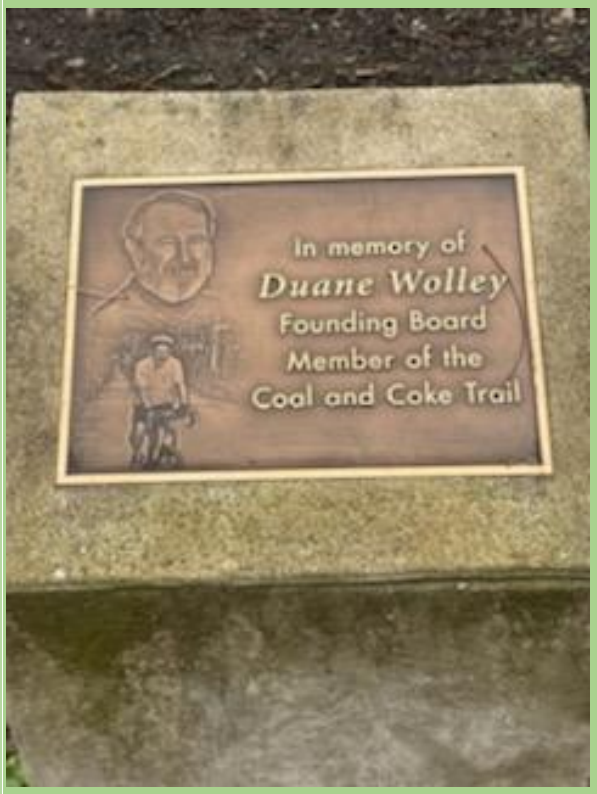
Coal & Coke Trail Initiative Plan



Emily Lessman

Jack Robertshaw Jr. Fellow

Prepared for the Coal & Coke Trail Chapter, Smart Growth Partnership of Westmoreland County, Indiana University Geography, Geology, Environment, and Planning Department

SMART GROWTH Partnership

COAL & COKE TRAIL CTC Linking Communities & History

IUP Indiana University of Pennsylvania

Table of Contents

Thank You Dedication

Thank you to the communities of Mount Pleasant Borough, Mount Pleasant Township, East Huntingdon Township, and Scottdale Borough for providing the resources to make this project happen. Thank you to the Coal & Coke Chapter, Smart Growth Partnership of Westmoreland, Ms. Leanne Griffith, Dr. Richard Hoch from the Indiana University of Pennsylvania Geography and Regional Planning faculty, Dr. Whit Watts, Scottdale Parks Commission, Diane and Taylor of Jacobs Creek Watershed Association, Mr. Andy Pinsky, Ms. Jane Altman of River Art Works, and all the businesses of the area that conversed and shared sentiments for our community.

Thank you, John, Mom and Dad, Phillip, for providing the motivation, support, and opportunity for this community planning project through the Jack Robertshaw Jr. Fellowship.

I Dedicate this plan to the community members of Mount Pleasant Borough, Mount Pleasant Township, East Huntingdon Township, and Scottdale Borough.

Qualifications of Fellow Student Planner

Location of Image: Smithton Pennsylvania Pollinator Garden

Emily is a current Mount Pleasant Borough, Pennsylvania resident and attended the Southmoreland School District but finished her high school diploma at Pennsylvania Cyber Charter School. After earning her high school diploma, she pursued a Bachelor of Science in Agriculture focused on Soil Science and mix land use management at West Virginia University (WVU). During her time as an undergraduate, Emily competed with the West Virginia Soil Judging Team in the National Collegiate Soil Judging competitions. Emily had the ability to be a part of the scoring National Collegiate Soil Judging Champion Team that secured the 2016 National Collegiate Title for WVU. After her degree in 2017, Emily pursued professional development in public relations. Following the public relations position, Emily accepted a job within a private environmental engineering consulting firm producing Phase I and II Environmental Site Assessment (ESA) investigations and report production. Currently Emily is a second-year Graduate Student at Indiana University of Pennsylvania in the Geography and Regional Planning Department for Environmental Planning. Upon completion and successful thesis defense, Emily plans to pursue positions that use grass-root and local community volunteer activism to enhance rural townscapes through improvement of relationships among community developers, planners, and the community members that they serve.

Resume

Education

Indiana University of Pennsylvania, Indiana, Pennsylvania
Planned graduation in spring 2022
Master of Science in Geography
Track: Environmental Planner
Certification: Geospatial Intelligence and Analysis (GINA)

West Virginia University, Morgantown West Virginia
2017 Graduate
Bachelor of Science in Agriculture
Major: Environmental Protection/ Soil Science
Minor: Geology
Emphasis: Soil and Water Conservation

Oregon State University, online PACE learning system
4-week Spring 2020 Technical Writing Course

Fellowship

Jack Robertshaw Jr. Community Planning Fellowship through Smart Growth Partnership of Westmoreland County
Award Year: 2021-2022
Fellowship Report: The Coal & Coke Trail Initiative Plan

Graduate Assistantship

Graduate Assistant, Indiana University of Pennsylvania, Indiana Pennsylvania
(September 2020-Current)

- Decreased academic workload for supervising professors through handling of grading assignments
- Utilized time management skills to accomplish supervising professors demands with current workload

Experience

Student GIS Technician, IMAPS-Indiana University of Pennsylvania, Indiana Pennsylvania
(September 2021-Current)
Supervisor: Bob Wilson

- Maintained and excelled to meet metrics for assigned underground mine digitizing project
- Established efficient and accurate digitizing of mine and coal pillar boundaries
- Improved ArcMap applications through continuous training provided through IMAPS

Lead Environmental Field and Phase I Site Assessment Technician, ATC Group Services, Pittsburgh Pennsylvania
(April 2018- March 2020)
Supervisor: Larry Sweeny

- Exceeded in and supervised Phase I and Phase II Site Assessments and report production
- Assembled and produced documents for the Pennsylvania Department of Environmental Protection
- Delivered quality assurance within data entry and data management for each contracted job site
- Lead and directed environmental sampling and inspection for active construction sites
- Primary technician for Post Construction Storm Water Management on finished natural gas well pads
- Accomplished federal, state, and local environmental file reviews as needed by the client
- Organized and established client face to face interactions on contracted job sites
- Handled construction materials testing for on-road improvement to infrastructure as described by the clients

Research Experience

Undergraduate Research Assistant, Interdisciplinary Ecohydrology Lab, West Virginia University, Morgantown, West Virginia
(January 2017-July 2017)
Supervisor: Dr. Jason Hubbart

- Facilitated collection of weekly and bi-weekly environmental field sampling of soil and water
- Excelled in laboratory sample management including sample preparation and data collection
- Assembled data management files for finalized laboratory analyses
- Chaired the creation of introductory standard operation procedures as used during data analysis and sample preparation
- Sharpened and refined introductory laboratory abilities and procedures

Summer Intern Student Research Assistant, Plant and Soil Science Agronomy Lab- West Virginia University, Morgantown, West Virginia
(May 2016- August 2016)
Supervisors: Dr. Charlene Kelley and Dr. Thomas Griggs

- Implemented research agronomy plots to assist in research goals
- Organized environmental sampling methods and data collection
- Increased student-professor collaboration on student supplied research efforts
- Coordinated sampling protocols and efforts to collect data

Summer Intern Assistant at the United States Department of Agriculture- National Resource Conservation Service, Whitehall, West Virginia
(May 2015- September 2015)
Supervisor: Jamie Darlington

- Conveyed pertinent information on land and resource contracts to the landowners within the contract
- Documented progress and improvements to the contracted additions to agriculturally based land use
- Accomplished excellence in skills for agricultural environmental sampling
- Assembled contracts for the landowners in service for the agents of the department

Certifications

- OSHA Hazardous Waste Operations and Emergency Response (40-Hour 29 CFR 1910.120e)
- APNGA Portable Nuclear Gauge Safety & U.S. D.O.T Hazmat Certification
- American Traffic Safety Service Association Certified Flagger

Skills

- Excel in introductory Python language corresponding to GIS workflow automation
- Refined analytical skills using Microsoft Excel package
- Exemplary skills in environmental field sampling
- Refined skills in ArcMap 7.0 and ArcPro cartographic applications
- Built foundational skills to produce remote sensing imagery
- Strengthened data management and database analysis and collection
- Spearheaded student-level community planning reports for various levels of audience
- Operated graduate student-level missions of unmanned aerial systems/vehicle for decision-based projects

Fellow Student Planner Contact Information

Emily Lessman

e-mail: lessman.e.a@gmail.com

cell phone: (724)-309-6160

Executive Summary

This Coal & Coke Trail Initiative Plan is assembled for the purpose of the Jack Robertshaw Jr. Fellowship and for the audiences of Smart Growth Partnership of Westmoreland, Coal & Coke Trail Chapter, the communities of Mount Pleasant Borough and Township, East Huntingdon Township and Scottdale Borough, and Indiana University of Pennsylvania. The purpose is to provide background information, a basic demographic analysis, and an objective with related projects, along with a discussion on next steps for the community to consider meeting the selected Smart Growth Partnership of Westmoreland County principles and the Coal & Coke Trail goal of "Linking Communities & History". The plan proposes cost effective projects that utilize the surrounding landscape and regional heritage presented on the Coal & Coke Trail corridor. The plan is solely used to present options for the community and stakeholders to implement on and near the trail. The objectives are set to be easily obtainable and backed with information presented in the plan. The plan contains thirteen sections to provide comprehensive coverage of the communities surrounding the Coal & Coke Trail. Any naming of community and/or stakeholders identified was done through free-source information and public meetings. Any named stakeholder has not given support to Jack Robertshaw Jr. Fellowship unless specifically stated.

1.0 Introduction

https://smartgrowthpa.org/about/

https://www.co.westmoreland.pa.us/1006/Coal-Coke-Trail

The objective set forth in this Coal & Coke Trail Initiative Plan is to foster and create a distinctive identity through attractive and engaging green spaces along the Coal & Coke Trail Corridor. To attain the set objective, three separate projects are proposed with suggestions for resources and funding. The set objective is based and founded on two of the ten principles of sustainable development set by the Smart Growth Partnership of Westmoreland and the main goal of the Coal & Coke Trail Chapter. The projects proposed to achieve the objective were selected based on the attainable and realistic goals related to the resources available at the time of this report's production. The objective and related projects are derived from the Smart Growth Principle 2- Fostering Distinctive, Attractive Communities with a Strong Sense of Place and Smart Growth Principle 9- Encouraging Community and Stakeholder Collaboration in Development Decisions. Fostering a distinctive sense of place meets the Coal & Coke Trail's initiative of "Linking Communities & History" by providing the example projects for the community to complete. The projects focus on the effort and resources that are known to be available. This plan suggests that collaborative work among multiple organizations, utilizing the communities' resources collectively, can provide the ability to showcase the identities of the region to further attract and engage visitors of the trail. (Som, 2007; Warner 2010)

Creating distinctive community identity through attractive and engaging green spaces can be an integral role in a person's consciousness of the physical surroundings. A sense of place provides dimensions to regional communities and destinations small and large. A sense of place relies on the people within the communities to create resiliency in identity through time by harnessing distinctiveness in economy, culture, and social customs. When the energy and heart of the community are utilized, destinations within the community gain identities. The Coal & Coke Trail as a destination provides the ability to take the heterogenous communities and create a homogenous but diverse identity using the inherent importance of place within the corridor (Kudryavtsev 2012; Campelo, 2015; Ryfield 2019). The objective can be met through community resources that include intergenerational and intercommunity team-efforts that can adopt and execute the plan's objective through community-focused projects.

The Coal & Coke Trail Initiative Plan provides detailed sections of regional information including, demographic analysis, natural and man-made environment discussions, discussion on the selected projects, and appendices to support the sections within the report. The projects were chosen based on variable levels of costs expected for the

initiatives. A section on possible next steps for the community is provided to discuss opportunities for the community and stakeholders to further the initiative through community-decided priorities and actions.

The driving factor to help propose, start, and finalize the Coal & Coke Trail Initiative Plan projects starts with volunteerism from the communities. When discussing the larger stakeholders within the Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough, the individual desires, abilities, and resources are to be assessed. Including the community members within this plan's objective can produce a relationship between each member and the region and further strengthen the sense of place. In the following sections, demographic analysis, natural environment, heritage, safety, and proposed projects will be discussed further.

2.0 Trail Information

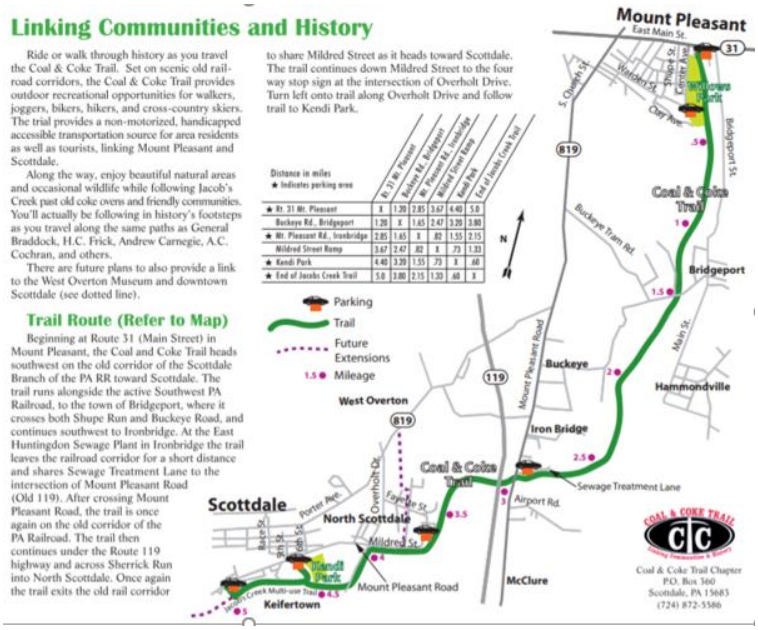


Figure 1: Appendix Trail Figure 2. Coal & Coke Trail Brochure.
Source: https://www.co.westmoreland.pa.us/1006/Coal-Coke-Trail

The Westmoreland Coal & Coke Trail is approximately a five-mile-long corridor that begins on the center line of PA Route 31 (PA 31) at the Route 31 Mount Pleasant access point in Mount Pleasant Borough and ends at the End of Jacobs Creek Trail access point in Scottdale Borough. The trail is located parallel from the active Southwest Pennsylvania rail-line located to the east of the trail. The Coal & Coke Trail was opened officially in 2007 after continuous years of design and funding pursuits. The trail corridor name originates from the region's prosperous coal and coke rich economy.

The corridor connects and provides services to the general municipalities of Mount Pleasant Borough and Township, East Huntington Township, Upper Tyrone Township in Fayette County, and Scottdale Borough (Appendix Map 1). The trail traverses through mixed land uses or agriculture, urban, forested, and rangeland (Appendix Map 2). The trail has six official connections and access points that are primarily located within Mount Pleasant Borough and Township, East Huntington Township, and Scottdale Borough.

Figure 2: Interface imagery of the Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough
Source: https://www.wcgis.us/apps/public/

The official access points are at Route 31 Mount Pleasant, Buckeye Road Bridgeport, Mount Pleasant Road Iron Bridge, Mildred Street Ramp, Kendi Park, and End of Jacobs Creek Trail. Access point at Willow Park is included due to the need and desire of the community to use the trail. Willow Park is incorporated to create defined trail segments (Appendix Maps 3 through 7). (Coal and Coke Trail, 2021; Pennsylvania Department of Conservation and Natural Resources (PA-DCNR) 2021; TrailLink, 2021)

The trail is incorporated with two proposed future extensions at the Mildred Street Ramp and End of Jacobs Trail access point to further reach the conterminous communities of East Huntington and Scottdale Borough. During the reconnaissance and observation of the Coal and Coke Trail corridor, the trail was segmented into six segments defined

by the portions between access points. The trail segment lengths as stated are approximate due to the margin errors in distance tracking applications and discrepancies in map resources regarding total trail length. (Walk With Map My Walk, 2021; AllTrails, 2021; TrailLink, 2021; PA-DCNR, 2021)

Access points starting with Route 31 Mount Pleasant through to Willow Park is trail segment A, which is approximately 0.32 miles in length. Willow Park through to Buckeye Road- Bridgeport is trail segment B, which is approximately 1.0 miles long. Buckeye Road Bridgeport to Mount Pleasant Road Iron Bridge is trail segment C, which is approximately 1.72 miles. The trail continues through Mount Pleasant Road Iron Bridge to Mildred Street Ramp, which is trail segment D at approximately 0.9 miles long and Mildred Street Ramp to Kendi Park, which is segment E and approximately 0.75 miles in length. The final segment, Kendi Park to Jacobs Creek Trail End is designated as trail segment F and is 0.6 miles in length with 0.1 mile of the 0.6 miles designated as a Jacobs Creek Multi-Use Trail.

The trail services the conterminous municipalities and engages community members of all demographics in outside recreation, relaxation, and multi-modal transportation. The trail is a multi-season corridor that supports pedestrian, bicycle, and cross-country skiing opportunities with handicap accessible entrances. Leashed dogs are welcomed on the Coal & Coke trail, horseback riding and motor vehicle use is not permitted.

The Westmoreland Coal and Coke Trail is a composite of crushed limestone gravel and sand. The geotechnical materials provide a self-draining level trail that minimizes ice formation and improves traction. The trail is maintained at a gradual and minimal elevation change of 193 feet in gain. The trail intertwines between industry, agriculture, residential, and mixed land uses including an underpass of the locally relevant former Iron Bridge at trail segment D (Map 1).

The purpose of the trail is to provide a community-based amenity that showcases experiences of the natural and man-made assets that shaped the region that is known today. The trail depicts a rich and vibrant history of the region through visible and exposed features within the corridor. The Coal & Coke Trail is publicly funded through donations and volunteer support of the community members, businesses, and government entities. The Coal & Coke Trail Committee is focused on the preservation of the rich history that is of South-Central Westmoreland County.

3.0- Demographic Analysis

Using the 5-year American Community Survey (ACS) estimates, a basic analysis was performed for total population of Mount Pleasant Borough and Township, East Huntingdon Township, Scottdale Borough. The 5-year ACS data collection was selected based on population size standards for census data collection. The communities separately are under 20,000 people in population. Demographic variables selected from the 5-year ACS include, total population, age distribution, housing characteristics, income characteristics, commuting factors for working population 16 years and older, and education attainment for the population over 25 years of age. The selected data groups and population growth analysis were chosen to provide the needed representation of the population and community of the Coal & Coke Trail corridor.

Total population growth calculations used for this Coal & Coke Trail Initiative Plan include:
Method I. Constant Change Equation: $Population\ Growth = (End\ Count - Start\ Count) + End\ Count$
Method II. Constant Growth Rate Equation: $Population\ Grouwth\ Percent = \frac{(End\ Count - Start\ Count)}{Start\ Count}$ then, $Population\ Growth\ = End\ Count + (Population\ Growth\ Percentage \cdot End\ Count)$. The calculations were performed through Microsoft Excel. Two methods of analysis were performed to provide different probabilities of population growth for the municipalities and Westmoreland County.

Mount Pleasant Borough's population is recorded for the 5-year ACS in 2015/2019 data as 4,277. The population growth analysis represents a trend of predicted year of 2030 population decrease calculated from Method II with a predicted decrease of 4.85%. The population age distribution is 6% under five years of age, 12% total population for under 18 years of age, 61% for age range of 18-65 years of age, and 21% for 65 years and older population. Median age of the Mount Pleasant Borough population is 46 years of age as reported in the 2015/2019 ACS. Education attainment for the population of 25 years of age and older is, 9% less than high school, 40% high school graduate or equivalent, 30% some college, 15% bachelor's degree, 4% master's degree, 2% professional school degree, and 1% doctorate. There are a total of 2,425 housing units in Mount Pleasant Borough with 68% is owner-occupied and 32% renter occupied. 255 households do not have vehicles. The population of families with income below the United States poverty level in Mount Pleasant Borough is of 160 families and 1,044 families at or above the poverty level as of 2015/2019 ACS census. The median household income in 2019 inflation is $42,988 and a per capita income of $24,133. Commuting characteristics are 97% motorized vehicles, 3% of the population walk to work, and 0% of the population using non-motorized means.

Mount Pleasant Township's population is recorded for the 5-year ACS in 2015/2019 data as 10,546. The population growth analysis represents a trend of predicted year of 2030 population decrease calculated from Method II with a predicted decrease of 3.58%. The population age distribution is 4% under five years of age, 13% total population for under 18 years of age, 60% for age range of 18-65 years of age, and 23% for 65 years and older population. Median age of the Mount Pleasant Township population is 48 years of age as reported in the 2015/2019 ACS. Education attainment for the population of 25 years of age and older is, 10% less than high school, 33% high school graduate or equivalent, 33% some college, 17% bachelor's degree, 5% master's degree, 1% professional school degree, and 1%

doctorate. There are a total of 2,425 housing units in Mount Pleasant Township with 87% is owner-occupied and 13% renter occupied. 239 households do not have vehicles. The population of families with income below the United States poverty level in Mount Pleasant Township is of 195 families and 3,062 families at or above the poverty level as of 2015/2019 ACS census. The median household income in 2019 inflation is $53,425 and a per capita income of $29,010. Commuting characteristics are 97% motorized vehicles, 3% of the population walk to work, and 0% of the population using non-motorized means.

East Huntingdon Township's population is recorded for the 5-year ACS in 2015/2019 data as 7,733. The population growth analysis represents a trend of predicted year of 2030 population decrease calculated from Method II with a predicted decrease of 2.64%. The population age distribution is 6% under five years of age, 15% total population for under 18 years of age, 57% for age range of 18-65 years of age, and 22% for 65 years and older population. Median age of the East Huntingdon Township population is 47 years as reported in the 2015/2019 ACS. Education attainment for the population of 25 years of age and older is, 7% less than high school, 42% high school graduate or equivalent, 29% some college, 15% bachelor's degree, 3% master's degree, 3% professional school degree, and 1% doctorate. There are a total of 3,535 housing units in East Huntingdon Township with 78% is owner-occupied and 22% renter occupied. 224 households do not have vehicles. The population of families with income below the United States poverty level in East Huntingdon Township is 105 families and 1,883 families at or above the poverty level as of 2015/2019 ACS census. The median household income in 2019 inflation is $54,674 and a per capita income of $35,302. Commuting characteristics are 97% motorized vehicles, 0.34% of the population walk to work, and 0% of the population using non-motorized means.

Scottdale Borough's population is recorded for the 5-year ACS in 2015/2019 data as 7,733. The population growth analysis represents a trend of predicted year of 2030 population decrease calculated from Method II with a predicted decrease of 2.64%. The population age distribution is 5% under five years of age, 14% total population for under 18 years of age, 56% for age range of 18-65 years of age, and 25% for 65 years and older population. Median age of the Scottdale Borough population is 47 years as reported in the 2015/2019 ACS. Education attainment for the population of 25 years of age and older is, 4% less than high school, 40% high school graduate or equivalent, 30% some college, 15% bachelor's degree, 9% master's degree, 1% professional school degree, and 1% doctorate. There are a total of 3,535 housing units in Scottdale Borough with 74% is owner-occupied and 26% renter occupied. 112 households do not have vehicles. The population of families with income below the United States poverty level in Scottdale Borough is 82 families and 1,092 families at or above the poverty level as of 2015/2019 ACS census. The median household income in 2019 inflation is $53,099 and a per capita income of $29,778. Commuting characteristics are 97% motorized vehicles, 2% of the population walk to work, and 1% of the population using non-motorized means.

A basic analysis of Westmoreland County was included to represent the data on population growth trends as a comparison to the smaller municipalities. The recorded population for Westmoreland County as recorded in the 2015/2019 ACS is 352,590. The predicted population trend is a decrease of 3.62% by the year 2030.

The analysis of the selected demographics for the Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough is to support the objective and the selected project. The demographic analysis figures and tables are further provided in detail in Appendix B of the report. Calculations were performed in Microsoft Excel. The following sections discuss the objective selected and the Smart Growth Partnership of Westmoreland Principles.

4.0. Natural Environment

4.1. Climate

The Climate of Pennsylvania that supports the year-round recreation of the Coal & Coke Trail is classified as a humid continental climate. The humid continental climate is characterized by wide fluctuations of temperature with prevailing winds from the Southwest towards the Northeast. The temperature averages in the humid continental climate for Westmoreland County ranges from 28 degrees Fahrenheit in the winters to 73 degrees Fahrenheit in the Summers with mild spring and fall seasons. The region of Westmoreland County in 2020 had an average annual precipitation of 45.69 inches with a ten-year average of 50.24 inches. (National Oceanic Atmospheric Administration (NOAA), 2021; United States Department of Agriculture – Natural Resource Conservation Service (USDA-NRCS), 2021)

4.2. Watershed

The Coal & Coke Trail corridor is located within the Jacobs Creek Watershed. The watershed encompasses ten subwatersheds with two of the ten subwatersheds within the trail corridor (Trail Figure 1). The corridor spans three of the ten subwatersheds that include Jacobs Creek, Shupe Run, and Stauffer Run. The trail follows Shupe Run waterway from trail segment A through to trail segment C, which then flows into the larger Jacobs Creek (Trail Images 2, 3; Map 1, 2). Shupe Run is variable flowing during seasons with high flows during the wet seasons of spring and fall. At trail segment F, Stauffer Run connects and flows into Jacobs Creek (Trail Images 4, 5; Map 1 through 7). (Jacobs Creek Watershed Association, 2021)

Figure 3: Trail Segment B bridge crossing Shupe Run facing North.
Image Source: Personal File

4.3. Physiography

The Coal & Coke Trail corridor is situated within the Appalachian Plateau physiographic region. The trail corridor is within the Chestnut Ridge Mountain chain of the larger Allegheny Mountains that span from Indiana, County Pennsylvania for 75 miles through Southwest Pennsylvania and the communities of Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough. The Chestnut Ridge Mountain chain ends in Northern West Virginia. The ridge provides striking and rugged relief hued with vibrant foliage change through the humid continental climate seasons for a depiction of the true Appalachia scenery. (Renton, 2016; USDA-NRCS, 2021)

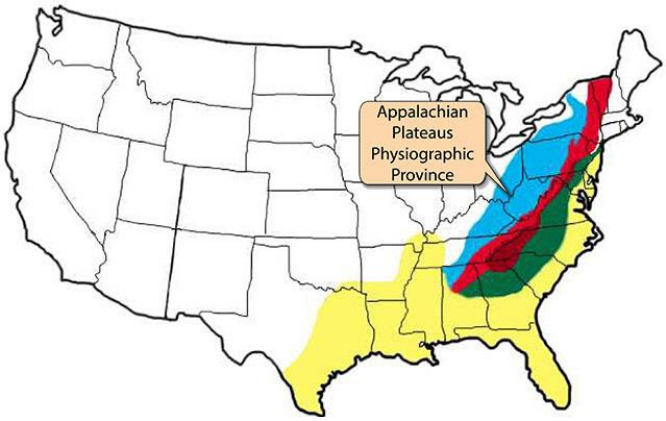


Figure 4: Appalachian Plateau Physiographic Province
Image Source: radford.edu

4.4. Geology

The geology of the region that supports the trail is of the cyclic Monongahela Group and Casselman Formation. Both the Monongahela Group and Casselman Formation consist of strata composed of limestone, shale, coal, and sandstones (Trail Image 3). Both Pennsylvanian aged geologic units are the supporting strata that fueled the coal and coke industry of the region. The trail weaves through both geologic features with exposed strata along the trail that can be identified by the general public. (PA-DCNR, 2021)

4.5. Pedology

Overlying the pedologic features of the corridor is the predominant soils of the Melvin Newark silt loams and the Holly silt loam. The soils are found in landscapes with zero to two percent slopes; similar to the Coal & Coke Trail Corridor landscape slope. The soils are formed on alluvial floodplains and upland depressions. The pedology of the soils originated from alluvial sedimentation from lime, silts, and noncalcareous sandstones formed from erosion of upland residual depositions. The soils are considered poorly to very poorly drained which can provide explanation for the ephemeral flooding and ponding that is experienced on and around the trail. (USDA-NRCS, 2021)

4.6. Wildlife

The region that encompasses the trail provides various natural features that include a range of animals and insects. The trail showcases the important ecosystems of the region that include wetlands and vegetation stands that are home to various native wildlife including the Red Wing Black Bird, Mallard and Wood Ducks, North American Cardinals and Blue Jays, Blue Heron, and Yellow Finches. Along with native avian are observable invasive species like European Starlings, House Finch, and the House Sparrow.

Along with avian wildlife, White Tail Deer, the North American Racoon, Grey Squirrels (Trail Image 6), North American Opossum, Black Rat Snake, and various other species call the corridor and associated wetlands home. The wildlife is active randomly during the day and can be observed from all areas of the trail. Aquatic animals like freshwater minnows are occasionally observable within the viewable Shupe Run waterway near the Mount Pleasant Sewage Treatment Plant. (Pennsylvania Game Commission, 2021)

4.7. Insects, Arachnids, and Arthropods

Insects that are noticeable on the Coal & Coke Trail includes various forms of beetles, praying mantis, flies, butterflies, ants, and bees. Observable Invasive insects of the area include Japanese Beetle, Brown Marmorated Stinkbug, Asian Tiger Mosquito's, and Spotted Lantern Fly. The Spotted Lantern Fly (Trail Image 7) is an invasive species that vectors disease and overconsumes native flora including agriculture crops. As of the year 2021, Westmoreland County is in quarantine due to the possible presence of reproduction including egg deposition. The Spotted Lantern Fly was not observed during field reconnaissance but, the insect is noted due to importance of identification and the quarantine status of the county.

Common arachnid families found in the corridor include the Wolf Spider, Banded Garden Spider, Wood Tick, and Dog/Deer Tick. The arthropod species that are observable on the trail include Mountain Cherry Millipede (Trail Image 8),

American Giant Millipede, and the common sowbug, among other species. (Penn State Extension, 2021; PA-DCNR, 2021; Pennsylvania Department of Agriculture, 2021)

4.8. Vegetation

Vegetation along the trail is a mix of native and invasive varieties. Various native deciduous trees are observed include the Choke Cherry, Red Maple, Black Locust, and Box Elder, among others. Native vegetation like Ironweed, Butterfly Weed, perennial grasses, Native Cattails, Bush Honeysuckle (Trail Image 9), and Wild Grape grow within the corridor. Adams Needles are also found within the corridor. An opportunity to see Adams Needle is on trail segment D near the Mildred Street Ramp access point. Along with the native flora resides the invasive species like, multiflora rose, Japanese Knotweed, Tree of Heaven (Trail Image 10, 11) and Poison Hemlock. (Pennsylvania Botany, 2021; Penn State Extension 2021)

The flora that is extremely problematic is the Tree of Heaven. The Tree of Heaven out competes native species and is the primary host for Spotted Lantern Flies. Poison Hemlock vegetation is invasive and outcompetes native species, and it is a highly toxic and noxious plant that is known to cause severe allergic reactions and fatality in humans and livestock. The presence of Poison Hemlock was noted and confirmed in-field during July 2021. (Pennsylvania Botany, 2021; Penn State Extension, 2021; University of Texas at Austin, 2021)

5.0. Regional Heritage

5.1. Historical Industry

Historical Industry are depicted as the economic heritage of the region. The coal and coke industry are the primary focus for the historical industry for the Coal & Coke Trail Chapter and this report. Current industry is described generally as mixed-land use with emphasis on light industrial, agriculture, and commerce. The following sections discuss further the heritage of the communities within the Coal & Coke Trail corridor.

Figure 5: Coke Ovens within the Mount Pleasant Borough/Township boundaries.
Image Source: Library of Congress.
https://www.loc.gov/item/2017759736/

5.2. Coal and Coke Economy

The location of the Coal & Coke Trail corridor was once an active and booming coal and coke industry that supported the steel economy of Pittsburgh and surrounding steel industry cities. The region of the corridor experienced the growth and wealth of the industrial boom period of approximately 1897 through to 1970. The industry of the prosperous past is preserved in the features present in the Coal & Coke Trail corridor (Penn State, 2021). The corridor follows the active Southwest Pennsylvania Railroad line towards Scottdale Borough. This rail line was once heavily used for coal and coke transportation connecting the steel industry regions. Currently the rail line is used to transport mixed materials and is not used as a passenger line.

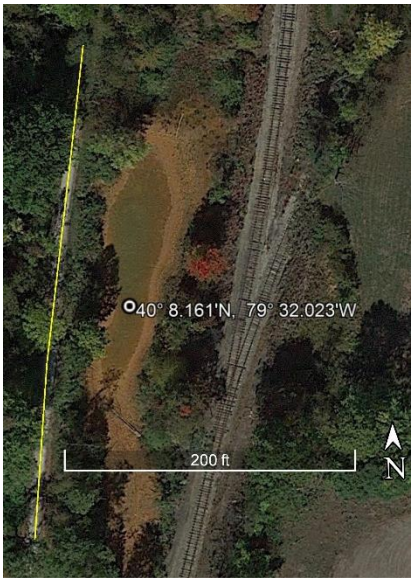


Figure 6: AMD Passive Remediation Pond located on Trail Segment B.
Image Source: Google Earth 2021.

Visible features the coal and coke industry begin at Trail segment A and are found through to trail segment F. The features include the current and detailed view of the rail line structures, locations of the former coke ovens, left-over coal, and shale gobs (Map 5), acid mine drainage (AMD) sources, and passive AMD remediation ponds. On trail segment B, a colorful AMD passive treatment pond provides unique experiences for trail users (Map 4) The pond displays vibrantly colored heavy metal precipitation. With fluctuations that occur during weather changes, the color of the pond changes from opaque white to vivid turquoise-like colors. (Eastern Pennsylvania Coalition for Mine Reclamation, 2021). Trail segment C includes views of leftover coal and shale gob piles and former locations of coke ovens. Trail segment D through E and F have fewer observable features of the former coal and coke economy. The lack of industrial features related to the coal and coke industry can be associated with extensive environmental reclamation of the area.

The current industry within the Coal & Coke Trail corridor that supports the region are light manufacturing, general automobile maintenance and use industry, basic retail, agriculture, and mixed land uses. The corridor is not dominated by one use over another use but a heterogeneous mix. Residential neighborhoods border the majority of the trail. Each segment provides different viewpoints of mixed land use, community assets, community talents, and natural features.

5.3. Observable Heritage Features

5.3.1. Trail segments A and B

At the Route 31 access point of trail segment A, the business within close proximity of the trail entrance is American Architectural Salvage. The American Architectural Salvage building (Trail Image 12, 13) offers an artistic history mural that accounts for the human progress of the Mount Pleasant Borough and Township including the conterminous community (Trail Image 14, 15). The mural was completed by intercommunity organization and teamwork through the Community Arts Reintegration Program (CARP) (TribLive, 2018; University of Pittsburgh-Greensburg, 2018). The Route 31 access point incorporates the Jacob's Creek Watershed Association's rain garden catchments and Shupe Run stream bank revitalization, community posting board, and relaxation benches. The community Trail segment A provides access to community-wide athletic fields, relaxation areas, and connection to Willow Park Access (Trail Image 16, 17; Map 3). The Willow Park Access Point incorporates the park facility and more athletic fields and facilities.

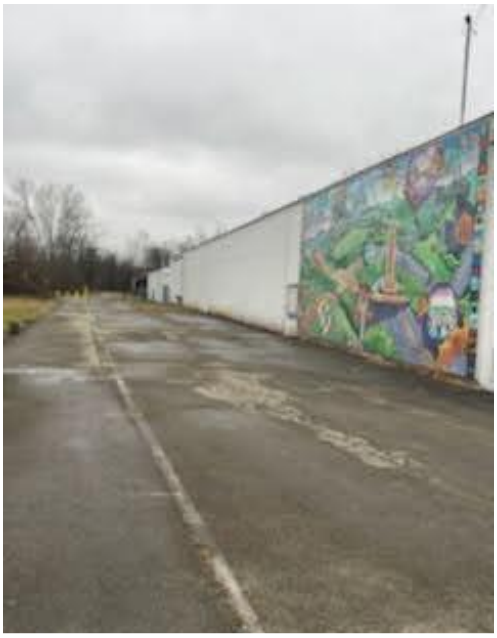


Figure 7: Mt. Pleasant Route 31 Access Point with the Art Installment on the American Architectural Salvage Building Image Source: Personal File

The Willow Park Access Point is also the start/end point of the in-town bicycle trail for Mount Pleasant Borough. The Mount Pleasant Sewage Treatment Plant sewage (Map 4) located within trail segment B and provides opportunities for residents and trail users to experience the workings of a sewage plant from an onlooker's perspective. The treatment plant discharges into Shupe Run waterway that borders the trail to the west and separates the plant from the trail. The Willow Park Portion of trail segment B contains a community board that depicts the Mount Pleasant in-town bike trail and out-of-date places of destination within the business district.

Mixed industrial and commercial land use surrounds the corridor of trail segment B including automotive repair, miscellaneous automotive storage yards, and private and public heavy engine repair. Trail segment B is noticeably surrounded by freshwater wetlands. The wetlands provide an open view of cattails and a backdrop of the community of Bridgeport in Mount Pleasant Township (Trail Image 18; Map 5). At the Buckeye Road Bridgeport access point, the trail crosses over Shupe Run (Map 5). Various signs including rule signs and a basic self-guided map tour at the Buckeye Road Bridgeport access point of trail segment B (Trail Image 19, 20).

5.3.2. Trail segment C and D

The Coal & Coke Trail corridor proceeds through mixed land use surrounding trail segment C (Trail Images 21, 22; Map 2, 5, 5.1). From trail segment C the shale and coal gobs are visible from the trail corridor (Map 5.1). Southwest Pennsylvania Railroad, various manufacturing industries, and residential neighborhoods of Mount Pleasant Township and East Huntingdon. The overall natural environment for trail segment C is dense overhanging vegetation, canopy undergrowth, geologic strata cut outs, and observable soil formations. The trail is minimally visible from private property and public roadways due to the vegetation. Trail segment C provides well-maintained soil and geologic profiles of the identified strata within the corridor (Trail Image 23). Trail segment C passes by the East Huntingdon Sewage Treatment Plant that services the township.

Figure 8: Coal and Shale Gobs located on Trail Segment C. Image Source: Google Earth 2021.

Trail segment D continues through as an underpass to the locally significant former Iron Bridge location on U.S. Route 119 (Trail Image 24; Maps 5.1, 6). Trail segment D is a mix of land-use incorporating a former manufacturing plant, forested boundaries, agricultural cultivation, and residential communities. A freshwater pond is located along trail segment D with incorporating wetlands on the perimeter (Trail Image 25). The trail continues through densely forested areas with high transmission powerline crossing overhead midway with more relaxation benches (Trail Image 26, 27, 28). There is an epitaph stone in remembrance of the founding board member, Duane Wolley.

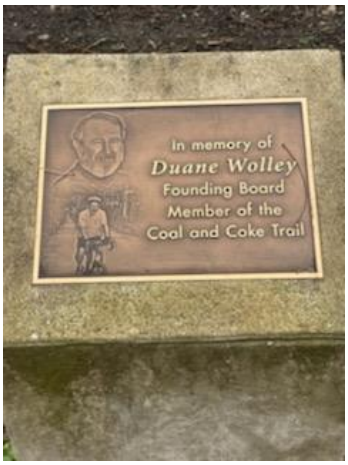


Figure 9: Duane Wolley Epitaph on Trail Segment D. Image Source: Personal File

5.3.3. Trail segment E and F

Trail segment E at Mildred Street Ramp access point (Trail Image 29 30, 31; Map 6) provides access to the trail with accessible parking and displays of residential flower gardens that boarder the access point. Trail segment E follows a multi-modal road that traverses through mixed commercial, residential, and former industrial land use. The trail segment is predominately paved and located on the road with portion of trail segment E within the Kendi Park Facility (Trail Image 38; Map 7). Various vegetation within trail segment E include native trees and grasses, the Tree of Heaven, and sparsely growing Poison Hemlock. Bordering the stream on the far-side are mixed land uses of industrial and commercial.

The trail segment F follows the Jacobs Creek waterway to the end of Jacobs Creek Trail access with various benches, views of the Jacobs Creek Waterway and the Scottdale Borough city buildings (Map 7). The portion of trail segment F is surrounded by community recreation and residential neighborhoods. There is a community posting board, handicap accessible parking, garbage cans, overhead lighting, and pavilions for means of use by the community (Trail Images 33 through 36). Trail segment F merges with Jacobs Creek Multi-Use Trail (Trail Image 37) that connects the trail to the in-town bike trail of Scottdale Borough.

6.0. Trail Safety and Infrastructure

The Coal and Coke Trail corridor provides a safe travel option for community members and visitors to traverse the conterminous municipalities of the region. The trail is set rurally with vegetation stands that separate the trail from the mixed land uses. There is no external overhead lighting on the trail except for portions of trail segment E and all of trail segment F. The majority of the trail is crushed limestone and sand with portions of asphalt and paving at the entrances. Trail Segment E and F are fully paved. Each trail access point contains traffic gates and flow barriers that secure the trail from motor vehicles and provides safe passing lanes for users.

The surface of the trail is relatively flat with a slight change of surface level based on moving underlying soil materials and water runoff flows. The trail contains three roadway crossings to connect each trail segment. The Coal and Coke trail contains two over water crossing bridges, multi-use passage, and trail to road connections. Various fencing and private property boundary markings are present including metal guard-rails, painted tree lines indicating private property, and wooden boundary fences.

6.1. Trail segments A and B

Trail segment A is equipped with updated parking lots, lighting, and relaxation benches. The trail is partly paved until the traffic flow gates where the surface transitions to crushed limestone and sand. The trail is buffered from the rail-line to the east by vegetation. The corridor path is in close proximity to the rail line with minimal signs that bring attention to the active rail-line hazards. The trail allows ample room for users to pass and continue traveling without interruption. Along trail segment A within the Willow Park recreation fields presents a crossing hazard sign to warn users of a busy intersection between recreation field users and trail users. At the Willow Park access point of trail segment B there are open space and relaxation benches near a power source feature that is properly fenced and protected from the general public.

Trail segment B on the westside of the trail at the 0.5 -mile marker, exhibits moderate bank erosion of Shupe Run. This portion is known to be frequented by minnow catchers which may be accelerating the erosion into the trail path. As trail segment B continues from the 0.5-mile mark, slight water erosion markings are present on the path route. After rain events, erosion markings are more apparent. The buffer between the active rail line and the path is increased by the vegetation stands and freshwater wetland regions. Trail segment B is mostly covered and shaded by the buffering tree canopies which provide a relief of sun and heat but can reduce the amount of lighting the trail receives.

The buffer between the passive AMD treatment pond and the trail path shoulder appears to be slightly sloped into the pond at the location of discharge pipe. Trail segment B contains one over water crossing of Shupe Run connection to Jacobs Creek that has experienced infrastructure update within approximately the last ten years. The Buckeye Road Bridgeport crossing from trail segment B to trail segment C is marked by worn road crossing paint, two signs for each road direction of trail pedestrian crossing and stop signs for trail users to yield to the roadway (Trail Image 20, 22).

6.2. Trail segments C and D

Trail segment C traverses through vegetation stands and minor freshwater wetlands. Trail segment C on the eastern portion contains metal traffic guardrails. This is to ensure the neighboring communities do not enter the trail on motorized vehicles. Trail segment C shows signs of sediment run-off from shale and coal gobs (Trail Image 15). Acceleration of run off may be due to the use of the gobs as an unofficial all-terrain vehicle racing track and transportation from stormwater runoff. The trail is narrow in regions that are bordered by the guardrails and densely vegetated stands making passing others a slower process during high traffic hours. Trail segment C does not contain a voluminous amount of trail benches or relaxation opportunities. Access point of trail segment C on Mount Pleasant Iron Bridge shares the Sewage Plant Lane with the commercial and light industrial facility on the west-northwest portion of trail segment C. The traffic to the light industrial complex is minimal and does not pose an issue trail user utilizing the shared road.

Trail segment C contains one roadway crossing to connect to trail segment D. The crossing contains stop signs for trail users, basic trail warning sign for car traffic, worn road crossing paint, and is bordered by blind hills of oncoming traffic. Trail segment D contains open spaces, mixed land uses or residential and former light industry, underpass for a US Route 119 tagged with graffiti (Trail Image 24), one overwater crossing of Jacobs Creek, private land boundary including fencing and paint and various conditions to trail surfaces including ephemeral flooding and ponding. The overwater crossing received infrastructure update in October 2021, the update included reinforcing the existing structure and replacing failed portions (Trail Image 38, 39).

The freshwater pond located on trail segment D is located relatively close to the path with a slight slope into the waterbody (Trail Image 25). This portion of trail segment D has not experienced issues of safety or concern from the general public. There Trail segment D contains overhead high voltage powerlines that provide energy resources to the region. Trail segment D near Mildred Street Ramp Exit is flat, slightly depressed and lacks the ability to effectively drain water off the path (Trail Image 28). Mildred Street Ramp access point is located within a quiet neighborhood of East Huntingdon Township located near Scottdale Borough. Trail segment D at the Mildred Street Ramp access point offers gravel surface accessible parking with overhead lighting. Mildred Street Ramp access point offers the ability to traverse through to Kendi park.

6.3. Trail segments E and F

Trail segment E starts at Mildred Street Ramp that turns into Bessemer Road (Trail Image 29, 30, 31) and follows the road through the four-way intersection of Bessemer Road, Overholt Road, and Mount Pleasant Road. There are minimal to no signs indicating the road as multi-use of transportation along Mildred Street Ramp to Bessemer Road. The intersection has a sign that gives general direction to the Coal and Coke Trail access of Mildred Street Ramp. The intersection contains additional signage warning of the dangers of the intersection due to poor visibility of all road stops. The trail segment E continues through the intersection west-southwest to right shoulder of Overholt Drive (Map 6).

The shoulder is a narrow bare soil path with minimal room for passing trail users due to the bordering road and former scrap metal facility boundary. The stormwater catchment drain slightly protrudes out of the ground level and creates an obstacle for bike and pedestrian trail users. Trail segment E follows around the scrap metal facility to connect to the Kendi Park recreation fields access point and to trail segment F (Trail Image 39). The remaining portion of trail segment E within the Kendi Park complex is paved with adequate room for passing users and incorporates external overhead lighting.

The final portion of trail segment E contains relaxation benches and short-cuts through the recreation fields. Trail segment E contains basic perimeter fencing in regions of low depression and water drainage regions. Located within this region was the sparsely growing Poison Hemlock. Trail segment F of the Coal & Coke Trail is paved, well-lit, and wide to accommodate multiple users passing. Trail segment F contains multiple relaxation benches, garbage receptacles, wooden boundary fencing, and overhead lighting (Trail Image 32 through 37).

The following Section briefly discusses the Coal & Coke Trail Initiative Plan Projects. The plan objective is supported through the demographic analysis and trail information and features observations.

7.0 Coal & Coke Trail Initiative Plan Projects to Meet Plan Objective

Cultivating a sense of place creates a community engagement of all generations. The objective stated cultivate and incorporate the regional identity at an obtainable level. The objective proposed include Intergenerational involvement from the ground level of planning to the finalized step of installing the proposed objective. The objective chosen involved multi-city observation and regional experiences from different regions of the United States. As stated earlier the objective also satisfy the Smart Growth Partnership of Westmoreland County Smart Growth principals and the Coal & Coke Trail Chapter central goal.

7.1. Intergenerational Self-Guided Education Tour

Creating a story walk provides a means of education and engagement for all ages. The official StoryWalk® Project was created by Anne Ferguson of Montpelier, Vermont and developed in collaboration with the Vermont Bicycle & Pedestrian Coalition and the Kellogg Hubbard Library (Kellogg Hubbard Library, 2022). Various regions of the United States have implemented official StoryWalk® projects and community unique story walks within public green spaces to harbor education and outdoor recreation. Official StoryWalk® guidelines are provided through open information sources from libraries around the United States and specifically the Kellog Hubbard Library. Examples of community unique story walks can be found within open-source forums from organizations like Kellogg Hubbard Library, Alberton-Carlton Cashiers Community Library in North Carolina, Thomas County Public Library in Georgia, and Northwest Kansas Library System in Kansas, among others (Lenstra 2019; Georgia Library Quarterly, 2020; Northwest Kansas Library System, 2022; The Laurel Magazine, 2021).

Official StoryWalk® projects as defined by Anne Ferguson provide a destination for children and adults to engage in the community at a personal level. A story walk can be placed along all portions of trail segments A through D, a small portion on trail segment E, and all portions of trail segment F. The story boards provide an initiative to use all portions of the trail while enriching community members of all ages. With community involvement, stories can be changed seasonally and can move locations to incorporate various points of destination along the trail.

A unique community story walk can harbor a sense of place by the ability to give a creative folklore of the region that is suitable by the official and suggested guidelines. The Coal & Coke Trail Chapter goal of “Linking Communities and History” can be met through assessing the community’s ability on creating a folklore story for the story walk. The goal can be met through encouraging community and stakeholder collaboration in development decisions. A community unique story walk provides a low to medium-resource cost project that can provide increased visits to the trail and engage the community in green play and education.

7.2. Destinations for Connection of Communities to Regional Heritage

The Coal & Coke Trail offers areas for educational installments within all portions of the corridor from trail segment A through to trail segment F. General areas are located on Maps 3 through 6. While identified through the Coal & Coke Trail Corridor in the Natural Environment and Regional Heritage Section, it is recommended to further identify the additional opportunities to add educational destinations within the corridor. To fully create and apply the correct

information gathered from the field reconnaissance, intercommunity cooperation between all stakeholders is required. Similar to a story walk, heritage destinations allow for passive learning for all socio-economic groups within the supporting communities and among visitors. Individuals that participate in outdoor education focused on the natural and man-made heritage form a stronger cognitive association with environmental importance and identity of place. Engaged individuals tend to want to be or are involved in decision-making for the community which forms the identity of place proactively (McConnell 2005; Russ-Nature Conservancy, 2017). The destinations incorporated at the community level provide an identity of place that can be distinguished from other regions. (Ryan, 2005; Largo-Wight,2011; Swim, 2014; Loeback, 2021)

From information gained from the Coal & Coke Trail Chapter meeting on July 13, 2021, the chapter has fiberglass signs that can be used for the educational project stated with support from the community. The purpose of the subset project for green education is to utilize the resources available as a low-resource cost initiative. The information for the education points can be collected by intercommunity cooperation and resources from the identified stakeholders.

7.3. Art for Community Identity

Art and interactive education projects create a strong community by providing a project with definitive goals, resources, and increased attention to improving teamwork within the community. Installments of community and public art are considered experimental and inclusive of the members involved as it represents the stories of the community. Similar to green education, art engages individuals and provides them the ability to connect to the identity of the community that they live or visit. (Kay, 2000; Lowe 2000; Alexenberg 2004; Rails to Trails 2022)

Community art within the Coal & Coke Trail corridor can further bridge the gaps between the communities of Mount Pleasant Township and Borough, East Huntingdon, and Scottdale Borough sense of place and the visitors to the Coal & Coke trail. At Route 31 Mount Pleasant Borough access point a current community mural depicts an artistic rendition of the human progress of the Mount Pleasant Borough and Township regions. With the utilization of multigenerational creatives and collaborations within the region, the trail can be utilized as a place to offer any form of art, from various lengths of art display duration -- from temporary to permanent installments. The trail segment A, D, portions of trail segment E, and F provide ample room for various types of installments while following trail safety shoulder allotments and boundaries of private property. General locations of possible art installments are provided on Map 3 for art installments along the Coal & Coke Trail. The art initiative is a high-resource requirement and needs detailed focus, collaboration, and ingenuity of resources. Projects can be created at low-resource cost similar to art installments found in Smithton, Pennsylvania. Artist community installments can be a collaborative project to meet the allowable designs and specifications to meet trail safety (Becker, 2004). The projects for the art installments would need to be pursued as a total community engagement to ensure the accuracy to the sense of place within the Coal & Coke Trail corridor. Art installment suggestions cannot be given by the consultant but should be derived by a consensus of the communities. Utilizing ingenuity regarding resources, the cost of art installments can be significantly reduced.

Art-focused businesses and programs can be employed to engage, mentor, and create the installments based on multigenerational resources, including the mentoring of art design by all ages, including school students focusing on art from neighboring districts like Mount Pleasant School District and Southmoreland School District, as well as senior citizen artists who continue to practice. Resources for the stakeholders would include taking community assessments of what is available, what needs are to be met, and what expansion of energy is possible to complete a set project to achieve the objective. Art installments to create a sense of place are high resource needed projects, based on the amount of cooperation needed from all community members, stakeholders, and support networks. Art installments have successfully been completed in other regions including other multimodal corridors that have expressed the sense of place held by the community.

7.3.1. Community Stakeholders

Support for the Coal & Coke Trail Chapter to complete this initiative plan's suggested projects involves intercommunity involvement and initiative. Private business stakeholders like Levin's Furniture have already provided financial donations and sponsorship to continue Coal & Coke Trail Chapter projects (The Daily Courier, 2021). The Coal & Coke Trail Chapter receives support from the various singular community member stakeholders like Mr. Andy Pinskey who channels the resources from community of Scottdale Borough to the Coal & Coke Trail Chapter projects. Mr. Pinskey has expressed general support to the student planner to achieve the Smart Growth Partnership of Westmoreland County and Coal & Coke Trail Chapter principles and goals. Mr. Pinsky is a large advocate for community-centered education initiatives and is active in the Scottdale Borough Committees and Commissions.

South-central and surrounding Westmoreland County is fortunate to harbor a large arts community from aspiring to professional levels. Various artist co-ops include -- River Artworks of Westmoreland County; Green Beacon Gallery of Greensburg, Pennsylvania; and the Community Arts Reintegration Program; among others in the region.

The following further identified community stakeholders include but are not limited to:

-Mount Pleasant Free Public Library

-Scottdale Public Library

-Mount Pleasant Recreation Board

-Scottdale Park Commission

-Jacobs Creek Watershed Association

-Mount Pleasant Historical Society

-Scottdale Historical Society

-Public-school systems of Mount Pleasant and Southmoreland

-Mount Pleasant Borough and Township

-East Huntingdon Township

-Scottdale Borough

-Spoked Wheelz

7.4. Potential next steps for the community

The suggested next steps are stated to provide input for additional community-focused and community-decided projects. These next steps are focused on Smart Growth Partnership of Westmoreland principle 5- Create Walkable Neighborhoods and principle 6- Provide a Variety of Transportation Choices. Next steps that would satisfy Smart Growth Partnership of Westmoreland principles could include creating additional route connections within the East Huntingdon Township region to connect the neighboring residential communities and the shopping locations within that township. An additional next step that would satisfy additional principles would include creating a bike share at low to no cost for the users of the trail through intercommunity cooperation and funding. These suggested next steps for the community were not part of the scope of this plan due to the high demand of resources that would be needed to complete them, and that would certainly be above the level for a student planner during the preparation of this Coal & Coke Trail Initiative Plan.

However, below are funding and other resources to consider for meeting the objective of this plan and any future projects and next action-steps agreed upon by the C&C Trail leaders, community leaders, and the community stakeholders that the trail connects:

- https://extension.psu.edu/one-community-many-generations-learn-where-to-start
  A series of seminars that provide continuing education for community leaders and stakeholders. The seminar is focused on using a team approach to learn about intergenerational community engagement. The seminars are provided virtually through Penn State Extension.
- https://extension.psu.edu/one-community-many-generations-guidebook
  A guidebook that provides community, stakeholders, and leaders information on assessing the community and the abilities to expand the intergenerational engagement. The guidebook was developed through the partnership of Penn State Extension and AARP.
- https://www.aarp.org/livable-communities/about/info-2019/aarp-community-challenge-grantee-lists.html
  Open-source information regarding grant and funding for community projects that are focused on intergenerational engagement through the AARP. The funding provides extensive resource allocation to communities who are selected through the submission of an intergenerational community engagement project proposal.
- https://extension.psu.edu/grant-writing-how-to-find-funds-and-write-a-winning-proposal
  A small-fee, $99.00 seminar for communities to learn the required skills and knowledge to write a successful grant. The course is available for 365 days and is available for beginner and intermediate level skill sets. The length of the seminar is four hours. The seminar is provided through Penn State Extension.
- https://extension.psu.edu/catalogsearch/result/?q=grant+writing
  Grant writing resource search engine to provide information and avenues to pursue grant writing. The search engine and information are provided by Penn State Extension.
- https://cfwestmoreland.org/revitalizing-westmoreland
  - https://cfwestmoreland.org/sites/default/files/2022%20Revitalizing%20Westmoreland%20Program%20Guidelines%20%28002%29.pdf
    Westmoreland County centered and focused nonprofit initiative to provide funding and programs for community use. The purpose of the funding it to provide the ability for communities to pursue revitalization projects.
  - https://wcpagis.maps.arcgis.com/apps/View/index.html?appid=3647300eeb924436b06837698053576f&extent=-80.0094,39.9334,-78.4877,40.7550
    Interactive Geographic Information System map that provides the ability to explore the region through satellite imagery and map products for all audience demographics.
- https://smartgrowthpa.org/scottdale-smithton-active-transportation-plan-and-complete-streets-policy/

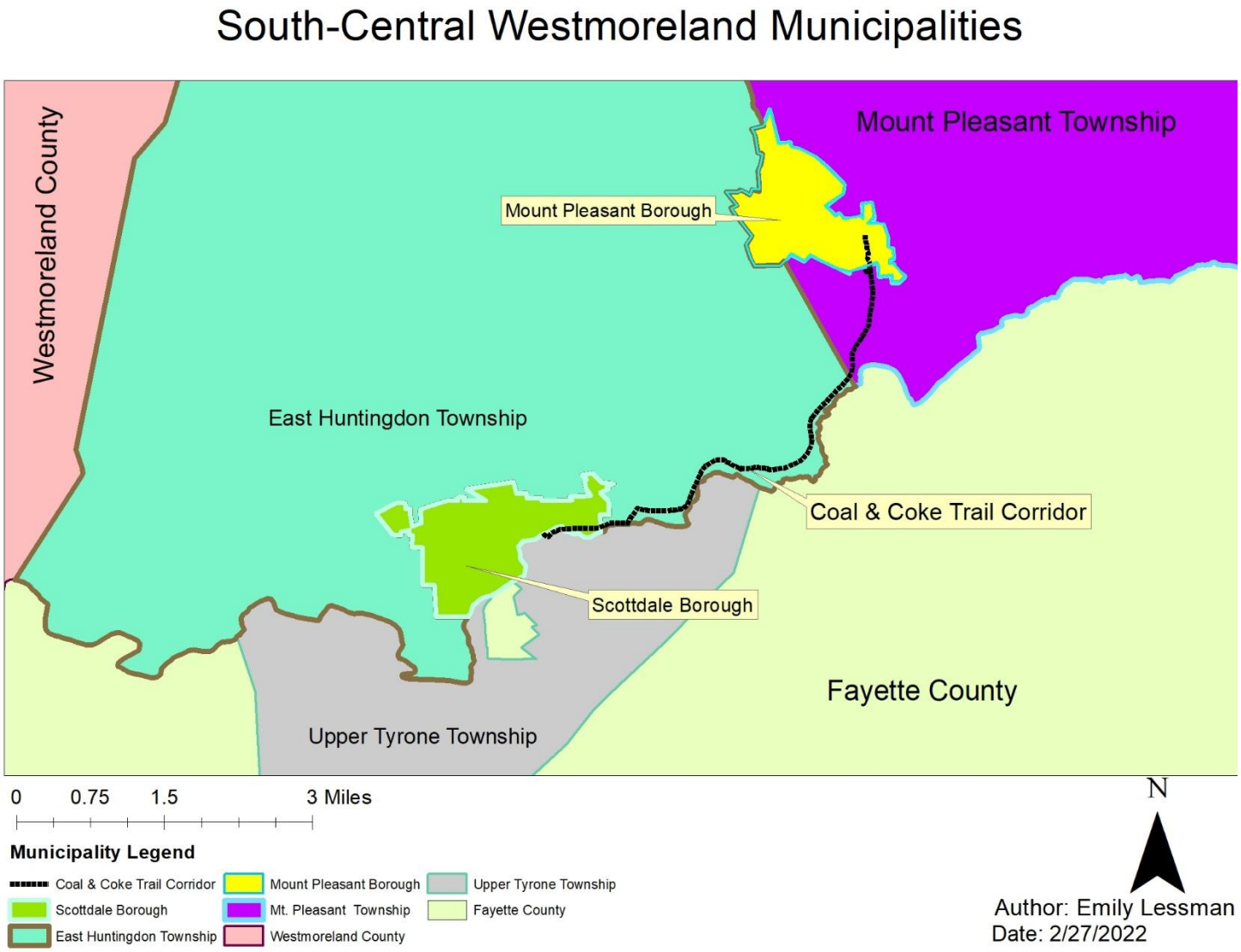
Smart Growth Partnership of Westmoreland County production of the Scottdale Smithton Active Transportation Plan. Provides examples and foundational knowledge of active community plans within proximity to the south-central Westmoreland County region. The plan is provided through Penn State Extension and Smart Growth Partnership of Westmoreland.

8.0. Conclusion

The region and communities of the Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough are vibrant, diverse, and connected within the heritage and landscape of the region. By focusing on the purpose of sense of place, a community like the South-Central Westmoreland region can harbor sustainable and impactful growth. The mission and purpose of the Coal & Coke Sense of Place Initiative Plan is to provide the information and ideas necessary to promote community engagement and involvement. The production of the plan through open-source and real-time information provided strong foundations necessary for the stakeholders to present this to the communities. The principles selected enhance and bring to light the strengths of the area, community, and stakeholders. Utilizing the Sense of Place Initiative provides the means to engage the community at all socio-economic levels.

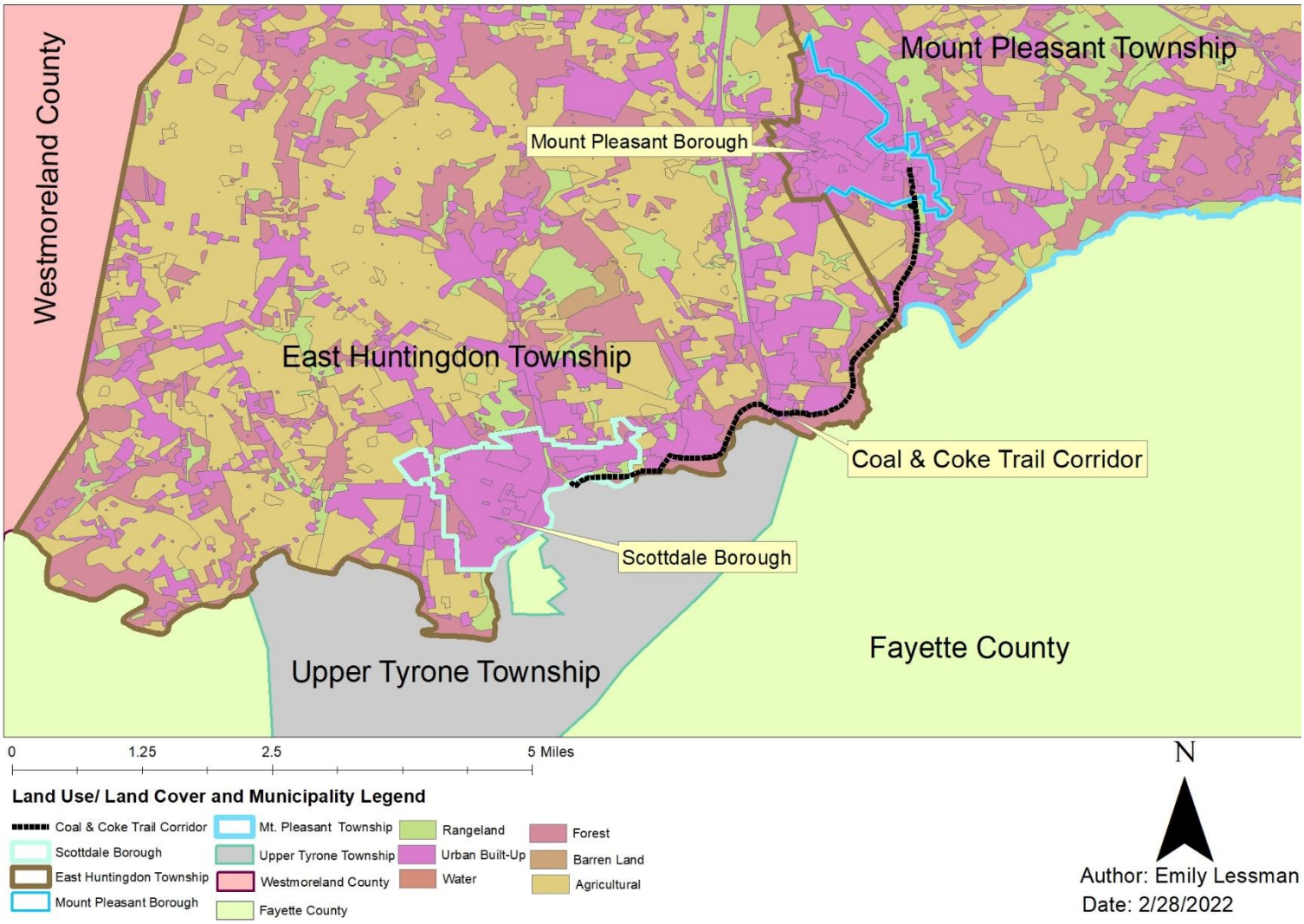
Appendices

Appendix A Maps



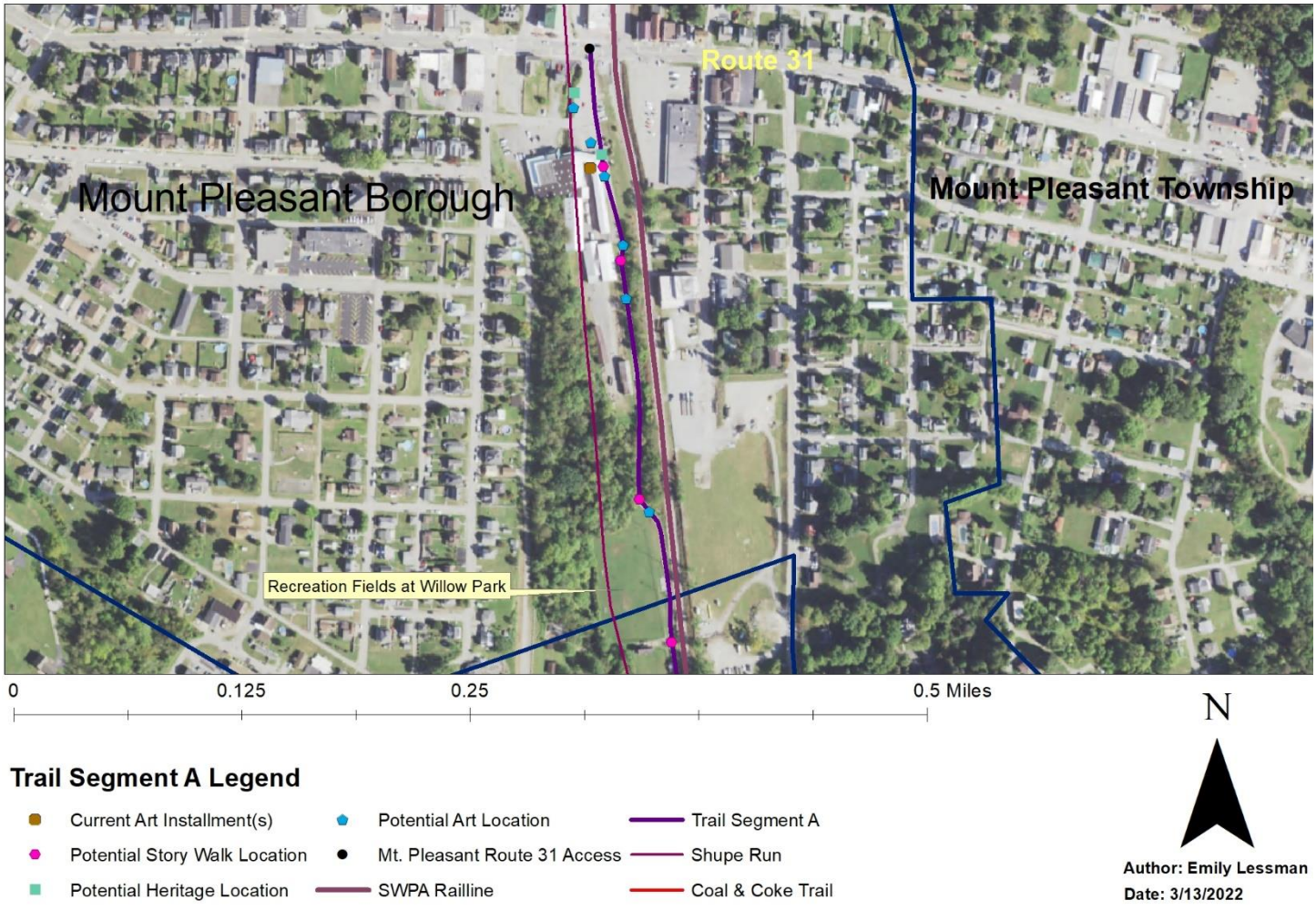
Map 1. Municipality Boundary including Coal & Coke Trail Corridor.

South-Central Westmoreland Municipalities Land Use/ Land Cover Map



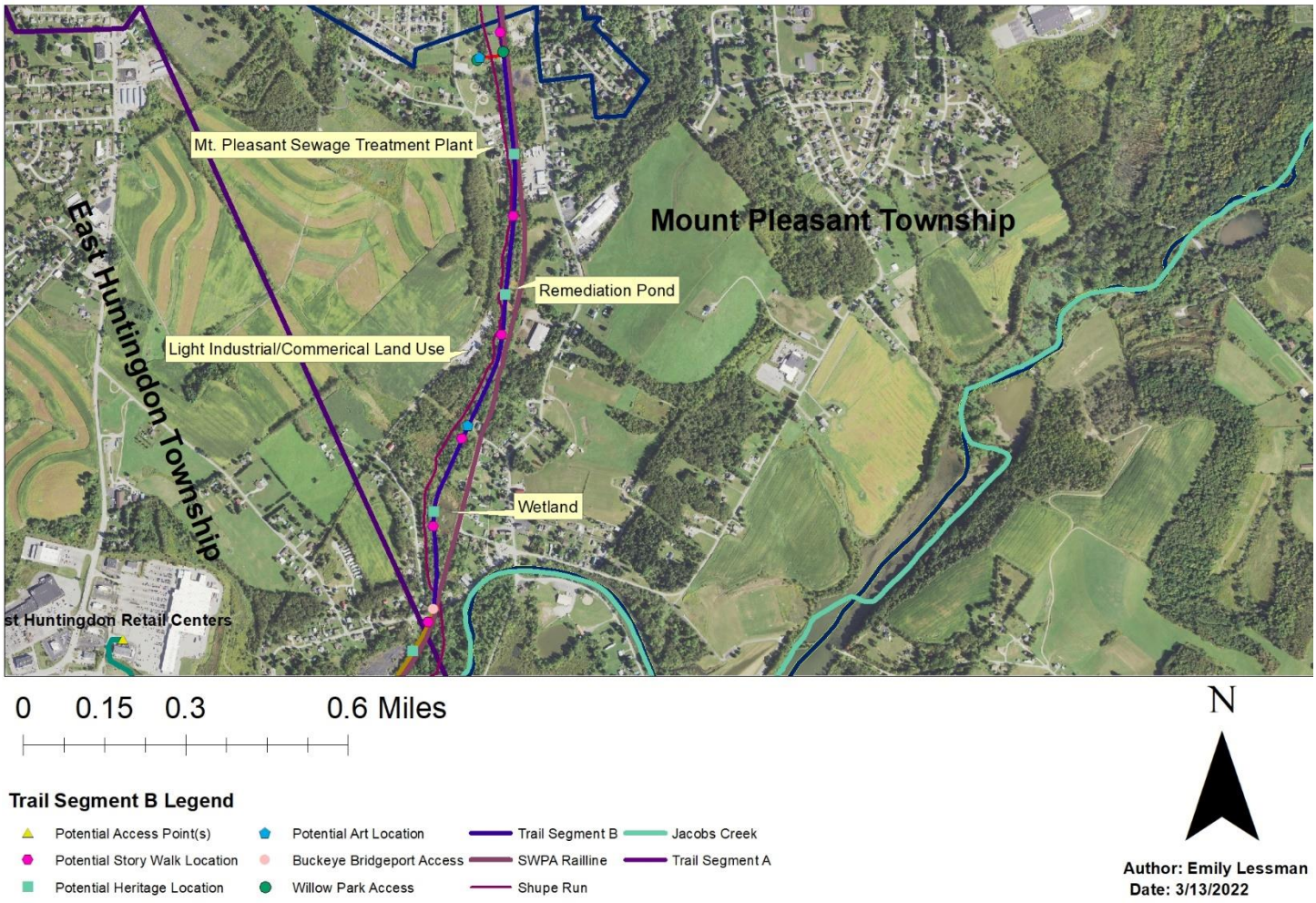
Map 2. Municipalities of the Coal & Coke Trail Land Use/Land Cover Distinctions

Coal & Coke Trail Detailed Map- Trail Segment A



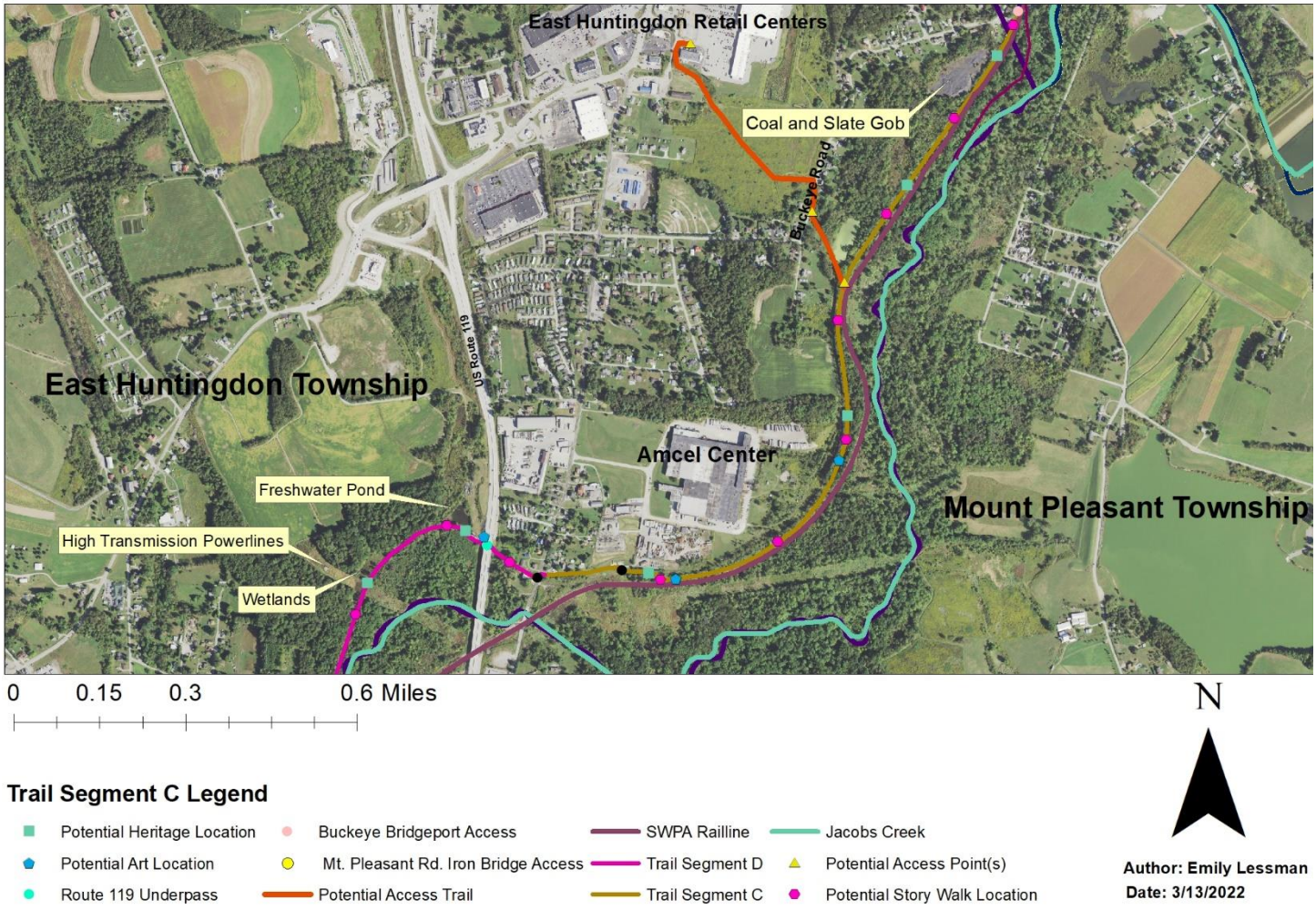
Map 3. Mount Pleasant Borough Map Coal & Coke Trail including callouts of trail features and potential objective locations.

Coal & Coke Trail Detailed Map- Trail Segment B



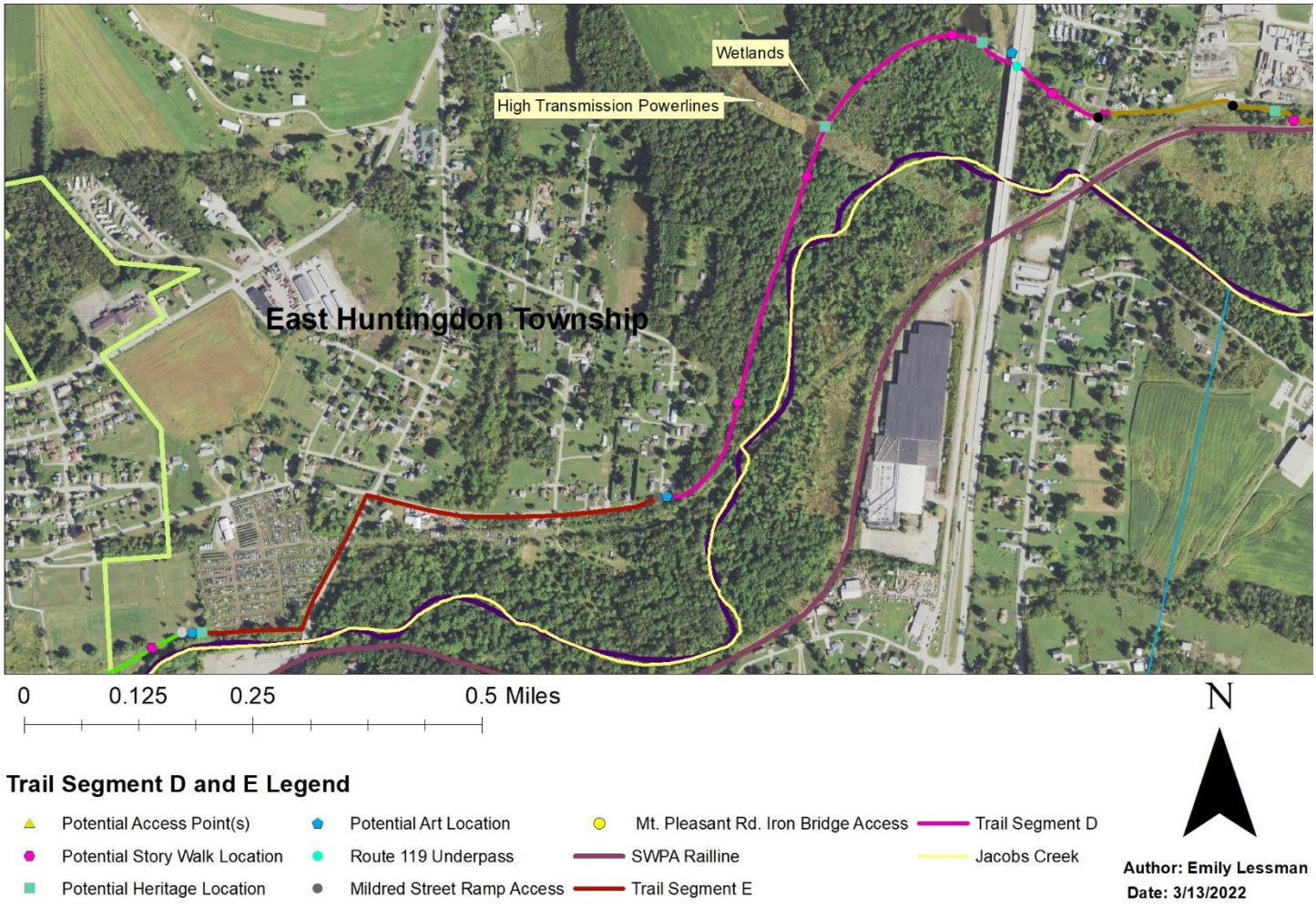
Map 4. Mount Pleasant Township and East Huntingdon Coal & Coke Trail Map including callouts of trail features and potential objective locations.

Coal & Coke Trail Detailed Map- Trail Segment C



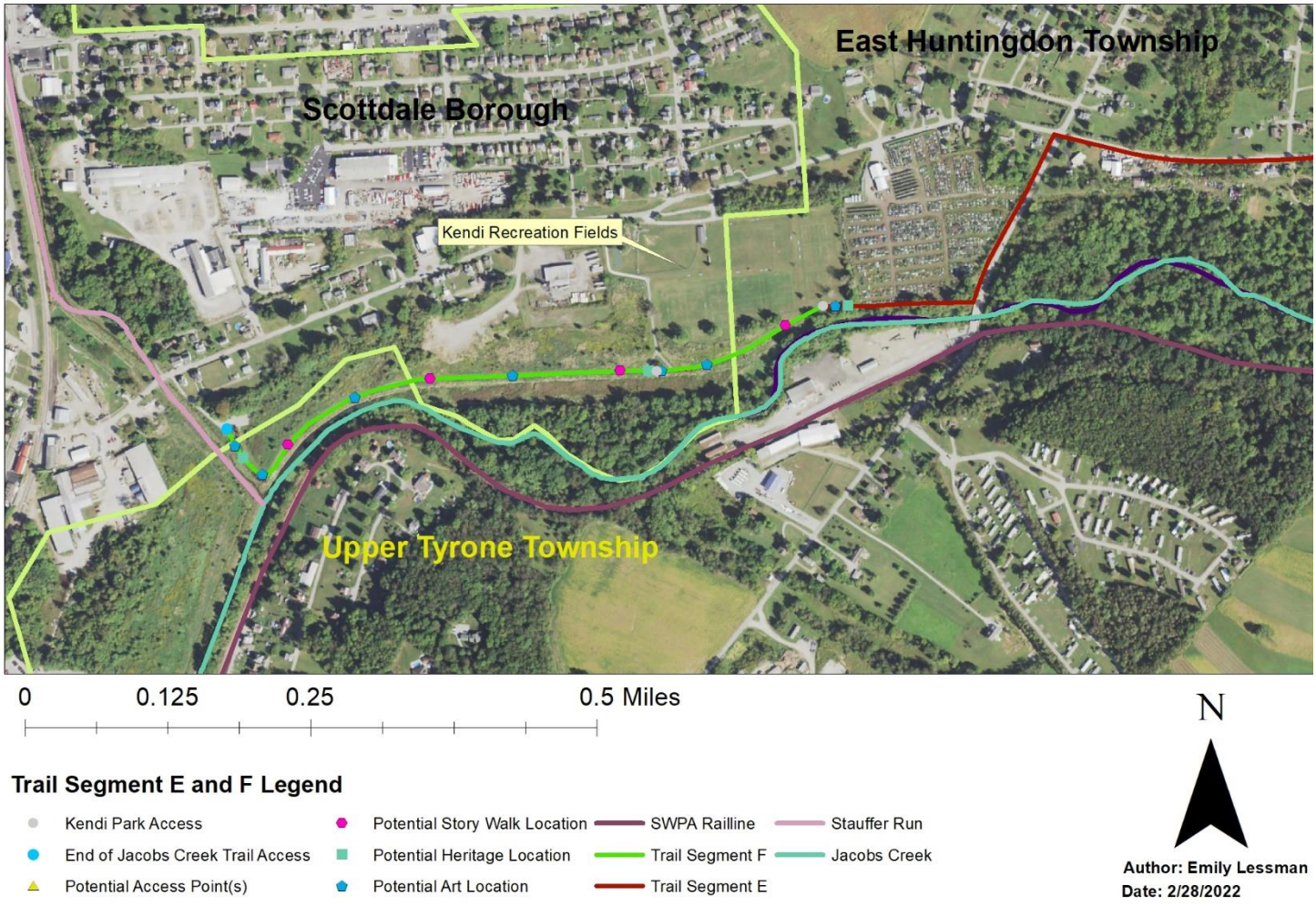
Map 5. Mount Pleasant Township and East Huntingdon Coal & Coke Trail Map including callouts of trail features and potential objective locations.

Coal & Coke Trail Detailed Map- Trail Segment D and E



Map 5.1. East Huntingdon Township Coal & Coke Trail Map including callouts of trail features and potential objective locations.

Coal & Coke Trail Detailed Map- Trail Segment E and F

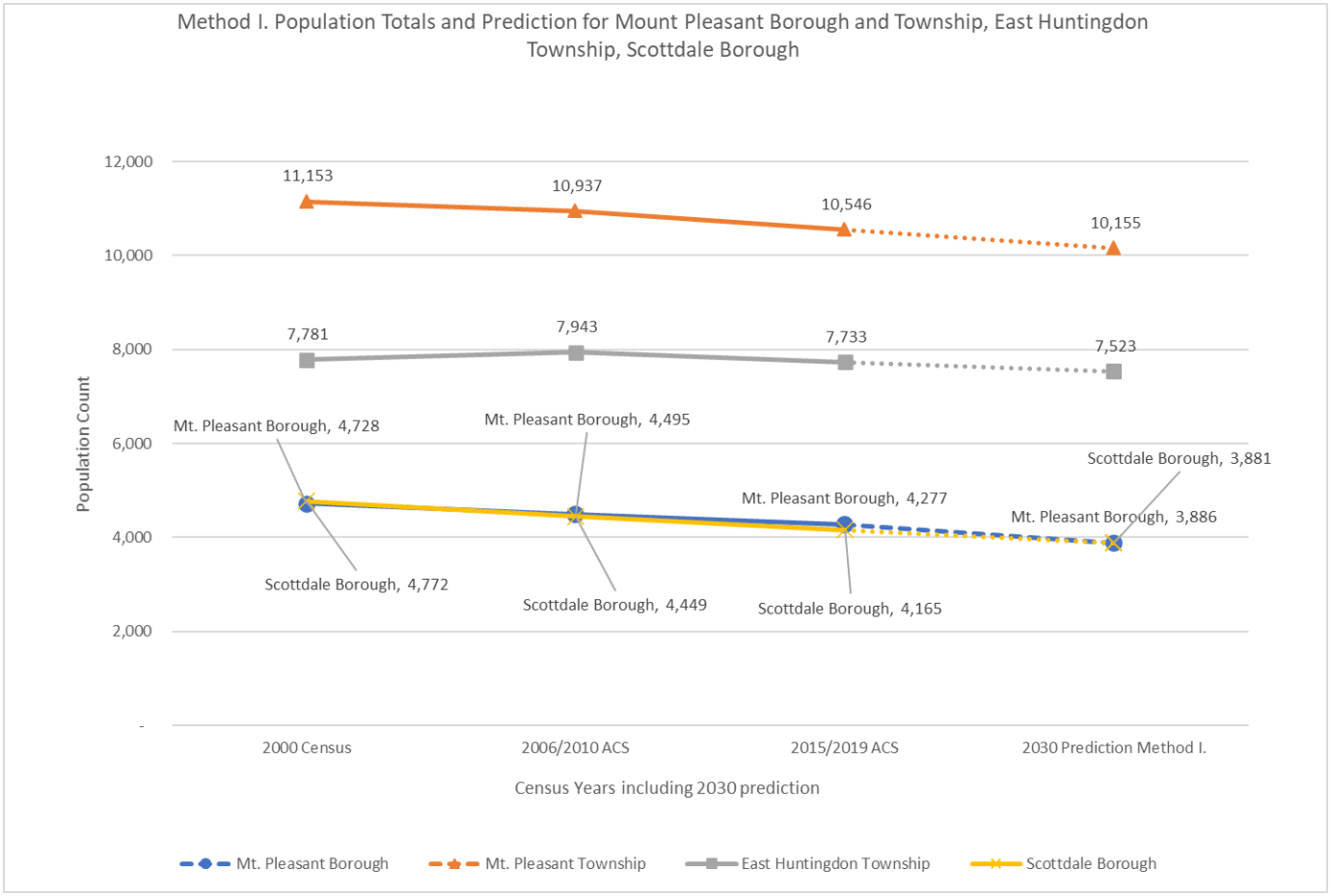


Map 6. East Huntingdon Township and Scottdale Borough Coal & Coke Trail Map including callouts of trail features and potential objective locations.

Appendix B Analysis Figures

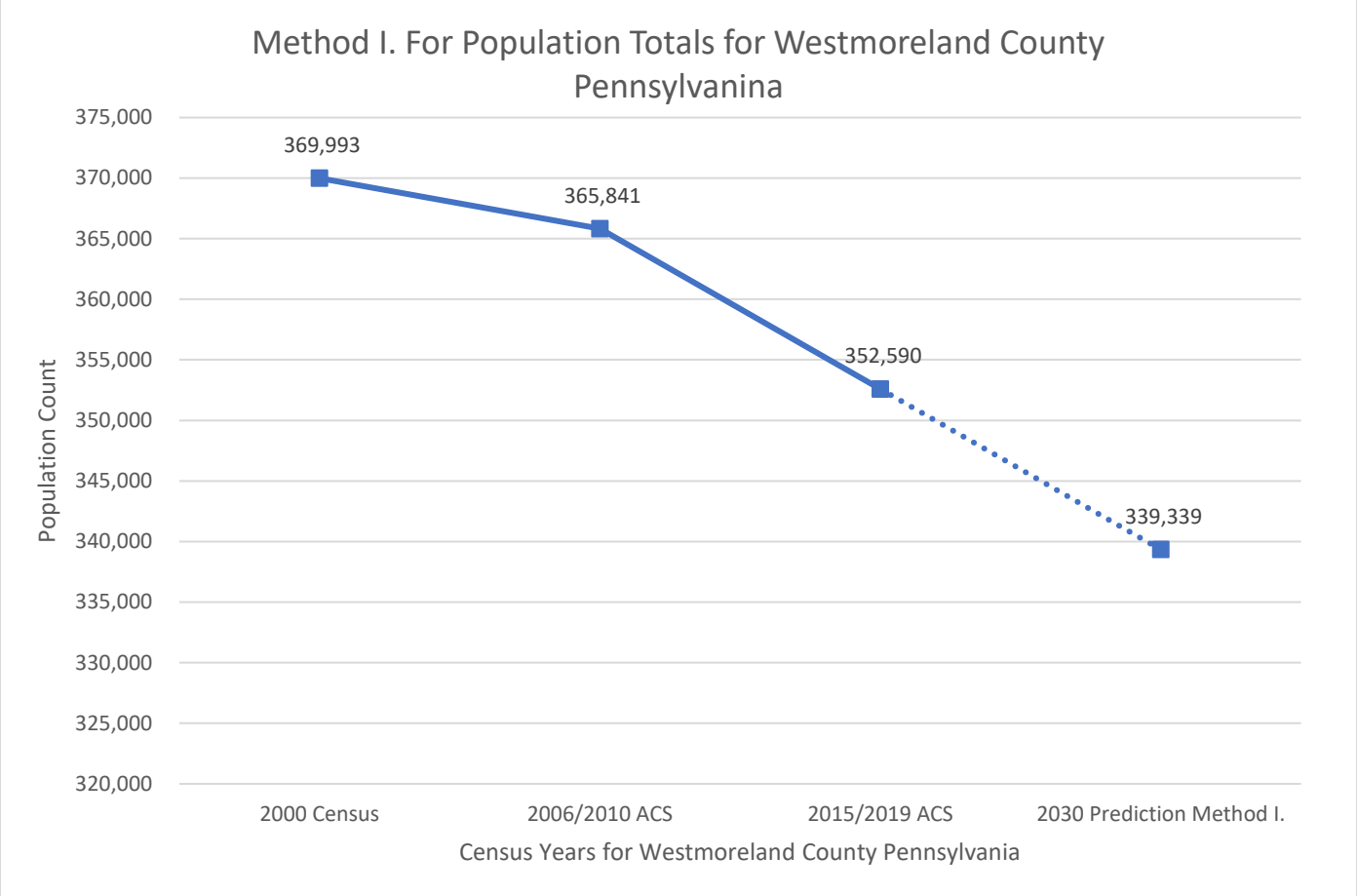
Table 1. Total Population and Prediction						
Total Population	2000 Census	2006/2010 ACS	2015/2019 ACS	2030 Prediction Method I.	2030 Prediction Method II.	Method II Growth Rate in Percentage (%)
Mt. Pleasant Borough	4,728	4,495	4,277	3,886	4,070	-4.85%
Mt. Pleasant Township	11,153	10,937	10,546	10,155	10,169	-3.58%
East Huntingdon Township	7,781	7,943	7,733	7,523	7,529	-2.64%
Scottdale Borough	4,772	4,449	4,165	3,881	3,899	-6.38%
Westmoreland County	369,993	365,841	352,590	339,339	339,819	-3.62%

Table 1. Total Population characteristics for Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough for 2005/2010 and 2015/2019 ACS.

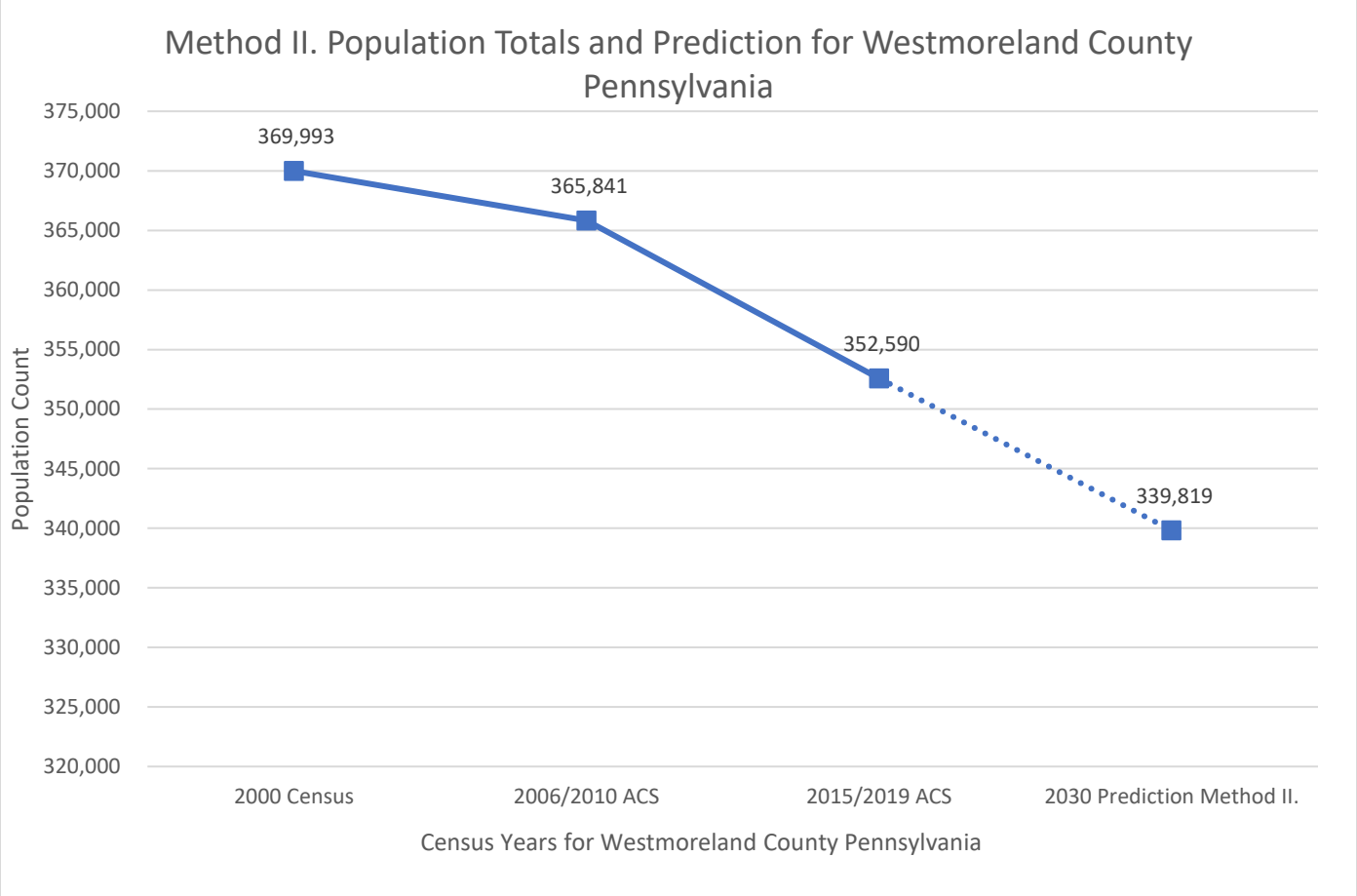


Analysis Figure 1. Method I. Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough population trends 2000 Census, 2006/2010 and 20015/2019 American Community Survey, and 2030 Growth Prediction.

Analysis Figure 2. Method II. Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough population trends including 2000 Census, 2006/2010 and 20015/2019 American Community Survey, and 2030 Growth Prediction



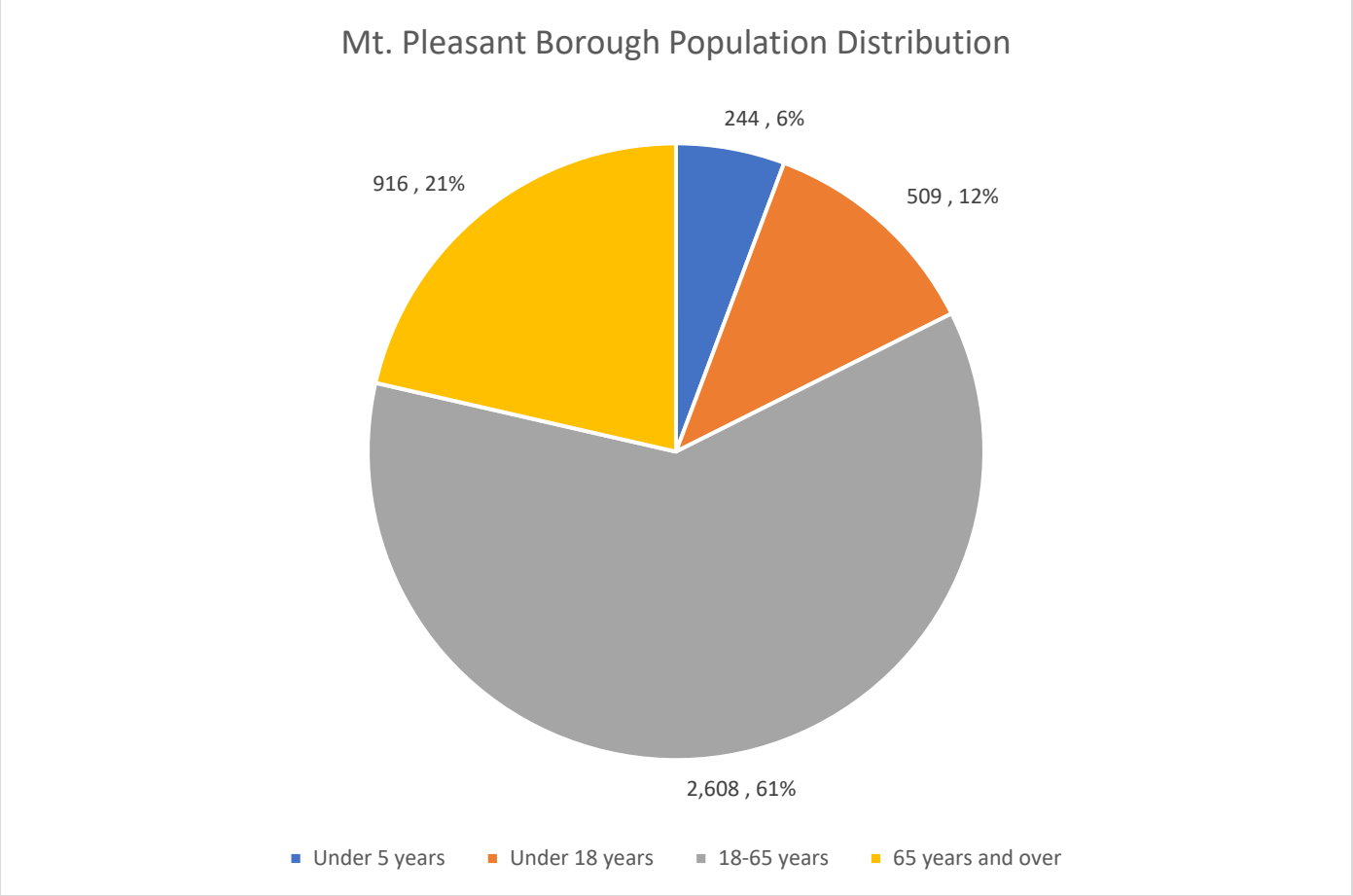
Analysis Figure 3. Method I. Westmoreland County population trends including 2000 Census, 2006/2010 and 20015/2019 American Community Survey, and 2030 Growth Prediction



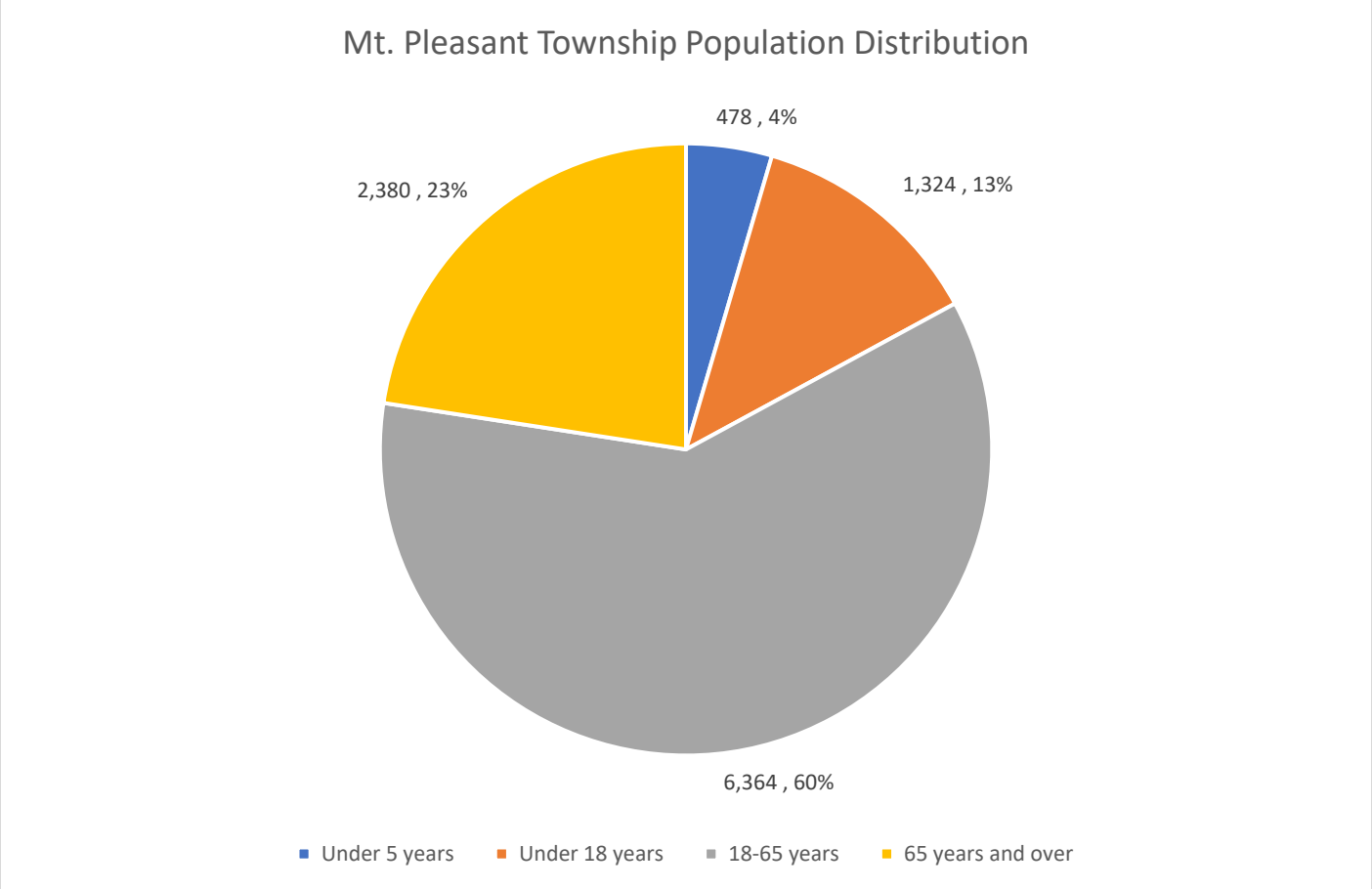
Analysis Figure 4. Westmoreland County population trends including 2000 Census, 2006/2010 and 20015/2019 American Community Survey, and 2030 Growth Prediction.

Table 2. Age Factors and Median Age								
Age Factor	2005/2010 ACS				2015/2019 ACS			
	Mount Pleasant Borough	Mount Pleasant Township	East Huntingdon Township	Scottdale Borough	Mount Pleasant Borough	Mount Pleasant Township	East Huntingdon Township	Scottdale Borough
Total Population count	4,495	10,937	7,943	4,449	4,277	10,546	7,733	4,165
Under 5 years	185	558	273	291	244	478	489	200
Under 18 years	615	1,769	1,280	587	509	1,324	1,190	604
18-65 years	2,804	6,762	4,705	2,572	2,608	6,364	4,390	2,314
65 years and over	1,685	1,848	1,685	999	916	2,380	1,664	1,047
Median Age (rounded to nearest whole number)	45	44	47	45	46	48	47	47

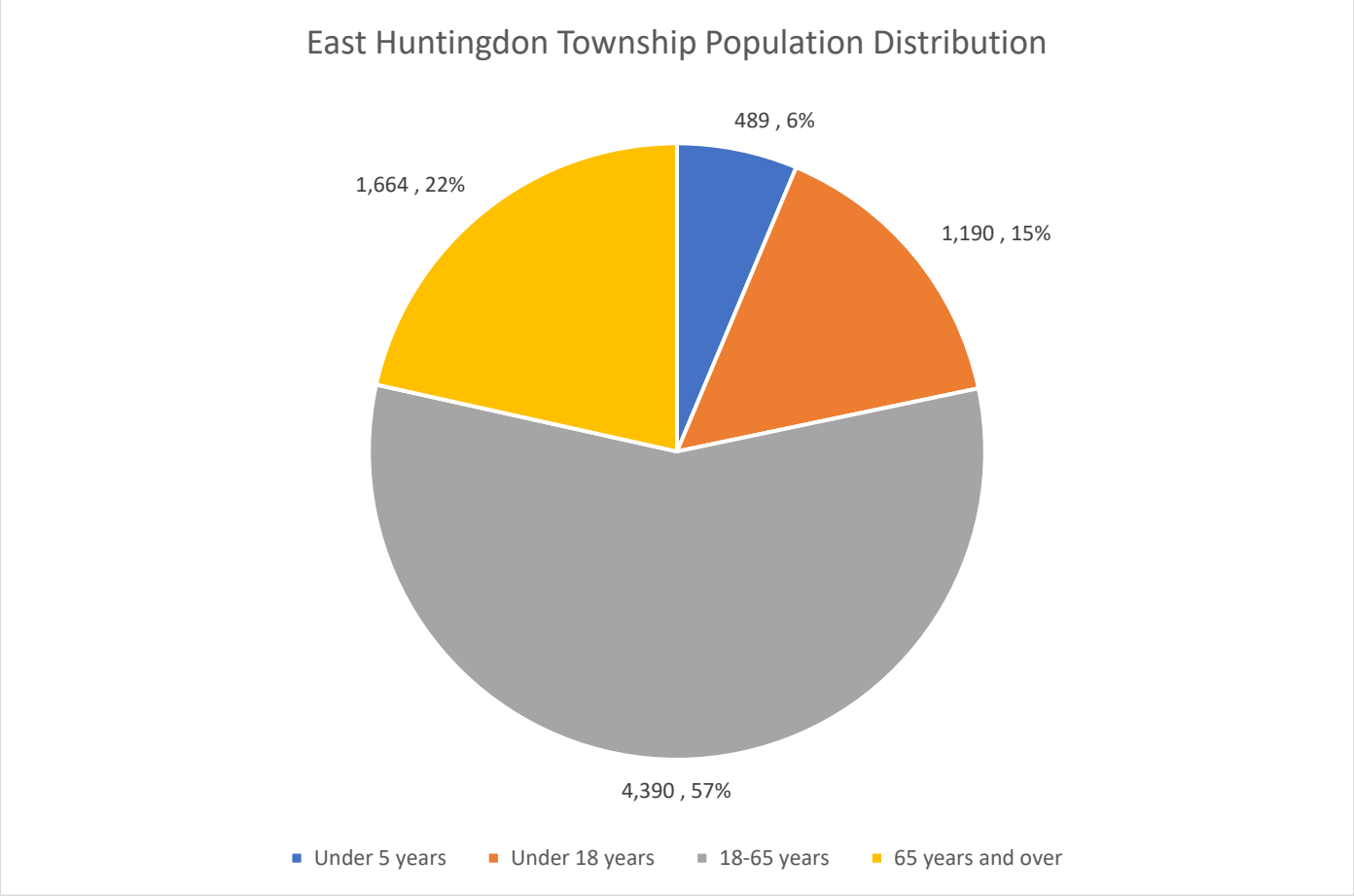
Table 2. Age Factor Characteristics and Median Age for Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough for 2005/2010 and 2015/2019 ACS.



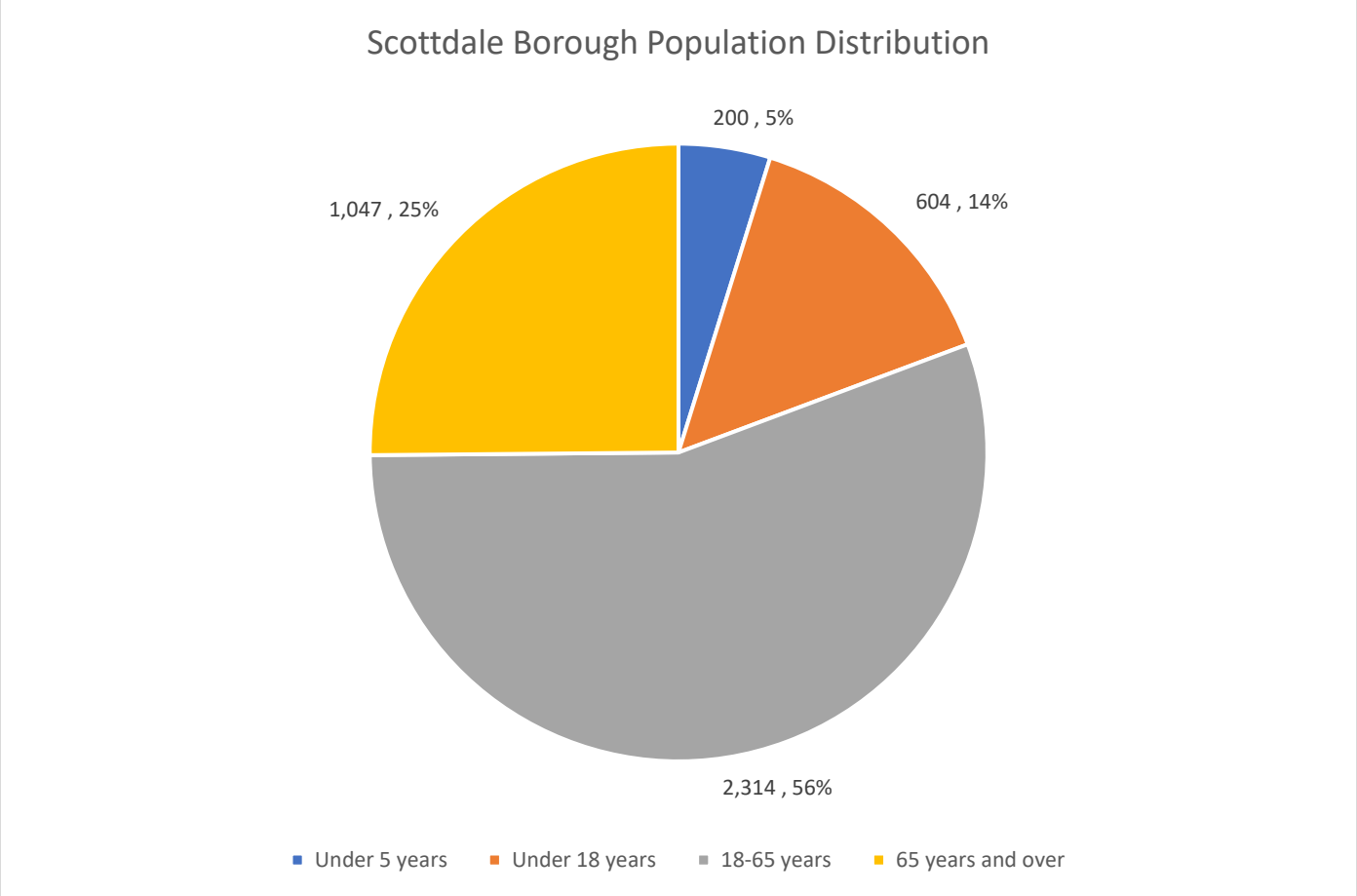
Analysis Figure 5. Mount Pleasant Borough population distribution for 2015/2019 American Community Survey data.



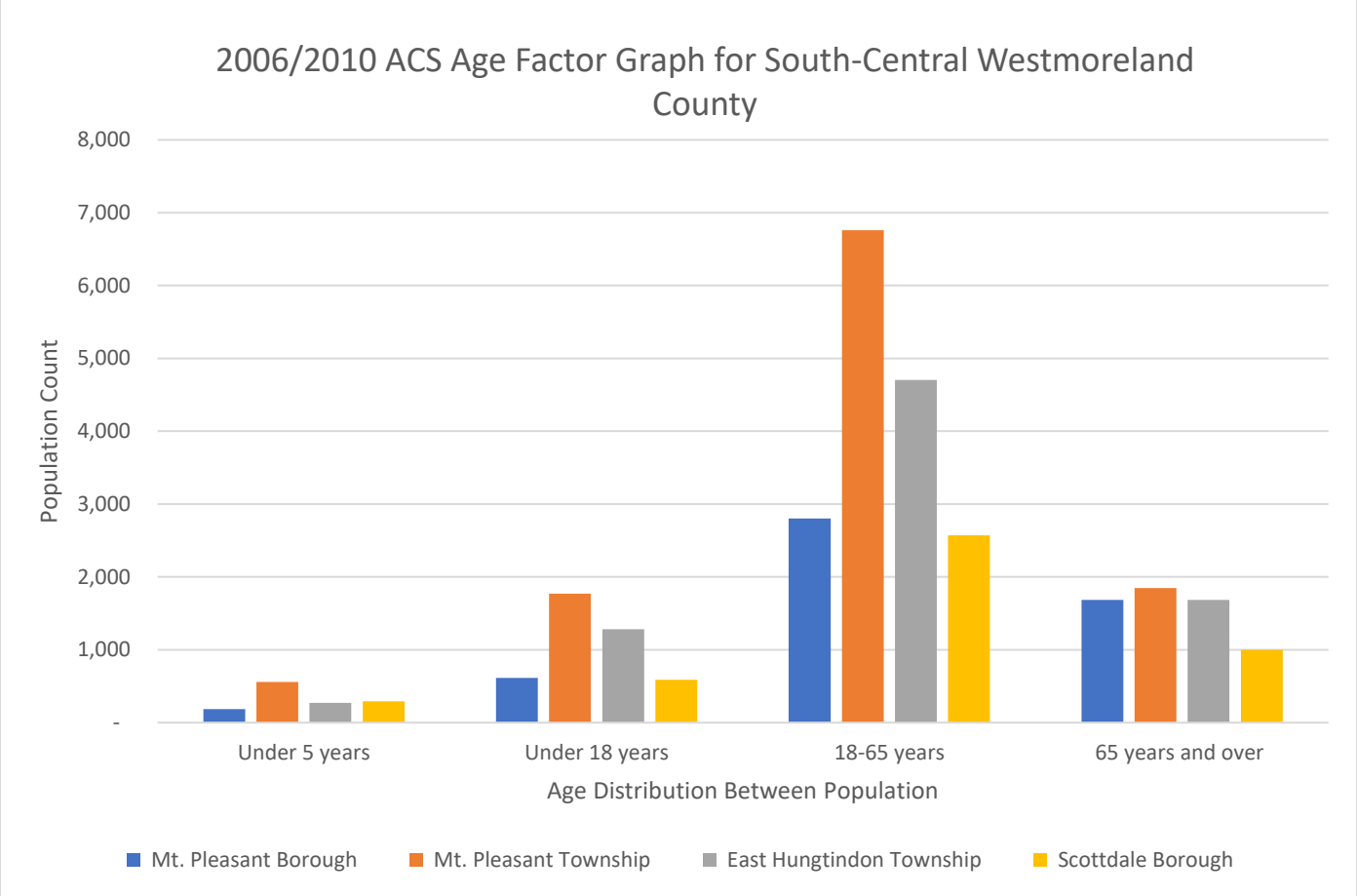
Analysis Figure 6. Mount Pleasant Township population distribution for 2015/2019 American Community Survey data.



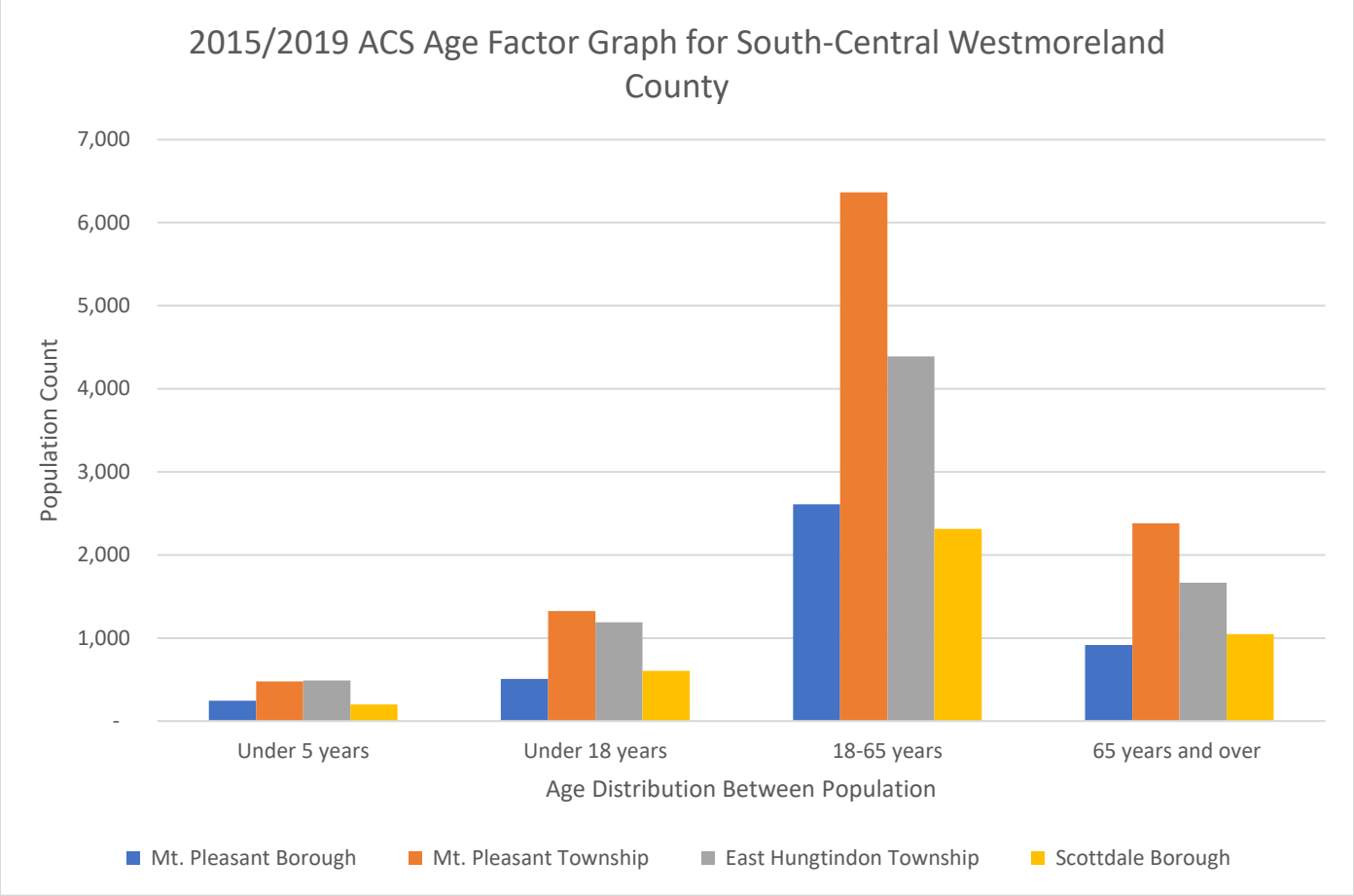
Analysis Figure 7. East Huntingdon Township population distribution for 2015/2019 American Community Survey data.



Analysis Figure 8. Scottdale Borough population distribution for 2015/2019 American Community Survey data.



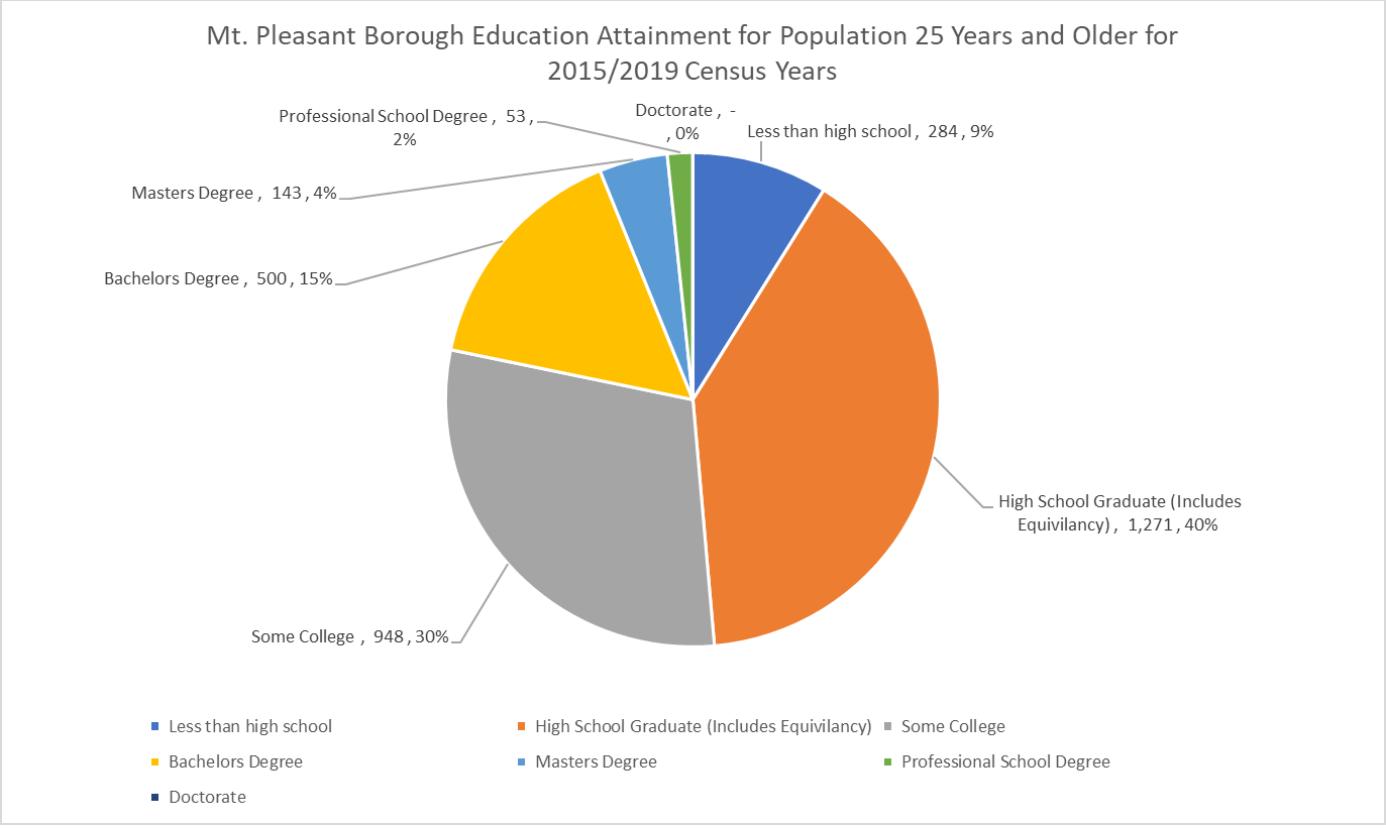
Analysis Figure 9. Age factor compared between Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough population distribution for 2005/2010 American Community Survey data.



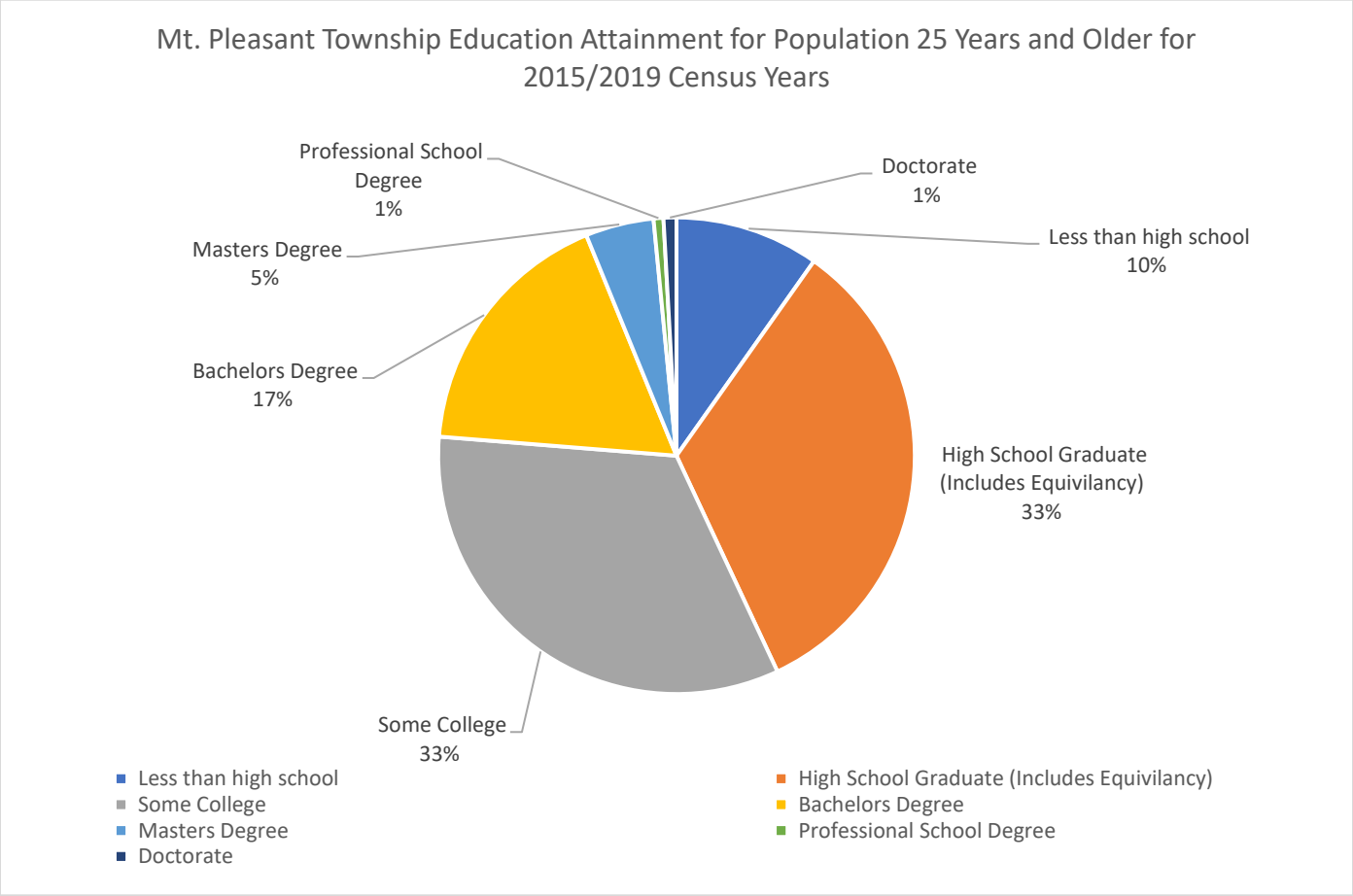
Analysis Figure 10. Age factor compared between Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough population distribution for 2015/2019 American Community Survey data.

Table 3. Education Attainment for Population of 25 Years and Older								
Education Factor	2005/2010 ACS				2015/2019 ACS			
	Mount Pleasant Borough	Mount Pleasant Township	East Huntingdon Township	Scottdale Borough	Mount Pleasant Borough	Mount Pleasant Township	East Huntingdon Township	Scottdale Borough
Population of 25 years and older	3,418	7,803	5,887	3,267	3,199	7,912	5,680	3,087
Less than high school	476	789	745	243	284	705	406	134
High School Graduate (Includes Equivalency)	1,333	3,781	3,097	1,629	1,271	2,394	2,392	1,232
Some College	973	2,191	1,413	884	948	2,394	1,653	931
Bachelor's degree	437	671	481	369	500	1,263	846	463
Master's degree	194	241	100	98	143	334	173	283
Professional School Degree	5	89	51	44	53	48	182	27
Doctorate	-	41	-	-	-	63	28	17

Table 3. Education Attainment for Population of 25 Years and Older for Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough for 2005/2010 and 2015/2019 ACS.



Analysis Figure 11. Mount Pleasant Borough Education Attainment for population 25 years and older for 2015/2019 American Community Survey Years.



Analysis Figure 12. Mount Pleasant Township Education Attainment for population 25 years and older for 2015/2019 American Community Survey Years.

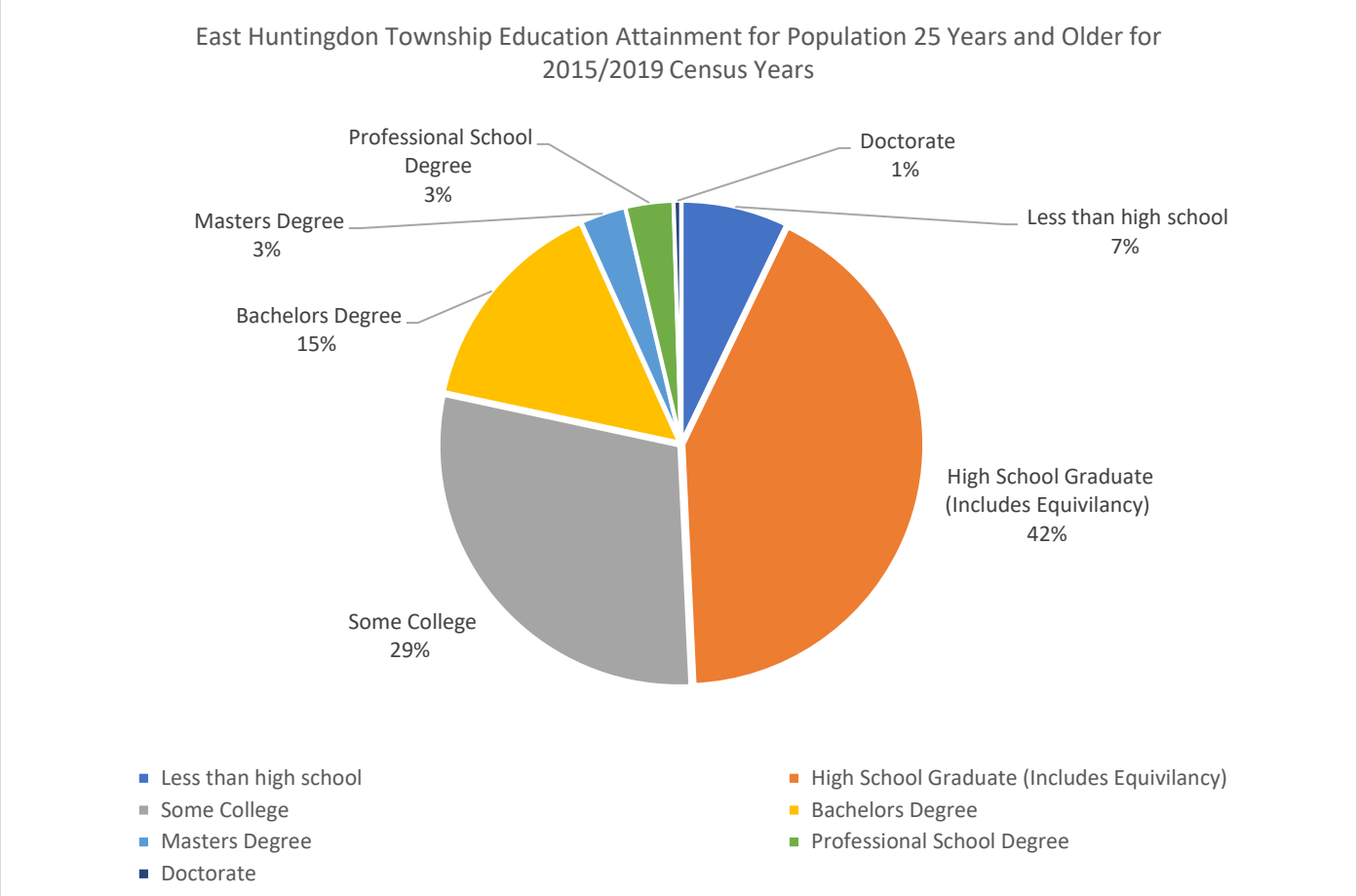
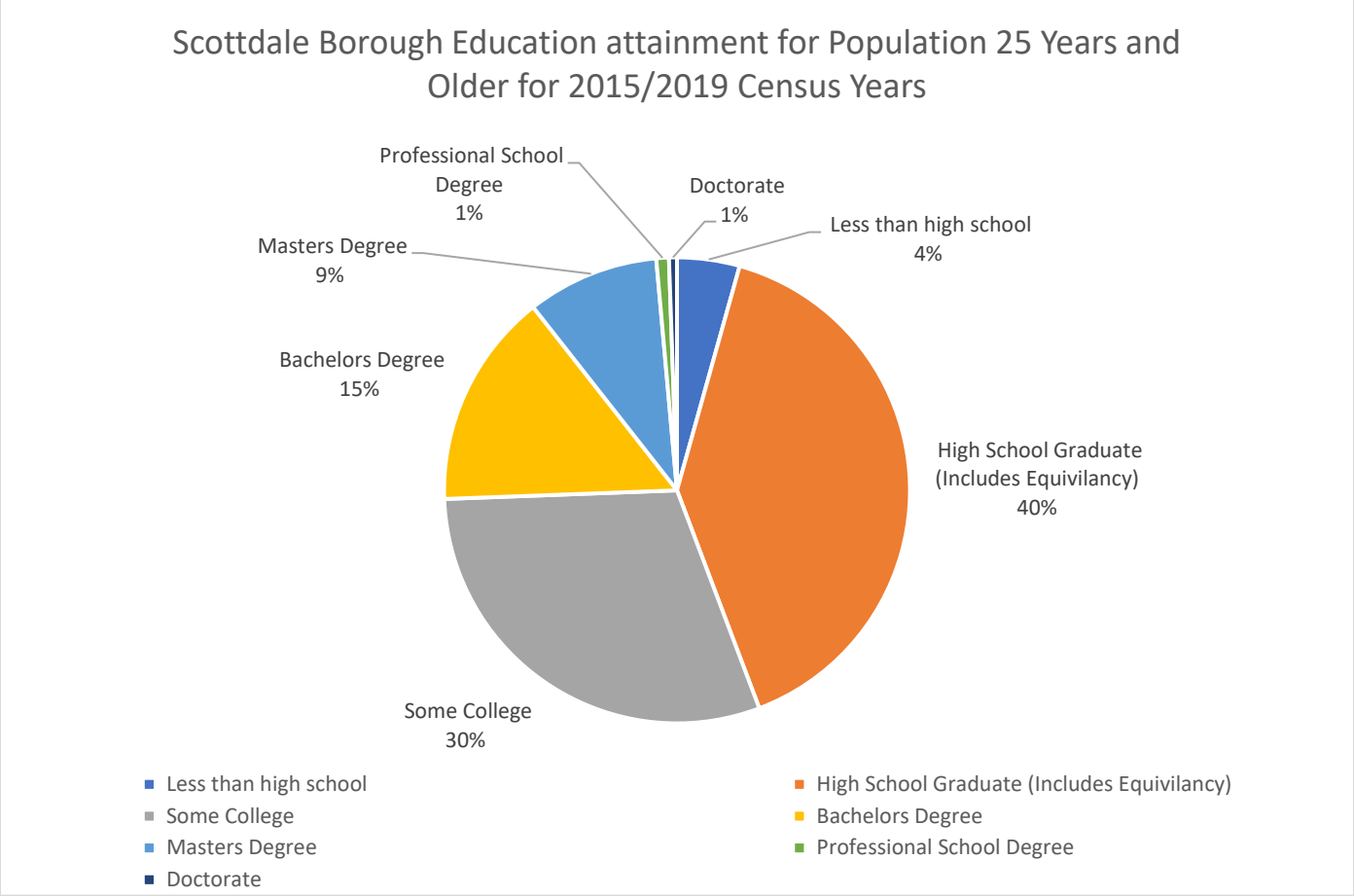


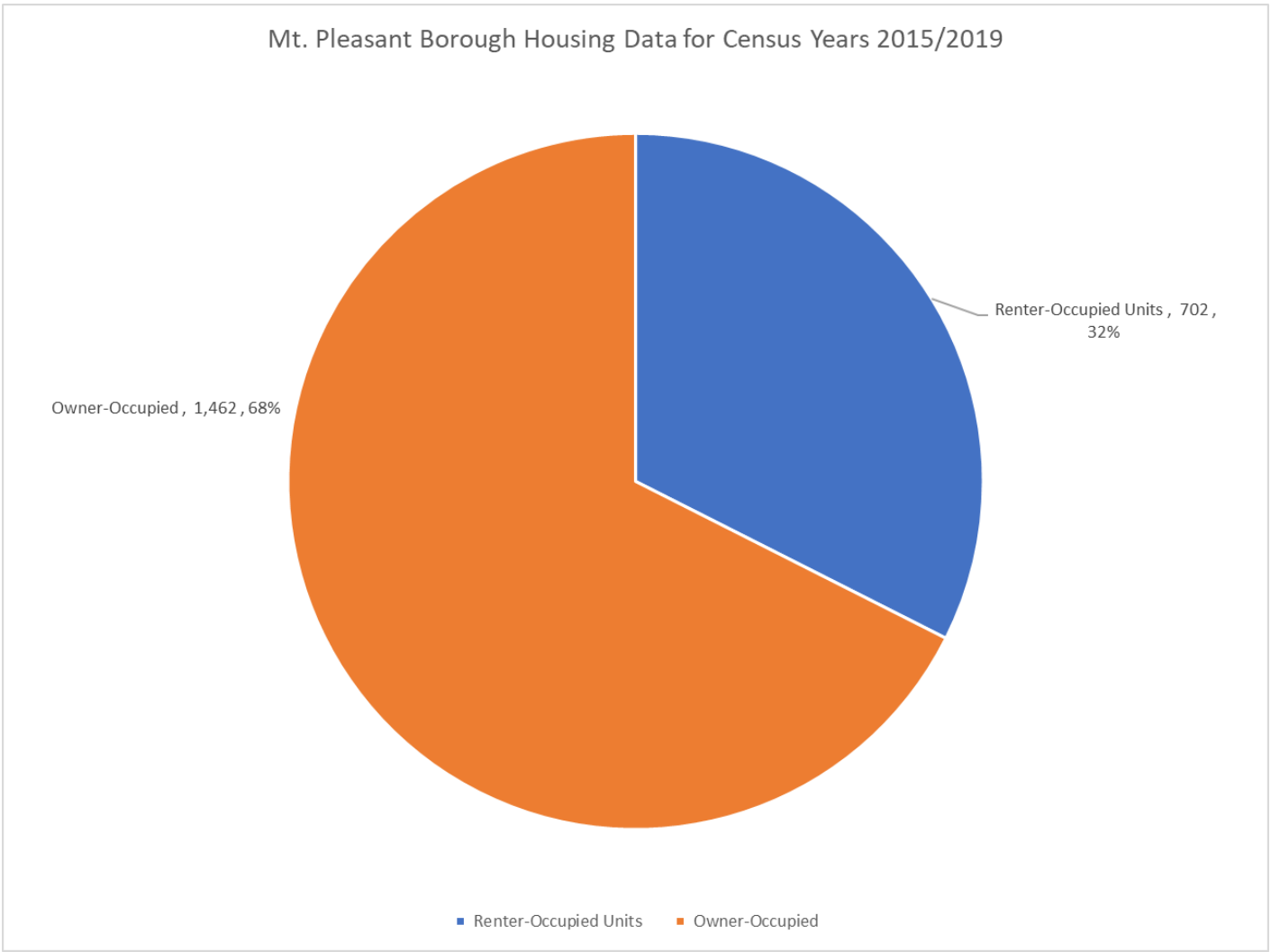
Figure Analysis 13. East Huntingdon Township Education Attainment for population 25 years and older for 2015/2019 American Community Survey Years.



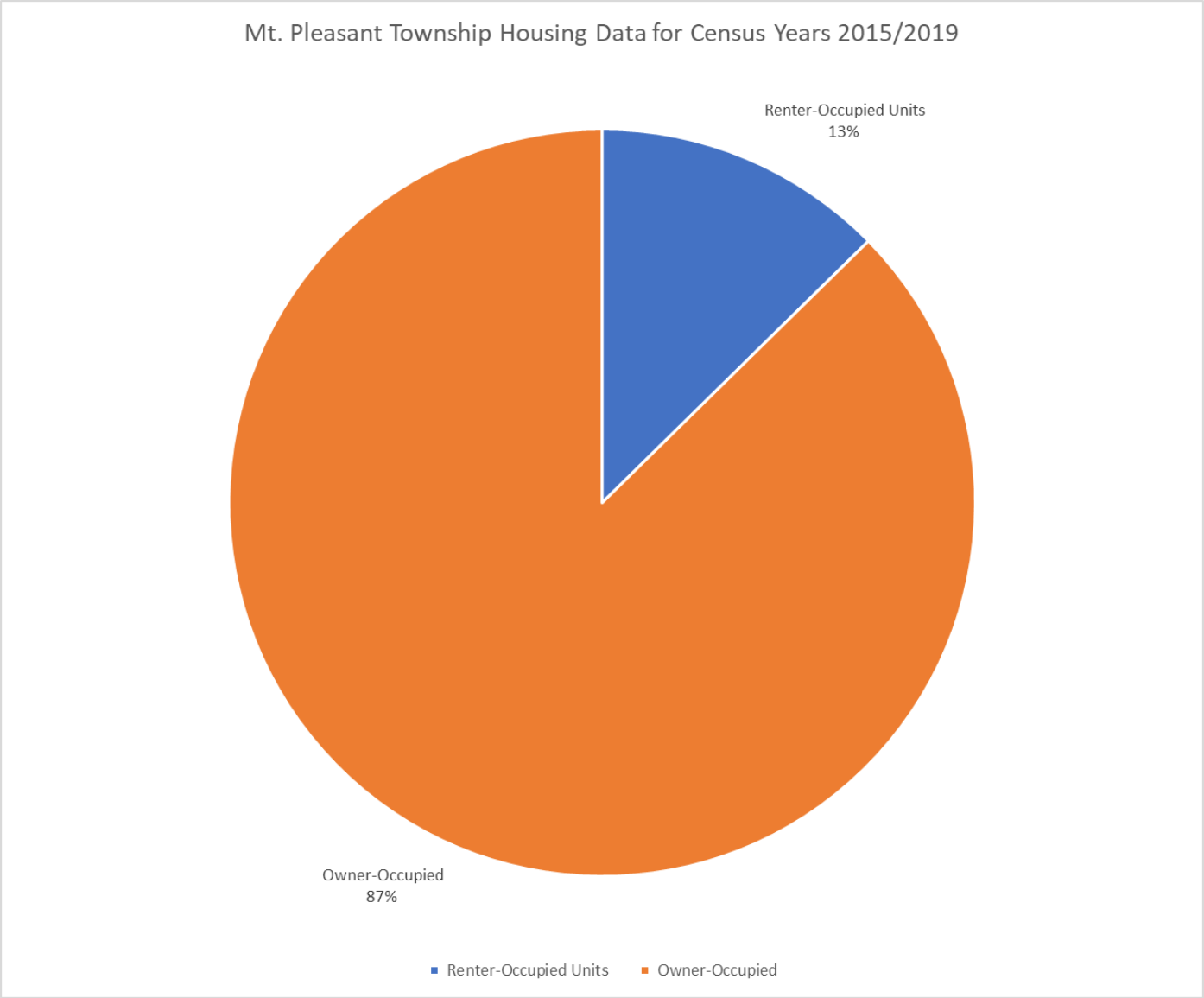
Analysis Figure 14. Scottdale Borough Education Attainment for population 25 years and older for 2015/2019 American Community Survey Years.

Table 4. Housing Characteristics								
Housing Factor	2005/2010 ACS				2015/2019 ACS			
	Mount Pleasant Borough	Mount Pleasant Township	East Huntingdon Township	Scottdale Borough	Mount Pleasant Borough	Mount Pleasant Township	East Huntingdon Township	Scottdale Borough
Total Housing Units	2,262	4,955	3,865	2,425	2,249	5,061	3,535	2,113
Occupied Housing Units	2,105	4,460	3,633	2,164	1,194	4,503	3,315	1,911
Vacant Housing Units	157	495	232	261	255	220	558	202
Renter-Occupied Units	797	821	912	702	716	543	778	495
Owner-Occupied	1,308	3,639	2,721	1,462	1,278	3,752	2,772	1,416
No Vehicle	309	203	449	220	255	239	224	112

Table 4. Housing Characteristics for Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough for 2005/2010 and 2015/2019 ACS.



Analysis Figure 15. Mount Pleasant Borough Housing Characteristics for 2015/2019 American Community Survey Years.



Analysis Figure 16. Mount Pleasant Township Housing Characteristics for 2015/2019 American Community Survey Years.

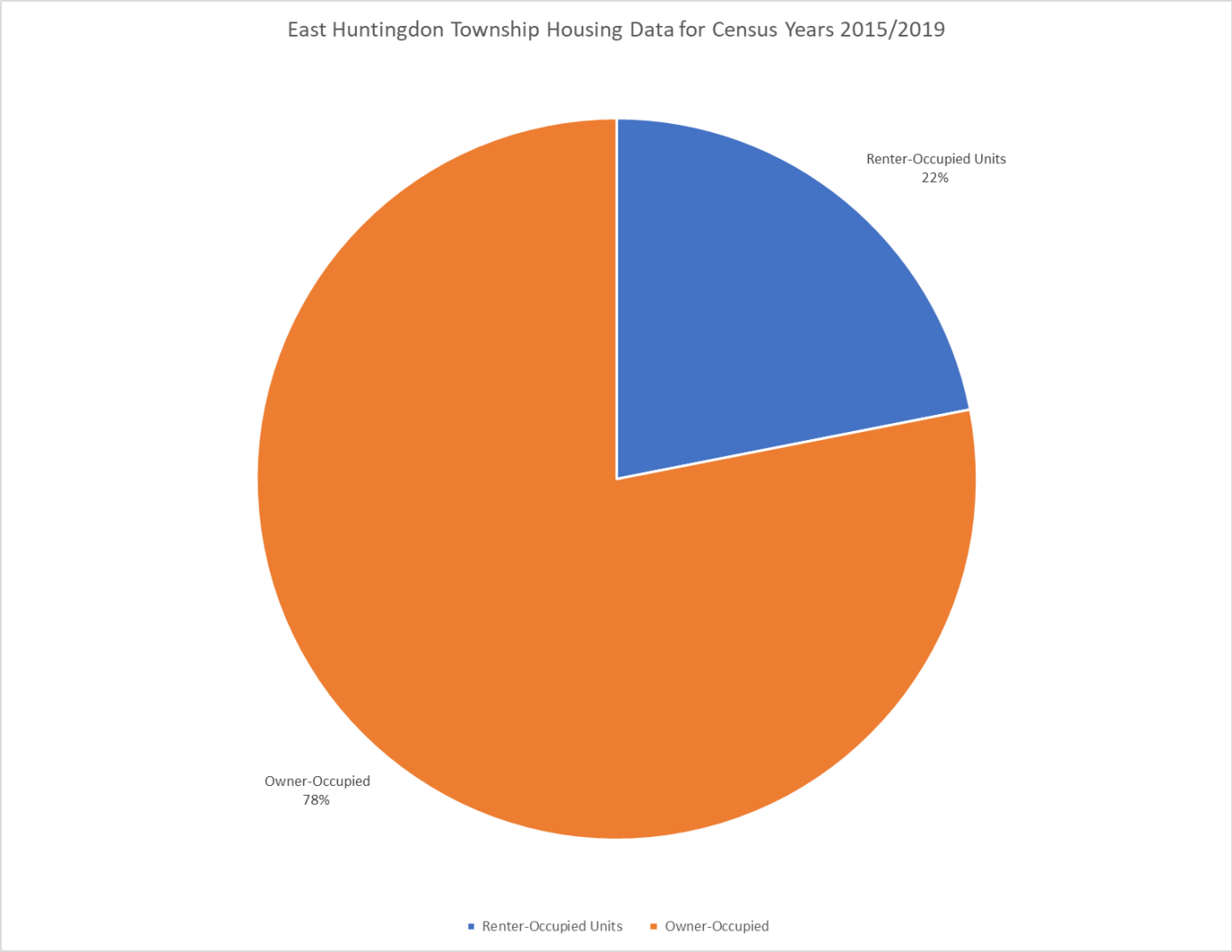


Figure Analysis 17. East Huntingdon Township Housing Characteristics for 2015/2019 American Community Survey Years.

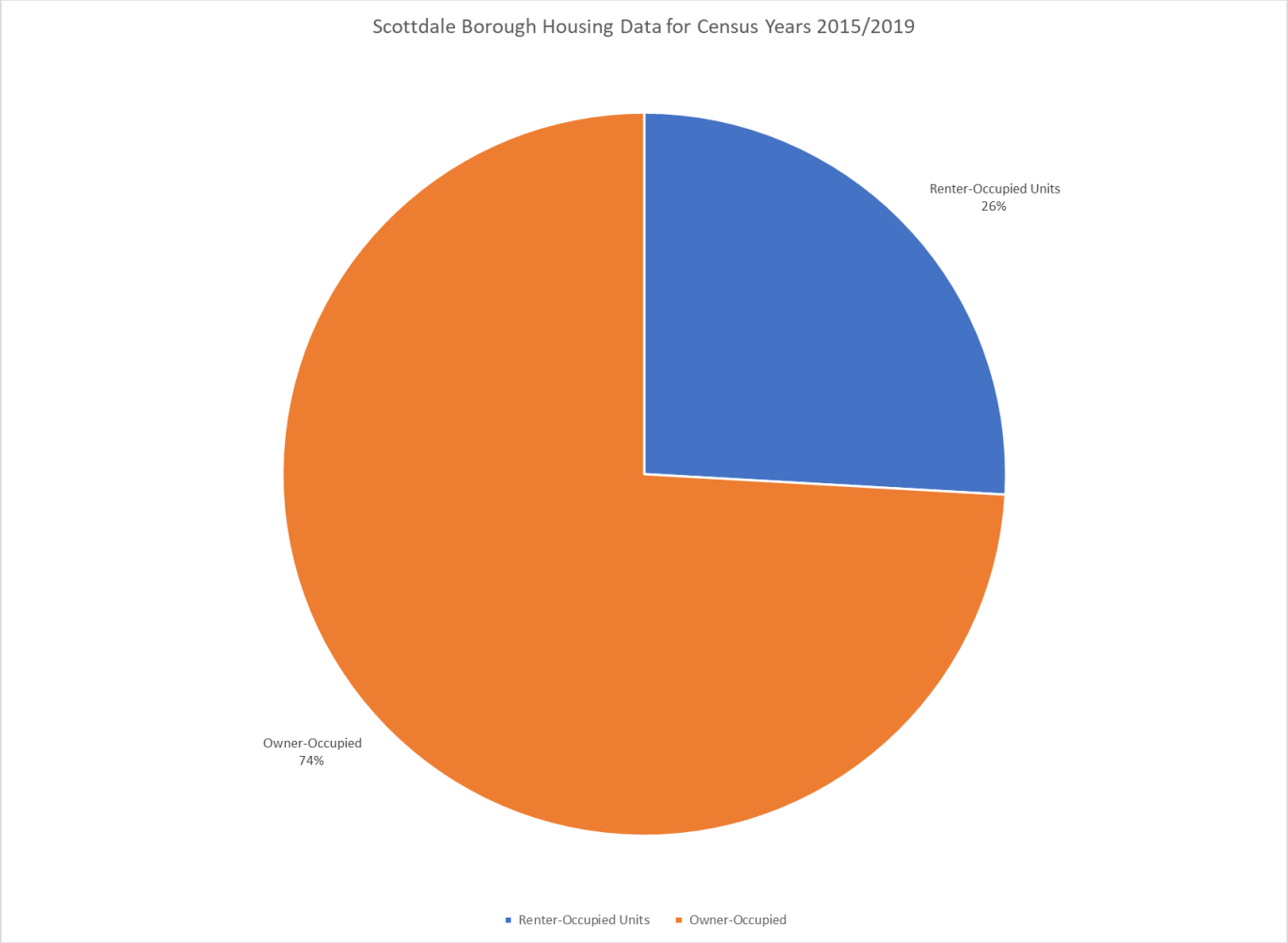
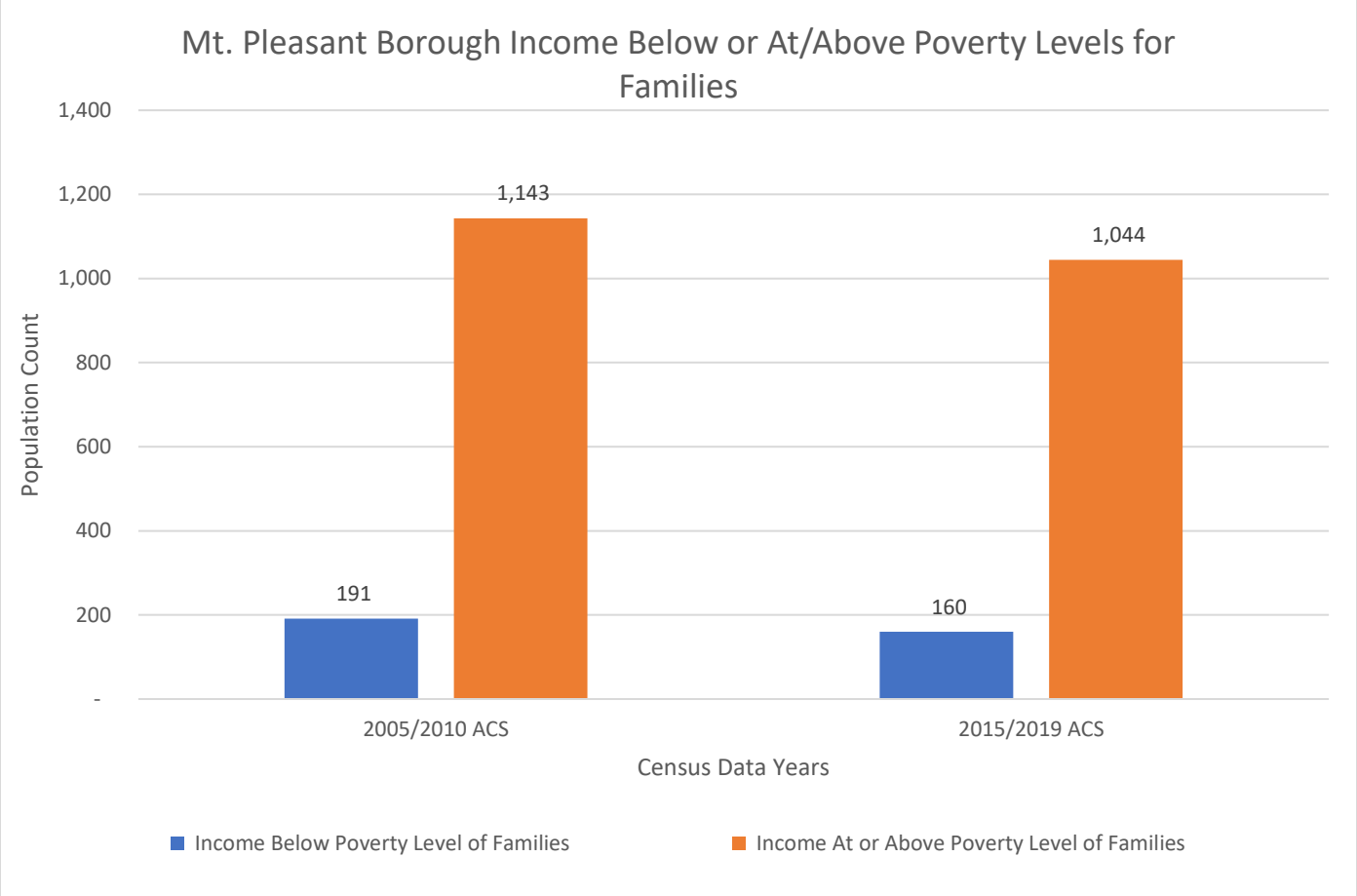


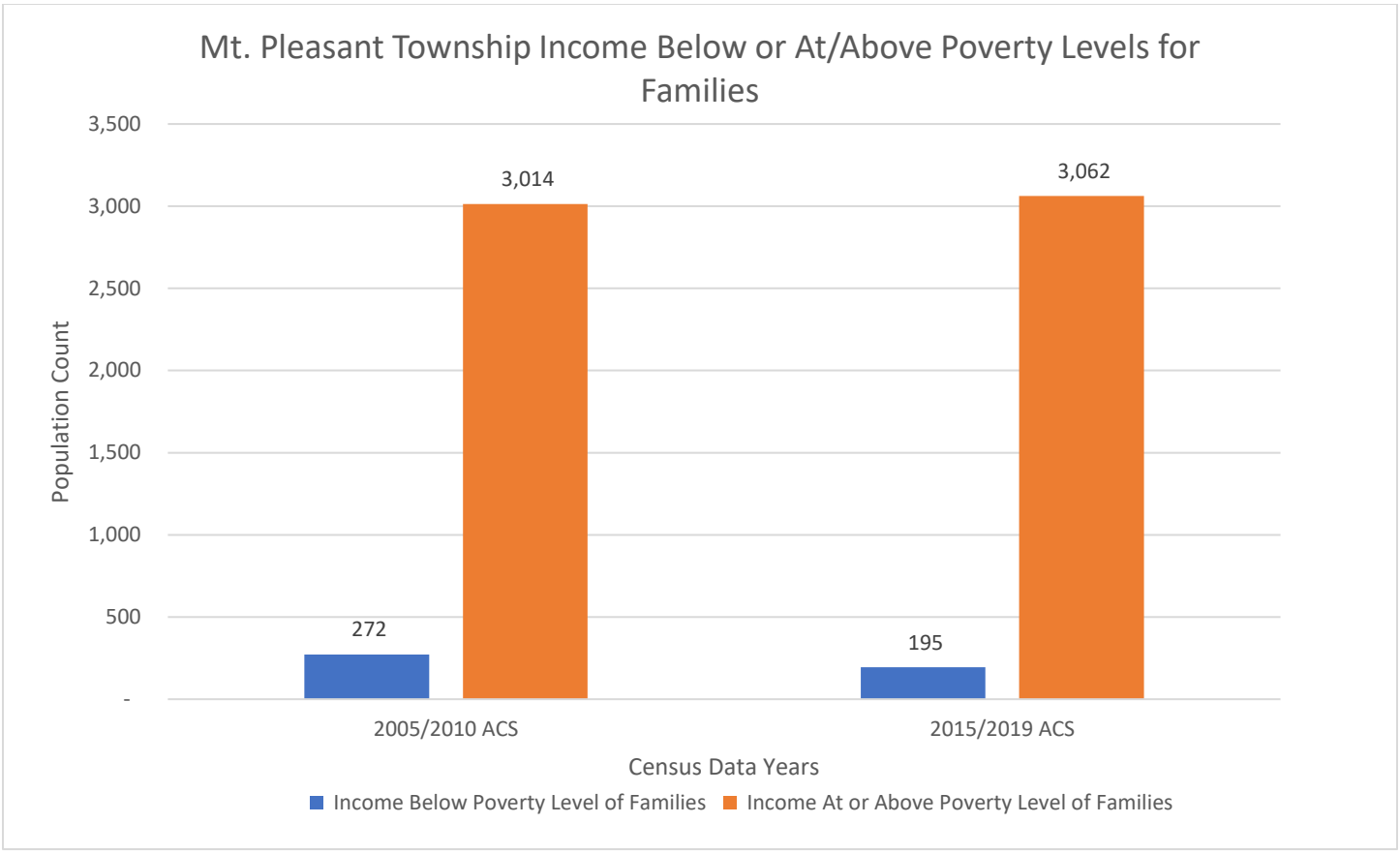
Figure Analysis 18. Scottdale Borough Housing Characteristics for 2015/2019 American Community Survey Years.

Table 5. Income Characteristics								
Income Factor	2005/2010 ACS				2015/2019 ACS			
	Mount Pleasant Borough	Mount Pleasant Township	East Huntingdon Township	Scottdale Borough	Mount Pleasant Borough	Mount Pleasant Township	East Huntingdon Township	Scottdale Borough
Income Below Poverty Level of Families	191	272	352	41	160	195	105	82
Income At or Above Poverty Level of Families	1,143	3,014	1,957	1,164	1,044	3,062	1,883	1,092
Median Household Income (2019 inflation rate)	$40,974	$59,235	$41,244	$44,328	$42,988	$53,425	$54,674	$53,099
Per Capita Income (2019 inflation rate)	$25,671	$27,838	$24,513	$27,472	$24,133	$29,010	$35,302	$29,778

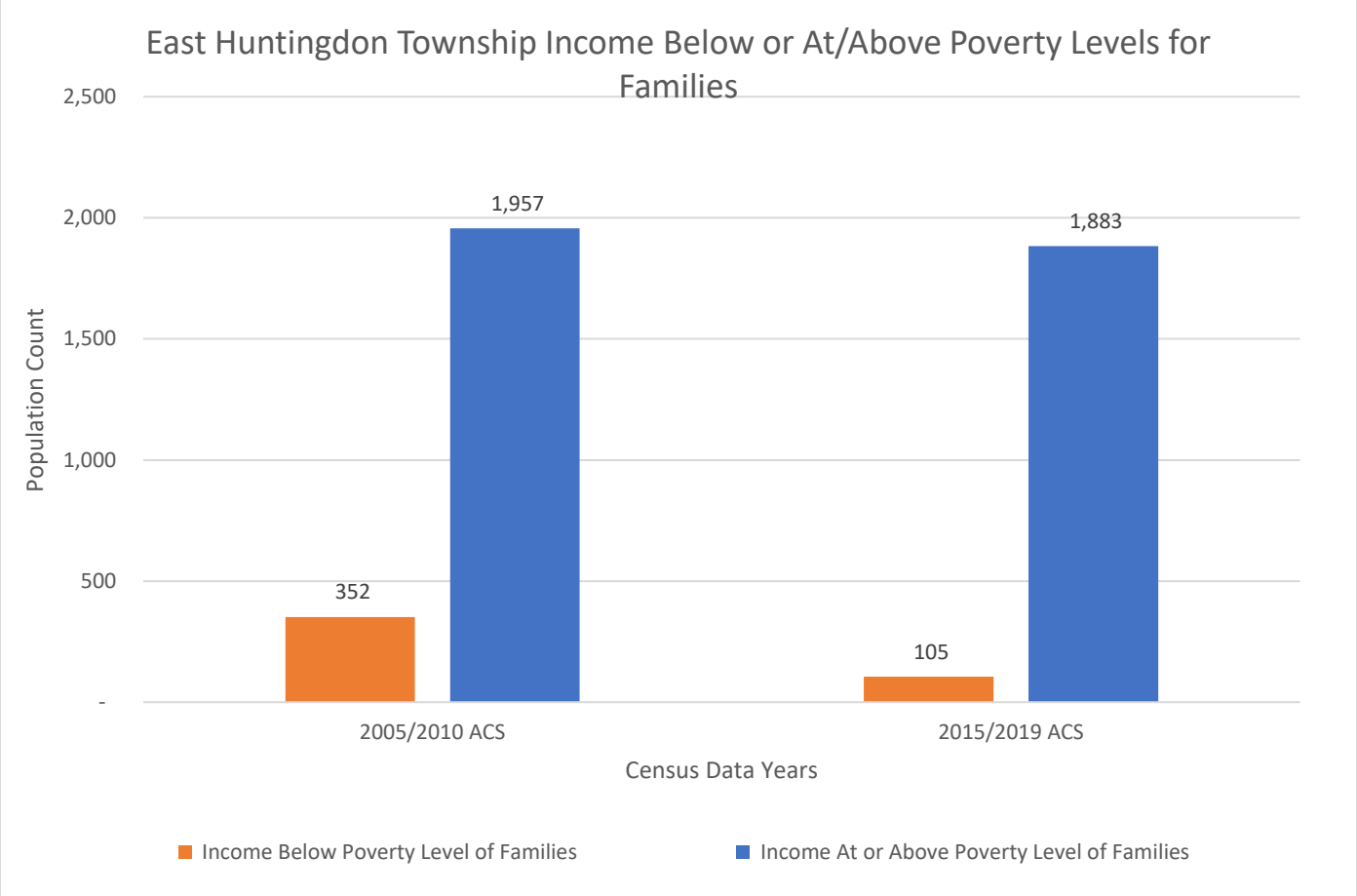
Table 5. Income Characteristics for Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough for 2005/2010 and 2015/2019 ACS.



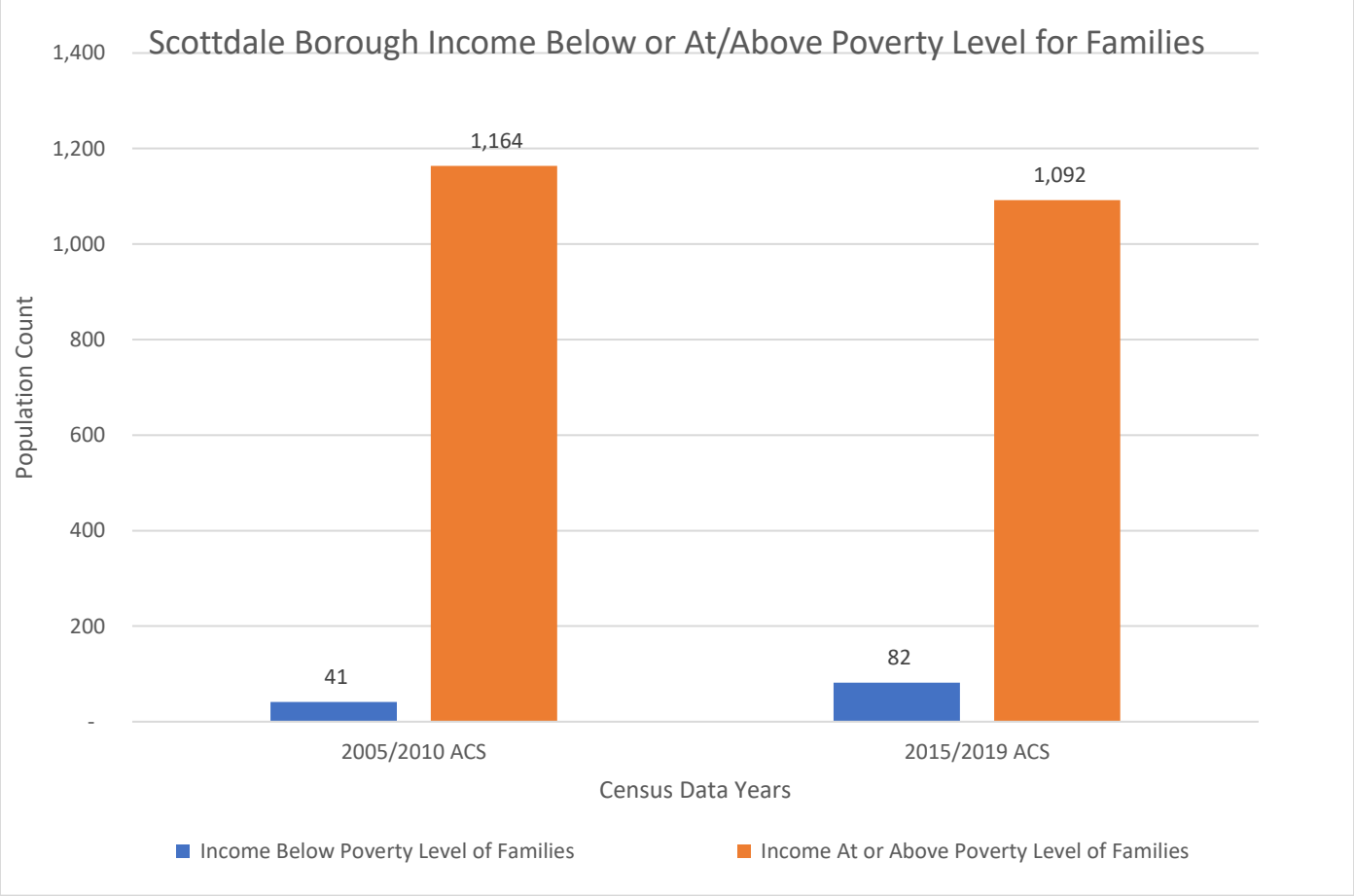
Analysis Figure 19. Mt. Pleasant Borough comparison of Below and At/Above Poverty Levels.



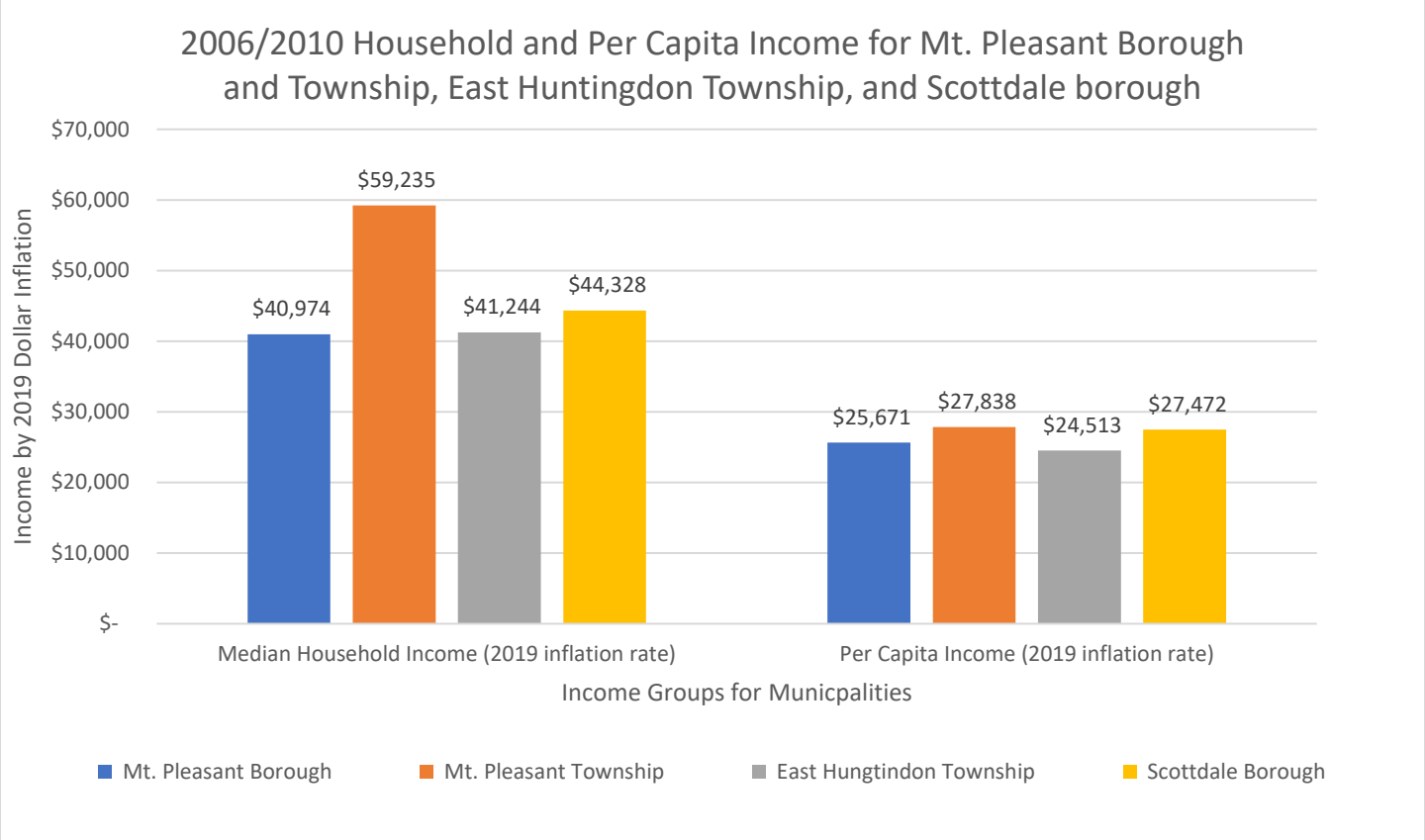
Analysis Figure 20. Mount Pleasant Township comparison of Below and At/Above Poverty Levels.



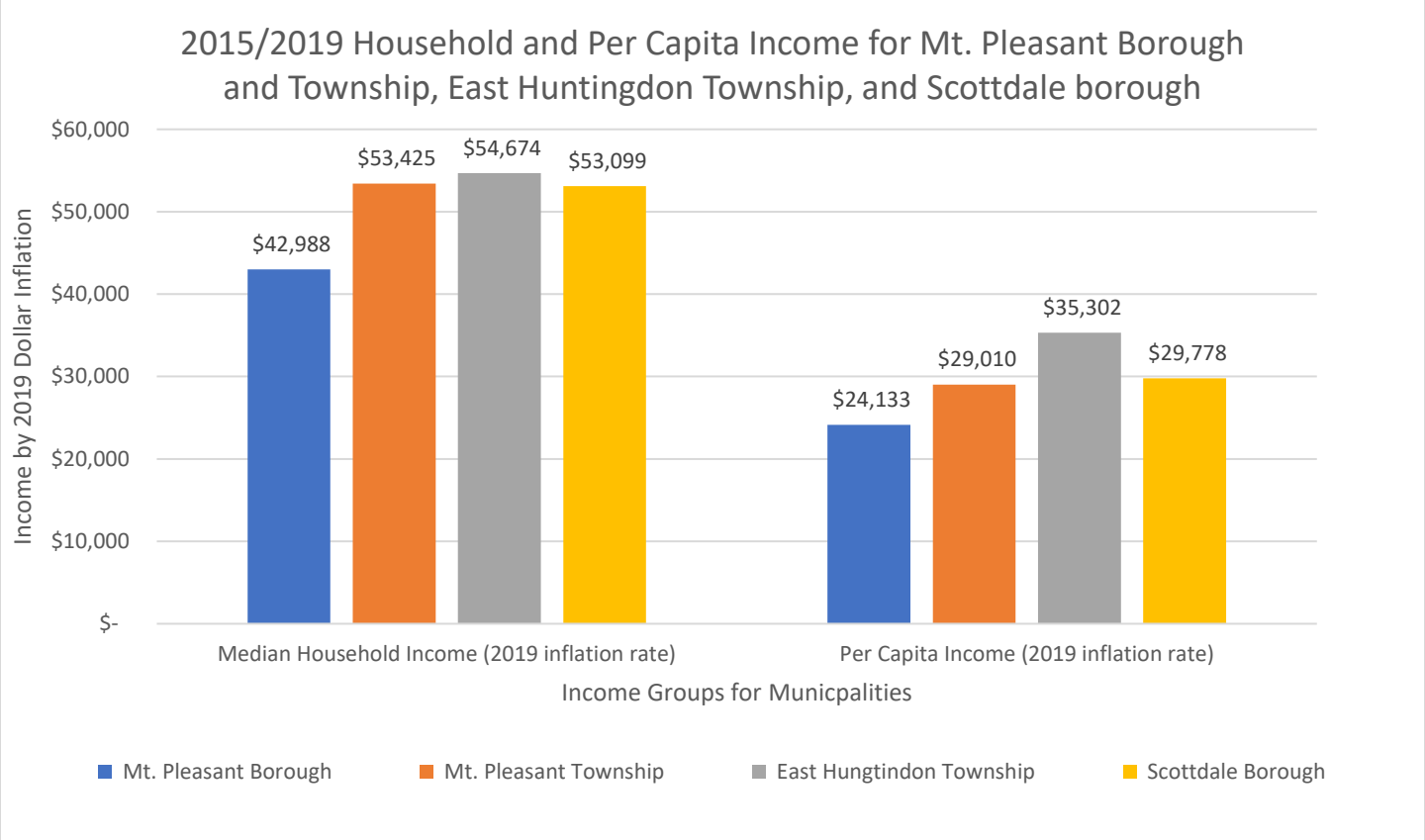
Analysis Figure 21. East Huntingdon Township comparison of Below and At/Above Poverty Levels.



Analysis Figure 22. Scottdale Borough comparison of Below and At/Above Poverty Levels.

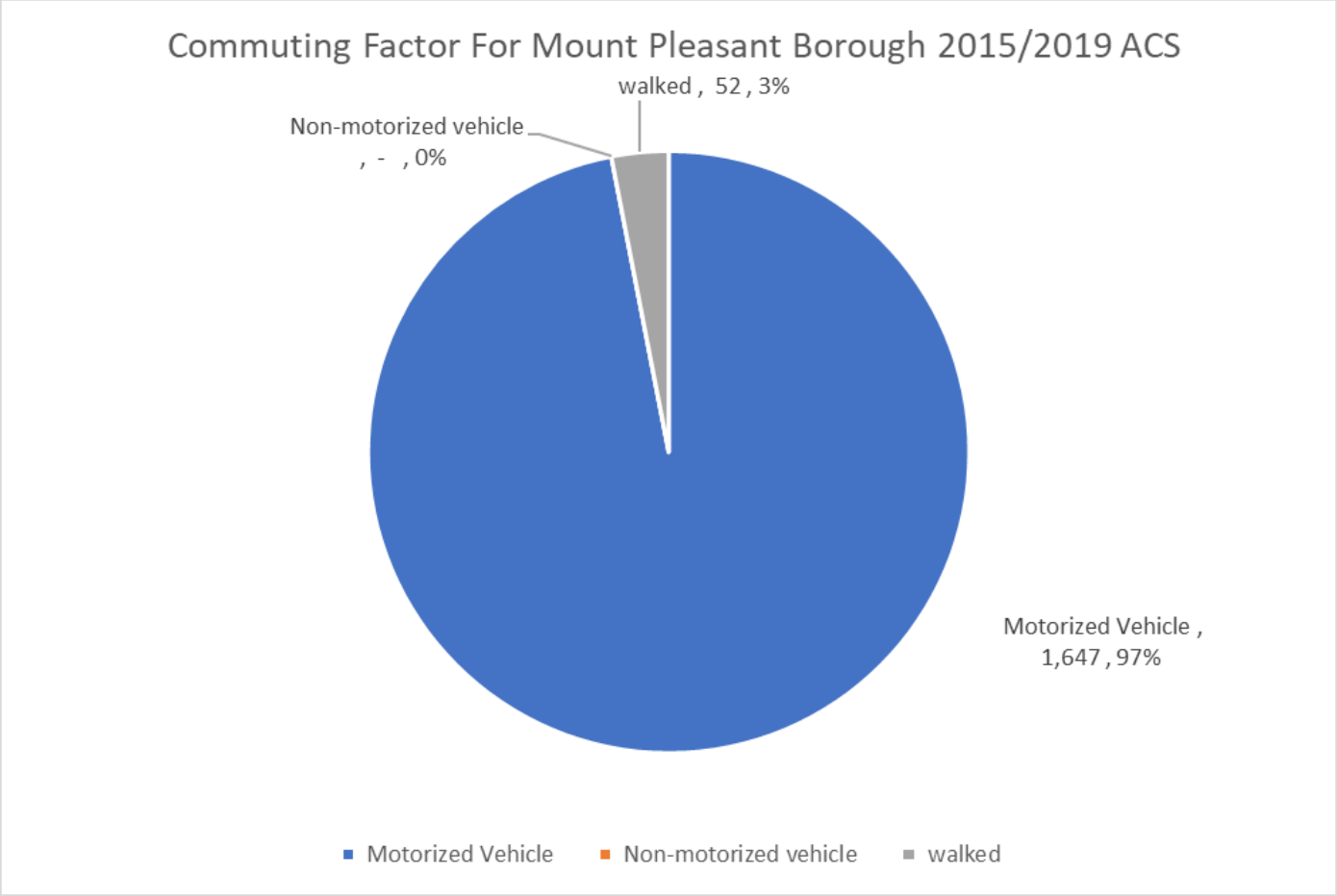


Analysis Figure 23. Comparison of income characteristics for the Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough American Community Survey Years 2006/2010.

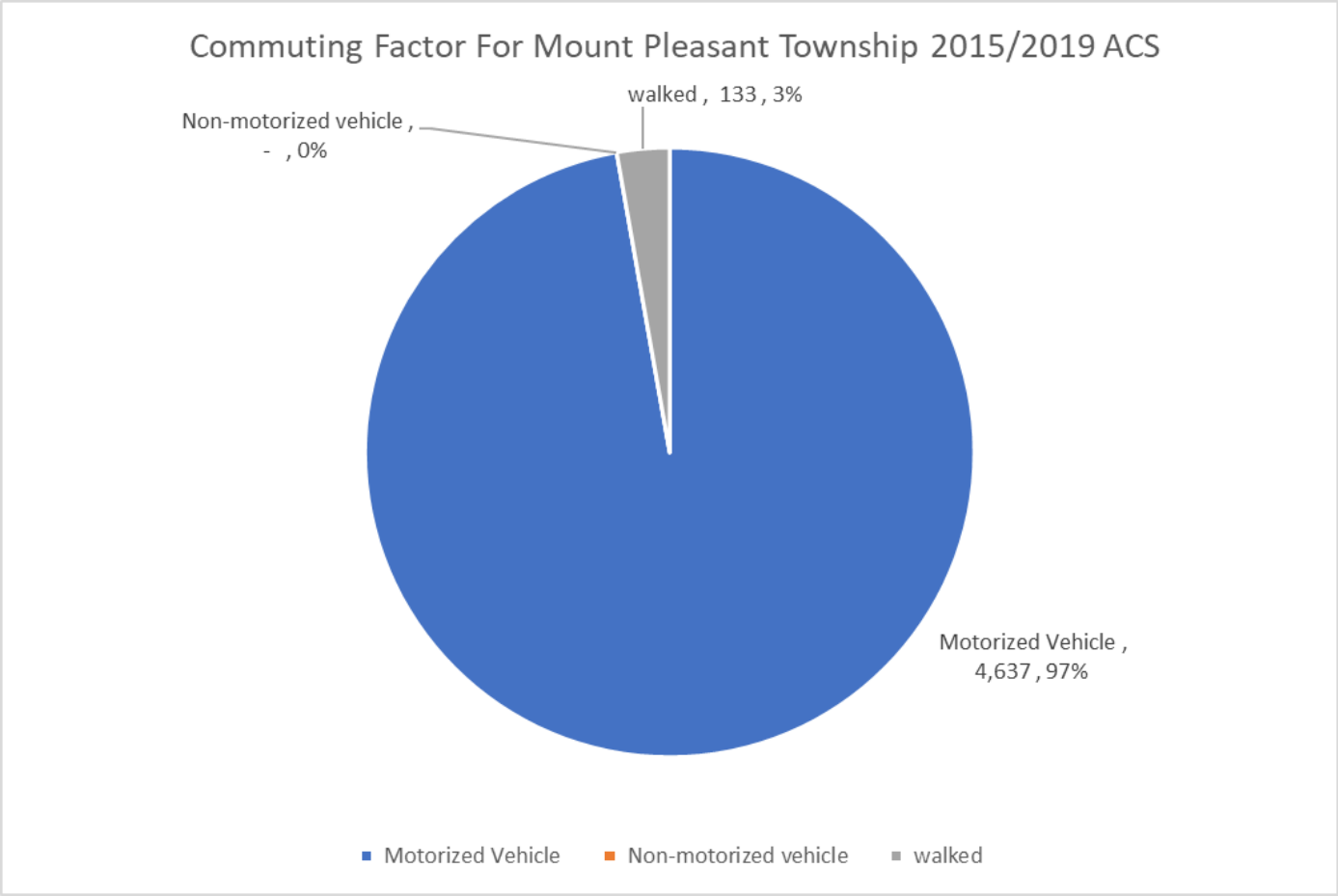


Analysis Figure 24. Comparison of income characteristics for the Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough American Community Survey Years 2015/2019.

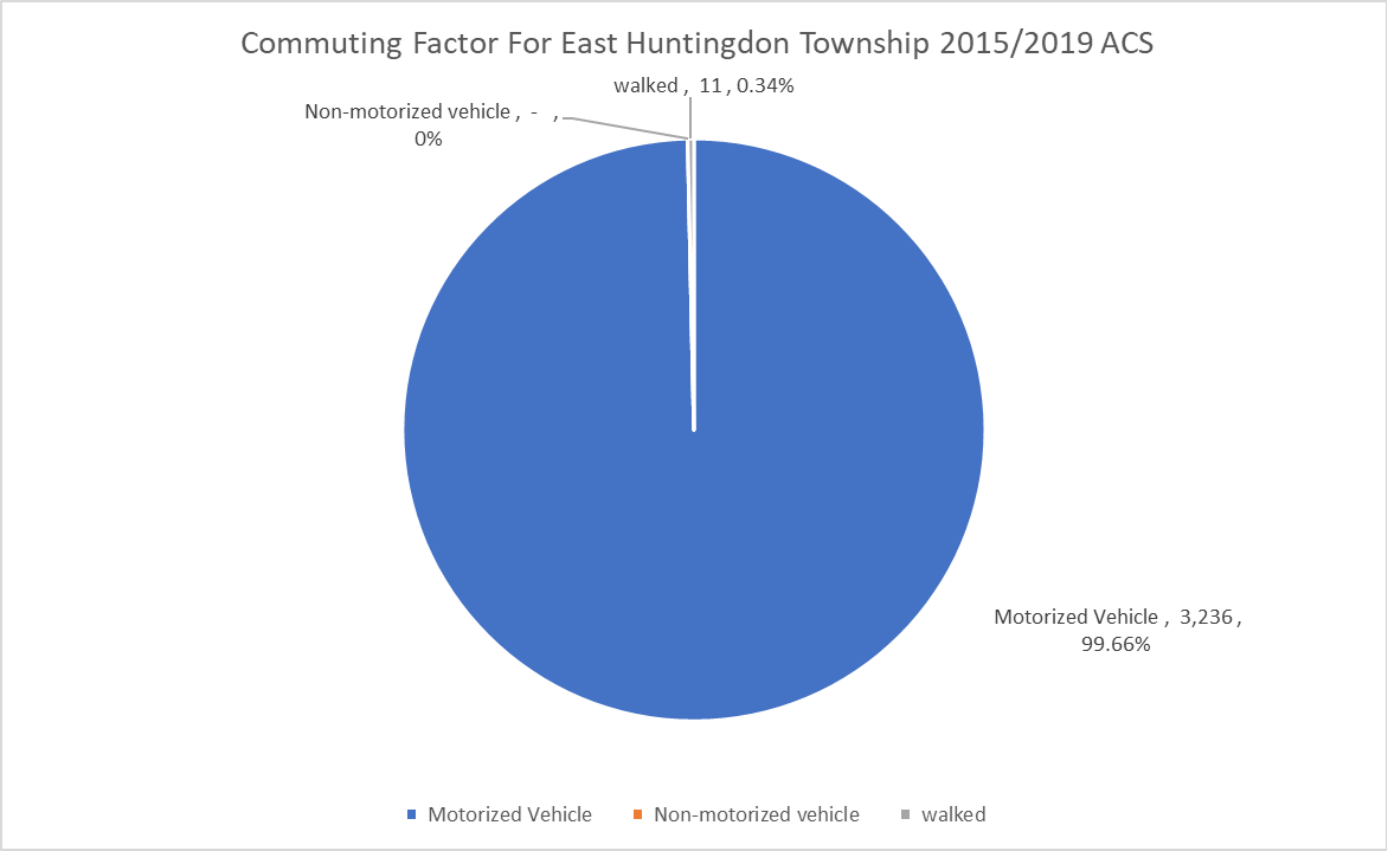
Table 6. Commuting Characteristics								
Commuting Factor	2005/2010 ACS				2015/2019 ACS			
	Mount Pleasant Borough	Mount Pleasant Township	East Huntingdon Township	Scottdale Borough	Mount Pleasant Borough	Mount Pleasant Township	East Huntingdon Township	Scottdale Borough
Workers 16 Years and Over	1,903	5,358	3,481	2,009	1,979	4,961	3,513	1,959
Motorized Vehicle	1,811	5,113	3,280	1,938	1,647	4,637	3,236	1,747
Non-motorized vehicle	-	-	13	-	-	-	-	16
walked	66	37	36	10	52	133	11	43



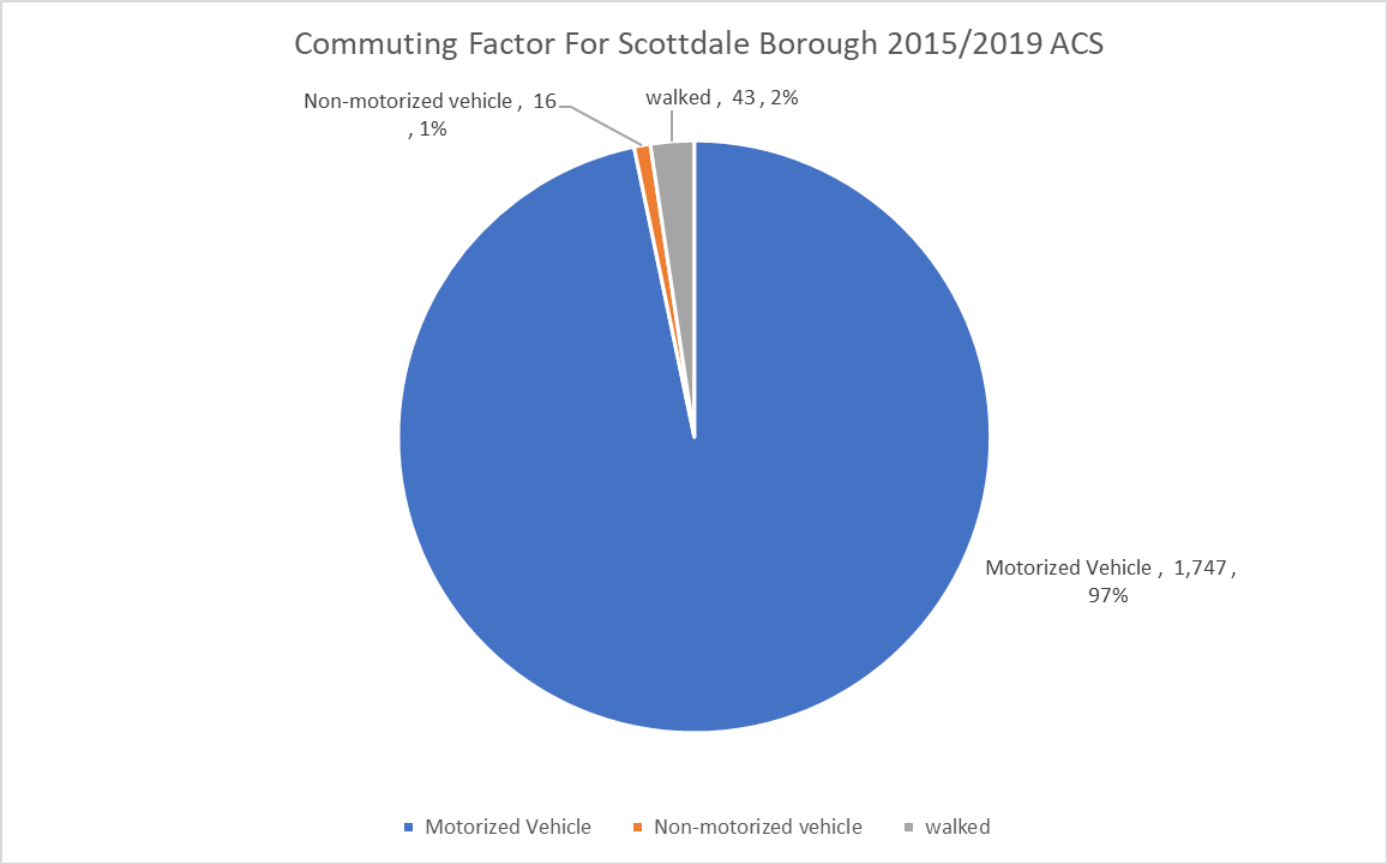
Analysis Figure 25. Commuter characteristics for Mount Pleasant Borough 2015/2019 ACS year.



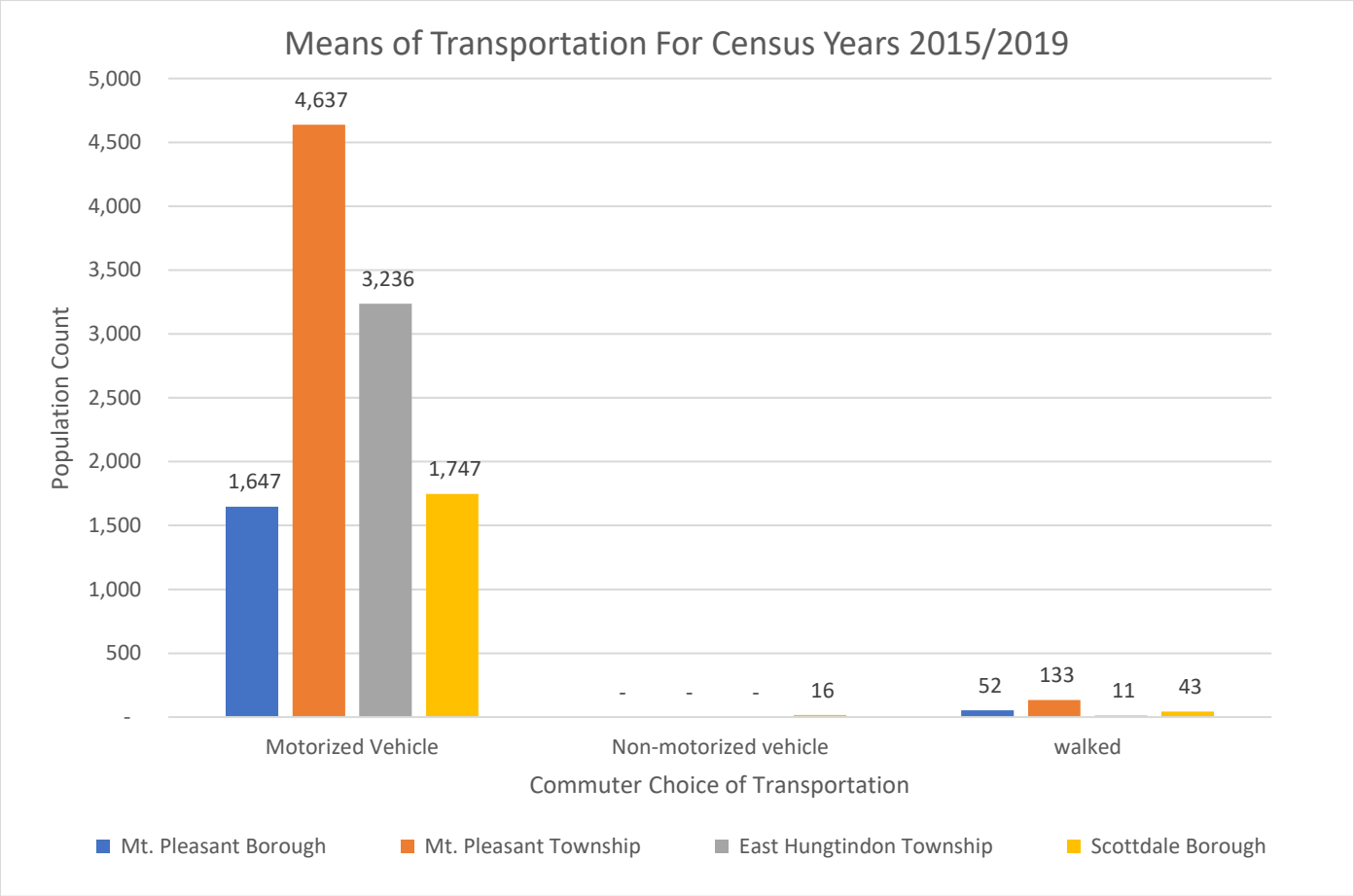
Analysis Figure 26. Commuter characteristics for Mount Pleasant Borough 2015/2019 ACS year.



Analysis Figure 27. Commuter characteristics for East Huntingdon Township 2015/2019 ACS year.

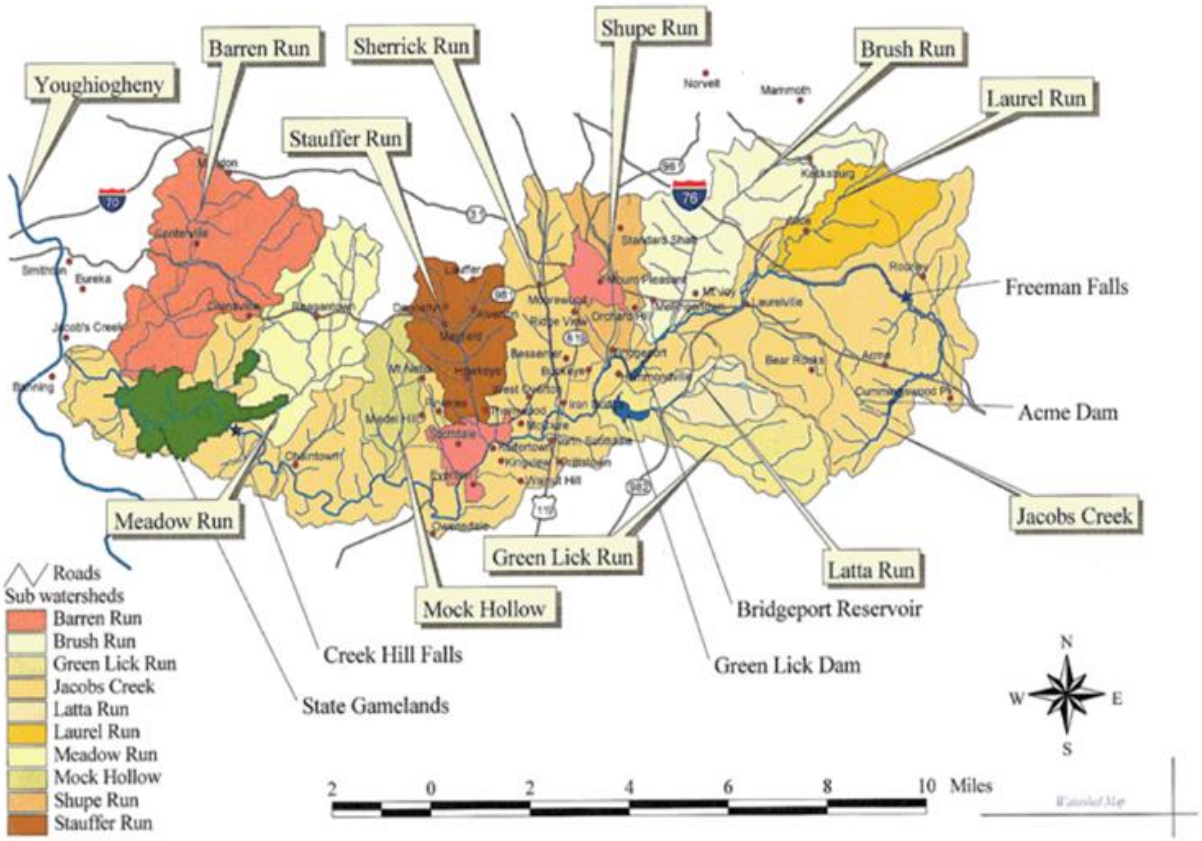


Analysis Figure 28. Commuter characteristics for East Huntingdon Township 2015/2019 ACS year.



Analysis Figure 29. Community characteristics for Mount Pleasant Borough and Township, East Huntingdon Township, and Scottdale Borough for American Community Survey Years 2015/2019.

Appendix C Trail Figures



Trail Figure 1. Jacobs Creek Watershed

Trail Figure Source: Jacobs Creek Watershed Association Website

How to get to the trail

Directions to Mount Pleasant Trail Head:

From Route 119, take the Mount Pleasant (Route 31) exit. Head east on Route 31 into Mount Pleasant. Go straight past "the Doughboy" monument to the bottom of the hill and turn right just before the railroad tracks into the Mount Pleasant Rotary Trail Head Parking.

From the Donegal Area:

Come down Route 31 into Mount Pleasant. Cross the railroad tracks and immediately turn left into the Mount Pleasant Rotary Trail Head Parking.

Directions to Kendi Park in Scottdale:

From Route 119, take the Scottdale (Route 819) exit. Head south on Route 819 toward Scottdale. Turn left onto Overholt Drive across from the West Overton Museum complex. At the first stop sign, make a right onto Mount Pleasant Road, and continue down to Kendi Park.

Directions to the Sewage Treatment Lane Trail Parking Lot in Ironbridge:

Exit Route 119 at the Scottdale exit. At the end of the exit turn on to Route 819 North and travel straight ahead to the fourth stop light at Mt. Pleasant Road, which is just past K-Mart. Turn right onto Mt. Pleasant Road and continue straight ahead. When you see Amcel Center on the left, watch for the next left and turn left on to Sewage Treatment Lane, which is also the trail. Continue to the Trail Parking Lot on the left.

Join and support the trail TODAY!

By joining the CCTC you will be helping to monitor, maintain and further develop this exciting recreational facility in our area. We need people who can donate time, funds or their abilities.

Please join today by completing and sending in the membership form on the other side of this brochure.

Organization

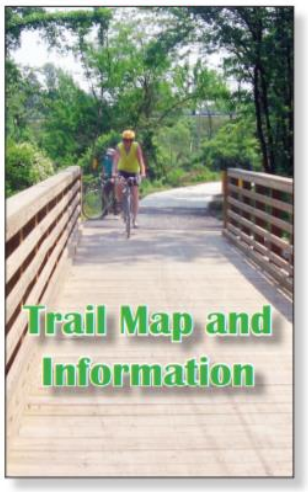
The Coal & Coke Chapter is a volunteer organization associated with the Regional Trail Corporation.

The Regional Trail Corporation is a non-profit enterprise within Westmoreland, Fayette, and Allegheny Counties, which promotes the conversion of abandoned railroad corridors to recreational trails.

The Coal & Coke Chapter is led by a thirteen member board of volunteers, including government officials and community members from the municipalities through which the trail passes: East Huntingdon Township, Mount Pleasant Township and Borough, Scottdale Borough, Upper Tyrone Township, and Westmoreland County.

COAL & COKE TRAIL

Linking Communities & History



Coal & Coke Trail Chapter
P.O. Box 360
Scottdale, PA 15683
(724) 872-5586

REGIONAL TRAIL CORPORATION AFFILIATE

COAL & COKE TRAIL

Linking Communities & History

Membership/Contribution

Yes! I want to help maintain and improve the Coal & Coke Trail. Enclosed is my tax deductible contribution.

Name _____

Address _____

_____

City _____

State _____ Zip _____

Phone _____

Email _____

TYPE OF MEMBERSHIP

- ❒ Individual Member.....$15
- ❒ Family.....$25
- ❒ Small Business.....$100
- ❒ Lifetime Membership.....$150
- ❒ Corporate.....$250
- ❒ Voluntary Contribution .....____

Circle the areas you would like to help with...

Trail Monitor Trail Maintenance

Trail Events

Send this form and make checks payable to:

CCTC, P.O. Box 360, Scottdale, PA 15683

Thank You!

Linking Communities and History

Ride or walk through history as you travel the Coal & Coke Trail. Set on scenic old railroad corridors, the Coal & Coke Trail provides outdoor recreational opportunities for walkers, joggers, bikers, hikers, and cross-country skiers. The trial provides a non-motorized, handicapped accessible transportation source for area residents as well as tourists, linking Mount Pleasant and Scottdale.

Along the way, enjoy beautiful natural areas and occasional wildlife while following Jacob's Creek past old coke ovens and friendly communities. You'll actually be following in history's footsteps as you travel along the same paths as General Braddock, H.C. Frick, Andrew Carnegie, A.C. Cochran, and others.

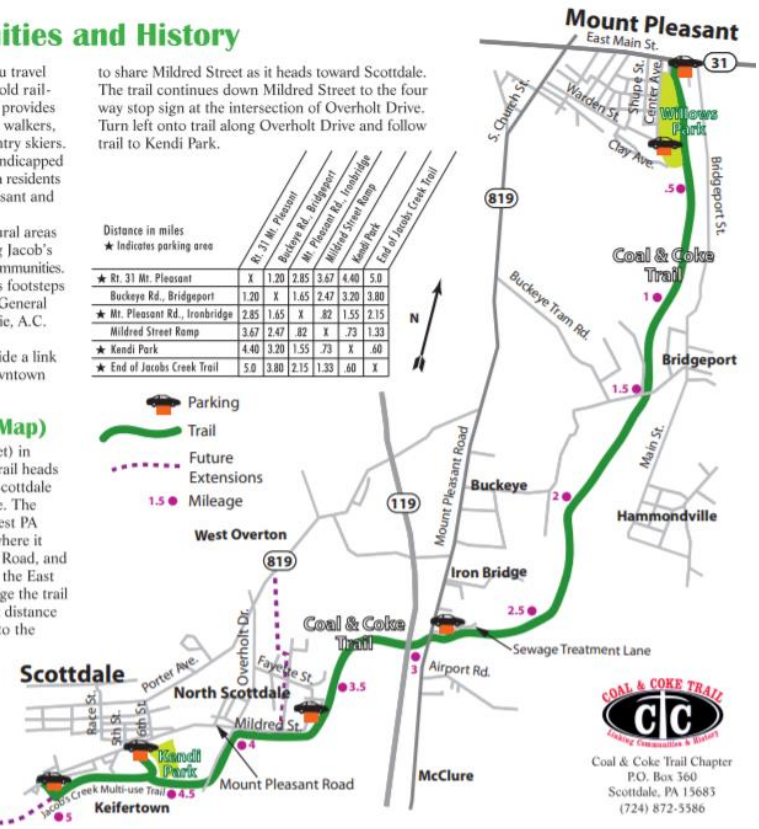
There are future plans to also provide a link to the West Overton Museum and downtown Scottdale (see dotted line).

Trail Route (Refer to Map)

Beginning at Route 31 (Main Street) in Mount Pleasant, the Coal and Coke Trail heads southwest on the old corridor of the Scottdale Branch of the PA RR toward Scottdale. The trail runs alongside the active Southwest PA Railroad, to the town of Bridgeport, where it crosses both Shupe Run and Buckeye Road, and continues southwest to Ironbridge. At the East Huntingdon Sewage Plant in Ironbridge the trail leaves the railroad corridor for a short distance and shares Sewage Treatment Lane to the intersection of Mount Pleasant Road (Old 119). After crossing Mount Pleasant Road, the trail is once again on the old corridor of the PA Railroad. The trail then continues under the Route 119 highway and across Sherrick Run into North Scottdale. Once again the trail exits the old rail corridor to share Mildred Street as it heads toward Scottdale. The trail continues down Mildred Street to the four way stop sign at the intersection of Overholt Drive. Turn left onto trail along Overholt Drive and follow trail to Kendi Park.

Distance in miles
★ Indicates parking area

	Rt. 31 Mt. Pleasant	Buckeye Rd., Bridgeport	Mt. Pleasant Rd., Ironbridge	Mildred Street Ramp	Kendi Park	End of Jacobs Creek Trail
★ Rt. 31 Mt. Pleasant	X	1.20	2.85	3.67	4.40	5.0
Buckeye Rd., Bridgeport	1.20	X	1.65	2.47	3.20	3.80
★ Mt. Pleasant Rd., Ironbridge	2.85	1.65	X	.82	1.55	2.15
Mildred Street Ramp	3.67	2.47	.82	X	.73	1.33
★ Kendi Park	4.40	3.20	1.55	.73	X	.60
★ End of Jacobs Creek Trail	5.0	3.80	2.15	1.33	.60	X

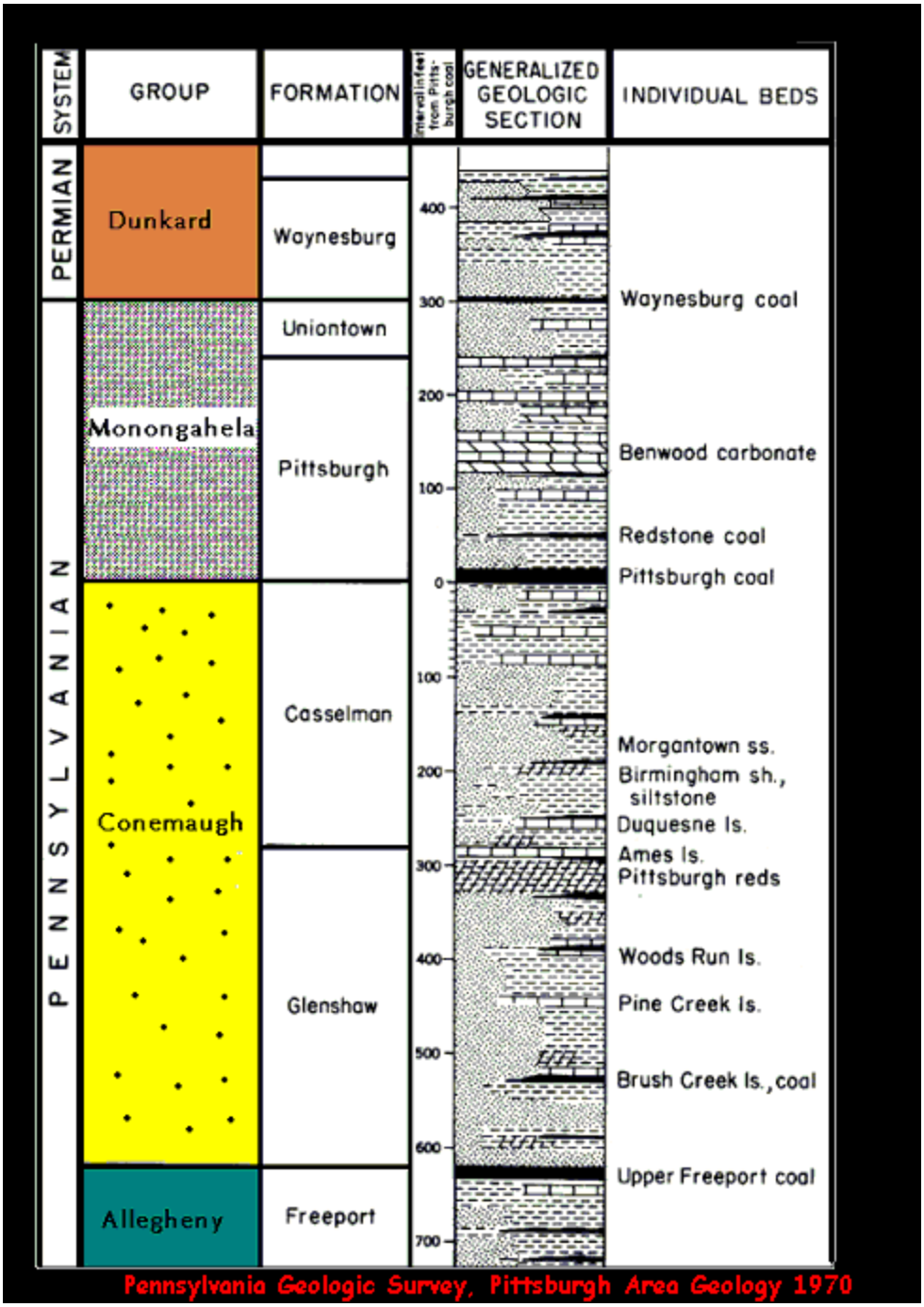


COAL & COKE TRAIL

Linking Communities & History

Coal & Coke Trail Chapter
P.O. Box 360
Scottdale, PA 15683
(724) 872-5586

Trail Figure 2. Coal & Coke Trail Brochure.
Figure Source: Westmoreland County Coal & Coke Trail website



Trail Figure 3. Geologic Stratigraphy Column of the Southwest Pennsylvania Formations.

Figure Source: The Rock Doctor Website

Appendix D Trail Images

Trail Image 1. Person with Disability using the Coal & Coke trail with the Mount Pleasant Sewage Treatment Plant in the background facing west.

Trail Image 2. Shupe Run facing north on trail segment B.

Trail Image 3. Shupe run flooding at Buckeye Road Access Point.

Trail Image 4. Jacobs Creek waterway on trail segment F facing north.

Trail Image 5. Jacobs Creek waterway and Stauffer Run waterway connection facing south.

Trail Image 6. Grey Squirrel on trail segment B.

Trail Image 7. Spotted Lantern Fly anatomy.
Trail Image source: Pennsylvania Department of Agriculture

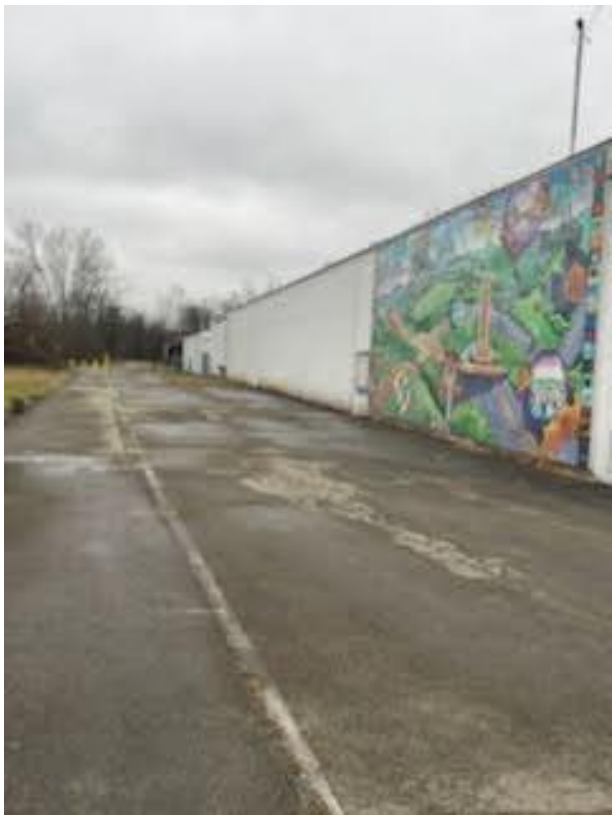
Trail Image 8. Mountain Cherry Millipede on trail section C.

Trail Image 9. Bush Honeysuckle on trail segment B facing east.

Trail Image 10. Tree of Heaven tree stand
Trail Image source: Penn State Extension

Trail Image 11. Tree of Heaven seed pods.
Trail Image source: Penn State Extension

Trail Image 12. Route 31 Mount Pleasant access point of trail segment A facing south.



Trail Image 13. American Architectural Salvage Mural wall facing southwest.

Trail Image 14. American Architectural Salvage yard and trail path shoulder facing southwest.

Trail Image 15. Mount Pleasant community mural on American Architectural Salvage building.
Trail Image Source: TribLive

Trail Image 16. Coal & Coke Trail path on trail segment A towards willow Park recreation fields with bleachers facing southeast. Active Southwest Pennsylvania Rail line to the east of trail.

Trail Image 17. Willow Park recreational sports fields and open spaces facing south.

Trail Image 18. View of wetlands and community of Bridgeport from Coal & Coke trail facing east.

Trail Image 19. The Trick- Bridgeport Connection trail map and locations of coal and coke features.

Trail Image 20. Coal & Coke Trail rules signage.

Trail Image 21. Trail segment C with intergenerational user entering through the Buckeye Road Bridgeport access point facing south.

Trail Image 22. Buckeye Road Bridgeport access point intersection between trail segment B and C facing south.

Trail Image 23. Hill cut exposing the geologic and pedologic layers, the hill cut becomes overgrown in the summer on trail segment C facing south.

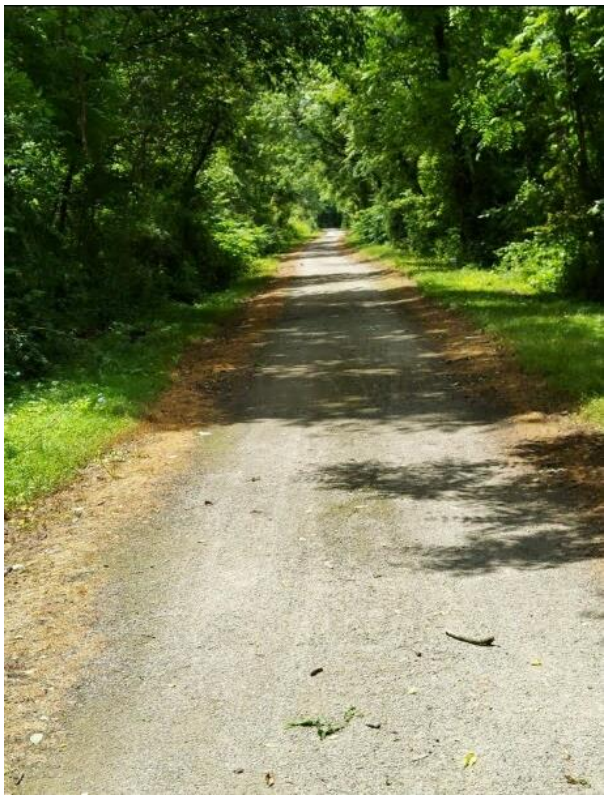
Trail Image 24. US Route 119 trail underpass with graffiti tags on trail segment D facing east.

Trail Image 25. Freshwater pond on trail segment D facing north.

Trail Image 26. Relaxation benches near the fresh water pond of trail segment D.

Trail Image 27. Memorial plaque for Duane Wolley on trail segment D.

Trail Image 28. Ephemeral ponding along the depression of the raised Coal & Coke Trail path facing west-southwest.



Trail Image 29. Trail segment E at Mildred Street Ramp access facing north-northeast.

Trail Image 30. Mildred Street Ramp access point facing west-southwest of the trail path to follow Bessemer Road.

Trail Image 31. Mildred Street Ramp access point traffic flow gates facing south.

Trail Image 32. Trail segment E on the Jacobs Creek Multi-Use Trail facing west-southwest.

Trail Image 33. Trail segment F near the intersection of trail segment E facing east.

Trail Image 34. End of Jacobs Creek Trail access point and multi-use trail signage on trail segment F facing south.

Trail Image 35. Trail segment E facing east with multigenerational users.

Trail Image 36. End of Jacobs Creek Trail access point with the represented open space for the trail segment F facing south.

Trail Image 37. End of Jacobs Creek Trail community board near the parking lot for trail segment F.

Trail Image 38. Trail segment D infrastructure improvement in October 2021.
Trail Image source: Coal & Coke Trail Facebook Page

Trail Image 39. Trail segment D finished infrastructure improvement project.

Trail Image 40. Trail segment B at Buckeye Road Bridgeport access point bridge infrastructure facing north.

Appendix E Key Term Definitions

alluvial deposition- Material of sand, silt, clay, and various sized rocks that are eroded and deposited by river/stream bodies.

blind hills- Point of a roadway where motor vehicles reach at the top of a hill or incline that has reduced to no visibility of the other side of the hill to oncoming traffic.

coal and shale gobs- local term for currently unusable coal and shale refuse piles.

conterminous communities- communities of south-central Pennsylvania that share common boundary.

cyclic – Geologic strata that occur in repeating orders.

environmental reclamation- Returning the environment that supported a former industry in hopes to reclaim the environment to pre-industry conditions.

ephemeral- Features that last a very short time due to environmental characteristics.

forest stands- A contiguous community of trees with uniformity of species, age, arrangement, and distribution.

formation- Body of geologic rock that consists of physical characteristics that define one body of geologic rock from another.

graffiti tag/tagged- A process of street artist's that repeatedly use a single symbol or a repetition of symbols to identify and mark territory of individual graffiti artists.

pedology- Study of soil science that understands soil development, characteristics, and theoretical framework of the formation of selected soils.

physiographic region- Landscapes and regional areas that share a common landform(s) that have been shaped by geomorphic processes.

prevailing winds- Direction of the wind that travels most-often in a location and direction within the region.

region- An area of land with common features. Region is used to define the large umbrella community of south-central Westmoreland County, Pennsylvania.

strata- Sedimentary rock layers that are bound by different planes of layers that consist of noticeable grain characteristic changes.

subwatershed- Smaller areas of water drainage that discharge into a large body of water.

watershed- area of land that captures and drains overland rainfall and stream discharges to a common point.

wetlands- Land consisting of marshes, swamps, and water saturated land.

Appendix F References and Resources

Alexenberg, M., & Benjamin, M. (2004). Creating Public Art Through Intergenerational Collaboration. *Art Education, 57*(5), 13-18. https://proxy-iup.klnpa.org/login?url=https://www.proquest.com/scholarly-journals/creating-public-art-through-intergenerational/docview/199365689/se-2?accountid=11652

AllTrails mobile phone application downloaded from Google Play Store. Accessed 2021.

American Community Survey Data 2005-2019. Social Explorer. Access 2021-2022. https://www.socialexplorer.com/explore-maps.

Bridger, J.C., Luloff, A.E. Penn State College of Agriculture Resources. Accessed 2021. https://aese.psu.edu/nercrd/community/community-a-different-biography/legacy/sustainable-community-development-an-interactional-perspective

Brown University. Student Accessibility Services. Accessed 2022. https://www.brown.edu/campus-life/support/accessibility-services/resources-teaching-students-disabilities/appropriate-terminology

Campelo, A. 2015. Chapter 4-Rethinking sense of place: sense of one sense of many. *Rethinking Place Branding*. Springer Publishing. 51-60.

Chapin, III, F. S., M. E. Power, S. T. A. Pickett, A. Freitag, J. A. Reynolds, R. B. Jackson, D. M. Lodge, C. Duke, S.L. Collins, A. G. Power, and A. Bartuska. 2011. Earth Stewardship: science for action to sustain the human-earth system. Ecosphere 2(8): 89. doi:10.1890/ES11-00166.1

Chester County Planning Commission. Accessed 2022. https://www.chescoplanning.org/MuniCorner/eTools/16-tnd.cfm

Coal & Coke Trail community Facebook Page. Accessed 2021. https://www.facebook.com/CoalandCokeTrail/

Colorado State University. Inclusive Language. Accessed 2022. https://disabilitycenter.colostate.edu/inclusive-language/

Department of Environmental Protection. Accessed 2021. https://files.dep.state.pa.us/Water/BWEW/Watershed%20Management/WatershedPortalFiles/NonpointSourceManagement/ProgramInitiatives/ImplementationPlans/JCWA%20319%20report%206-17-09.pdf

Eastern Pennsylvania Coalition for Abandoned Mine Reclamation. Access 2021. http://epcamr.org/home/content/reference-materials/amd-amr-and-more-alphabet-soup/amd-abandoned-mine-drainage/

Environmental Protection Agency. Accessed 2021. https://www.epa.gov/smartgrowth/smart-growth-small-towns-and-rural-communitiestechnicalassistanceprograms

Georgia Library Connect. 2020. Accessed 2021. https://digitalcommons.kennesaw.edu/cgi/viewcontent.cgi?article=2321&context=glq

Green Beacon Gallery. Accessed 2022. https://www.greenbeacongallery.com/resident-artists

Green Play LLC. Accessed 2022. https://greenplayllc.com/wp-content/uploads/2020/04/Libraries-PR-Article-FINAL-1.pdf

Jack Beck. 2004. Accessed 2021. https://www.americansforthearts.org/sites/default/files/pdf/2013/by_program/networks_and_councils/public_art_network/PublicArtMonograph_JBecker.pdf

Kellog Hubbard Library. Accessed 2021. https://www.kellogghubbard.org/_files/ugd/0f622b_e1b3745b5e75441fa50ba88274da79fb.pdf

Kellog Hubbard Library. Accessed 2022.https://www.kellogghubbard.org/storywalk

Kellog-Hubbard Library System. Accessed 2022. https://www.kellogghubbard.org/storywalk

Kudryavtsev, A., Krasny, M.E., Stedman, R.S. 2012. The impact of environmental education on sense of place among urban youth. *Ecosphere.* 3(4): 29.

Lady Bird Johnson Wildflower Center. Texas University at Austin. Accessed 2021. https://www.wildflower.org/plants/result.php?id_plant=YUFI

Largo-Wight, E. 2011. Cultivating healthy places and communities: evidence-based nature contact recommendations. *International Journal of Environmental Health Research.*21:1, 41-61

Library of Congress. Access 2022. https://www.loc.gov/item/2017759736/

Loebach, J., Sanches, M.Jaffe, J., Elton-Marshall, T. 2021. Paving the Way for Outdoor Play: Examining Socio Environmental Barriers to Community-Based Outdoor Play. Int. J. Environ. Res. Public Health. 18: 3617.

Lowe, S. S. (2000). Creating Community: Art for Community Development. *Journal of Contemporary Ethnography*, *29*(3), 357–386. https://doi.org/10.1177/089124100129023945

McConnell, V., & Walls, M. 2005. The value of open space: Evidence from studies of nonmarket benefits. *Resources for the Future*.

Mount Pleasant Public Library. Accessed 2022. https://www.mountpleasantpalibrary.org/

NOAA National Center for Environmental information, Climate at a Glance: County Time Series, published November 2021, Accessed 2021. https://www.ncdc.noaa.gov/cag/

Northwest Kansas Library System. Accessed 2021. https://nwkls.org/wp-content/uploads/2018/11/THE-STORYWALK-PROJECT.pdf

Penn State Extension, The Coal and Coke Heritage Museum. Accessed 2021. https://fayette.psu.edu/visit/coalandcoke/museum

Penn State Extension. Accessed 2021. https://extension.psu.edu/bees-in-pennsylvania-diversity-ecology-and-importance

Penn State Extension. Accessed 2021. https://extension.psu.edu/commonly-encountered-pennsylvania-spiders

Penn State Extension. Accessed 2021. https://extension.psu.edu/common-social-bees-and-wasps-of-pennsylvania-behavior-lifecycle-and-management

Penn State Extension. Accessed 2021. https://extension.psu.edu/millipedes

Penn State Extension. Accessed 2021. https://extension.psu.edu/tree-of-heaven

Penn State Extension. Accessed 2021. https://www.exploringnature.org/db/view/Classification-Insects-Orders-Illustrated-3-6th

Penn State Extension. Accessed 2021. https://www.maine.gov/dacf/php/gotpests/bugs/factsheets/millipedes-penn.pdf

Pennsylvania Botany, Accessed 2021. https://pabotany.org/

Pennsylvania Department of Agriculture. Access 2021. https://www.agriculture.pa.gov/Plants_Land_Water/PlantIndustry/Entomology/spotted_lanternfly/SpottedLanternflyAlert/Pages/default.aspx

Pennsylvania Department of Conservation and Natural Resources, PaGEODE- Pennsylvania Geologic Data Exploration. Geologic Survey. Accessed 2021 from https://maps.dcnr.pa.gov/PAGEODE

Pennsylvania Department of Conservation and Natural Resources. Accessed 2021. https://www.dcnr.pa.gov/Conservation/ForestsAndTrees/InsectsAndDiseases/OtherInsectsandDiseases/Pages/default.aspx

Pennsylvania Department of Conservation and Natural Resources. Accessed 2021. https://trails.dcnr.pa.gov/trails/trail/trailview?trailkey=148

Pennsylvania Spatial Data Access. Accessed 2021,2022. https://www.pasda.psu.edu/uci/

Radford University. Published 2014. Accessed 2022. https://sites.radford.edu/~jtso/GeologyofVirginia/AppPlateaus/APPhysio-1.html

Rails To Trails Conservancy. Accessed 2021. https://www.railstotrails.org/build-trails/trail-building-toolbox/design/public-art/

Renton, John J. and Repine, T. "The West Virginia's Valley and Ridge Physiographic Province: An Overly Simplistic Introduction" (2016). Readings and Notes. 11. https://researchrepository.wvu.edu/earthscience_readings/11

River Art Works. Accessed 2021.https://www.riverartworks.org/

Ryan, R. L. 2005. Exploring the Effects of Environmental Experience on Attachment to Urban Natural Areas. *Environment and Behavior*. 37(1), 3–42. https://doi.org/10.1177/0013916504264147

Ryfield, F., Cabana, D., Brannigan, J., Crowe, T. 2019. Conceptualizing 'sense of place' in cultural ecosystem services: A framework for interdisciplinary research. *Ecosystem Services*. 36: 100907. https://doi.org/10.1016/j.ecoser.2019.100907

Scottdale Borough. Accessed 2021. https://scottdaleborough.com/community/parks-commission/

Scottdale Public Library. Accessed 2022. https://scottdalelibrary.com/

Self-Assessment for Rural Communities by the Environmental Protection Agency. Accessed 2021. https://www.epa.gov/sites/default/files/2015-12/documents/rural_self_assessment_121815.pdf

Smart Growth America. Accessed 2021. https://smartgrowthamerica.org/what-is-smart-growth/:~:text=10.,approach%20from%20place%20to%20place.

Som, A.P.M., Mohamed, B., Jusoh, J., Marzuki, A., & Bahauddin. 2007. Community approaches in tourism planning at grass root level. *TEAM Journal of Hospitality & Tourism.* 4(1): 56-68.

Swim, J.K., Zawadzki, S., Cundiff, J.L., & Lord, B. 2014. Environmental identity and community support for preservation of open space. *Human Ecology Review*. 20:2, 133-155.

The Daily Courier. May 13, 2021. Accessed 2021. https://www.dailycourier.com/articles/levin-donates-to-trail-chapter/

The Laurel Magazine. May 2021. Accessed 2022. https://www.thelaurelmagazine.com/events-in-highlands-nc-and-cashiers-nc/enjoy-stories-as-you-walk-cashiers-greenway-ramble-storywalk

The Nature of Conservancy. Russ, A. 2017. Accessed 2021. https://www.thenatureofcities.com/2017/02/08/environmental-education-generates-urban-sustainability/

The Rock Doctor. Accessed 2022. http://freepages.rootsweb.com/~florian/school-alumni/rockdoctor/vft/geology/advanced/geology-advanced.html

TRailLink. Accessed 2021. https://www.traillink.com/trail/coal--coke-trail/

TribLive by Tribune Review. Accessed 2021. https://archive.triblive.com/aande/museums/colorful-historical-mural-greets-mt-pleasant-trail-visitors/

United States Census Data 2000. Social Explorer. Accessed 2021-2022. https://www.socialexplorer.com/explore-maps

University of Pittsburgh at Greensburg. Accessed 2021. https://www.greensburg.pitt.edu/news/mount-pleasant-mural-be-dedicated-october-6

University of Pittsburgh at Greensburg. Accessed 2021. https://www.greensburg.pitt.edu/news/mount-pleasant-mural-be-dedicated-october-6

USDA-NRCS, Web Soil Survey. Accessed 2021 from https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm

Virginia Tech, Merak Lab. Accessed 2021. https://millipedes.ento.vt.edu/the-cherry-millipede/

Warner, M., Homsy, G.C. 2010. Multi-generational community planning: Linking the needs of children and older adults. *Public Administration Faculty Scholarship*. 1. https://orb.binghamton.edu/public_admin_fac/1

Westmoreland County, Pennsylvania. Accessed 2021. https://www.co.westmoreland.pa.us/1006/Coal-Coke-Trail

Wood, M.E. 2002. Ecotourism: Principles, practices, & policies for sustainability. *United Nations Environment Programme Division of Technology, Industry and Economics.* 17-25. https://stg-wedocs.unep.org/bitstream/handle/20.500.11822/9045/-Ecotourism_%20%20Principles,%20Practices%20and%20Policies%20for%20Sustainability-2002518.pdf?sequence=2

The National Disability Authority. Accessed 2022. https://www.nda.ie/Publications/Attitudes/Appropriate-Terms-to-Use-about-Disability/