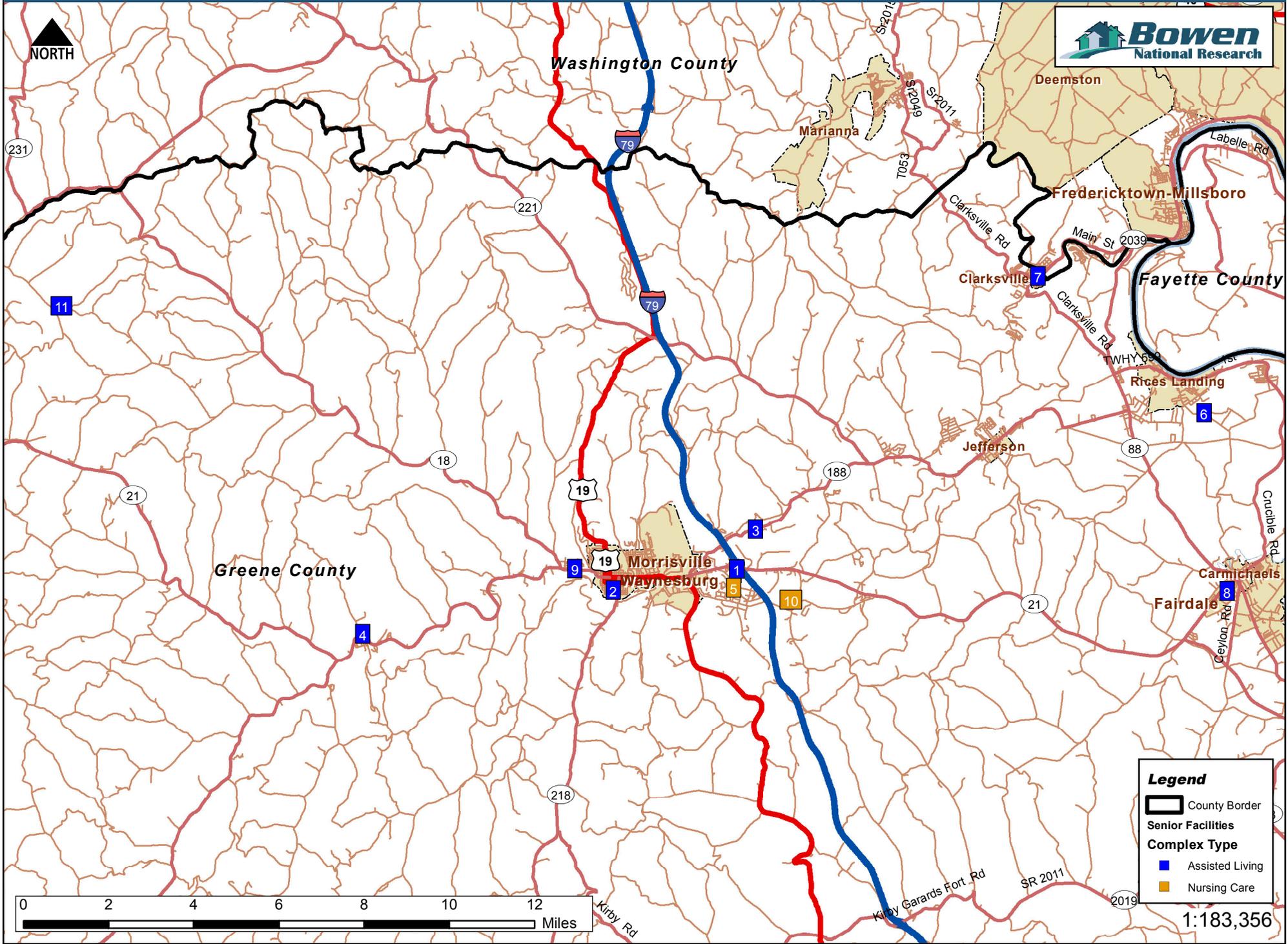
GREENE COUNTY, PENNSYLVANIA

The following section is a field survey of senior housing alternatives with services. These properties were identified through a variety of sources including senior resource guides, yellow page listings, government agencies, Chambers of Commerce, and our own field inspection. The intent of this field survey is to evaluate the overall strength of the existing market for senior housing with services, identify trends that impact future development, and identify those properties that would be considered most comparable to the subject site.

The field survey has been organized by the type of project surveyed. Properties have been color coded to reflect the project type. Projects have been designated as independent living, congregate care (independent living with services), assisted living, and in some cases, nursing care. The field survey is organized as follows:

- A color-coded map indicating each property surveyed by project type.
- A map identification list of properties surveyed by name, profit/non-profit status, year built and/or renovated, total beds or units, vacant beds or units, and occupancy rate. Projects are listed in numeric order and color coded by project type.
- Distribution of fees or rents, entrance fees (if any), and a distribution by bed/unit type, vacancies, and occupancy rate.
- A listing of properties surveyed with photograph, address, phone number, year built or renovated, number of units/beds, occupancies, any licensure, and relevant comments, and project ratings including building appearance, ease of access, and a neighborhood rating.
- A listing of unit amenities.
- A listing of project amenities.
- Fees per unit type for each project.
- Unit size in square feet for each project.

Greene County, PA: Senior Living Facilities



Legend

- County Border
- Senior Facilities
- Complex Type**
 - Assisted Living
 - Nursing Care



1:183,356

MAP IDENTIFICATION LIST - GREENE COUNTY, PA

MAP ID	PROJECT NAME	FOR PROFIT	YEAR BUILT	TOTAL BEDS/UNITS	VAC.	OCC. RATE
A-1	Evergreen Assisted Living	YES	2002	38	3	92.1%
A-2	Braun's Personal Care Home	YES	1891	10	0	100.0%
A-3	Ewing Manor	YES	1911	16	2	87.5%
A-4	Ewing Manor West	YES	1911	16	0	100.0%
N-5	Golden Living Center - Waynesburg	YES	1986	111	14	87.4%
A-6	Haney's Personal Care Home	YES	1975	8	0	100.0%
A-7	McDaniel's Personal Care Home	YES	1950	30	0	100.0%
A-8	Precious Moments	YES	1999	7	0	100.0%
A-9	Respicenter West	YES	1951	32	2	93.8%
N-10	Rolling Meadows	NO	1997	121	10	91.7%
A-11	Scenic View Retirement Home	YES	1940	20	1	95.0%

FACILITY TYPE	TOTAL PROJECTS	TOTAL UNITS/BEDS	OCCUPANCY RATE
ASSISTED LIVING	9	177	95.5%
NURSING CARE	2	232	89.7%

■	Assisted Living
■	Nursing Care Facility
■	Congregate Care
■	Independent Living

Survey Date: May 2011

DISTRIBUTION OF FEES BY SERVICE LEVEL - GREENE COUNTY, PA

ASSISTED LIVING						
BED TYPE	MONTHLY FEE	SECOND PERSON	UNITS	SHARE	VACANT	% OCCUPIED
SLEEPING ROOM	\$1,013 - \$3,200	-	177	100.0%	8	95.5%
			177	100.0%	8	95.5%

NURSING CARE						
BED TYPE	PRIVATE*	SEMI-PRIVATE*	BEDS	SHARE	VACANT	% OCCUPIED
SLEEPING ROOM	\$204 - \$213	\$204 - \$213	188	81.0%	19	89.9%
ALZ/DEM	\$230	\$230	44	19.0%	5	88.6%
			232	100.0%	24	89.7%

* - Daily Fee

Survey Date: May 2011

C-4



COMMUNITY CONFIGURATION - GREENE COUNTY, PA

MAP ID	PROJECT NAME	FOR PROFIT	CCRC	INDEPENDENT LIVING	CONGREGATE CARE	ASSISTED LIVING	NURSING CARE
1	Evergreen Assisted Living	YES	NO			X	
2	Braun's Personal Care Home	YES	NO			X	
3	Ewing Manor	YES	NO			X	
4	Ewing Manor West	YES	NO			X	
5	Golden Living Center - Waynesburg	YES	NO				X
6	Haney's Personal Care Home	YES	NO			X	
7	McDaniel's Personal Care Home	YES	NO			X	
8	Precious Moments	YES	NO			X	
9	Respicenter West	YES	NO			X	
10	Rolling Meadows	NO	NO				X
11	Scenic View Retirement Home	YES	NO			X	

PROPERTY PROFILES - GREENE COUNTY, PA

A-1 Evergreen Assisted Living				
	Location	25 Glade Ave. Waynesburg, PA 15370	Total Beds	38
	Phone	(724) 627-4125	Occupancy Rate	92.1%
	Mgmt Co.		Year Built	2002
	Licensure	PCH	Physical Structure	B+
	Comments	Laundry/Linen service \$30/month; Year built & square footage estimated	Ease of Access	C
			Neighborhood	B+
			Visibility	B+
A-2 Braun's Personal Care Home				
	Location	324 S. Washington St. Waynesburg, PA 15370	Total Beds	10
	Phone	(724) 627-7141	Occupancy Rate	100.0%
	Mgmt Co.		Year Built	1891
	Licensure	PCH		1978
	Comments	Original building constructed 1891, renovated & opened 1978; Uses Medicaid Personal Home Care Supplement	Physical Structure	B
			Ease of Access	C-
			Neighborhood	B
			Visibility	B
			Medicaid Beds*	5
			Medicare Beds*	0
A-3 Ewing Manor				
	Location	414 Jefferson Rd. Waynesburg, PA 15370	Total Beds	16
	Phone	(724) 627-5797	Occupancy Rate	87.5%
	Mgmt Co.		Year Built	1911
	Licensure	PCH	Physical Structure	B-
	Comments	Year built & square footage estimated by mgr.	Ease of Access	C
			Neighborhood	B
			Visibility	B
			Medicaid Beds*	10
			Medicare Beds*	0
A-4 Ewing Manor West				
	Location	3274 W. Roy Furman Hwy. Rogersville, PA 15359	Total Beds	16
	Phone	(724) 499-5891	Occupancy Rate	100.0%
	Mgmt Co.		Year Built	1911
	Licensure	PCH		2009
	Comments	Opened & 100% occupied 5/09; Some units have mini-fridge; Three shared bathrooms	Physical Structure	B-
			Ease of Access	B
			Neighborhood	B
			Visibility	B
			Medicaid Beds*	13
			Medicare Beds*	0

* - Occupied Beds

■	Assisted Living
■	Nursing Care Facility
■	Congregate Care
■	Independent Living

Survey Date: May 2011

PROPERTY PROFILES - GREENE COUNTY, PA

A-6 Haney's Personal Care Home		
	Location 330 Carmichaels St. Rices Landing, PA 15357 Phone (724) 592-5449 Mgmt Co. Licensure PCH Comments House renovated to be PCH opened 1980; Uses Medicaid Personal Home Care Supplement; Square footage estimated	Total Beds 8 Occupancy Rate 100.0% Year Built 1975 1980 Physical Structure B- Ease of Access D Neighborhood B Visibility B Medicaid Beds* 1 Medicare Beds* 0
	A-7 McDaniel's Personal Care Home	
	Location 245 Center St. Clarksville, PA 15322 Phone (724) 377-1121 Mgmt Co. Licensure PCH Comments Year built & square footage estimated	Total Beds 30 Occupancy Rate 100.0% Year Built 1950 1985 Physical Structure B- Ease of Access B Neighborhood B Visibility A Medicaid Beds* 10 Medicare Beds* 0
	A-8 Precious Moments	
	Location 212 Randolph Ave. Carmichaels, PA 15320 Phone (724) 966-5040 Mgmt Co. Licensure PCH Comments Square footage estimated	Total Beds 7 Occupancy Rate 100.0% Year Built 1999 Physical Structure C Ease of Access D Neighborhood B- Visibility B
	A-9 Respicenter West	
	Location 545 W. High St. Waynesburg, PA 15370 Phone (724) 852-1300 Mgmt Co. Licensure PCH Comments 13 residents pay with SSI; Year built & square footage estimated by mgr.	Total Beds 32 Occupancy Rate 93.8% Year Built 1951 1981 Physical Structure B Ease of Access B Neighborhood B Visibility B

* - Occupied Beds

■	Assisted Living
■	Nursing Care Facility
■	Congregate Care
■	Independent Living

Survey Date: May 2011

PROPERTY PROFILES - GREENE COUNTY, PA

A-11 Scenic View Retirement Home		
	Location 190 Valley Church Rd. Graysville, PA 15337 Phone (724) 663-9050 Mgmt Co. Licensure PCH Comments Select units have cable; Square footage estimated	Total Beds 20 Occupancy Rate 95.0% Year Built 1940 1992 Physical Structure B- Ease of Access D Neighborhood B- Visibility B- Medicaid Beds* 18 Medicare Beds* 0
	N-5 Golden Living Center - Waynesburg	
	Location 300 Center Ave. Waynesburg, PA 15370 Phone (724) 852-2020 Mgmt Co. Licensure NC Comments Nursing hours per resident per day: RN/1:42 & CNA/1:49; Square footage estimated	Total Beds 111 Occupancy Rate 87.4% Year Built 1986 Physical Structure B Ease of Access C Neighborhood B Visibility B+ Medicaid Beds* 80 Medicare Beds* 14
	N-10 Rolling Meadows	
	Location 107 Curry Rd. Waynesburg, PA 15370 Phone (724) 627-3153 Mgmt Co. Licensure NC Comments Nursing hours per resident per day: RN/1:24 & CNA/1:54; Square footage estimated	Total Beds 121 Occupancy Rate 91.7% Year Built 1997 Physical Structure B+ Ease of Access C Neighborhood B Visibility B- Medicaid Beds* 91 Medicare Beds* 16

* - Occupied Beds

■	Assisted Living
■	Nursing Care Facility
■	Congregate Care
■	Independent Living

Survey Date: May 2011

FACILITY CAPACITY - GREENE COUNTY, PA

MAP ID	PROJECT NAME	LICENSED CAPACITY	MARKETED BEDS	SHARE OF LIC.
A-1	Evergreen Assisted Living	44	38	86.4%
A-2	Braun's Personal Care Home	10	10	100.0%
A-3	Ewing Manor	16	16	100.0%
A-4	Ewing Manor West	16	16	100.0%
N-5	Golden Living Center - Waynesburg	111	111	100.0%
A-6	Haney's Personal Care Home	8	8	100.0%
A-7	McDaniel's Personal Care Home	39	30	76.9%
A-8	Precious Moments	13	7	53.8%
A-9	Respicenter West	32	32	100.0%
N-10	Rolling Meadows	121	121	100.0%
A-11	Scenic View Retirement Home	20	20	100.0%
		430	409	95.1%

■ Assisted Living
■ Nursing Care Facility

Survey Date: May 2011

ASSISTED LIVING FEE SCHEDULE - GREENE COUNTY, PA

SLEEPING ROOM						
MAP ID	BASE RATE (PRIVATE)	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4+	RANGE
A-1	\$3,200	\$150	-	-	-	\$3,200 - \$3,350
A-2	\$1,500	-	-	-	-	\$1,500 - \$1,500
A-3	\$1,500	-	-	-	-	\$1,500 - \$1,500
A-4	\$1,500	-	\$200	\$300	-	\$1,500 - \$1,800
A-6	\$1,200 - \$2,400	-	-	-	-	\$1,200 - \$2,400
A-7	\$1,013 - \$1,033	-	-	-	-	\$1,013 - \$1,033
A-8	\$1,475	-	-	-	-	\$1,475 - \$1,475
A-9	\$1,800	-	-	-	-	\$1,800 - \$1,800
A-11	\$2,000	-	-	-	-	\$2,000 - \$2,000

* - Daily Fee

ASSISTED LIVING BED TYPES - GREENE COUNTY, PA

MAP ID	PROJECT NAME	MEDICAID		PRIVATE PAY	
		BEDS	PERCENT	BEDS	PERCENT
1	Evergreen Assisted Living	0	0.0%	35	100.0%
2	Braun's Personal Care Home	5	50.0%	5	50.0%
3	Ewing Manor	10	71.4%	4	28.6%
4	Ewing Manor West	13	81.3%	3	18.8%
6	Haney's Personal Care Home	1	12.5%	7	87.5%
7	McDaniel's Personal Care Home	10	33.3%	20	66.7%
8	Precious Moments	0	0.0%	7	100.0%
9	Respicenter West	0	0.0%	30	100.0%
11	Scenic View Retirement Home	18	94.7%	1	5.3%
		57	33.7%	112	66.3%

NURSING CARE FEE SCHEDULE - GREENE COUNTY, PA

MAP ID	PROJECT NAME	SLEEPING ROOM		ALZ / DEM		SHORT TERM / RESPITE	
		SEMI	PRIVATE	SEMI	PRIVATE	SEMI	PRIVATE
5	Golden Living Center - Waynesburg	\$213	\$213	\$230	\$230		
10	Rolling Meadows	\$204	\$204				

Reported as Daily Fees

Survey Date: May 2011

NURSING CARE BED TYPES - GREENE COUNTY, PA

MAP ID	PROJECT NAME	MEDICAID		MEDICARE		PRIVATE PAY	
		BEDS	PERCENT	BEDS	PERCENT	BEDS	PERCENT
5	Golden Living Center - Waynesburg	80	82.5%	14	14.4%	3	3.1%
10	Rolling Meadows	91	82.0%	16	14.4%	4	3.6%
		171	82.2%	30	14.4%	7	3.4%

UNIT SIZE BY BEDROOM TYPE - GREENE COUNTY, PA

ASSISTED LIVING							
MAP ID		SLEEPING ROOM	STUDIO/ EFFICIENCY	ONE-BEDROOM	TWO-BEDROOM	ALZ'S/ DEM	SHORT-TERM
A-1	Evergreen Assisted Living	250	-	-	-	-	-
A-2	Braun's Personal Care Home	300 - 350	-	-	-	-	-
A-3	Ewing Manor	250	-	-	-	-	-
A-4	Ewing Manor West	250	-	-	-	-	-
A-6	Haney's Personal Care Home	200 - 250	-	-	-	-	-
A-7	McDaniel's Personal Care Home	225	-	-	-	-	-
A-8	Precious Moments	300	-	-	-	-	-
A-9	Respicenter West	250	-	-	-	-	-
A-11	Scenic View Retirement Home	250	-	-	-	-	-

NURSING CARE							
MAP ID		SLEEPING ROOM	STUDIO/ EFFICIENCY	ONE-BEDROOM	TWO-BEDROOM	ALZ'S/ DEM	SHORT-TERM
N-5	Golden Living Center - Waynesburg	250	-	-	-	250	-
N-10	Rolling Meadows	250	-	-	-	-	-

■	Assisted Living
■	Nursing Care Facility
■	Congregate Care
■	Independent Living

Survey Date: May 2011

UNITS/(VACANCIES) BY BEDROOM TYPE - GREENE COUNTY, PA

ASSISTED LIVING							
MAP ID		SLEEPING ROOM	STUDIO/ EFFICIENCY	ONE-BEDROOM	TWO-BEDROOM	ALZ'S/ DEM	SHORT-TERM
A-1	Evergreen Assisted Living	38 (3)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
A-2	Braun's Personal Care Home	10 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
A-3	Ewing Manor	16 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
A-4	Ewing Manor West	16 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
A-6	Haney's Personal Care Home	8 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
A-7	McDaniel's Personal Care Home	30 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
A-8	Precious Moments	7 (0)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
A-9	Respicenter West	32 (2)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
A-11	Scenic View Retirement Home	20 (1)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
TOTAL UNITS		177	0	0	0	0	0
TOTAL VACANT		8	0	0	0	0	0

NURSING CARE							
MAP ID		SLEEPING ROOM	STUDIO/ EFFICIENCY	ONE-BEDROOM	TWO-BEDROOM	ALZ'S/ DEM	SHORT-TERM
N-5	Golden Living Center - Waynesburg	67 (9)	0 (0)	0 (0)	0 (0)	44 (5)	0 (0)
N-10	Rolling Meadows	121 (10)	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
TOTAL UNITS		188	0	0	0	44	0
TOTAL VACANT		19	0	0	0	5	0

■	Assisted Living
■	Nursing Care Facility
■	Congregate Care
■	Independent Living

Survey Date: May 2011

UNIT AMENITIES - GREENE COUNTY, PA

MAP ID	AIR CONDITIONING	WINDOW TREATMENTS	CARPETING	DISHWASHER	DISPOSAL	EMERGENCY CALL SYSTEM	MICROWAVE	RANGE	REFRIGERATOR	PORCH/PATIO	EXTRA STORAGE	WASHER / DRYER	PARKING (A/D/C/O)	OTHER
A-1	X	X	X			X					X		O	
A-2		X												
A-3	S	X	X								X		O	
A-4	X	X	X			X			S				O	
A-6	W	X	X										O	
A-7	S	X	X										O	
A-8	X	X	X										O	
A-9	X	X	X										O	
A-11	X	X	X										O	

■ Assisted Living
■ Nursing Care Facility
■ Congregate Care
■ Independent Living

X - All Units
S - Some Units
O - Optional
W - Window

Window Coverings
B - Blinds
C - Curtains
D - Drapes

Parking
A - Attached
D - Detached
C - Carport
O - Optional

Refrigerator
F - Full
M - Mini/Small

PROJECT AMENITIES - GREENE COUNTY, PA

MAP ID	BANK	BEAUTY/BARBER SHOP	BILLIARDS AREA	CHAPEL	LOUNGES	CRAFT/HOBBY ROOM	PUBLIC DINING ROOM	PRIVATE DINING ROOM	ELEVATOR	EXERCISE ROOM	CONVENIENCE STORE	WELLNESS CENTER	ICE CREAM PARLOR	LAUNDRY ROOM	BISTRO / CAFE	LIBRARY	SWIMMING POOL	WHIRLPOOL/SPA	MOVIE THEATER	SECURED ENTRANCE	OUTSIDE WALK PATH	COMMUNITY ROOM	COMPUTER LAB	PICNIC AREA	PET FRIENDLY	OTHER
A-1	X				X		X		X												X			X		
A-2							X							X									X		PORCH	
A-3					X		X							F							X				X	
A-4					X	X	X							F											X	STORAGE
A-6							X																			PORCH
A-7							X														X				X	
A-8						X	X																			
A-9					X		X							F								X			X	
A-11							X														X					

■	Assisted Living
■	Nursing Care Facility
■	Congregate Care
■	Independent Living

Laundry	
F	- Free
C	- Coin

Survey Date: May 2011

ADDENDUM D – SOURCES

Bowen National Research uses various sources of information to gather and confirm data in this study. These sources, which are cited throughout this report, include the following:

- The 1990, 2000 and 2010 United States Census
- ESRI, Inc.
- Urban Decision Group (UDG)
- Applied Geographic Solutions / The FBI
- U.S. Department of Labor, Bureau of Labor Statistics
- Owners/managers for properties included in the field surveys
- Interviewed stakeholders (25)
- Surveyed Tri-County Employment Expo job seekers (220)
- Surveyed Greene County employers (15)
- Greene County Messenger
- Pennsylvania Marcellus Shale Workforce Needs Assessment - Summer 2011
- Pennsylvania Department of Labor & Industry; Center for Workforce Information and Analysis
- Pennsylvania Department of Environmental Protection
- Pennsylvania Department of Education
- Public School Districts of Greene County (5)
- Greene County Planning Commission
- Planning, zoning, and building officials throughout Greene County
- Comprehensive Plan for Greene County; dated August 14, 2008
- 2008-2010 Summary of Point-In-Time Count for Pennsylvania Southwest Region by county; www.pahousingchoices.org/county-housing-planning/data/
- 2011 Greene County Human Services Department; Unsheltered Point-In-Time Survey of the Homeless; dated January 6, 2011
- The Economic Impacts of the Pennsylvania Marcellus Shale Natural Gas Play: An Update; dated May 24, 2010
- Marcellus Shale Workforce Needs Assessment: Southwest Pennsylvania; dated June, 2010
- Pennsylvania Marcellus Shale Workforce Needs Assessment; dated Summer 2011
- Local Labor Market Impacts of Energy Boom-Bust-Boom in Western Canada; dated March, 2011
- Marcellus Shale Industry Snapshot: dated April, 2010
- State of Pennsylvania Career Link Office, Greene County
- Bradford County Children & Youth Services
- “The Impacts of Natural Gas Development on the Cost, Availability, and Quality of Housing,” by Zack Patton, Christin Leigh Lencsak, and Sara Lepori
- Marcellus Shale Education & Training Center
- Andrew Maykuth, Philadelphia Inquirer

- James F. McRath, Bardford & Tioga County Housing Authority (Testimony to the Pennsylvania State Senate)
- Progress Authority
- Decatur Economic Development Corporation
- Decatur Housing Authority
- The Institute for Public Policy & Economic Development
- “Local Leaders’ Peceptions of Energy Development in the Barnett Shale,” by Brooklynn Anderson and Gene Theodori
- Mayor Keith McComis, City of Bridgeport
- The Perryman Group
- “A Thematic Analysis of Local Respondents’ Perceptions of Barnett Shale Energy Development,” by Brooklynn Wynveen
- U.S. Census Bureau
- “What to Expect with Drilling the Marcellus: Bradford County Officials Share Insights from Texas Trip,” by Sue Smith-Heavenrich, Broader View Weekly
- Collins Planning Associates
- Ecosystem Research Group
- “Energy Boomtowns & Natural Gas: Implications for Marcellus Shale Local Governments & Rural Communities,” by Jeffrey Jacquet
- Headwaters Economics
- Nylla Kunard, Pinedale Town Councilmember
- Sublette Economic Resource Council
- Sublette Economic Development Association

ADDENDUM E – EMPLOYER SURVEYS



Energy Extraction Industry Employer Phone Survey Greene County, Pennsylvania



(Opening)

We have been retained by the Greene County Department of Economic Development to survey Energy Extraction-related companies currently operating within Greene County. The purpose of the survey is to collect employment information, so that Greene County can evaluate its current and future housing needs. All responses will remain confidential, and only aggregate results will be used. If detailed information is not readily available for some questions, please provide your best estimate.

1. I would like to confirm the spelling of your name, your e-mail address, and your direct phone number:

Responders Name: _____ **(Confidential)**

E-Mail: _____ **(Confidential)**

Direct Phone Number: _____ **(Confidential)**

2. What is the full name of your company that operates in Greene County:

Company Name: _____ **(Confidential)**

Please use this specific company when answering the remaining questions.

3. What office location directly oversees this company's Greene County operations:

Companies Responding: 15
Companies Not Responding: 0

ANSWER	RESPONSES	PERCENT
Waynesburg, PA	8	53.2%
Canonsburg, PA	2	13.3%
Morgantown, WV	1	6.7%
Carmichaels, PA	1	6.7%
Wind Ridge, PA	1	6.7%
Smithfield, PA	1	6.7%
Mt. Morris, PA	1	6.7%
Is city located in southwestern Pennsylvania?		
ANSWER	RESPONSES	PERCENT
Yes	14	93.3%
No	1	6.7%
If no, is there a regional office planned?		
ANSWER	RESPONSES	PERCENT
Yes	0	-
No	1	100.0%

4. Which of the following Energy Industry phases is this company currently involved with in Greene County (check all that apply):

Companies Responding: 15
 Companies Not Responding: 0

ANSWER	RESPONSES	PERCENT
Exploration	8	53.3%
Development	11	73.3%
Production	12	80.0%
Reclamation	1	6.7%
Other (Trucking)	2	13.3%

5. In which of the following geographical areas does this company operate (check one):

Companies Responding: 15
 Companies Not Responding: 0

ANSWER	RESPONSES	PERCENT
Internationally	7	46.7%
Nationally	5	33.3%
Regionally (multi-states)	1	6.7%
Pennsylvania only	2	13.3%
Southwestern Pennsylvania only	0	-
Greene County, Pennsylvania only	0	-

6. Does your company produce one or more of the following energy resources in Greene County (check all that apply):

Companies Responding: 15
 Companies Not Responding: 0

ANSWER	RESPONSES	PERCENT
Natural Gas	12	80.0%
Oil	4	26.7%
Coal	8	53.3%
Other	0	0.0%

7. What was the first year that this company had employees working in Greene County and approximately how many employees were there:

Companies Responding: 12
 Companies Not Responding: 3

ANSWER	RESPONSES	PERCENT
Before 2000	5	41.7%
2000-2004	0	-
2005-2009	5	41.7%
2010 to Present	2	16.6%

Companies Responding: 9
 Companies Not Responding: 6

Number of employees during first-year of operation?		
ANSWER	RESPONSES	PERCENT
1-9	5	55.6%
10-29	2	22.2%
30-49	1	11.1%
50+	1	11.1%
Total Workers:	375 (All responding companies)	
Average workers/company:	42	
Range of workers/company:	2 to 300	

8. How many total employees did this company have working in Greene County at the end of 2010:

Companies Responding: 14
 Companies Not Responding: 1

ANSWER	RESPONSES	PERCENT
1-9	1	7.1%
10-29	6	42.9%
30-99	2	14.3%
100-499	4	28.6%
500+	1	7.1%
Total Workers:	189 (All responding companies)	
Average workers/company:	2,646	
Range of workers/company:	9 to 1,518	

9. Over the next five years (2011-2015), will the number of Greene County employees for this company increase, decrease, or remain the same:

Companies Responding: 15
 Companies Not Responding: 0

ANSWER	RESPONSES	PERCENT
Increase	13	86.7%
Decrease	0	-
Same as 2010	2	13.3%
If an increase, by how many?		
Total Workers:	455 (All responding companies)	
Average workers/company:	114	
Range of workers/company:	5 to 300	

For the next six (6) questions, please rank the responses by share with 1 being the highest share 4 being lowest:

10. Rank from 1 to 4 this company's current Greene County employees by industry phase (see Question 4 for phase definitions):

Companies Responding: 13
 Companies Not Responding: 2

Industry Phase		Rank			
Answer	Responses	1	2	3	4
Exploration	6	16.7%	33.3%	33.3%	16.7%
Development	10	50.0%	30.0%	20.0%	-
Production	12	58.4%	33.3%	8.3%	-
Reclamation	2	-	50.0%	-	50.0%

11. Rank from 1 to 4 this company's current Greene County employees by age group:

Companies Responding: 14
 Companies Not Responding: 1

Industry Phase		Rank			
Answer	Responses	1	2	3	4
Under 20 Years	7	-	14.3%	57.1%	28.6%
20 to 40 Years	13	84.6%	15.4%	-	-
40 to 60 Years	14	14.3%	78.6%	7.1%	-
Above 60 Years	6	16.7%	-	50.0%	33.3%

12. Rank from 1 to 4 this company's current Greene County employees by life stage:

Companies Responding: 8
 Companies Not Responding: 7

Industry Phase		Rank			
Answer	Responses	1	2	3	4
Single - No Kids	8	12.0%	37.5%	50.0%	-
Single - Kids at Home	6	-	16.7%	-	83.3%
Married - No Kids	8	25.0%	25.0%	50.0%	-
Married - Kids at Home	8	62.5%	25.0%	-	12.5%

13. Rank from 1 to 3 this company's current Greene County employees by educational achievement:

Companies Responding: 15
 Companies Not Responding: 0

Industry Phase		Rank		
Answer	Responses	1	2	3
No High School Diploma	3	-	-	100.0%
High School Diploma - No College Degree	14	85.7%	14.3%	-
College Degree	15	20.0%	80.0%	-

14. Rank from 1 to 5 this company's current Greene County employees by gross annual wage:

Companies Responding: 13
 Companies Not Responding: 2

Industry Phase		Rank				
Answer	Responses	1	2	3	4	5
Under \$20,000	2	-	-	-	-	100.0%
\$20,000 to \$40,000	9	33.3%	22.2%	11.2%	33.3%	-
\$40,000 to \$60,000	12	41.7%	41.7%	16.6%	-	-
\$60,000 to \$80,000	12	33.3%	25.0%	33.3%	8.4%	-
Above \$80,000	10	10.0%	20.0%	30.0%	40.0%	-

15. Rank from 1 to 5 this company's current Greene County employees by living arrangement:

Companies Responding: 10
 Companies Not Responding: 5

Industry Phase		Rank				
Answer	Responses	1	2	3	4	5
Lives With Relatives	0	-	-	-	-	-
Owens House	9	77.8%	22.2%	-	-	-
Rents Apartment	8	12.5%	50.0%	12.5%	-	-
Lives in Motel or Hotel	3	66.7%	-	33.3	-	-
Lives in RV or Trailer	0	-	-	-	-	-

For the next four (4) questions, please provide estimated percentages for each response:

16. What percentage of this company's current Greene County employees lived inside Greene County and outside Greene County at the time of hiring:

Companies Responding: 12
 Companies Not Responding: 3

ANSWER	RESPONSES
Inside Greene County	47.6%
Outside Greene County	52.4%
Total	100.0%

(Average)
 (Average)

17. What percentage of this company's current Greene County employees lives inside Greene County and outside Greene County now:

Companies Responding: 12
 Companies Not Responding: 3

ANSWER	RESPONSES
Inside Greene County	67.9%
Outside Greene County	32.1
Total	100.0%

(Average)
 (Average)

For those employees living outside Greene County, where do the majority reside:

Companies Responding: 15
 Companies Not Responding: 0

ANSWER	RESPONSES	PERCENT
Washington County, PA	8	57.1%
Fayette County, PA	7	50.0%
Morgantown, WV	10	71.4%
Beyond These Counties	3	21.4%

18. What percentage of current Greene County (company name) employees have jobs of the following durations: (Ask initial companies if they have employees typically working less than 1 year and adjust question as needed)

Companies Responding: 14
 Companies Not Responding: 1

ANSWER	RESPONSES
1 to 3 Years	28.6%
4 to 7 Years	16.8%
More than 7 Years	54.6%
Total	100.0%

(Average)
 (Average)
 (Average)

19. What percentage of this company's current Greene County employees owns and rents their housing:

Companies Responding: 9
 Companies Not Responding: 6

ANSWER	RESPONSES
Owens	58.1%
Rents	41.9%
Total	100.0%

(Average)
 (Average)

20. In general, does this company's current Greene County employees have difficulty finding suitable housing within Greene County:

Companies Responding: 12
 Companies Not Responding: 3

ANSWER	RESPONSES	PERCENT
Yes	9	75.0%
No	3	25.0%
If yes, what are the difficulties?		
ANSWER	RESPONSES	PERCENT
Not Affordable	3	30.0%
Poor Quality	4	40.0%
Lack of Availability	10	100.0%
Distant Locations	2	20.0%
Lack of Community Services	1	10.0%

21. What type of housing do you believe should be added to the Greene County market, that would best serve the needs of your workforce:

Companies Responding: 11
 Companies Not Responding: 4

ANSWER	RESPONSES	PERCENT
Apartments	5	45.5%
Ext ended-stay lodging	0	-
Dormitory-style workforce housing	2	18.2%
Manufactured Housing	1	9.1%
Mobile Homes	0	-
Single-Family Homes	7	63.6%
Townhomes	2	18.2%
None	0	-

22. Which of the following communities in Greene County might best serve employees seeking housing:

Companies Responding: 12
 Companies Not Responding: 3

ANSWER	RESPONSES	PERCENT
Waynesburg	11	91.7%
Carmichaels	3	25.0%
Jefferson	1	8.3%
Mt. Morris	2	16.7%
Rural areas	1	8.3%

23. Does this company offer, or plan to offer, housing allowances to its Greene County employees:

Companies Responding: 15
 Companies Not Responding: 0

ANSWER	RESPONSES	PERCENT
Yes	5	33.3%
No	10	67.7%
If yes, what type?		
ANSWER	RESPONSES	PERCENT
Relocation Payments	-	20.0%
Lodging/Food Reimbursements	-	80.0%

24. Does this company offer or plan to offer transportation to and from work for its Greene County employees:

Companies Responding: 15
 Companies Not Responding: 0

ANSWER	RESPONSES	PERCENT
Yes	7	46.7%
No	8	53.3%
If yes, what type?		
ANSWER	RESPONSES	PERCENT
Company vehicles	-	57.1%
Shuttle to work site	-	42.9%

25. Does this company offer or plan to offer workforce housing for its Greene County employees:

Companies Responding: 14
Companies Not Responding: 1

ANSWER	RESPONSES	PERCENT
Yes	0	-
No	14	100.0%

26. In general, how does this company's Greene County employees perceive the "Quality of Life" in Greene County:

Companies Responding: 12
Companies Not Responding: 3

ANSWER	RESPONSES	PERCENT
Desirable	3	25.0%
Average/Fair	6	50.0%
Undesirable	3	25.0%

27. What were the total annual expenditures for this company's Greene County operations during Year 2010 (use all items in the operating budget, including contract services):

Insufficient information

28. What will be the percentage change in expenditures for this company's Greene County operations over the next five years (2011 through 2015) (select one):

Insufficient information

Do you have any additional comments regarding the Energy Extraction Industry's impact on Greene County or its housing market:

**That concludes the survey.
On behalf of Greene County, we greatly appreciate your participation.
Good bye.**

ADDENDUM F – EMPLOYEE SURVEYS

Energy Extraction Industry Prospective Employee Survey

Greene County, Pennsylvania



Purpose

Bowen National Research has been retained by the Greene County Department of Economic Development to survey prospective employees interested in the Energy Extraction Industry. The purpose of this survey is to collect information that will allow the county to evaluate its housing needs. All responses will remain confidential.

1. Why are you attending this Expo?

ANSWER	RESPONSES	PERCENT
Job Search	211.5*	96.1%
Other	8.5*	3.9%

* Since one respondent marked both answers; 0.5 of a response was allocated to each answer.

2. Are you currently employed?

ANSWER	RESPONSES	PERCENT
Yes	111	50.5%
No	108	49.1%
Did not answer	1	0.4%
If no, when did you leave your last job?		
ANSWER	RESPONSES	PERCENT
Mean = 7.7 Months Ago	45	NA
Range: 1 to 26 Months Ago	-	-
Median = 5 Months Ago	-	-
If no, was your previous job in the energy extraction industry?		
ANSWER	RESPONSES	PERCENT
Yes	6	5.6% / 7.9%
No	70	64.8 / 92.1%
Did not answer	32	29.6%
If yes, is your current job in the energy extraction industry?		
ANSWER	RESPONSES	PERCENT
Yes	16	14.4% / 22.5%
No	55	49.6% / 77.5%
Did not answer	40	36.0% / NA

3. What is the zip code of your current residence?

ANSWER	RESPONSES	PERCENT
Various	205	NA
70% Lived Within a 30-Mile Radius of Waynesburg, PA		-

Percentages in “pink” are adjusted shares based on only those respondents who answered the question. Questions with less than five “no answers” were not adjusted.

4. What is your age?

ANSWER	RESPONSES	PERCENT
Under 20	3	1.4%
20-29	63	28.6%
30-39	46	20.9%
40-49	42	19.1%
50-59	61	27.7%
60+	5	2.3%
Did not answer	0	0.0%

5. What was/is the approximate gross annual salary of your last/current job?

ANSWER	RESPONSES	PERCENT
Under \$20,000	48	21.8%
\$20,000-\$29,999	43	19.5%
\$30,000-\$39,999	40	18.2%
\$40,000-\$49,999	30	13.6%
\$50,000-\$59,999	27	12.3%
\$60,000-\$69,999	9	4.1%
\$70,000-\$79,999	11	5.0%
\$80,000-\$89,999	3	1.4%
\$90,000-\$99,999	3	1.4%
\$100,000+	6	2.7%
Did not answer	0	0.0%

6. If hired by an Energy Extraction Industry business in the near future, how much do you expect to make per year?

ANSWER	RESPONSES	PERCENT
Under \$20,000	3	1.4%
\$20,000-\$29,999	19	8.6%
\$30,000-\$39,999	42	19.1%
\$40,000-\$49,999	51	23.2%
\$50,000-\$59,999	42	19.1%
\$60,000-\$69,999	28	12.7%
\$70,000-\$79,999	15	6.8%
\$80,000-\$89,999	9	4.1%
\$90,000-\$99,999	1	0.5%
\$100,000+	6	2.7%
Did not answer	4	1.8%

Percentages in “pink” are adjusted shares based on only those respondents who answered the question. Questions with less than five “no answers” were not adjusted.

7. Which of the following best describes your current living arrangement?

ANSWER	RESPONSES	PERCENT
Live with parents or relatives	37	16.8%
Rent apartment	28	12.7%
Rent house	31	14.1%
Rent condominium	1	0.5%
Rent trailer/mobile home	2	0.9%
Rent RV	0	0.0%
Own a house	116	52.7%
Own a condominium	1	0.5%
Own a trailer/mobile home	2	0.9%
Own RV	0	0.0%
Stay in motel/hotel/inn	0	0.0%
Stay in boarding house	0	0.0%
Other	2	0.9%
Did not answer	0	0.0%

8. What level of education have you achieved?

ANSWER	RESPONSES	PERCENT
Attended high school, did not graduate	5	2.3%
Graduated high school, did not attend college	68	30.9%
Attending college, have not graduated	59	26.8%
Graduated college, no advanced degrees	56	25.5%
Secured advanced college degrees	32	14.5%
Did not answer	0	0.0%

9. What is your marital/children/living status (select one answer from each grouping)?

ANSWER	RESPONSES	PERCENT
Marital Status		
Single, never married	88	40.0% / 41.5%
Single, divorced	36	16.4% / 17.0%
Single, widowed	2	0.9% / 0.9%
Married	86	39.1% / 40.6%
Did not answer	8	3.6% / NA
Children		
No children at home	54	24.6% / 46.2%
Children at home	63	28.6% / 53.8%
Did not answer	103	46.8% / NA
Living Status		
Live alone	18	8.2% / 24.3%
Live with one other	24	10.9% / 32.4%
Live with others (2+)	32	14.5% / 43.3%
Did not answer	146	66.4% / NA

Percentages in "pink" are adjusted shares based on only those respondents who answered the question. Questions with less than five "no answers" were not adjusted.

10. If hired by the Energy Extraction Industry and the job is located in Greene County, would you move there?

ANSWER	RESPONSES	PERCENT
No, already live in Greene County	45	20.5% / 21.1%
No, live close enough to commute	105	47.7% / 49.3%
Yes, would move to Greene County	63	28.6% / 29.6%
Did not answer	7	3.2% / NA
If yes, which of the following living arrangement would you seek? (Select one)		
Live with parents or relatives	1	1.5% / 1.8%
Rent apartment	26	40.0% / 48.2%
Rent house	10	15.4% / 18.5%
Rent condominium	2	3.1% / 3.8%
Rent trailer/mobile home	0	0.0%
Rent RV	0	0.0%
Own a house	14	21.6% / 25.9%
Own a condominium	0	0.0%
Own a trailer/mobile home	0	0.0%
Own RV	0	0.0%
Stay in motel/hotel/inn	1	1.5% / 1.8%
Stay in boarding house	0	0.0%
Other	0	0.0%
Did not answer	11	16.9% / NA

11. How would you generally describe the current housing market in Greene County?

ANSWER	RESPONSES	PERCENT
Good-no issues	32	14.5% / 28.6%
Fair-some issues	64	29.1% / 57.1%
Poor-many issues	16	7.3% / 14.3%
No comment/opinion	107	48.6% / NA
Did not answer	1	0.5% / NA
If Fair or Poor, what are issues? (Select all that apply)		
Affordability	10	13.5% / 25.0%
Location	16	21.6% / 40.0%
Quality	12	16.2% / 30.0%
Availability	2	2.7% / 5.0%
Did not answer	34	46.0% / NA

12. How would you generally describe the “Quality of Life” in Greene County? (consider safety, schools, recreation, shopping, entertainment, housing, traffic, public services, etc.):

ANSWER	RESPONSES	PERCENT
Desirable	35	15.9% / 26.5%
Average/Fair	92	41.8% / 69.7%
Undesirable	5	2.3% / 3.8%
No comment/opinion	87	39.5% / NA
Did not answer	1	0.5% / NA

Percentages in “pink” are adjusted shares based on only those respondents who answered the question. Questions with less than five “no answers” were not adjusted.