

1. BACKGROUND

Introduction

Greene County is located in the southwestern corner of Pennsylvania and is bordered by Washington County to the north, the Monongahela River and Fayette County to the east, and West Virginia to the south and the west. The county is comprised of 20 townships and six boroughs.

Figure 1-1: Project Location depicts the county's municipalities as well as its location in relation to the region (Pennsylvania, West Virginia, Ohio, etc.).

More than any other factor, the physical features and abundant mineral resources of Greene County have affected the history and settlement of the County; these characteristics continue to influence growth patterns today. Although the topography of Greene County has limited where and to what extent development has occurred, it has also contributed to the largely unspoiled and picturesque landscape. The eastern portion of the County has been traditionally associated with agriculture and retains historic villages while the western region offers sweeping landscapes of wooded hillsides and breathtaking viewsheds.

Greene County has a niche market, which is to utilize and promote its most precious assets—its rural beauty, open spaces, and recreational attractions. Greene County has a unique opportunity to capitalize on its many recreational assets such as the Monongahela River, the vast amount of state game lands, Ryerson Station State Park, County Park System, its numerous historical sites, and the cultural / environmental amenities that can be a part of an outdoor experience. Parks and recreation facilities / activities have been shown to increase property values, attract business and

industry, improve the overall health of the residents, and preserve the natural and cultural features of the area.

Greene County officials understand the need to help improve the county's economy and attractiveness and have taken the first steps toward putting a strategy in place. The Greene County Commissioners retained Mackin Engineering Company to complete a Comprehensive Recreation, Park, and Trails / Greenways Plan for the county. The overall goal of the plan is to direct future efforts over the next 10 years to provide affordable, quality recreation opportunities to all residents of Greene County. The Comprehensive Recreation, Park and Trails / Greenways Plan, once adopted, will become an amendment to the Greene County Comprehensive Plan. The adoption process will follow the requirements as set forth in the Pennsylvania Municipalities Planning Code (Act of 1968, P.L. 805, No. 247 as reenacted and amended) in Article III—Comprehensive Plan.

A steering committee was established to assist in the plan's development and included representatives from various Greene County departments, school districts, municipalities, and recreational and community organizations. In addition to the steering committee, the public involvement process included stakeholder interviews, a county-wide public survey, and regional public meetings. The public involvement process is summarized in Chapter 5: Needs Assessment.

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Plan Purpose and Goals

The primary purpose of a comprehensive recreation, parks and trails / greenways plan is to inventory and evaluate existing recreation facilities and programs and to assess the recreational needs of county residents. An analysis is also conducted of the administration, use, maintenance, and need for these facilities and programs. This plan will provide Greene County with a prioritized implementation strategy of recommendations for each of the plan elements. The plan will also provide strategies that will capitalize upon the unique historical aspects of Greene County as well as serve as a blueprint to expand the current trails / greenways network.

At the beginning of the planning process, the steering committee developed a set of County Development Objectives for the Greene County Comprehensive Recreation, Parks and Trails / Greenways Plan. The County Development Objectives are broad goals that directed the completion of the plan.

- ⇒ *Create a living document that can be used to obtain funding for all types of recreation projects*
- ⇒ *Develop a plan that contains projects and recommendations that are feasible and can be implemented*
- ⇒ *Improve the geographic distribution of recreation facilities and programs throughout Greene County*
- ⇒ *Provide a variety of recreation facilities and programs for all ages and include family-oriented activities*

To further build upon the objectives outlined above, a mission statement was developed at the beginning of the project and continued to be evaluated throughout the planning process. Utilizing input gained from public meetings, surveys, the steering committee, and county officials, the mission statement will serve as a guideline for implementing the recommendations contained in this plan.

Greene County Mission Statement

“The Greene County Department of Recreation will create opportunities for all people to live rich and fulfilling lives while ensuring the sustainability and integrity of the environment. The County will implement practical strategies for the efficient allocation of resources by capitalizing upon public and private partnerships to develop a variety of recreational facilities and programs that are available to all residents and visitors of Greene County.”

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County History

The southern border of Greene County, which separates Pennsylvania from West Virginia, is one of the most famous boundaries in the United States—the Mason-Dixon Line. The Mason-Dixon Line was originally delineated in the mid-1700s by Charles Mason and Jeremiah Dixon to settle a property dispute between the Calvert and Penn families and is most commonly associated with the division between the free and slave states during the 1800s and American Civil War-era.

Greene County was established on February 9, 1796 when Washington County was divided into two counties through an act of the Legislature. The southern portion became Greene County, named after the Revolutionary War General Nathanael Greene. After permanent settlement began in 1764, Waynesburg (named after General “Mad” Anthony Wayne) was established through a deed sale on October 28, 1796 and is presently the County Seat.

County Government

One of twenty four (24) sixth class counties in Pennsylvania, Greene County is guided by the policies set forth in the Pennsylvania County Code. Sixth class counties are those having a population between 45,000 and 95,000 inhabitants, as well as counties with a population between 35,000 and 45,000 which by ordinance or resolution of the Board of County Commissioners elect to be a county of the sixth class. Three county commissioners constitute the chief governing body of the county and each is elected to a four (4) year term. The administrative powers and duties of

county commissioners include registration and elections, assessment of persons and property, human services, veterans' affairs, appointment of county personnel and fiscal management.

The county commissioners have created departments that are responsible for each of the services being provided by the county. Three departments in particular help to develop and promote parks and recreational facilities / programs in Greene County.

Greene County Department of Recreation

The Department of Recreation was established to oversee the development, maintenance and needs of the parks and recreation facilities of Greene County.

Greene County Office of Tourism

The Greene County Office of Tourism was created to promote and market tourism within the County as an economic development tool. Currently, the office is developing a marketing strategy to attract more visitors to the many tourist attractions located in Greene County.

Greene County Department of Economic Development

The mission of the Department of Economic Development is to coordinate services relating to planning and development activity and provide support services and technical assistance. The Department of Economic Development houses the Conservation District, Planning Commission, Industrial Development Authority (IDA), as well as Solid Waste and Recycling Offices, and the county's Grant services.

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Additional information on Greene County, the governing body, and its various departments can be found on the county website at <http://co.greene.pa.us/>.

Transportation

Interstate 79 is the largest and most important transportation route in Greene County, connecting the County to both Pittsburgh and Morgantown. Other important roadways are US Route 19 and PA Routes 21 and 88. Railroads continue to play an important role in transporting freight, such as coal, within and out of the County. Other modes of transportation in the County include the Monongahela River and the Greene County Airport. The Greene County Airport is discussed further in Chapter 2: Inventory & Analysis.

Figure 1-1: Project Location identifies the major transportation corridors in the county.

Schools

Greene County is divided into five (5) school districts to serve County residents: West Greene, Central Greene, Southeastern Greene, Carmichaels and Jefferson-Morgan.

Figure 1-2: School Districts depicts the school district boundaries for Greene County. The school districts and their facilities are discussed further in Chapter 2: Inventory & Analysis.

In addition to the local schools, there are two (2) institutions of higher education in Greene County: Waynesburg University and a satellite campus for Westmoreland County Community College. Waynesburg University is located near

downtown Waynesburg Borough while the Community College can be found along PA 21, east of Waynesburg, near I-79 in Franklin Township.

Tourist Attractions

Greene County has numerous tourist attractions, many of which are listed on the National Register of Historical Places. The National Register of Historic Places is the Nation's official list of cultural resources worthy of preservation. "Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archeological resources. Properties listed in the Register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archeology, engineering, and culture. The National Register is administered by the National Park Service, which is part of the U.S. Department of the Interior."

Table 1-1 on page 1-5 lists all sites in Greene County that are contained on the Registry. *Figure 1-3: Historic Attractions* shows the approximate locations of historical sites and attractions in Greene County.

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Table 1-1: Greene County Sites Listed on the National Historic Registry

Historic Site	Location	Historic Site	Location
Boughner, Alexander V., House	Greensboro	Hughes House	Jefferson
Bridge in Franklin Township	Morrisville	Jones, James, House	Greensboro
Carmichaels Covered Bridge	Carmichael	Kent, Thomas, Jr., Farm	Waynesburg
Corbley, John, Farm	Garards Fort	King Covered Bridge	Kuhntown
Crawford, John Minor, House	Glassworks	Lippincott Covered Bridge	Waynesburg
Crawford, William, House	Carmichaels	Marion Bridge	Point Marion
Cree, William, House	Jefferson Township	Miller Hall	Waynesburg
Davis, Horn, Overholtzer Bridge	Fairfield	Parreco, James, House	Greensboro
Fisher Site (36GR21)	West Findley	Peters--Graham House	Greensboro
Foley, Richard T., Site (36GR52)	Holbrook	Red, Neils, Covered Bridge	Garards Fort
Glassworks--Core House	Glassworks	Reppert—Gabler House	Glassworks
Glassworks--Gabler House	Glassworks	Rex, John, Farm	Jefferson
Gordon, George W., Farm	Franklin	Rice's Landing Historic District	Rices Landing
Greene Academy	Carmichaels	Scott Covered Bridge	Rogersville
Greene Hills Farm	Waynesburg	Shriver Covered Bridge	Rogersville
Greensboro Public School	Greensboro	Sugar Grove Petroglyph Site (36GR5)	Monongahela Township
Greensboro Historic District	Greensboro	Thralls, Ernest, House	Spraggs
Grimes Covered Bridge	Waynesburg	Waynesburg Historic District	Waynesburg
Hanna Hall	Waynesburg	White Covered Bridge	Garards Fort
Heasley, Charles Grant, House	Waynesburg	Woods, Nettie, Covered Bridge	Oak Forest

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County Demographics

Recognizing the interrelationship of the county’s demographic composition to factors such as employment, social services, recreation needs, and transportation networks are crucial for future planning efforts. The following pages provide a snapshot of the demographics of Greene County and how it compares to surrounding counties. A more detailed demographic analysis is provided in the Greene County Comprehensive Plan. As a member of the Southwestern Pennsylvania Commission (SPC) metropolitan planning organization (MPO), Greene County is compared to the nine other counties that comprise southwestern Pennsylvania.

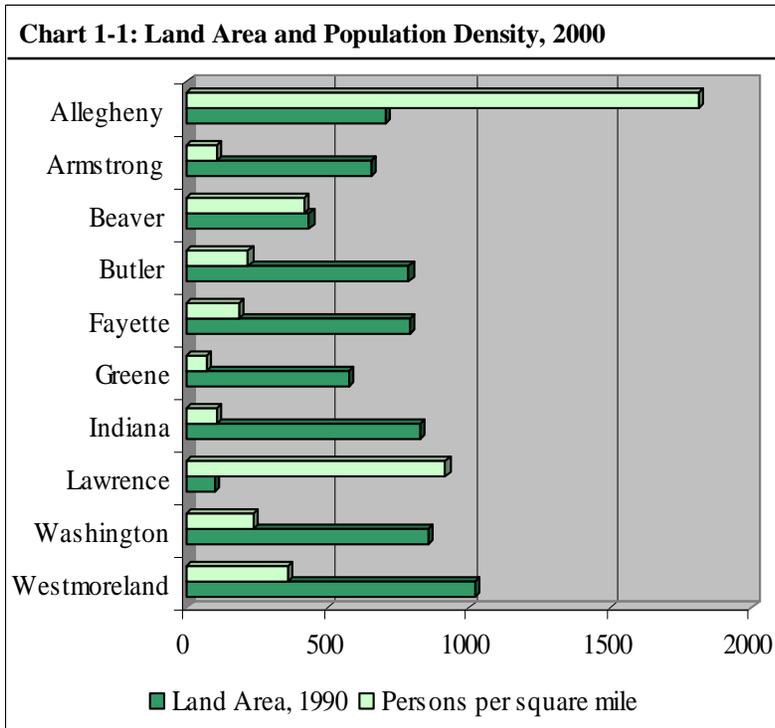
Population Characteristics

County	Class	2000 Population
Allegheny	2	1,281,666
Armstrong	6	72,392
Beaver	4	181,412
Butler	4	174,083
Fayette	5	148,644
<i>Greene</i>	6	40,672
Indiana	6	89,605
Lawrence	5	94,643
Washington	4	202,897
Westmoreland	3	369,993

Source: U.S. Census, 2000

Shown in Table 1-2 are the county class and 2000 population for the SPC region. Greene County has the lowest population, at 40,672, and has more than 30,000 less people than its sixth class counterparts, Armstrong and Indiana.

According to land mass, Greene is the third smallest county in the SPC region at 575.9 square miles—only larger than Lawrence County and Beaver County—and has the lowest population density out of all the counties in the SPC region, with only 70.6 persons per square mile. With such a low population density, it makes it difficult for the county to provide recreation facilities and programs that will be available



Source: US 2000 Census

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to a large number of residents within a reasonable distance.

A low population density directly corresponds to the rural nature of a municipality. Table 1-3 shows the population as a percentage that is categorized as urban and rural according to the 2000 Census. The U.S. Census Bureau defines urban as “all territory, population and housing units in areas consisting of a central place(s) and adjacent territory with a general population density of at least 1,000 people per square mile of land area that together have a minimum residential population of at least 50,000 people and in places of more than 2,500 persons outside of urbanized areas.” Rural are all those areas not classified as urban.

Table 1-3: Population: Percent Urban & Rural 2000

	Urban:	Rural:
Allegheny	97%	3%
Armstrong	37%	63%
Beaver	73%	27%
Butler	53%	47%
Fayette	53%	47%
<i>Greene</i>	<i>31%</i>	<i>69%</i>
Indiana	38%	62%
Lawrence	59%	41%
Washington	63%	37%
Westmoreland	74%	26%
Pennsylvania	77%	23%

Source: U.S. Census, 2000

With 69 percent of its population categorized as rural and only 31 percent urban in 2000, Greene County is the most rural county in the SPC region. The low density and sparse population make it vitally important to plan carefully when investing in new opportunities in order to ensure that an adequate number of residents will utilize the facility or program and make the investment worthwhile.

In looking at population trends between 1960 and 2000, Pennsylvania grew by 8.5 percent while Southwestern Pennsylvania counties experienced a mix of growth and loss. Butler County doubled in population over the 40 year period while Allegheny County lost over a fifth of its population. Greene County’s population was somewhat stagnant during

Table 1-4: Population: Percent Change, 1960-2000

	1960-2000	1990-2000	1980-1990	1970-1980	1960-1970
Allegheny	-21.3	-4.1	-7.8	-9.7	-1.4
Armstrong	-9	-1.5	-5.5	2.9	-4.9
Beaver	-12.3	-2.5	-9	-1.9	0.7
Butler	51.9	14.5	2.8	15.6	11.6
Fayette	-12.2	2.3	-8.8	3.1	-8.7
<i>Greene</i>	<i>3.2</i>	<i>2.8</i>	<i>-2.3</i>	<i>12.2</i>	<i>-8.5</i>
Indiana	18.9	0.0	-2.5	16.1	5.4
Lawrence	-0.2	0.0	-0.1	0.0	-0.1
Washington	-6.6	2.9	-5.8	2.9	-2.9
Westmoreland	4.9	-0.1	-5.6	4	6.9
Pennsylvania	8.5	3.4	0.1	0.5	4.3

Source: U.S. Census, 2000

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that same time frame. While the Census shows Greene County having a 2.8 percent increase between 1990 and 2000 and a 3.2 percent increase between 1960 and 2000. It is important to note that the opening of the State Correctional Institution (SCI) Greene near Waynesburg in 1993 had a significant impact on the County’s 2000 population, composition, and changes between the 1990 and 2000 Census. Once the prison population is accounted for, Greene County actually experienced a population loss of 2.0 percent between 1990 and 2000 and a 2.8 percent between 1960 and 2000. The largest change in population occurred between 1970 and 1980, with Greene County experiencing a 12.2% increase.

SPC released their Cycle VIII Forecast in 2007, which contains population projections for the counties that comprise SPC, as shown in Table 1-5: Population Projections, 2005-2035. According to SPC’s projections, all counties within the SPC Region are expected to experience an increase in population by 2035. Greene is projected to grow in population by seven percent (7%); while the lowest in the region, is an improvement compared to recent population trends. Of the ten counties, Butler is expected to continue experiencing the highest rate of population increase, though Beaver, Fayette, Lawrence, and Washington are all expected to see population increases of more than 20 percent. Overall, Southwestern Pennsylvania’s population is expected to grow by approximately 18 percent over the next 25 years.

Table 1-5: Population Projections (2005 - 2035)

	2005	2035	% Change
Allegheny	1,276,775	1,421,883	15.1%
Armstrong	69,117	78,305	10.6%
Beaver	168,085	216,147	21.8%
Butler	207,301	247,517	32.4%
Fayette	157,825	183,676	23.8%
<i>Greene</i>	<i>40,470</i>	<i>42,469</i>	<i>7.0%</i>
Indiana	99,674	96,608	9.1%
Lawrence	92,824	111,775	20.4%
Washington	366,667	250,442	24.3%
Westmoreland	374,686	426,733	16.8%

Source: SPC Cycle VIII Forecast (2007)

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Chart 1-2 shows the breakdown of population by sex for the SPC Region compared to Pennsylvania. Greene County is the only county with a higher percentage of males than females, although it is very slight. All counties in the SPC Region are similar to that of Pennsylvania in terms of male and female population.

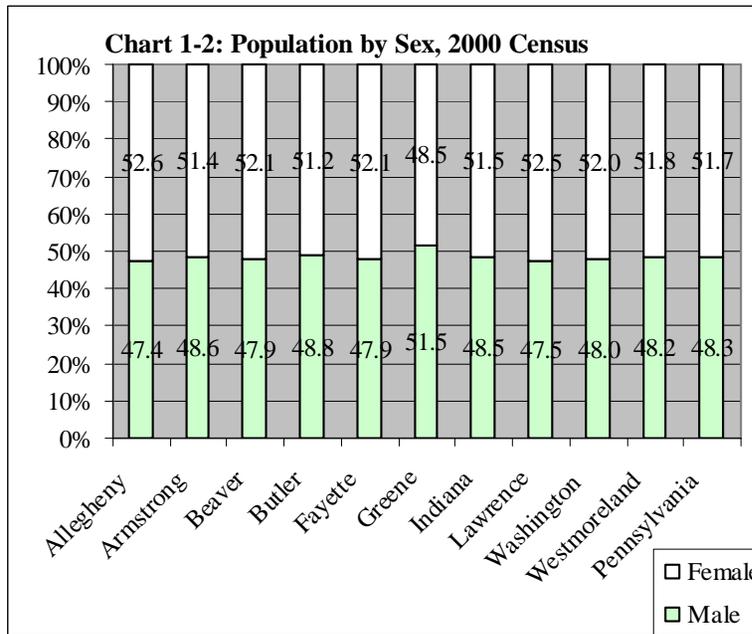


Table 1-6 depicts racial composition for the entire SPC Region and the Commonwealth. Characteristic of southwestern Pennsylvania, Greene County is homogenous in terms of racial diversity. With the exception of Allegheny County, the white population in the SPC Region is between 92.5% (Beaver County) and 98.3% (Armstrong County).

As shown, Greene falls in the middle, at 95.1%. Of the total Greene County population, 3.9% is black or African American and less than one percent is of either American Indian / Alaska Native, Asian, or Hispanic / Latino ethnicity. However, as noted earlier, once the population of SCI Greene is accounted for in the 2000 Census figures, the County's population is over 98 percent white.

	White	Black / African American	American Indian / Alaska Native	Asian	Other	Hispanic / Latino (any race)
Allegheny	84.3	12.4	0.1	1.7	0.3	0.9
Armstrong	98.3	0.8	0.1	0.1	0.1	0.4
Beaver	92.5	6.0	0.1	0.3	0.2	0.7
Butler	97.8	0.8	0.1	0.6	0.2	0.6
Fayette	95.3	3.5	0.1	0.2	0.1	0.4
<i>Greene</i>	<i>95.1</i>	<i>3.9</i>	<i>0.1</i>	<i>0.2</i>	<i>0.1</i>	<i>0.9</i>
Indiana	96.9	1.6	0.1	0.7	0.2	0.5
Lawrence	95.0	3.6	0.1	0.3	0.2	0.6
Washington	95.3	3.3	0.1	0.4	0.2	0.6
Westmoreland	96.6	2.0	0.1	0.5	0.1	0.5
Pennsylvania	85.4	10.0	0.1	1.8	1.5	3.2

U.S. Census Bureau; Note: all counties had 0 or less than 0% Native Hawaiian or other Pacific Islander

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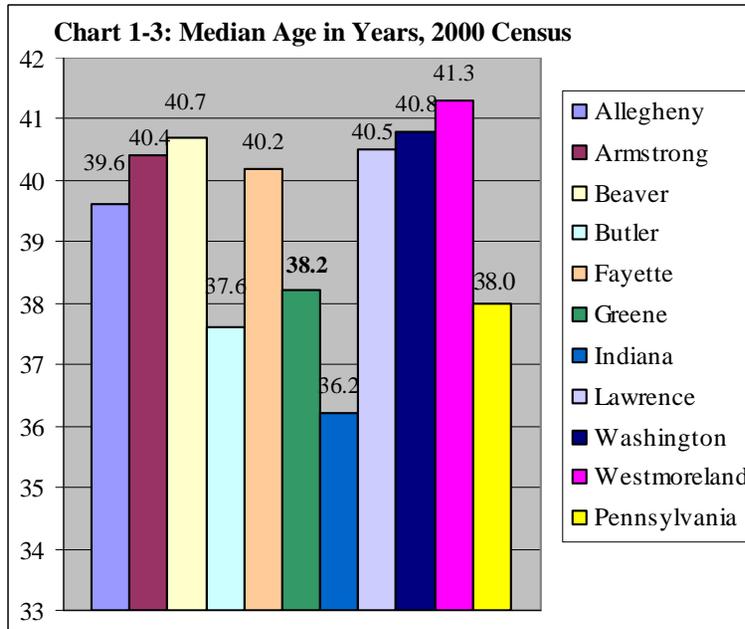


Chart 1-3 depicts the median age (in years) for the SPC Region according to the 2000 Census. At 38.2 years, Greene County is almost identical to that of Pennsylvania and only Butler and Indiana counties have a lower median age. The median age in Greene County is also approximately two years younger than that of its neighbors, Washington and Fayette counties.

It is likely that median age has been highly affected by the presence of SCI Greene in Greene County and the Indiana University of Pennsylvania in Indiana County. The U.S. Census does not separate institutionalized population from median age figures.

Table 1-7 depicts the total number of households, percentage of those households that are families, and the percentage of those family households with children at home under the age of 18. Not surprisingly, Greene County has the lowest number of households out of the 10 counties in SPC, at 15,060 households. The counties with household figures closest to Greene are Armstrong, Indiana, and Lawrence; although all three are almost double that of Greene. Greene County has the third highest percentage of family households, at 70.3% and percentage of those households with children under 18 years of age, at 30.6%. Greene County maintains strong family values and future recreation efforts should be family-oriented.

	Total Households	% of Family Households	% of Family Households with children under 18
Allegheny	537,150	61.9%	26.4%
Armstrong	29,005	70.8%	29.5%
Beaver	72,576	69.6%	28.6%
Butler	65,862	71.1%	32.9%
Fayette	59,969	68.7%	28.7%
Greene	15,060	70.3%	30.6%
Indiana	34,123	66.0%	27.9%
Lawrence	37,091	69.8%	28.8%
Washington	81,130	69.1%	28.4%
Westmoreland	149,813	69.8%	28.4%
Pennsylvania	4,777,003	67.2%	30.0%

Source: US 2000 Census

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Table 1-8 examines marital status for the counties in the SPC Region and the state. Marital status in Greene County indicates that approximately a quarter of the population has never been married and well over half is married. In comparing Greene to the surrounding counties, the percentages of married people are slightly higher than that of Pennsylvania. The remaining population in Greene County is split almost evenly between widowed and divorced, with only a small percentage separated. With approximately 16% of its population divorced or widowed, the percentage is nearly identical to that of Pennsylvania and falls in the middle of the SPC counties.

It is important to know when planning for future recreation

Table 1-8: Marital Status (15 years and over)

	Never Married	Married	Separated	Widowed	Divorced
Allegheny	29.1	51.1	2.0	9.3	8.4
Armstrong	22.0	58.6	1.9	9.4	8.1
Beaver	23.0	57.7	2.0	9.0	8.2
Butler	23.1	60.8	1.4	7.1	7.6
Fayette	23.9	55.2	2.0	9.9	9.0
<i>Greene</i>	24.4	57.1	1.9	8.0	8.6
Indiana	31.6	53.2	1.5	7.1	6.5
Lawrence	23.4	56.6	1.7	9.8	8.5
Washington	22.4	58.3	1.6	9.4	8.3
Westmoreland	22.1	59.2	1.7	9.1	7.8
Pennsylvania	27.2	54.3	2.2	8.2	8.1

U.S. Census Bureau

projects the amount of disabled persons living in the community. The Americans with Disabilities Act (ADA) of

1990 requires that all public facilities, including parks and recreation facilities be reasonably accessible and usable to all populations. As disabled and special needs persons require special facilities and services, the county must recognize this and be able to adequately provide these facilities and services. According to the US Census, people were defined as having a disability if one or more of the following conditions were true:

- They were aged 5 or older and responded “yes” to a sensory, physical, mental, or self-care disability.
- They were aged 16 years or older and responded “yes” to a disability affecting going outside the home.
- They were between the ages of 16 and 64 and responded “yes” to an employment disability.

Table 1-9 shows the percentages of disabled persons for the SPC Region. Fayette and Greene show the highest percentages of persons with a disability for all age groups in 2000. While

Table 1-9: % of Persons with a Disability, 2000

	Ages 5-20	21-64	65+
Allegheny	6.5	15.8	38.7
Armstrong	6.7	19.1	39.4
Beaver	7.1	16.6	38.1
Butler	6.4	13.3	38.9
Fayette	9.0	24.0	45.9
<i>Greene</i>	7.1	22.4	44.8
Indiana	6.9	17.3	42.2
Lawrence	7.1	18.2	37.1
Washington	7.1	18.0	40.5
Westmoreland	6.8	15.8	39.0
Pennsylvania	7.5	17.5	39.4

Source: US 2000 Census

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the percentage in the ages 5-20 category is similar to that of the counties and state, the figures for the 21-64 and 65+ categories are approximately five percent higher than that of the state and most other counties. Almost a quarter of the population in Greene County between the ages of 21 and 64 and almost half over 65 are classified as disabled.

Education

Table 1-10 portrays the levels of educational attainment for each of the counties and the state for all persons 25 years of age and older.

When compared to the other counties in the SPC Region, Greene County and Fayette County stand out as having the highest percentages of population who either completed less than 9th grade or attended high school but did not receive a diploma. At 8.7 percent and 15.6 percent, Greene is more than three percent higher than that of Pennsylvania in those respective categories.

These statistics have an impact on the fact that Greene also has the lowest percentage of residents who have at least a high school diploma (75.7%) and the third lowest percentage with a bachelor's degree or higher (12.2%). Again, compared to state averages, Greene fares more than five percent and ten percent lower in both categories.

Table 1-10: Educational Attainment (25yrs and older)

	A l l e g h e n y	A r m s t r o n g	B e a v e r	B u t l e r	F a y e t t e	G r e e n e	I n d i a n a	L a w r e n c e	W a s h i n g t o n	W e s t m o r e l a n d	P e n n s y l v a n i a
<9th grade	3.7	7.2	5.0	4.0	8.5	8.7	7.5	5.0	5.6	4.7	5.5
9-12, no diploma	10.0	12.9	11.4	9.2	15.5	15.6	11.4	13.4	11.8	9.7	12.6
HS graduate	33.9	51.1	42.4	39.0	47.9	47.6	46.4	45.7	42.6	41.2	38.1
Some college, no degree	17.0	12.7	17.3	17.0	11.9	12.0	13.2	15.0	14.6	16.9	15.5
Associate degree	7.1	5.7	8.1	7.3	4.8	3.9	4.5	5.8	6.6	7.3	5.9
Bachelor's degree	17.3	7.1	11.1	16.1	7.2	8.0	9.3	9.9	12.8	13.6	14.0
Graduate / Professional degree	11.0	3.3	4.7	7.4	4.3	4.3	7.7	5.2	6.0	6.6	8.4
% HS graduate or higher	86.3	80.0	83.6	86.8	76.0	75.7	81.0	81.6	82.6	85.6	81.9
% Bachelor's or higher	28.3	10.4	15.8	23.5	11.5	12.2	17.0	15.1	18.8	20.2	22.4

U.S. Census Bureau

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Income

The relatively high percentage of residents without at least a high school diploma corresponds directly with low median income levels. Median income levels are shown in Table 1-11 for the following categories: household, family, and per capita (individual). The US Census Bureau defines a household as “including all the people who occupy a housing unit as their usual place of residence.” A family is defined as being “a group of two or more people who reside together and who are related by birth, marriage, or adoption.” Typically, family incomes are higher than household incomes, as there are a large percentage of households comprised of only one person.

Median household income is lowest in Fayette (\$27,451), Greene (\$30,352) and Indiana (\$30,233), of which all three are more than \$10,000 lower than that of Pennsylvania. Butler County has the highest median household income at \$42,308.

Although the median family income levels across the board are higher than that of median household income levels, once again Fayette (\$34,881) and Greene (\$37,435) are the two lowest in the region.

Greene County ranks last in terms of median per capita income levels in the region and is more than \$5,000 less than that of the state. Once again, Fayette, Indiana, and Armstrong counties are close behind Greene with a separation of less than one thousand dollars.

Table 1-11: Median Income, 2000

	Household	Family	Per Capita
Allegheny	\$38,329	\$49,815	\$22,491
Armstrong	\$31,557	\$38,271	\$15,709
Beaver	\$36,995	\$45,495	\$18,402
Butler	\$42,308	\$51,215	\$20,794
Fayette	\$27,451	\$34,881	\$15,274
<i>Greene</i>	\$30,352	\$37,435	\$14,959
Indiana	\$30,233	\$38,386	\$15,312
Lawrence	\$33,152	\$41,463	\$16,835
Washington	\$37,607	\$47,287	\$19,935
Westmoreland	\$37,106	\$45,996	\$19,674
Pennsylvania	\$40,106	\$49,184	\$20,880

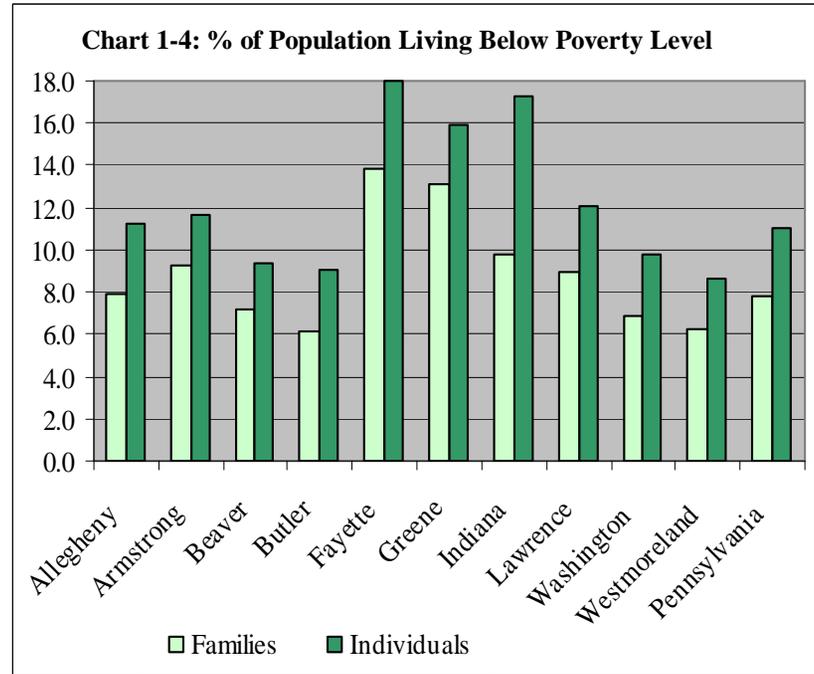
U.S. Census Bureau

1. BACKGROUND

Poverty

Poverty level is based upon the US Department of Agriculture’s determination that one third of income is spent on food and the basis for the food cost is from a Department of Agricultural economy food plan. For the 2000 Census, the poverty level was determined at \$8,350 / annually for persons who were 18 and over, and resided in the contiguous United States and the poverty threshold for a family of four persons was \$17,603. Chart 1-4 shows the poverty levels for each county in the SPC Region and that of Pennsylvania.

Corresponding to low education and income levels, Fayette, Greene, and Indiana counties have the highest percentages of both families and individuals living below the poverty level. Greene County has approximately 13% of families and 16% of individuals living below the poverty level.



1. BACKGROUND

Municipal Demographics

Greene County is comprised of 26 municipalities—20 townships and six boroughs. Of the six boroughs, three (Waynesburg, Jefferson, and Carmichaels) are surrounded entirely by a singular township, while the remaining three (Rices Landing, Greensboro, and Clarksville) are located along the Monongahela River. Table 1-12 denotes each municipality’s population, land area, and population density for 2000.

As the county seat, Waynesburg Borough is located in the center of Greene County while the remaining five boroughs are located in the eastern side of the county. In terms of land area, all six boroughs are very small, with each encompassing less than one square mile. Waynesburg and Rices Landing are the largest boroughs, at 0.8 square miles while Clarksville and Greensboro are the smallest, at just 0.1 square miles each.

Waynesburg is the most heavily populated borough in the county with 4,184 persons in 2000, while all five of the remaining boroughs have less than 600 persons each. Since the boroughs are very small in size, it is not surprising that each has an extremely high population density. Waynesburg is the most densely populated with 5,000 persons per square mile, primarily due to the presence of Waynesburg College. Rices Landing has the lowest density but it is much larger in terms of land area than the others, except for Waynesburg.

With the exception of Gray Township (3.3 square miles), each township in the county encompasses at least 17 square miles with the largest being Richhill at 56.0 square miles.

Table 1-12: Population Density by Municipality, 2000

	Total Population	Land Area (1990)	Persons per square mile
Aleppo Township	597	27.3	21.9
Carmichaels Borough	556	0.2	2,780.0
Center Township	1,393	48.6	28.7
Clarksville Borough	234	0.1	2,340.0
Cumberland Township	6,564	38.3	171.4
Dunkard Township	2,358	31.7	74.4
Franklin Township	7,694	40.9	188.1
Freeport Township	302	8.7	34.7
Gilmore Township	295	21.7	13.6
Gray Township	236	3.3	71.5
Greene Township	445	18.6	23.9
Greensboro Borough	295	0.1	2,950.0
Jackson Township	516	29.4	17.6
Jefferson Borough	337	0.2	1,685.0
Jefferson Township	2,528	21.6	117.0
Monongahela Township	1,714	17.3	99.1
Morgan Township	2,600	24.5	106.1
Morris Township	1,040	35.8	29.1
Perry Township	1,720	30.3	56.8
Rices Landing Borough	443	0.8	553.8
Richhill Township	1,062	56.0	19.0
Springhill Township	476	22.1	21.5
Washington Township	1,106	27.0	41.0
Wayne Township	1,223	39.5	31.0
Waynesburg Borough	4,184	0.8	5,230.0
Whiteley Township	754	31.2	24.2

Source: U.S. Census; 2000

1. BACKGROUND

With a population in 2000 of 7,694, Franklin Township has the largest population in the county. The townships vary significantly in population, as 12 of the 20 have populations over 1,000 and the remaining eight have less. Only Franklin and Cumberland (6,564) have over 3,000 residents. As such, the majority of the townships have population densities of less than 100 people per square mile. In fact, only Franklin, Cumberland, Jefferson and Morgan have population densities of over 100 persons per square mile.

The population distribution throughout Greene County is very interesting to examine. The eastern half of the county is comprised of the higher populated municipalities and encompasses all six boroughs. Much of this is due to the presence of not only the Monongahela River but also the early road network in the county. Just nine townships (Aleppo, Center, Freeport, Gilmore, Gray, Jackson, Morris, Richhill, and Springhill) comprise the western half of the county, with a total population just 5,917, or roughly 1/8 of the overall county population. The hilly terrain and steep slopes account for the sparse development in the western portion of the county.

Table 1-13 shows the percentage change of population for each municipality by decade from 1960 to 2000 as well as the overall change. The change in population varies greatly among the 26 municipalities. The boroughs experienced the largest populations losses over the 40-year time period, with Greensboro losing over 40% of its population. Franklin Township on the other hand has grown by 89% between 1960 and 2000. Washington Township and Morris Township have also experienced significant population growth and would indicate that the townships along I-79 and

Table 1-13: Population: Percent Change, 1960-2000

	1960-2000	1990-2000	1980-1990	1970-1980	1960-1970
Aleppo Township	-19.3%	-9.0%	-9.0%	9.4%	-10.9%
Carmichaels Borough	-29.4%	4.5%	-15.6%	3.6%	-22.8%
Center Township	14.8%	-4.6%	7.8%	19.6%	-6.7%
Clarksville Borough	-29.5%	10.9%	-15.9%	-6.7%	-19.0%
Cumberland Township	-1.5%	-2.6%	-4.4%	13.7%	-6.9%
Dunkard Township	-11.4%	-1.2%	-9.9%	6.3%	-6.4%
Franklin Township	88.9%	38.3%	13.5%	21.3%	-0.9%
Freeport Township	0.7%	-7.6%	-19.3%	45.7%	-7.3%
Gilmore Township	-20.9%	-19.2%	2.5%	16.3%	-18.0%
Gray Township	12.9%	7.3%	-5.2%	0.4%	10.5%
Greene Township	-9.4%	-9.9%	-2.8%	18.7%	-12.8%
Greensboro Borough	-41.6%	-3.9%	-18.6%	-14.1%	-13.1%
Jackson Township	-10.9%	-5.5%	1.3%	31.1%	-29.0%
Jefferson Borough	-23.8%	-5.1%	-14.0%	12.8%	-17.2%
Jefferson Township	-2.4%	-0.3%	-5.1%	21.0%	-14.8%
Monongahela Township	-17.8%	-7.8%	-3.2%	3.7%	-11.2%
Morgan Township	-6.9%	-9.9%	-2.3%	14.5%	-7.6%
Morris Township	30.8%	15.8%	3.2%	24.3%	-11.9%
Perry Township	14.7%	0.1%	-0.9%	63.7%	-29.4%
Rices Landing Borough	-36.1%	-3.1%	-11.4%	9.1%	-31.7%
Richhill Township	-8.6%	-3.6%	-6.8%	10.6%	-7.9%
Springhill Township	8.4%	-5.9%	0.4%	14.8%	0.0%
Washington Township	38.8%	3.3%	3.5%	36.9%	-5.1%
Wayne Township	-7.6%	-7.1%	-11.8%	13.3%	-0.5%
Waynesburg Borough	-19.4%	-2.0%	-4.7%	-13.0%	-0.7%
Whiteley Township	9.4%	-1.6%	5.5%	16.5%	-9.6%

Source: U.S. Census, 2000

1. BACKGROUND

the Washington County border are seeing the most growth.

Table 1-14 depicts the population projections, as calculated by SPC in the Cycle VII Long Range Forecast that was adopted in June of 2003. The table provides the projected populations for 2010, 2020, and 2030, as well as the percentage change from actual 2000 population figures to the projected 2030 numbers.

Areas were projected to grow by as much as 60 percent in Jefferson Borough and lose as much as 35 percent in Gilmore Township by 2030. The western half of the County is expected to lose the most population. All nine townships are projected to experience decline, with Gilmore Township projected to have the highest population loss at 34.5 percent and Morris Township the least at 3.9 percent.

That being said, any population gain is projected to occur in municipalities in eastern Greene County, primarily in Whiteley Township, Jefferson Borough, Dunkard Township, Morgan Township, and Waynesburg Borough, which are all expected to see population increases of over ten percent by 2030.

It is important to keep the projections in mind but also to remember that new developments and a change in the economy could have a positive impact on population growth. County staff should closely monitor population data and trends to determine whether the projections are accurate.

The median age for Greene County as a whole was 38.2 years in 2000, comparable with that of the median age in Pennsylvania (38.0). It is interesting then to look at the

Table 1-14: Municipal Population Projections

	% Change 2000-2030	2010	2020	2030
Aleppo Township	-23.8%	443	433	455
Carmichaels Borough	6.7%	588	581	593
Center Township	-22.7%	1,151	1,097	1,077
Clarksville Borough	-19.7%	204	194	188
Cumberland Township	-16.0%	5,866	5,592	5,513
Dunkard Township	25.7%	2,672	2,767	2,965
Franklin Township	0.5%	7,765	7,468	7,262
Freeport Township	-17.2%	215	222	250
Gilmore Township	-34.6%	176	178	193
Gray Township	-15.3%	226	210	200
Greene Township	-23.4%	321	321	341
Greensboro Borough	-4.7%	225	243	281
Jackson Township	-24.2%	416	396	391
Jefferson Borough	60.5%	426	470	541
Jefferson Township	-9.5%	2,394	2,304	2,287
Monongahela Township	1.3%	1,413	1,517	1,736
Morgan Township	12.0%	3,363	3,363	3,437
Morris Township	-3.9%	930	938	999
Perry Township	-8.4%	1,555	1,536	1,575
Rices Landing Borough	-11.3%	357	364	393
Richhill Township	-17.4%	817	831	877
Springhill Township	-19.1%	336	348	385
Washington Township	4.6%	1,098	1,103	1,157
Wayne Township	0.1%	1,122	1,147	1,224
Waynesburg Borough	11.8%	4,421	4,465	4,677
Whiteley Township	44.4%	909	977	1,089

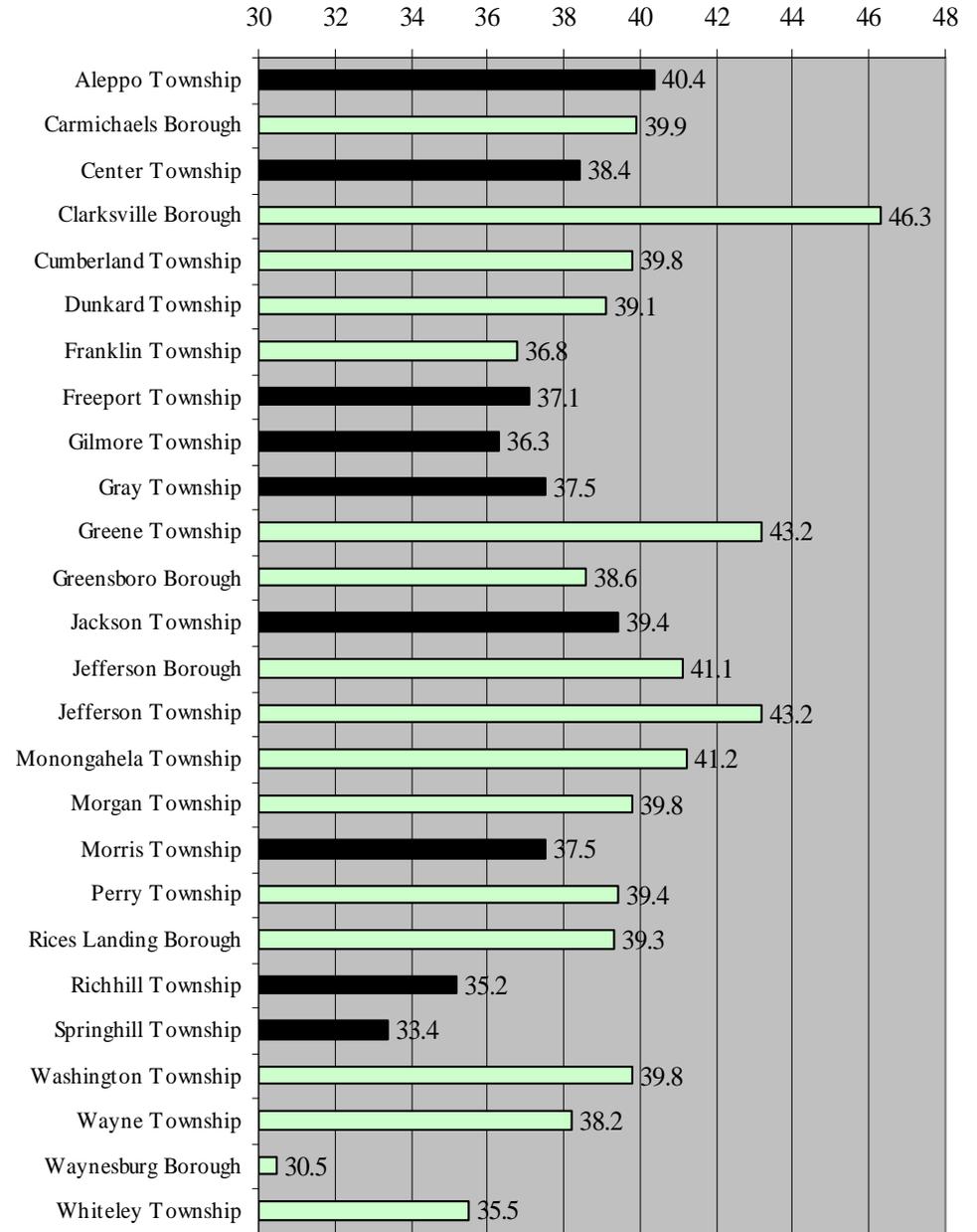
1. BACKGROUND

breakdown of median age at a municipal level throughout the county.

Chart 1-5 graphs the median age of all 26 municipalities in the year 2000. The median age varies significantly throughout the county, ranging from a low of 30.5 years in Waynesburg to a high of 46.3 years in Clarksville. There are approximately 1,500 students attending Waynesburg University between the ages of 18 and 22, which serves to lower the median age. The County and Borough should strive to work with the College to provide facilities that meet their needs and take full advantage of their presence in town.

As the eastern half of the county is more heavily populated than the western half, it is interesting to compare the average median age for each half. The median age for the nine townships that comprise the western half is 37.2 years. The median age of the eastern half is 41.8 years. The municipalities that comprise the western portion of the County are depicted by black bars in Chart 1-5. Only Aleppo Township has a median age over 40 years in the west, compared to five municipalities in the east. Besides Waynesburg, Springhill and Richhill have the lowest median ages in the county.

Chart 1-5: Municipal Median Age (in years), 2000 Census



1. BACKGROUND

Table 1-15 breaks down the number of households for each municipality in Greene County and the percentage of those households which are families, and finally the percentage of those family households with children under the age of 18 living at home. The U.S. Census Bureau defines a household as “including all the persons who occupy a housing unit” and a family as “consisting of a householder and one or more other persons living in the same household who are related to the householder by birth, marriage, or adoption.”

Cumberland Township has the highest number of households, at 2,659, with Franklin Township a close second at 2,157. The only other municipalities with more than 1,000 households are Waynesburg Borough, Morgan Township and Jefferson Township. Despite the size of the borough, the number of households in Waynesburg is probably higher due to the presence of college students (student housing, apartments, etc.), as only 53.7 percent of those households are families. However, these five municipalities account for over half of all households in Greene County (8,476 of the total 15,060), all of which are in the central / eastern portion. Parks and recreation facilities in the east serve a significant number of more households than would in the west.

Discounting Waynesburg, the percentage of households who are families ranges from 61.2 percent in Carmichaels Borough to a high of 80.2 percent in Washington Township. As for families who have children under 18 living at home, it ranges from 26.3 percent in Carmichaels Borough (again, discounting Waynesburg) to a high of 40.8 percent in Springhill Township. The average percentage of families with children under 18 for Pennsylvania is 30 percent.

Table 1-15: Households by Municipality, 2000

	Total Households	% Family Households	% Family Households With Children Under 18
Aleppo Township	233	70.4%	30.0%
Carmichaels Borough	232	61.2%	26.3%
Center Township	517	79.7%	36.6%
Clarksville Borough	78	66.7%	26.9%
Cumberland Township	2,659	69.0%	30.6%
Dunkard Township	967	69.5%	30.1%
Franklin Township	2,157	70.7%	32.0%
Freeport Township	115	73.9%	31.3%
Gilmore Township	114	69.3%	35.1%
Gray Township	95	77.9%	30.5%
Greene Township	180	78.9%	30.0%
Greensboro Borough	117	68.4%	34.2%
Jackson Township	192	76.0%	34.4%
Jefferson Borough	139	69.8%	30.2%
Jefferson Township	1,016	73.9%	27.4%
Monongahela Township	677	75.8%	31.0%
Morgan Township	1,025	72.6%	27.9%
Morris Township	338	76.9%	37.9%
Perry Township	683	74.1%	28.8%
Rices Landing Borough	179	70.9%	27.9%
Richhill Township	402	74.4%	35.6%
Springhill Township	169	76.9%	40.8%
Washington Township	409	80.2%	36.4%
Wayne Township	465	74.0%	31.8%
Waynesburg Borough	1,619	53.7%	24.1%
Whiteley Township	283	75.3%	42.0%

Source: U.S. Census Bureau, 2000

1. BACKGROUND

Table 1-16 depicts the percentage of residents in each municipality who are categorized as disabled for the age categories of 5-20, 21-64, and 65 and older. The average percentage for the Commonwealth of Pennsylvania for ages 5-20 is 7.5 percent, for ages 21-64 it is 17.5 percent, and for ages 65 and older it is 39.4 percent.

The percentage of disabled persons between the ages of 5 and 20 varies throughout Greene County, ranging from a low of zero in Morris Township to a high of 20 percent in Springhill Township. Twelve municipalities have over the state average of 7.5 percent disabled persons in this age category.

In looking at the age category of persons between 21 and 64, the range of disabled residents falls between 4.5 percent in Gray Township and 31.5 percent in Springhill Township. Six municipalities have over one quarter of their working class classified as disabled and 22 of 26 municipalities are higher than the state average of 17.5 percent (shown in green in Table 1-16).

Compared to the state average of 39.4 percent, 23 of 26 municipalities have higher percentages of disabled elderly (65 years and older). In fact, five municipalities have over half of their population over 65 classified as disabled.

While there does not seem to be a concentration of disabled persons in any one geographic area, overall Greene County has a much higher percentage of disabled residents than Pennsylvania. A possible explanation could be the high number of residents who work in the coal mining industry. Either way, the County and its municipalities need to ensure

Table 1-16: % of Disabled Persons by Municipality, 2000

	Ages 5-20	21-64	65+
Aleppo Township	4.4	24.3	52.5
Carmichaels Borough	10.5	20.6	43.1
Center Township	11.8	19.4	42.7
Clarksville Borough	6.3	10.2	43.2
Cumberland Township	4.7	25.2	45.3
Dunkard Township	12.3	26.4	48.4
Franklin Township	2.5	18.1	38.7
Freeport Township	5.2	20.7	40.0
Gilmore Township	10.8	25.9	35.3
Gray Township	*	4.5	45.6
Greene Township	4.9	23.6	41.0
Greensboro Borough	10.8	15.8	63.0
Jackson Township	10.4	25.8	52.2
Jefferson Borough	6.8	21.3	48.5
Jefferson Township	8.3	19.7	44.8
Monongahela Township	13.2	24.0	48.9
Morgan Township	6.9	26.2	43.8
Morris Township	*	19.6	50.0
Perry Township	7.6	22.8	44.0
Rices Landing Borough	1.0	15.9	49.2
Richhill Township	12.5	21.6	37.6
Springhill Township	20.0	31.5	52.1
Washington Township	6.4	19.6	53.0
Wayne Township	12.2	27.8	48.6
Waynesburg Borough	7.2	22.8	43.0
Whiteley Township	2.8	17.7	48.6

U.S. Census Bureau; * represents 0 or figures that round to 0

1. BACKGROUND

that they are providing recreation facilities that are ADA compliant.

The median income levels are outlined in Table 1-17 for each municipality, according to household, family and individual figures. Family income is usually the highest of the three, as many households are comprised of only one individual and are not counted as families. The state median income levels are as follows: Households - \$40,106, Family - \$49,184, and Individual - \$20,880.

Median household income ranges from a low of \$18,393 in Springhill Township to a high of \$39,432 in Washington Township. The five boroughs fall between \$25,833 in Clarksville and \$36,875 in Greensboro.

The median family income in Greene County ranges between \$22,857 in Springhill Township and \$46,250 in Gilmore Township. Looking at just the boroughs, the median family income ranges from \$26,429 in Clarksville to \$42,933 in Waynesburg.

The lowest median individual income is found in Springhill Township, \$10,364, while the highest individual income is in Greensboro Borough, \$18,176.

Table 1-17: Median Income

	Household	Family	Individual
Aleppo Township	\$30,125	\$36,563	\$13,346
Carmichaels Borough	\$33,462	\$36,719	\$14,979
Center Township	\$31,492	\$31,850	\$14,610
Clarksville Borough	\$25,833	\$26,429	\$13,721
Cumberland Township	\$26,834	\$36,187	\$15,293
Dunkard Township	\$25,995	\$30,357	\$14,537
Franklin Township	\$29,747	\$35,852	\$13,066
Freeport Township	\$22,813	\$24,844	\$11,731
Gilmore Township	\$35,208	\$46,250	\$16,325
Gray Township	\$26,250	\$30,500	\$13,583
Greene Township	\$30,227	\$31,806	\$15,486
Greensboro Borough	\$36,875	\$41,786	\$18,176
Jackson Township	\$32,188	\$37,500	\$12,653
Jefferson Borough	\$33,750	\$40,893	\$15,294
Jefferson Township	\$31,639	\$39,565	\$17,143
Monongahela Township	\$30,192	\$35,167	\$17,158
Morgan Township	\$33,629	\$38,009	\$15,588
Morris Township	\$37,250	\$43,750	\$15,430
Perry Township	\$33,947	\$39,750	\$15,696
Rices Landing Borough	\$34,306	\$39,792	\$17,774
Richhill Township	\$31,667	\$36,625	\$15,845
Springhill Township	\$18,393	\$22,857	\$10,364
Washington Township	\$39,432	\$43,889	\$17,207
Wayne Township	\$29,950	\$35,625	\$14,296
Waynesburg Borough	\$30,990	\$42,933	\$15,333
Whiteley Township	\$33,438	\$39,464	\$14,906

U.S. Census Bureau

1. BACKGROUND

The number of vehicles available to a household plays a large role in planning where future recreational facilities and programs should occur. Population centers are target locations as they reach the most residents, but it is also important to assess whether or not residents have a means of transportation to and from the facilities and programs. As there is no public transportation available in Greene County, residents are vehicle-dependent unless the facility and/or program is in walking distance. Table 1-18 shows the percentage of households for each municipality in Greene County with zero, one, two and three or more vehicles available.

Waynesburg Borough has the highest percentage with either zero or one vehicle and the lowest percentage with three or more, however a large portion can be attributed to the college student population who are without vehicles. The downtown and recreation facilities and/or programs are located within walking distance and there is less dependence upon vehicular transportation. At least 60 percent of all households have access to one or two vehicles in all the municipalities. Out of the nine municipalities in the western portion of the County (highlighted in Table 1-18), five have over 10 percent of their households with no vehicle while six have access to three or more vehicles.

Recreation programming should be planned in areas that have parking available and be held at times conducive for working parents and residents to attend and/or drop their children off. The townships in the west are more dependent upon transportation, as most facilities are not within walking distance of the majority of the population.

Table 1-18: Households with # of Vehicles Available

	None	1	2	3 or more
Aleppo Township	10.1%	39.2%	36.3%	14.3%
Carmichaels Borough	6.5%	36.1%	36.5%	20.9%
Center Township	4.6%	28.8%	48.4%	18.2%
Clarksville Borough	15.2%	30.4%	43.0%	11.4%
Cumberland Township	8.9%	37.0%	37.6%	16.5%
Dunkard Township	9.3%	37.4%	32.8%	20.5%
Franklin Township	11.6%	36.0%	35.3%	17.1%
Freeport Township	15.0%	28.3%	34.5%	22.1%
Gilmore Township	10.3%	27.6%	41.4%	20.7%
Gray Township	13.5%	32.3%	39.6%	14.6%
Greene Township	5.9%	34.1%	45.9%	14.1%
Greensboro Borough	11.3%	24.3%	38.3%	26.1%
Jackson Township	7.4%	22.9%	47.3%	22.3%
Jefferson Borough	9.9%	27.7%	46.8%	15.6%
Jefferson Township	8.1%	31.2%	36.9%	23.9%
Monongahela Township	8.2%	28.7%	43.6%	19.4%
Morgan Township	5.2%	32.7%	44.4%	17.7%
Morris Township	7.3%	24.0%	46.9%	21.7%
Perry Township	8.6%	28.4%	43.2%	19.8%
Rices Landing Borough	8.9%	27.4%	43.0%	20.7%
Richhill Township	9.5%	30.4%	39.4%	20.7%
Springhill Township	13.6%	32.0%	30.2%	24.3%
Washington Township	4.7%	21.9%	48.0%	25.4%
Wayne Township	7.7%	34.8%	35.5%	21.9%
Waynesburg Borough	16.1%	41.0%	34.6%	8.3%
Whiteley Township	7.2%	31.5%	41.8%	19.5%

U.S. Census Bureau

1. BACKGROUND

Land Use

Figure 1-4: *Land Use* provides a general depiction of the existing land use for Greene County. The land use data is based on tax assessment data (current as of 2004) and is separated into seven categories: Residential, Commercial, Industrial, Utility (properties owned by utility companies), Agriculture (greater than 10 acres), Clean and Green (tax break properties for agriculture or forested lands), and Public (tax exempt properties).

As can be seen, most of the land in Greene County is classified as either Agriculture or Clean and Green, which supports the demographic data that Greene County is predominantly rural. The eastern part of the County contains the majority of the developed areas. Development is mainly found in the boroughs, the areas surrounding the boroughs, and along major transportation corridors; all of which can be found in eastern Greene County.

Natural Resources

Water Resources

Streams

Figure 1-5: *Hydrology* maps the location of streams, wetlands, and floodplains for Greene County. The PADEP protects waters within the state boundary under the following categories: aquatic life, water supply, recreation, special protection, and other. Under the “Special Protection” category, certain watercourses and their drainage basins are given protection as High Quality

Table 1-19 Greene County Streams

Stream Name	Municipality	Drainage Area (miles ²)	Chapter 93 Protected Water Use
Monongahela River	All municipalities along the eastern border of the county	7,386	WWF
BROWNS CREEK (and its tributaries)	Franklin Township Washington Township Morris Township Center Township	45.7	HQWWF
BEAR LAKES	Morris Township	n/a	HQWWF
CLEAR RUN	Center Township Franklin Township	1.47	HQWWF
SOUTH FORK TEN MILE CREEK (and its tributaries)	Center Township Franklin Township	199.0	HQWWF
RUSH RUN	Center Township	1.85	HQWWF
CAPPO RUN	Center Township	0.60	HQWWF
LIGHTNER RUN	Center Township	1.70	HQWWF
PURSLEY CREEK (and its tributaries)	Wayne Township Center Township Franklin Township	13.2	HQWWF
ENLOW FORK WHEELING CREEK (and its tributaries)	Morris Township Richhill Township	73.1	TSF
SOUTH FORK, DUNKARD FORK WHEELING CREEK (and its tributaries)	Jackson Township Richhill Township	28.0	TSF
NORTH FORK, DUNKARD FORK WHEELING CREEK (and its tributaries)	Aleppo Township Richhill Township	26.9	TSF
WHITELEY CREEK (and its tributaries)	Whiteley Township Greene Township Perry Township	54.4	TSF
TEN MILE CREEK	Morgan Township Jefferson Township	338.0	TSF

Notes: HQWWF - high quality warm water fishery; TSF - trout stocked fishery (according to PADEP Chapter 93. Water Quality Standards

1. BACKGROUND

Waters (HQ), meaning that the watercourse has excellent quality waters and environmental or other features that require special water quality protection (PADEP, 1999). Greene County is fortunate to have several streams with this designation. In addition, several streams and their tributaries have been designated as trout stocked fisheries (TSF) by the PADEP, which means these streams maintain stocked trout from February 15 to July 31 and maintains and propagates fish species and additional flora and fauna which are indigenous to a warm water habitat. Table 1-19 identifies the name of the HQ and TSF streams and characteristics relating to each and are depicted on *Figure 1-6: Water Quality*.

Wetlands

A wetland is defined by the United States Fish and Wildlife Service (USFWS) as any land transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of the year (USFWS, 2004). The USFWS provides information on the characteristics, extent, and status of the Nation's wetlands and deepwater habitats and other wildlife habitats. The National Wetland Inventory, provided by the USFWS, has identified more than 1,000 wetlands within the County, ranging from less than 0.1 acres to approximately 1,150 acres (the riverine wetland along the Monongahela

River). Large concentrations of wetlands can be used as passive recreation areas and become interpretive areas. Wetlands that are listed on the National Wetland Inventory (NWI) can be found on *Figure 1-5: Hydrology*.

Floodplains

A floodplain is defined in Title 44 of the Code of Federal Regulations (CFR) § 9.4 as the lowland and relatively flat areas adjoining inland and coastal waters including, at a minimum, that area subject to a one percent or greater chance of flooding in any given year. Wherever in this regulation the term floodplain is used, if a critical action is involved, floodplain shall mean the area subject to inundation from a flood having a 0.2 percent chance of occurring in any given year (500-year floodplain).

Flood management and insurance rates are coordinated through the National Flood Insurance Program (FIRM). This program, which was established by the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973, was an effort to reduce the damage and hazards associated with flood events. To accomplish these goals, the Federal Emergency Management Agency (FEMA) conducts routine flood insurance studies, which investigate the severity and existence of flood hazards throughout the country. The results of these studies are then used to develop risk data that can be applied during land use planning and floodplain development. Development is often restricted in floodplains, which may allow for developers to donate the land to the municipality or County to be used for recreation areas. The types of facilities constructed will be dependent upon the intended uses and materials used. *Figure 1-5: Hydrology*

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shows the floodplains identified by FIRM mapping.

Land Resources

Geology and Topography

Pennsylvania is divided into numerous physiographic provinces, which are defined as regions in which all parts are similar in geologic structure, climate, relief, and have a unified geomorphic history. The majority of Greene County is located in the Waynesburg Hills Section of the Appalachian Plateaus physiographic province; a small section in the southeastern quadrant of the county is located in the Pittsburgh Low Plateau Section. The dominant topography in the region is very hilly with narrow hilltops and steep-sloped, narrow valleys and is underlain with sandstone, shale, red beds, and limestone. The geology in the area originates from fluvial erosion and landslides and has a developed dendritic drainage pattern.

Figure 1-7: Elevation provides a visual depiction of the elevation changes in Greene County. The elevation ranges from a low of 750 feet, found along the Monongahela River and other stream corridors, to a high of 1,675 feet, which is predominantly found in the southwestern portion of the County.

Figure 1-8: Steep Slopes identifies areas that have a slope between 25 and 40 percent and areas with a slope greater than 40 percent. Land having a slope value between 25 and 40 percent present unique characteristics and should allow limited and carefully planned development. These areas can be found throughout the county, though they are

more prevalent to the west of I-79.

Land having a slope value greater than 40 percent should be reserved from residential, commercial, or industrial development. These areas should focus on preserving natural areas and wildlife habitat as well as preventing erosion. The majority of these areas are found in the western portion of the county, particularly in the southwest.

The topography of Greene County presents a natural challenge to provide certain types of recreation facilities, particularly walking trails. In order to use state or federal funds, trails must be ADA compliant and have less than a five percent grade. Unless trails are developed along ridge tops, it will be difficult to provide linear connections in western Greene County that meet these requirements.

Soils

Soil is produced through the interaction of five natural forces: climate, plant and animal life, parent material, topographic relief, and time. The degree and influence of each of these factors differ from place to place and influence individual characteristics of the soil.

General knowledge of the soil associations within an area is useful for planning. These associations can provide background information for determining suitable land uses for land tracts. In addition, this information is useful for watershed management, forestland management, community development, and recreation planning.

Three soil associations exist within Greene County (USDA,

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1979):

- Dormont-Culleoka – Moderately well drained and well drained; deep and moderately deep; gently sloping to very steep soils; on hilltops, ridges, benches, and hillsides
- Dormont-Culleoka-Newark – Well drained to somewhat poorly drained; deep and moderately deep; nearly level to very steep soils; on hilltops, ridges, benches, hillsides, and floodplains
- Glenford-Dormont-Library – Moderately well drained and somewhat poorly drained; deep, nearly level to sloping soils; on terraces and surrounding uplands

The majority of the County is comprised of the Dormont-Culleoka association. The major limitations associated with this association include steep slopes, a tendency for erosion to occur, and a seasonal high water table. The Dormont-Culleoka-Newark association is located along the floodplains and hillsides adjacent to the following streams: Enlow Fork Wheeling Creek, Dunkard Fork (North and South Forks), South Fork Tenmile Creek, and Whiteley Creek. Major limitations associated with this association are the steep slopes, the tendency for erosion to occur, a seasonal high water table, and occasional flooding. The Glenford-Dormont-Library association is located in the eastern portion of the county and a few isolated pockets in central and southeastern Greene County. The major limitations associated with this association include steep slopes, the tendency for erosion to occur, a seasonal high water table, and slow and moderately slow permeability.

Prime agricultural soils can be found scattered throughout the county, predominantly in the eastern portion of the county and along stream banks. *Figure 1-9: Agricultural Resources* identifies the locations of prime agricultural soils as well as agricultural security areas (ASA) and areas classified as agriculture (as per the most current land cover data). ASAs are lands that the owners have put into a program that provides a level of protection to the farmers from development. In addition, the landowner is eligible to voluntarily sell a conservation easement to the County Agricultural Land Preservation Board which states that the land must be available for agricultural use in perpetuity. These conservation easements can be useful for greenways planning and assist the County in protecting agricultural lands. The only ASAs in the county can be found north of Waynesburg in Washington Township. Agricultural resources are discussed further in *Chapter 4: Trails and Greenways*.

Biological Resources

Vegetation

Greene County is located within the Eastern Broadleaf Forest (Continental) Province (USGS, 2004). Several types of forestland are found in Greene County, including deciduous, coniferous, and a mix of both types. Deciduous forest land includes all forested areas that have a predominance of trees that lose their leaves when the frost-free season ends or the dry season begins (Anderson, 1976). Two pockets of coniferous forestland were identified near Boyd Run in Washington Township and near Fordyce Run in Gilmore Township. The USGS also identified the majority of the deciduous forestland in Greene County as oak-hickory forest (USGS, 2004).

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Figure 1-10: Forest Resources provides a visual depiction of forest lands (as per the most current land cover data). In addition, data from the Natural Infrastructure Project (distributed by the Southwestern Pennsylvania Commission) shows areas with Oak and Hickory forests and areas with Maple, Beech and Birch forests. These areas are also shown on *Figure 1-10: Forest Resources*.

Stream margins throughout the county are composed of several species of riparian vegetation. The USDA Forest Service defines a riparian buffer as “the aquatic ecosystem and the portions of the adjacent terrestrial ecosystem that directly affect or are affected by the aquatic environment. This includes streams, rivers, lakes, and bays and their adjacent side channels, floodplain, and wetlands. In specific cases, the riparian buffer may also include a portion of the hill slope that directly serves as streamside habitats for wildlife.” Vegetation observed along some of the streams in the county included deer-tongue grass (*Dichanthelium clandestinum*), jewelweed (*Impatiens capensis*), smooth alder (*Alnus serrulata*), black cherry (*Prunus serotina*), birch (*Betula spp.*), and American beech (*Fagus grandifolia*). These riparian and wetland species function to alter floodwater flow, retain sediment and toxins from upland areas, stabilize and shade the stream margin, and deliver detrital matter to the stream.

Riparian buffers provide an excellent opportunity to develop a greenways network. In suitable areas that have a wide buffer, it is possible to develop a walking trail within the greenway. In other areas, the riparian buffer and greenway provide a natural area that allows for conservation and preservation.

Ecological Habitats

Several types of important habitats exist within Greene County. An Important Bird Area (IBA) is a site that is recognized globally for its bird conservation value. The National Audubon Society administers this program in the United States and these areas are monitored by volunteer efforts. IBAs were established to promote habitat conservation by focusing attention on ways to avoid habitat fragmentation, suburban sprawl, and overbrowsing by deer. The Enlow Fork IBA is the only IBA within Greene County. It is located in the northwestern corner along the boundary between Greene and Washington Counties and a portion overlaps with the State Game Lands 302. Several representative birds were identified and classified according to the IBA criteria. The summer tanager (*Piranga rubra*) occurs at the IBA and may breed there. The site also contains breeding populations of Cerulean warbler (*Dendroica cerulea*), Yellow-throated warbler (*Geothlypis trichas*), Kentucky warbler (*Oporornis formosus*), Acadian flycatcher (*Empidonax vireescens*), and Louisiana waterthrush (*Seiurus motacilla*).

Another type of important habitat is the riparian buffer zones, which consist of areas of trees, shrubs, and herbaceous vegetation that is situated within the interface between a terrestrial and aquatic habitat. They are crucial to the quality of a stream. The quality of the riparian buffers vary throughout the county. Some stretches of streams have intact buffer systems; however, many areas have been degraded from encroachments from agriculture, livestock grazing, and lawns.

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As part of an initiative to uncover Natural Heritage Areas in Pennsylvania, the Western Pennsylvania Conservancy (WPC) conducts Natural Heritage Inventories (NHI) for interested counties. The WPC completed the NHI for Greene County in 2005. The results of the inventory provide information on areas of unique and significant flora and fauna communities within the state. This data can be used in part for planning for biological diversity enhancements and ecological protection within specific regions or watersheds. Municipalities and residents may view the Greene County NHI (adopted 2005) by contacting the Greene County Department of Economic Development or by going to the Western Pennsylvania Conservancy website at <http://www.paconserve.org/rc/cnhi-greene.html>.

The NHI separates these ecologically important areas into two classifications: Biological Diversity Area (BDA) and Landscape Conservation Area (LCA). In addition, the BDA is further categorized by being either a core habitat area or a supporting habitat area, while the LCA is broken into a forest LCA or a watershed LCA. *Figure 1-11: NHI Sites* depicts the results of the NHI. More detailed information regarding the NHI areas and how they were used to identify potential greenways and areas for preservation is contained in *Chapter 4: Trails and Greenways*.

Recreation, Parks, Trails and Greenways

The Pennsylvania Department of Conservation and Natural Resources (DCNR) and the Pennsylvania Recreation and Park Society, Inc. (PRPS) define recreation as “the act of participating in experiences that result in achieving and maintaining the balance required for people to live life fully and to realize their full potential.” Quality of life is one of the most important factors in determining why people choose to live in certain places. Greene County has an abundance of recreation and outdoor destinations located within the County that should be recognized and utilized to their fullest extent. The Greene County Comprehensive Recreation, Parks, Trails / Greenways Plan will provide the officials with the tool needed to provide a wonderful network of parks, recreation facilities and trails / greenways that will meet the needs of both current and future residents. The remaining chapters of this plan focus on providing an inventory and analysis of the existing recreation in Greene County as well as potential recreational opportunities.