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Synergies Between Residents: Evaluating Support and Concerns of Recreation and Tourism Economic Development within the Monongahela National Forest Region

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Synergies Between Residents:
Evaluating Support and Concerns of Recreation and Tourism Economic Development within the
Monongahela National Forest Region

Morgan Martin

Thesis submitted to the
Davis College of Agriculture, Natural Resources, and Design
at West Virginia University
in partial fulfillment of the requirements
for the degree of

Master of Science
in
Recreation, Parks, and Tourism Resources

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Division of Forestry and Natural Resources

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2023

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Abstract

Synergies Between Residents: Evaluating Support and Concerns of Recreation and Tourism Economic Development within the Monongahela National Forest Region

Morgan Martin

Tourism has continually been presented as a growing economic sector around the world. Having become an area of increased interest for diversifying rural economies, tourism is an attractive alternative to the declining traditional economic engines of rural communities like agriculture, forestry, and mining. Rural destinations have become increasingly attractive to outside visitors who seek to pursue activities embedded within the local culture and distinctive attractive assets available in rural regions. The USDA has recognized the increasing importance of recreation and tourism economies as an emerging or priority area of national need and an effective means for rural development. Even with the rate of growth and popularity, many rural communities lack the human capacity, access to funding and marketing expertise, and other necessary resources to successfully capitalize on the economic opportunities associated with recreation and tourism development. Additionally, competition between communities for the same or similar markets poses another challenge. Limited research has been conducted to examine collaboration between communities at a regional level, which focuses on the development of partnerships and shared resources for mutual growth and co-promotion of a regional tourism product(s) among the communities involved.

As a precursor to this study, the Mon Forest Towns Partnership was created in 2017 through the support of the US Forest Service, West Virginia University, USDA Rural Development, and 10 gateway communities to the Monongahela National Forest (MNF). The Mon Forest Towns function in the belief that having access to the resources, infrastructure, and energy of local communities provides opportunities for the pursuit of larger goals and projects as resources are pooled for collaborative successes. This study aims to understand and identify where within the region the collaborative efforts are supported, whether the residents of the region believe that there exists the necessary foundation for collaboration between the gateway communities, and whether the potential for benefits of regional collaboration are universally perceived within the eight-county region.

The purpose of this study is to explore the current levels of recreation and tourism development within the MNF region from the perspective of the local resident population, while also to examine potential synergies or differences in attitudes and perceptions of recreation and tourism development between individual counties within the region. Quantitative methods were employed with support from both the West Virginia University research team as well as the Mon Forest Towns Marketing Committee. Survey data was collected from 759 residents. Factor analysis and ANOVA were utilized as analysis methods for regional and county to county comparisons.

Results are divided into sections. The results of the factor analysis identify both positive and negative aspects of resident attitudes and perceptions of recreation and tourism development,

as well as their particular aspects related to their support for regional collaboration. Identified factor means are further used to test for differences between the counties within the region, an investigation that aims to pinpoint areas where residents are experiencing outlying effects or attitude formations of tourism development. The goal of this is to provide regional planners and policy makers with a better understanding of areas where work may be needed and/or where there exist threats to the overall success of recreation and tourism development and the regional collaborative efforts that are underway. Findings in this study suggest that the residents within the region are generally supportive of further recreation and tourism development within the region but are less supportive toward unsustainable development practices as well as expressing concerns for threats to the authenticity of their communities. There also exists support for collaboration across the region, as residents of all of the counties placed a high value on the natural and cultural resources available within the region. This study contributes to the existing body of literature on resident attitudes toward tourism development at different stages of development in addition to tourism's impact on local communities at a regional level. Conclusions from this study include recommendations for continued involvement of the resident population in the planning and development of a recreation and tourism economy, as well as the need for further research in order to better understand how the impacts of recreation and tourism development vary according to tourism lifecycle stages in rural areas.

Dedication

This thesis is dedicated to all of the people who in one way or another have influenced and or assisted me through this process. I am most grateful to my partner, Matt, without whose unconditional love, patience, and belief in me this would not have been possible. Also, to my mom and sister who accepted me through my most stressful times and were always there to embrace me when I needed it most. Additionally, to my canine companion and best friend, Jax, for never leaving my side no matter what I was going through, even if he couldn't understand. To the beauty and resiliency West Virginia and its natural resources for teaching me to be appreciative of what I have, no matter how small, and to nourish and foster healthy environments wherever I am able.

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Chapter 1: Introduction

The importance of tourism and its contribution to global economies continues to be recognized. This is no exception for West Virginia where tourism's economic contribution to rural communities has experienced steady growth before the outbreak of Covid-19. For example, the travel spending in the state reached \$4.8 billion in 2019, up \$611 million or 14.8% over 2016 (Dean Runyan Associates, 2022a). Although tourism in the state was hit hard by COVID-19 and travel spending in 2020 declined to 3.7 billion, a 23.0% loss over 2019, travel spending in 2021 exceeded \$4.8 billion, an increase of 30% from the previous year, indicating that tourism in the state has quickly rebounded and is expected to rapidly outpace pre-COVID-19 contributions to local economies (Office of the Governor, 2022).

Having become an area of increased interest for the opportunity to diversify rural communities' economies, tourism is an attractive alternative to the changing and declining traditional economic means of rural communities such as agriculture, forestry, and mining. According to Deng et al. (2016), employment in traditional industries such as farming has dropped approximately 70% from the early 1900s while employment in other natural resource-dependent industries (i.e., mining and forestry) has been cut in half. Many rural communities' job market and economic sectors rely upon low cost labor, where local residents do not always have high levels of education and or are limited in education opportunities; much of the job market focused upon service related labor (Whitener & McGranahan, 2003). Tourism and recreation economies are thought to be a sustainable alternative to diversify the economies of rural communities (Arbogast, 2019).

A singular definition on rural tourism is undetermined among researchers due to its complexities in geographic characteristics, inclusion of multifaceted activities, and levels of development of place (Rosalina et al., 2021), in addition to the fact that a singular sentence definition may fail to capture all of the relevant characteristics (Streifeneder, 2016). In a review of published literature on rural tourism from Rosalina et al. (2021), four themes were considered as defining features of rural tourism despite level of development: location, sustainable development, community-based aspects, and experience. Rural tourism lacks constancy in location characteristics, with the divide between urban and rural areas challenging to differentiate between with the current rates of urbanization (Oswald et al., 2003).

Rural destinations have become increasingly attractive to outside visitors for seeking activities embedded within the local culture and distinctive attractive assets available in rural regions. These assets include, but are not limited to, arts, local food and drinks, traditional music and entertainment events, and scenic outdoor recreational spaces; all of which have been identified as attractive opportunities that could serve to assist in the improvement of the local economies of these rural areas and communities. The USDA has recognized the increasing importance of recreation and tourism economies as an emerging or priority area of national need and an effective means for rural development but one that does not come without challenges. Tourism development may generate unwanted impacts on the destination environments and local residents (Arbogast & Deng, 2022). Research examining residents' attitudes toward tourism is not new to literature, which has demonstrated that tourism is not always welcomed among all residents and stakeholders as it may pose threats to community tranquility and the disruption of rural life. In addition, rural residents have recognized undesirable impacts such as increases in crime, pollution, traffic, and health risks (Deng et al, 2016).

Many rural communities lack the human capacity, access to funding and marketing abilities, and other necessary resources in order to successfully capitalize on the full potential of recreation and tourism as a sustainable alternative means of economic growth and diversity. Sustainability as a characteristic of tourism and recreation development is pertinent to the long term success and continual growth within rural areas in order to address the potential negative impacts experienced during the tourism development process (An & Alarcón, 2020). Additionally, competition between communities for the same or similar markets poses another challenge. Limited research has been conducted examining collaboration between communities at a regional level, which focuses on the development of partnerships and shared resources for mutual growth and co-promotion of a regional tourism product(s) among the communities involved.

1.1 Purpose of the Study

The purpose of this study is to explore the current levels of tourism development within the MNF region from the perspective of the local resident population while also to examine potential synergies or differences in attitudes and perceptions of tourism development between individual counties within the region. To this end, Butler's (1980) Tourism Area Life Cycle (TALC) model and the Social Exchange Theory (SET) were used as theoretical frameworks. It is believed that there exists a balance between acceptable costs and benefits in rural residents attitudes toward tourism development (Andereck et al., 2005; Deng et al., 2016). This county level analysis seeks to better understand differences in rural residents attitudes toward the positive and negative affects of tourism development to provide regional planners and policy makers knowledge of opportunities for improvement in addition to where there may exist threats to the overall success of the regional collaborative effort.

The Mon Forest Towns Partnership was created in 2017 through the support of the US Forest Service, West Virginia University, USDA Rural Development, and eight counties and 10 gateway communities to MNF. The mission of Mon Forest Towns is to “cultivate relations across lands and forest gateway communities that will enhance the economy and quality of life for residents and visitors while sustaining the quality of the environment and society” (“About Mon Forest Towns,” n.d.). Having access to the resources, infrastructure, and energy of local communities provides opportunities for the pursuit of larger goals and projects as resources are pooled for collaborative successes (Rural Development Process, 2023). In support of the mission of Mon Forest Towns, this study seeks to better understand rural residents attitudes toward recreation and tourism development in the eight counties and regional variations that may exist according to the positive and negative impacts of recreation and tourism; regional collaboration; and strengths, weaknesses, opportunities, and threats (SWOT).

In addition to contributing the body of literature on rural residents attitudes toward recreation and tourism development, this study also seeks to help strengthen the collaborative partnerships within the region. This study aims to understand and identify where within the region the collaborative efforts are supported, whether the residents of the region believe that there exists the necessary foundations for collaboration between the gateway communities, and whether the potential for benefits of regional collaboration are universally perceived within the span of the region. Regional collaboration relies upon similar or complimentary tourism products for an effective marketing portfolio, inclusive with commonalities in the target market and natural/ heritage resources as the foundations of the collaboration. These necessary foundations, in conjuncture with cooperation, communication, and trust between the the communities are

determinants of the long term success of the collaborative effort (Fyall & Garrod, 2004, as cited in Naipaul et al., 2009).

1.2 Significance of the Study

This study contributes to the current research on residents' attitudes towards sustainable tourism development specifically focusing on attitudes at different levels of tourism development, regional collaboration for sustainable tourism development, and resident perceptions of a region's SWOT as related to tourism development. The Mon Forest Towns Partnership is newly formed, continuing to establish good working relationships with the communities within the region as well as with the external tourism market. The new partnership is also working to further establish the MNF region as a world-class destination for recreation and tourism. This study can assist in the Partnership's goals to manage the growth of the area for sustainability and destination stewardship.

This study makes an important contribution by seeking to better understand local attitudes collectively among the region, as well as at the county scale which then allows for insight to similarities and difference between the residents of each county which are individually at various stages of tourism development. This information, especially when compared to other similar studies, can be used by managers in the region to assist in future planning as well as for identification of potential threats to the long term sustainability of tourism development.

Additionally, this study provides one of the earliest examples of tourism development research at the regional level. The bulk of previous research having been conducted within individual communities or destinations which leaves a gap in existing research on regional collaboration in rural destinations which is pertinent for the success of struggling rural

communities that alone do not contain the necessary resources or human capacity to capitalize on the benefits of developing a recreation and tourism economy.

Lastly, the examination of the locally identified SWOT within a rural region can provide insight into the concerns of local residents, as well as a better understanding of the region's capacity to develop a tourism economy. Early identification of the weaknesses within the region as they pertain to recreation and tourism development allows time for local policies and plans to be enacted in order to capitalize on strengths and overcome weaknesses.

1.3 Limitations

As with many other tourism studies, this study is not without limitations. First, the MNF region is large consisting of 8 counties within West Virginia and nearly a million acres of public land in the forest. Due to budget constraints, this study was unable to send out paper copies of the survey to all postal addresses within the region, therefore resorting to attempts via email. Moreover, low initial response rates from the email survey attempts resulted in attempts to distribute the survey through social media within the local population. Therefore, there is potential bias in respondents due to exposure algorithms present within social media, despite best efforts by local stakeholders and officials to increase awareness to all locals. Findings in this study are also limited to the perceptions of local residents within the MNF region specifically and should not be used for policy creation or planning decisions for other locations outside of the region as they may not be representative of other resident populations.

Secondly, the use of SWOT analysis was only part of a larger study, and does not include a system of weighted assignment to items in consideration. Therefore, it cannot be used alone in its current status for the formation of planning, development, and/or monitoring strategies for

tourism (Goranczewski & Puciato, 2011). Thus, future research needs to take this into consideration if results of a SWOT analysis are desired for use of planning and development strategies within the MNF region, where local stakeholders, decision makers, and planners develop a scale for scoring the results of the SWOT analysis matrix.

Chapter 2: Literature Review

This review of the literature comprises two sections. The first section provides an overview of theories/conceptual frameworks relevant to this study. This overview is followed by a summary of empirical findings from previous studies on attitudes toward sustainable tourism development, regional collaboration, and SWOT.

2.1 Theories/Conceptual Frameworks

2.1.1 Social Exchange Theory

Social Exchange Theory (SET) or “a theory of social behavior as exchange” was initially proposed by Homans (1958, p. 598) in his seminal essay “Social Behavior as Exchange” published in *American Journal of Sociology* to describe the social behavior of two people or a small group of people wherein how they interact with each other depends on a process of the analysis of costs and benefits associated with the interactions. In other words, “social behavior is an exchange of goods, material goods but also non-material ones, such as the symbols of approval or prestige” (ibid, p. 606).

In the context of tourism, SET proposes that people’s attitudes, positive or negative, toward tourism development are related to their assessment and analysis of costs and benefits resulting from tourism development (Andereck et al., 2005). That is, “those who perceive they can benefit, economically, socio-culturally, and environmentally, from tourism development are

more favorable of tourism development” (Deng et al., 2016, p. 237) or those who can benefit economically from tourism development are more likely to support tourism development in exchange for social or environmental costs (Harrill, 2004).

As one of theories that has been most applied to the field of tourism studies, SET provides a theoretical foundation for studies examining individuals’ perceptions of tourism development at differing geographic/socio-economic contexts (e.g., a gambling community, Caneday & Zeiger, 1991; gateway communities to public lands, Deng et al., 2016; Zhong et al., 2008; tourism/heritage towns, Choi & Murray, 2010; Gonzalez et al., 2018; Gonzalez & Espelt, 2021; Harrill & Potts, 2003). These empirical studies collectively demonstrated that SET can be used to explain differences among respondents in their attitudes toward tourism development.

It should be noted that SET as applied to the field of tourism studies goes beyond its intended social circumstances whereas the relationship between two people or a group of people is limited to social interactions. It is seldomly the case that tourism development involves only the interactions between people. Indeed, there are other factors that come into play to affect people’s perceptions of tourism development. Of these factors is the stage at which tourism has developed. The following section further elaborates on the Tourism Area Life Cycle model (TALC) (Butler, 1980) as it influences residents’ perceptions of tourism development.

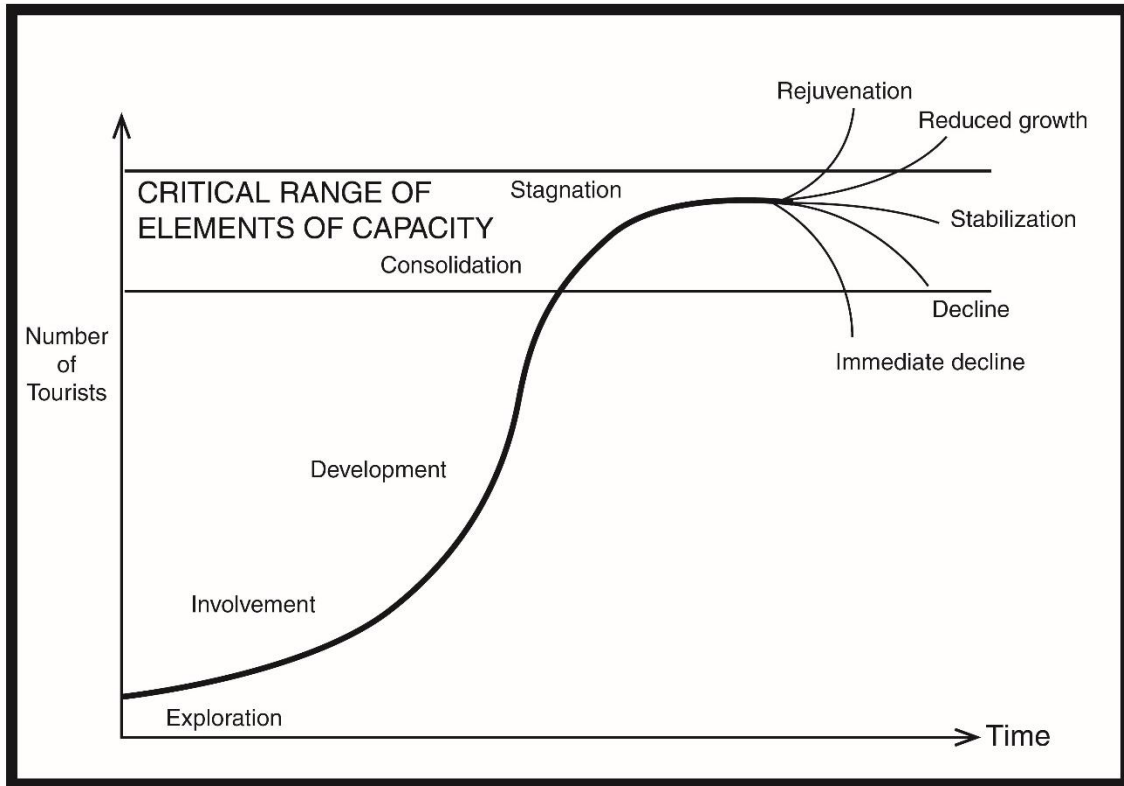
2.1.2 Tourism Area Lifecycle Model

TALC is a conceptual framework that describes the six stages of tourism development that a destination may experience. That is, according to the framework, a tourism destination may evolve from exploration, to involvement, development, consolidation, stagnation, and to post

stagnation which may further feature decline or rejuvenation (Figure 1). The following are a brief description of the characteristics for each stage.

Figure 1

Hypothetical Evolution of a Tourist Area



Note: The Concept of a Tourist Area Cycle of Evolution: Implications for Management of Resources. Reprinted from Butler, 1980 *Canadian Geographer*, Volume 24, page 7.

Exploration stage: tourism is limited at this stage in terms of visit volume and associated impacts on the environment, society, and local economy. Governments and local stakeholders' roles in tourism development are minimal.

Involvement stage: more visitors are attracted to the area because of its cultural and natural attractions with increasing economic benefits to local residents who provide

accommodation for visitors. Governments began to invest in infrastructure and other facilities to improve accessibility and accommodation capability.

Development stage: the area becomes widely recognized as a tourism destination with more visitors than locals at peak periods and high impacts on the environment, society, and local economy. Local involvement and control of development decline.

Consolidation stage: the rate of increase in numbers of visitors begins to decline. Tourism becomes the major player in local economy. This stage features increasing opposition and discontent among permanent residents because of increasing negative impacts, particularly on the environment and society.

Stagnation stage: the number of visitors will be peaked, and the tourism capacity will have been reached with salient negative environmental, social and economic impacts and the loss of authenticity.

Post-stagnation stage: the area may face two basic possibilities after the stagnation stage: either decline or rejuvenation. Decline may occur if the area becomes no longer competitive over other destinations/attractions while rejuvenation involves new investment for new attractions to boost its popularity.

As with SET, TALC has also been widely applied to the field of tourism studies. For example, Butler (2006a, 2006b) edited two volumes on the applications and modifications of the model (vol. 1) and conceptual and theoretical issues (vol. 2) associated with the applications of the model. Included in the vol.1 is a review paper by Lagiewski (2006) who reviewed 49 publications on the model. These studies, together with studies published after 2006, have examined the model as it applies to the evolution of coastal/island destinations (LY, 2018; Sahli,

2020; Smith, 1992; Widz & Brzezinska-Wójcik, 2020), national parks and surrounding areas (Boyd, 2006; Johnson & Snepenger, 1993; Zhong et al., 2008), and rural communities (Hovinen, 2002).

The majority of previous studies in relation to TALC focused on testing the validity and applicability of the model, few studies have used the model to understand residents' attitudes toward tourism development. Johnson and Snepenger (2006) could be among the first who proposed to link residents' attitudes toward tourism with TALC. Another study by Liu and Li (2018) analyzed the relationship between residents' perceptions of tourism impacts and their evaluation of tourism development stages. Two other studies (Byrd et al., 2009; Deng et al., 2016), although not specifically related to TALC, pointed out the need to examine residents' attitudes toward tourism from the perspective of TALC.

While TALC has been widely examined in the literature, a universal consensus has not yet been achieved as to what indicators should be used to assess/monitor the development stage for a destination. For example, Johnson and Snepenger (1993) examined the tourism development stages in the Greater Yellowstone region based on "visitation trends, growth of the service economy in the region, host residents' perceptions of current tourism development, and current biological indicators of the ecosystem" (p. 127), while Zhong et al.'s (2008) study of Zhangjiajie National Forest Park, China primarily used visitation trends to examine the park's life cycle. Interestingly, both parks were found to be in the consolidation stage. Generally, a number of studies have focused on visitation numbers, accommodation services by bed number, and various economic measures when TALC was examined. Thus, findings from this study will contribute to the extant literature with limited studies on TALC and residents' attitudes.

2.2 Summary of Empirical Findings from Previous Studies

2.2.1 Resident Attitudes Toward Tourism Development

The exploration of the impact of resident attitudes of rural tourism and its development is not new within literature. Harill (2004) found that studies examining residents' attitudes toward tourism development include socioeconomic and spatial factors, economic dependency, resident and community typologies, and theories like growth machine theory, social exchange theory, and community attachment. It has been argued that local support from the resident population of tourism is tied to the area's ability to provide a high-quality visitor experience (Fick & Ritchie, 1991) and that those residents' attitudes on tourism development should be used in the tourism planning process (Ap, 1992).

The earliest standardized measure of the resident attitudes on tourism development dates back to 1994 with the development of a 27-item, two-dimensional "tourism impact attitude scale" (TIAS) (Lankford & Howard, 1994). This effort to define ways to measure the attitudes and perceptions of residents is not complete, with new iterations of scales emerging within literature since that of Lankford and Howard and have successfully developed tools to be used to measure resident attitudes toward tourism and its impacts (AP & Crompton, 1998; Delamere 1998, Madrigal 1993). A 51- item scale to empirically measure residents' attitudes toward sustainable community tourism found that a system of both subjective and objective measures is necessary to identify indicators, and have unique applicability within different aspects of the tourism development process (Choi & Sirakaya, 2005). In addition to the development of measurement scales on resident attitudes of tourism, the use of theoretical frameworks have proven useful in the investigation of residents' attitudes. The use of SET found that there is a linkage between the likeliness of residents to participate in a social exchange if the belief is that

the benefits will outweigh the acceptable costs, furthermore supporting future development within their community (Gursoy & Rutherford, 2004); which has been further confirmed with studies linking resident dependency on tourism for economic stimulation to a higher likelihood of positive attitudes on tourism and tourism development (Hassan et al., 2022; Knollenberg 2011; Milman & Pizam, 1998; Murphy, 2001; Um & Crompton 1987; Wang & Pfister, 2008).

Analysis on community attachment has produced mixed results on resident attitudes of tourism, with most studies focusing on the effects of the length of residence on attitudes. Evidence of a correlation between length of residence and negative attitudes on tourism were found to be present in results by Um and Crompton (1987), McCool and Martin (1994), and Williams et al. (1995), while a lack of significance on length of residence on resident attitudes was presented in other studies as well (Allen et al., 1993; Liu & Var, 1986). Community attachment, though, was found to be positively related to economic benefits to residents as well as involvement in community organizations (Vesey & Dimanche, 2000; Wang & Pfiser, 2008). Residents employed within the tourism industry were also found to be more positive in their attitudes toward tourism's impacts in a study in Massachusetts (Pizam, 1978). Residents' participation affects their attitudes toward tourism development and influences their positive perceptions of the tourism development processes (Kim et al., 2021).

Community level of development and tourism planning are also found to have a role in resident attitudes on tourism. A study by Perdue et al. (1990) on rural communities in Colorado found that residents' attitudes are initially positively correlated with increases in levels of tourism in their communities, but eventually reach a threshold where in which additional development negatively effects residents' attitudes. Differing levels of tourism development are also found to foster differing attitudes by residents on tourism (Andereck & Vogt, 2000), and

communities with dependency on tourism are more likely to agree that tourism has negative impacts (Mcgee & Andereck, 2004). Thus, identification of differing levels of tourism development and its relationship with resident attitudes on tourism development can be pertinent to successes of collaboration between multiple communities at a regional level. Therefore, two hypotheses are proposed:

H1: Residents' attitudes toward the economic aspect of the sustainability will be positively related to the tourism development stage.

H2: Residents' attitudes toward the social aspect of the sustainability will be negatively related to the tourism development stage.

2.2.2 Regional Collaboration

Regional collaboration in tourism development is not well researched, as most previous studies focus on tourism development at the local community level (Davis & Morais, 2004; Gursoy et al., 2002; Šegota et al., 2022; Tosun, 2000). Often destination marketing organizations (DMOs) view neighboring communities and destination as competition, however, these individual communities and counties are increasingly encouraged to collaborate with one another in order to leverage access to development resources and to share the costs of marketing and management activities (Naipaul et al., 2009). According to Hall (1999), the tourism product at a regional context is able to be seen as a composite product where each of the components of the total product is supplied by the individual tourism businesses and communities that make up the region. From a marketing approach, regional collaboration can increase the attractiveness of a region or destination to tourists by either offering similar benefits to the communities within and targeting the same market area or by offering complimentary products that will increase the overall consumption value of a region (Fyall & Garrod, 2004, as cited in Naipaul et al., 2009).

An understanding of the assets and physical, cultural, and economic diversities of independent communities within a region is also beneficial for successful and sustainable long term collaboration, enabling organizing bodies and decision makers to better promote the region as a whole while referencing the tourism opportunities of individual communities (Destination Development, 2022).

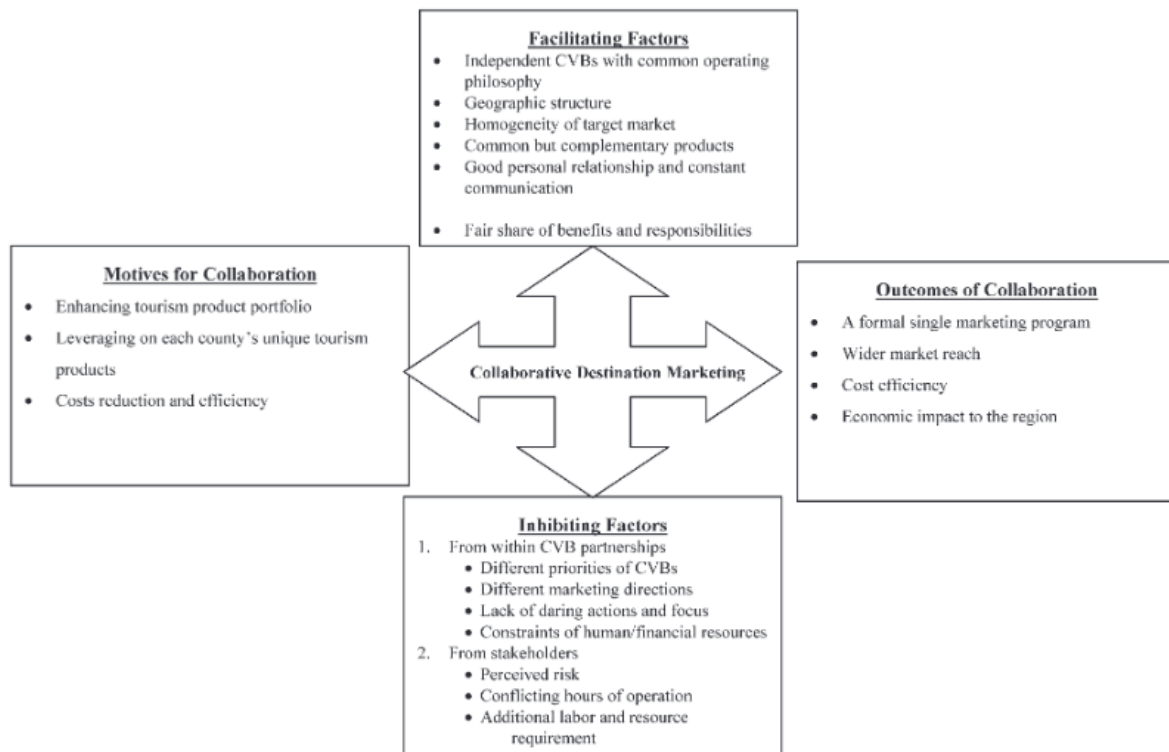
Current practices of regional collaboration for recreation and tourism destinations aim to support sustainable destination planning methods that are region-specific. Organization, coordination, region-specific tourism destination planning and product development are the central themes and goals of current collaborative efforts (Regional Destination Development Projects, 2018; Rural Fundy Development Project, 2022). Outcomes of strategic planning for the collective goal of sustainable tourism development include but are not limited: shared costs and benefits of marketing and promotional materials, shared branding identity, improved understanding of regions' physical, cultural, and economic diversity, and more detailed understandings of the development and investment needs and shortcomings of each region (Destination Development, 2022; Regional Destination Development Projects, 2018).

Collaboration does not come without challenges for the DMOs and communities involved. Lack of leadership, internal and external leadership conflicts, exclusion of community residents, and uneven distribution of benefit sharing have all been found as challenges to tourism collaboration (Gascon, 2013; Wang et al., 2016, as cited in Stoddart et al., 2020). Mistrust, suspicion, inability to work together and failure to recognize the true value of collaboration in tourism development are also possible (Fyall & Garrod, 2004, as cited in Naipaul et al., 2009).

Results from a study in a tourism region in Ohio (Naipaul et al, 2009) with the use of focus group interviews summarizes collaborative destination marketing into four parts: motives for collaboration, facilitation factors, outcomes of collaboration, and inhibiting factors (Figure 2). Contrarily, collaboration research between communities in Nicaragua suggests that benefits in the form of “employment, economic security, and enhanced social cohesiveness complement

Figure 2

Key Areas in Collaborative Regional Destination Marketing



Note: Key Areas in Collaborative Regional Destination Marketing. Reprinted from Naipaul et al., 2009, Journal of Travel & Tourism Marketing, Volume 26, page 469.

other forms of economic activity when driven by ‘bottom-up’ community based initiatives” (Zapata et al., 2011, as cited in Stoddart et al., 2020, p. 627). Organization learning is another possible positive collaboration outcome (Ritchie & Ritchie 2002) and is the result of

contributions of knowledge, attitudes, and other capacities toward collaborative marketing efforts by participating parties, which in turn “introduces change, improvement, and innovation through learning” (Wang & Fesenmair, 2007, as cited in Naipaul et al., 2009, p. 645). Regional collaboration can also provide opportunities for more in-depth analysis of the current state of development and assets pertinent to sustainable tourism development like SWOT analysis. Thus, this study contributes to the current state of research limited on tourism development at the regional level including how multiple communities can work together.

Based on the above literature review of regional collaboration, the following hypothesis is proposed:

H3: The level of tourism development will be significantly and positively related to residents' support for regional collaboration.

2.2.3 SWOT

SWOT analysis originated in studies for business management. Scholars have suggested that the first use of SWOT began in the 1960s at a Stanford Research Institute to analyze Fortune 500 companies with a goal of developing a new system of management and control (Masden, 2016). As the research method gained recognition as a major advancement in strategic thinking, it was continually used by many researchers for strategic planning (Benzaghta et al., 2021). By the end of the 1990s, SWOT had become pronounced as a dominant framework in the field of strategic management according to Hoskisson et al. (1999). Since then, the SWOT analysis has gained popularity in many other fields such as education, industry, and agriculture (Benzaghta et al., 2021). SWOT takes into account both the internal and external factors to be considered for the industry or business in consideration. The internal factors refer to the strengths and weaknesses that interfere with success, while the external factors are the opportunities and

threats that are outside of the control of an organization but also interfere with the organization's success and sustainability. The use of these factors in combination is a systematic approach which provides support for a situation where a decision is to be made for future endeavors and development (Kajanus et al., 2004). Identification of the strengths and opportunities points to aspects that should be promoted and pursued, while the threats and weaknesses point to the areas where work can be done to improve as well as what should be avoided or has the potential to negatively impact the organization.

SWOT has been found to be useful in the field sustainable tourism for assessment (NOAA, 2011) and can be used to identify the assets and resources that are present and or limited within the tourism area of interest applicable to the overall success of the tourism market. SWOT analysis provides the ability to take advantage of strengths, weaknesses, opportunities, and threats in a way that ensures compatibility between a destination's resources and their condition within their environment (Goranczewski & Puciato, 2011). For local and regional decision makers within a tourism driven, or potentially driven, economy, SWOT can be used to address planning, coordination, market promotion, and overall coordination of the future development of a destination, and provides insights useful for planners and governing bodies which can serve as a basis for sustainable tourism planning and development.

Findings from previous studies using SWOT highlight its use for future success and avoidance of future problems of tourism development. A study of Hawaiian destinations used SWOT analysis to compare and contrast the competitive position of destinations and potential overlaps in the policies that may be appropriate for future success of tourism development (Bardolet & Sheldon, 2008). Further investigations using SWOT analysis were also used to identify required management strategies toward more sustainable ecotourism in wetland

destination areas (Ghorbani et al., 2015) and micro-interprise Indigenous communities (Fuller et al., 2005). Inclusion of the local and resident communities is also emphasized within SWOT literature as a way to strengthen the local culture and identity of a destination. Awareness of one's own culture and traditions, value-focused thinking, and innovative sustainable development strategies aid in community resiliency, where investments that enhance and strengthen local culture are recommended over those that use culture and traditions to create products for tourism businesses (Kajanus et al., 2004). SWOT analysis is also a useful planning tool during catastrophic events such as addressing the impacts of the COVID-19 pandemic by providing potential solutions for the travel and tourism industry to become more resilient to external threats and shocks. Tourism destinations that include SWOT analysis are more likely to have more successful long term planning due to its effectiveness in pinpointing positive and negative aspects of the destination, and overall initial assessment of the destinations' current state of operation (Bardolet & Sheldon, 2008; Fernando, 2021; Fuller et al., 2005; Ghorbani et al., 2015; Goranczewski & Puciato, 2011; Reihanian et al., 2012).

While SWOT has been extensively examined in the field of tourism studies, few, if any, have investigated how SWOT is perceived by local communities with varying tourism development stages. Arguably, the natural and cultural resources on which tourism development depends in the MNF region do not vary too much from county to county while the opposite is true in terms of weaknesses wherein counties at a higher level of tourism development stage may have fewer weaknesses than a county at the lower level of tourism development stage. In addition, local communities may hold similar perceptions of opportunities and threats facing their communities as the external factors may equally affect all communities in the region. Thus, the following four hypotheses on SWOT are proposed:

H4: The eight counties will not be significantly different in terms of their perceptions of strengths in tourism development.

H5: The eight counties will be significantly different in terms of their perceptions of weaknesses in tourism development.

H6: The eight counties will not be significantly different in terms of their perceptions of opportunities in tourism development.

H7: The eight counties will not be significantly different in terms of their perceptions of threats in tourism development.

Chapter 3: Methodology

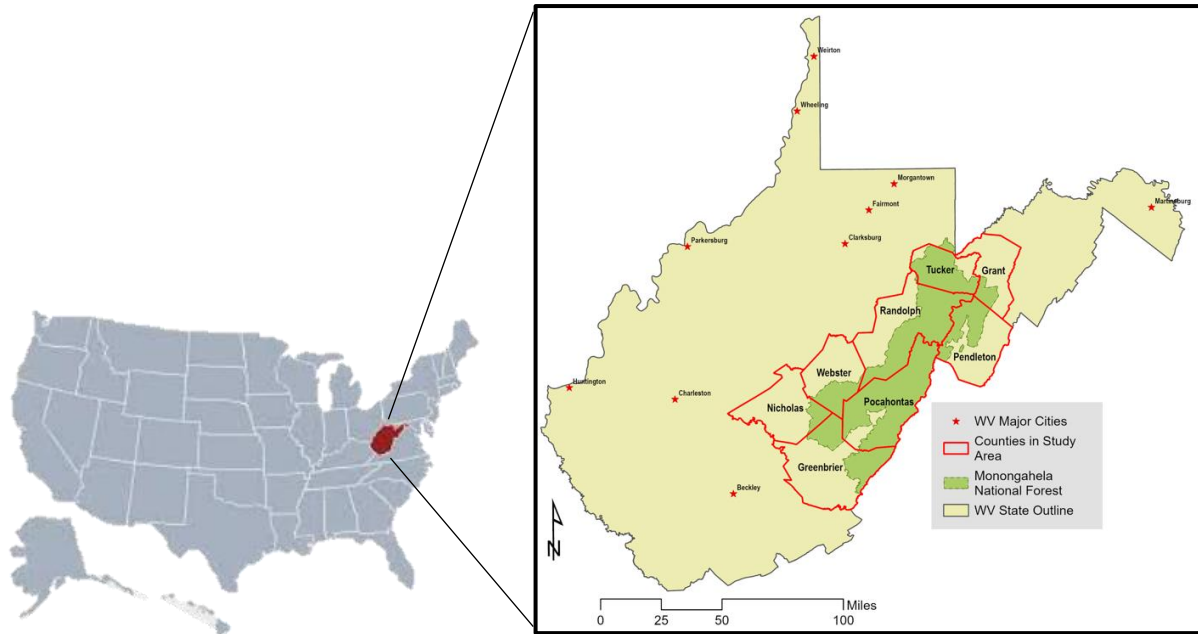
3.1 Study Area

The Monongahela National Forest (MNF) region consists of over 920,000 acres of public lands and spans across 10 counties in eastern West Virginia (*Monongahela National Forest Origins*, n.d.), eight of which are included in this study (Figure 3). The area is geographically situated in central Appalachia, characterized as rural in nature with high levels of poverty. Drastic variations between the valleys and ridges of the Allegheny Mountain range characterize the area, with elevations within the MNF region ranging from just under 1,000 ft up to 4,863 feet above sea level at the highest point; this wide range contributes to the area being known as one of the most ecologically diverse areas within the United States (“About Mon Forest Towns,” n.d.).

The economy in the region has traditionally relied on extractive industries such as timber, agriculture, and mining, but these industries have declined due to external forces such as globalization and technological change. Alternative to traditional industry in the area, recreation and tourism based stimulators to local economies have been recognized by the USDA as and

Figure 3

MNF Region and Study Area Counties in West Virginia



effective means to rural development. Investigation of the current county statuses within the area aims to assess the relationship between economic status and business in the area that cater to the tourism industry (Table 1). This information was gathered using the online ESRI product ArcGIS Business Analysis version 10.3. Individual study area boundaries were created at the county level for each of the 8 counties within the study area: Grant, Tucker, Randolph, Greenbrier, Webster, Nicholas, Pendleton, and Pocahontas. Once defined, the online ArcGIS Business Analyst data from year 2021 were used to generate reports that include the total number and percentage of different industry and business types as reported by NAICS codes. Other information gathered within the report included each county's total population, median household income, population density per square mile, and annual budget expenditures.

Table 1*2021 County Economic Status and Business Characteristics*

County	Randolph	Grant	Greenbrier	Nicholas	Pendleton	Pocahontas	Tucker	Webster
Economic Status								
2021	At-Risk	Transitional	Transitional	Distressed	Transitional	At-Risk	Transitional	Distressed
2023	At-Risk	Transitional	At-Risk	Distressed	Transitional	At-Risk	Transitional	Distressed
2021 Total Population	31,442	13,551	36,151	26,077	7,347	8,267	7,044	8,983
Population Density (Pop/ Sq. Mi)	30.2	28.4	35.5	40.3	10.6	8.8	16.8	16.2
Median Household Income	\$46,144	\$44,895	\$40,138	\$40,179	\$40,001	\$41,019	\$50,044	\$36,341
Annual Budget Expenditures	\$700,173,913	\$285,945,808	\$761,117,018	\$537,695,913	\$152,475,256	\$177,365,208	\$151,979,524	\$162,880,399
Food and Beverage								
	Number / % of Market	Number / % of Market	Number / % of Market	Number / % of Market	Number / % of Market	Number / % of Market	Number / % of Market	Number / % of Market
Food & Beverage Stores Businesses (NAICS445)	24/ 0.0259%	5/ 0.0145%	35/ 0.0262%	24/ 0.0295%	8/ 0.0349%	11/ 0.0284%	7/ 0.0244%	6/ 0.0324%
Food Srv & Drinking Places Businesses (NAICS722)	51/ 0.055%	13/ 0.0376%	72/ 0.054%	49/ 0.0603%	10/ 0.0437%	24/ 0.062%	18/ 0.0627%	5/ 0.027%
Accommodation and Lodging								
	Number / % of Market	Number / % of Market	Number / % of Market	Number / % of Market	Number / % of Market	Number / % of Market	Number / % of Market	Number / % of Market
Accommodation/Food Services Businesses (NAICS72)	74/ 0.0798%	27/ 0.078%	88/ 0.066%	65/ 0.08%	19/ 0.083%	50/ 0.1292%	30/ 0.1045%	9/ 0.0486%
Accommodation Businesses (NAICS721)	23/ 0.0248%	14/ 0.0405%	16/ 0.012%	16/ 0.0197%	9/ 0.0393%	26/ 0.0672%	12/ 0.0418%	4/ 0.0216%
Industry: Accommodation/Food Services	863/ 0.0697%	283/ 0.0527%	1683/ 0.1115%	517/ 0.0579%	115/ 0.0373%	370/ 0.0931%	213/ 0.0792%	108/ 0.0394%
Art/Entertainment/Recreation								
	Number / % of Market	Number / % of Market	Number / % of Market	Number / % of Market	Number / % of Market	Number / % of Market	Number / % of Market	Number / % of Market
Arts/Entertainment/Recreation Businesses (NAICS71)	19/ 0.0205%	2/ 0.0058%	36/ 0.027%	8/ 0.0098%	9/ 0.0393%	20/ 0.0517%	7/ 0.0244%	4/ 0.0216%
Industry: Arts/Entertainment/Recreation	131/ 0.0106%	44/ 0.0082%	187/ 0.0124%	94/ 0.0105%	25/ 0.0081%	209/ 0.0526%	87/ 0.0323%	14/ 0.0051%

Note. The data for county Economic Status for 2021 and 2023 are from “[*County Economic Status and Distressed Areas by State, FY 2023*]”, by Appalachian Regional Commission. (<https://www.arc.gov/county-economic-status-and-distressed-areas-by-state-fy-2023/>) and “[*County Economic Status and Distressed Areas by State, FY 2023*]”, by Appalachian Regional Commission. (<https://www.arc.gov/county-economic-status-and-distressed-areas-by-state-fy-2023/>). The data for county business characteristics are from “[*Demographic Mapping & Site Selection Software | ArcGIS Business Analyst*]”, by ArcGIS Business Analyst. (<https://www.esri.com/en-us/arcgis/products/arcgis-business-analyst/overview>).

Additionally, each county's economic status as reported by the Appalachian Regional Commission were included in Table 1 for both the years 2021 and 2023. Economic status of each county is characterized on a scale ranging from distressed to attainment. The Appalachian Regional Commission classifies each economic designation based on their position in the national ranking for all counties within the United States, described as:

“Distressed: Distressed counties are the most economically depressed counties. They rank in the worst 10 percent of the nation's counties.

At-Risk: At-Risk counties are those at risk of becoming economically distressed. They rank between the worst 10 percent and 25 percent of the nation's counties.

Transitional: Transitional counties are those transitioning between strong and weak economies. They make up the largest economic status designation. Transitional counties rank between the worst 25 percent and the best 25 percent of the nation's counties.

Competitive: Competitive counties are those that are able to compete in the national economy but are not in the highest 10 percent of the nation's counties. Counties ranking between the best 10 percent and 25 percent of the nation's counties are classified competitive.

Attainment: Attainment counties are the economically strongest counties. Counties ranking in the best 10 percent of the nation's counties are classified attainment” (Distressed Designation and County Economic Status Classification System, n.d.).

The economy in the region has traditionally relied on extractive industries such as timber, agriculture, and mining, however, has experienced declines due to external forces such as globalization and technological change. As identified by the Appalachian Regional Commission, all eight counties are designated as either distressed, at-risk, or transitional during the year 2021. From 2021 to 2023, little to no change of economic status occurred within the region. A change

in status is present within the time span in Greenbrier County regressing from “transitional” to “at-risk”, indicating further loss in the local economy. Grant, Pendleton, and Tucker county are each designated as “transitional”, therefore, categorized as the best performing counties within the region according to economic status.

Regarding the area’s economy as related to the travel industry, visitor spending, earnings, and employment numbers for each county are presented in Table 2. In 2021, both Greenbrier and Pocahontas counties saw the highest amount of earnings from the travel industry, accounting for 15.2% and 20.2%, respectively, of the total earnings of those county’s economies. Interestingly,

Table 2
Direct Travel Spending, Earnings and Employment by County, Year 2021

County	Randolph	Grant	Greenbrier	Nicholas	Pendleton	Pocahontas	Tucker	Webster
Spending (\$M)	55.7	30.4	275.1	63.5	11.5	144.5	81.1	9.9
Earnings (\$M)	16.7	5.5	115.4	10.9	2.9	36.5	24.8	1.3
% of Total Earnings	2.5	2.3	15.2	2.6	3.5	20.2	16.1	1.4
Employment (\$M)	670	280	2,430	490	130	1,330	1,030	80
% of Total Employment	4.8	5.3	13.7	5.4	4.6	28.4	28.2	3.7

Note: The data for county travel spending for 2021 “[The Economic Impact of Travel in West Virginia: 2021p State, Region, County Impacts]”, by Dean Runyan Associates. (2021).

(https://wvtourism.com/wpcontent/uploads/2022/11/WV_FinalRpt_2021-1.pdf).

Pocahontas and Tucker counties had the highest reported percentages of their employment being attributed to the travel industry. Pocahontas county travel employment accounted for 28.4% of the total employment in the county while Tucker County travel related employment accounted for 28.2% of the total employment for residents. Alternatively, even though Greenbrier county received the highest earnings from the travel industry, it only employed 13.7% of the resident

population. Possible factors influencing both Greenbrier and Pocahontas counties could be linked to the presence of large scale resorts like the Greenbrier Resort and Snowshoe Resort, respectively. Additionally, proximity to major US Highway 64 could be influential to Greenbrier County's status.

This study does not consider tourist visitation numbers as a factor for identifying each county's tourism development stage since information on total visitation numbers for these counties is not available, but the authors examined the above factors in combination to estimate each county's level of tourism development within the study area (Table 3). Those counties that could not be easily assigned to a singular level of tourism development were designated a sub-category (e.g. Exploration towards Involvement) in attempts to best describe the current stage of tourism development that the counties are experiencing.

Table 3

Classification of Tourism Development Stages by County

County	Tourism Development Stage
Randolph	Exploration towards Involvement
Grant	Exploration
Greenbrier	Development
Nicholas	Exploration towards Involvement
Pendleton	Exploration
Pocahontas	Involvement towards Development
Tucker	Development
Webster	Exploration

3.2 Questionnaire

A questionnaire was designed by drawing upon findings from existing literature (Destination Development, 2022; Gursoy, Gursoy & Rutherford, 2004; Jurowski, & Uysal, 2002; Lankford & Howard, 1994; Nunkoo & Ramkissoon, 2010, 2011; Regional Destination Development Projects, 2018; Rural Fundy Development Project, 2022; Wang & Pfister, 2008) and with input from the MFT Marketing Committee. The questionnaire consisted of 7 sections: 1) background information/demographics, 2) trip characteristics, 3) perceptions of regional collaboration and marketing, 4) perceptions of branding, 5) attitudes toward rural tourism development, 6) perceptions of strengths, weaknesses, opportunities, and threats, and 7) perceptions of the impacts of COVID-19 on recreation and tourism in MNF and its surrounding area. Residents' attitudes toward tourism and perceptions of regional collaboration and SWOT were measured on a 5-point Likert scale (1= strongly disagree, 5 = strongly agree). The questionnaire was reviewed and acknowledged for use by the WVU Institutional Review Board (IRB) and was further pilot tested by the MFT Marketing Committee members before it was launched online.

3.3 Data Collection

The research team built the questionnaire into Qualtrics, an online survey tool company, which also serves as the data collection tool. Prospective participants were targeted from eight counties in West Virginia: Grant, Tucker, Randolph, Greenbrier, Webster, Nicholas, Pendleton, and Pocahontas, which were identified as the primary market for the study area by the research team based upon the MFT's County residence. Prospective participants from the eight counties were recruited from two sources: 1) social media, and 2) emails purchased from DirectMail.com,

a data marketing company. Screening questions were included within the survey in order to validate the prospective participants' qualifications for participation. The surveys were conducted between January 10, 2022 and May 26, 2022 for the social media collection, and between March 9, 2022 and May 26, 2022 for the email collection. Each participant who completed the survey was offered an opportunity to be entered into a raffle for MFT merchandise to compensate their time spent taking the survey.

3.4 Data Analysis

Data analysis consisted of three steps. First, t-tests were used to test the appropriateness of combining samples obtained from the two sources. Second, items measuring sustainable tourism, regional collaboration, and SWOT were factor analyzed. Third, ANOVA was conducted to examine the similarities or differences between respondents in the eight counties in their perceptions of sustainable tourism development, regional collaboration, and SWOT. All analyses were carried out using SPSS version 28.0.

3.4.1 Appropriateness of Combining Two Samples as One Using T-tests

Residents' responses collected via the two collection methods, email and social media, were analyzed for differences between the two groups prior to being combined together. In order to test for those differences, t-tests were conducted on those questions measuring perceptions from the two sources, which were found not to be significantly different for a majority of measuring items. Thus, it is appropriate to combine the two samples into one.

3.4.2 Factor Analysis

To find patterns within the responses on attitudes, regional collaboration, and SWOT, factor analysis, a dimension reduction technique, was performed first. To perform the factor

analysis, principal component analysis and varimax rotation with Kaiser normalization were implemented. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of 0.8 was used for suitability determination for factor analysis. An eigenvalue of 1.00 or more was used for the identification of potential factors. Items with factor loadings below 0.45 were excluded from inclusion in factors. In addition, items that cross loaded on two factors with a loading difference less than 0.10 were removed from further analysis. The Cronbach's alpha value of 0.70 was used as the threshold for measuring a factor's reliability (Nunnally, 1978).

3.4.3 ANOVA

Pairwise comparisons were conducted on each of the factors identified from factor analysis in order to test for differences amongst counties. Respondents' county of residency included Grant (n = 39), Tucker (n = 107), Randolph (n = 196), Greenbrier (n = 89), Webster (n = 43), Nicholas (n = 113), Pendleton (n = 64), and Pocahontas (n = 108). Least Significant Differences (LSD) tests of the means were used to identify those comparisons between counties that were significant. Additional examination of the means was conducted using Bonferroni correction to reduce the possibility of Type-I errors, further confirming significant differences within the results.

Chapter 4: Results

This chapter presents participants' socio-demographic characteristics, factor analysis results for each of the three measurements (sustainable tourism development, regional collaboration, and SWOT). Also included are results of the pairwise comparisons for each subscale of the three measurements (two subscales for sustainable tourism development: positive impact and negative impact; two subscales for regional collaboration: importance and benefits of

collaboration and foundation for collaboration; and four subscales for SWOT: weaknesses, opportunities, strengths, and threats (gas price and Covid-19).

4.1 Socio-demographic Characteristics

Participation from the email collection method accounted for 152 valid responses (out of 186 total attempts) while participation from the social media collection method accounted for 607 valid responses (out of 959 total attempts) for a combined total of 759 effective responses (out of an attempted 1145 total attempts) after pairwise deletion. Table 4 lists the demographic breakdown of the survey sample. As shown, females (57.3%) outnumbered males (41.2%) and those who preferred not to say (1.5%). A majority of respondents were 35 years old or older (71.3%). Education levels of the respondents varied with 38.9% having a high school degree or some college and 60.8% having an undergraduate or post-secondary degree or graduate degree. Forty-four percent of respondents had an annual household income of less than \$60,000, and 11.3% of the resident respondents reported either owning or being employed by a recreation/tourism related business. As far as respondents' county of residence, 5.1% of respondents reported living within Grant County, 14.1% within Tucker County, 25.8% within Randolph, 11.7% within Greenbrier County, 5.7% within Webster County, 14.9% within Nicholas County, 8.4% within Pendleton County, and 14.2% within Pocahontas County.

Table 4*Socio-demographical Characteristics*

	Respondents*	
	No.	%
Gender		
Female	391	57.3
Male	281	41.2
Prefer not to say	10	1.5
Age		
18-24	31	4.1
25-34	100	13.2
35-44	171	22.5
45-50	98	12.9
51-60	127	16.7
60-69	98	12.9
70+	48	6.3
Prefer not to say	8	1.1
Education		
Less than high school	2	0.3
High school or equivalent	98	14.5
Some college	165	24.4
Undergraduate/post-secondary	247	36.5
Graduate	164	24.3
Income		
Less than \$20,000	37	5.6
\$20,001-\$40,000	123	18.6
\$40,001-\$60,000	131	19.8
\$60,001-\$80,000	119	18.0
\$80,001-\$100,000	107	16.2
\$100,000+	144	21.8
Community Role**		
Government Official	18	2.4
Local or county board, commission, authority	48	6.3
Non-profit organization	108	14.2
Recreation/tourism related business owner	42	5.5
Non-recreational/tourism related business owner	40	5.3
Recreation/tourism related employment	44	5.8
Non-recreation/tourism related employment	104	13.7
Residents	582	76.7
County of residence		
Grant	39	5.1
Tucker	107	14.1
Randolph	196	25.8
Greenbrier	89	11.7
Webster	43	5.7
Nicholas	113	14.9
Pendleton	64	8.4
Pocahontas	108	14.2

Note. *Percent for each occupation is based on the total number of 759 respondents; **Multiple choices allowed

4.2 Factor Analysis

4.2.1 Sustainable Tourism Development

A KMO value of 0.918 indicates that the data were suitable for factor analysis. The analysis of respondents' attitudes toward sustainable tourism development yielded two factors with eigenvalues greater than 1 which, together, explained 59.39% of the total variance (Table 5). All 12 items were loaded into either of the two factors identified by the analysis: Positive Impact or Negative Impact with a high level of reliability with the α value of .88 for the former and .77 for the latter.

Table 5

Exploratory Factor Analysis for Attitudes toward Sustainable Tourism Development

Code	Factor (Proportion): Scale name & items	<i>M</i>	<i>SD</i>	Factor	
				1	2
Factor 1		3.86	0.86		
Positive Impact					
A2	Tourism development will provide more economic opportunities for the area.	4.22	1.02	.746	-.307
A4	I support taxes for tourism development in the area	3.23	1.30	.637	-.111
A5	Tourism development will help to protect natural/heritage resources in the area	3.49	1.25	.680	-.390
A6	Tourism will improve the wellbeing of communities in the area	3.71	1.17	.786	-.388
A7	The area should invest in tourism development	3.98	1.11	.831	-.342
A9	Long-term planning and managed growth are important to control any negative impacts of tourism	4.45	0.84	.644	.362
A10	The area should do more to promote its tourism assets to visitors	3.93	1.13	.763	-.374
Factor 2		3.03	0.87		
Negative Impact					
A1	An increase in tourism will increase the cost of living in the Monongahela National Forest area	3.31	1.22	-.137	.696
A3	Tourism development will only produce low-paying service jobs.	2.86	1.19	-.364	.535
A8	An increase in tourism will lead to crowding of outdoor recreation, historic, and cultural sites/attractions.	3.61	1.13	-.017	.788
A11	The area should discourage more intensive development of facilities, services, and attractions for tourists	2.57	1.28	-.270	.572
A12	An increase in tourism will lead to unacceptable amounts of traffic, crime, and pollution	2.80	1.31	-.379	.714
Eigenvalues				5.57	1.57
% of variance				46.42	12.97
Cumulative %				-	59.39
Standardized Cronbach's α				.88	.77

Note. KMO = .918

$p < .001$

Factor 1, labeled Positive Impact ($M = 3.86$, $SD = .86$) and included items referring to economic opportunities, support for taxes for and more investment in tourism development, the importance of long-term planning and managed growth, and increased community wellbeing as a result of tourism development in the region. Factor 1 explained 46.42% of the variance. Factor 2 was labeled Negative Impacts ($M = 3.03$, $SD = 0.87$) and included items referring to an increased cost of living, crowding, increases in crime and pollution, intensive facility development, and the quality of jobs that tourism development could bring to the area, explaining 12.97% of the variance.

4.2.2 Regional Collaboration

A KMO value of 0.903 indicates the appropriateness of the data for factor analysis. The analysis of respondents' perceptions of regional collaboration yielded two factors with eigenvalues greater than 1, explaining 61.46% of the total variance for the entire set of variables (Table 6). All 10 items were loaded into either of the two factors: Importance and Benefits of Collaboration and Foundations for Collaboration. The α value above .70 indicates a good reliability for each factor.

Factor 1 was labeled Importance and Benefits of Collaboration ($M = 4.08$, $SD = .74$) and included items referring to a current lack in collaboration for the area, the importance of collaboration for recreational economic success, enhancements of tourism product portfolio and efficiency, reduction of costs of marketing, and the ability for the region to accomplish more by working together. This factor accounted for 48.91% of the variance. Factor 2 was labeled Foundations for Collaboration ($M = 3.90$, $SD = 0.81$) and included items referring to shared commonalities and similarities in the region's target market, nature-based resources, cultural

Table 6*Exploratory Factor Analysis for Perceptions of Regional Collaboration*

Code	Factor (Proportion): Scale name & items	<i>M</i>	<i>SD</i>	Factor	
				1	2
Factor 1	Importance and Benefits of Collaboration	4.08	0.74		
C1	Regional Collaboration and marketing play an important role in the success of recreation economy	4.10	1.08	.644	.281
C2	There is a lack in regional collaboration and marketing in the area.	3.54	0.99	.678	-.140
C3	Regional collaboration and marketing can enhance tourism product portfolio	4.28	0.98	.810	.280
C4	Regional collaboration and marketing can leverage on each county's unique tourism product	4.28	0.94	.786	.306
C5	Regional collaboration and marketing can reduce costs and increase efficiency	3.80	1.07	.648	.275
C6	Counties in the Monongahela National Forest area can achieve more by working together	4.46	0.89	.647	.461
Factor 2	Foundations for Collaboration	3.90	0.81		
C7	Counties in the Monongahela National Forest area share commonalities in heritage tourism resources	4.15	0.98	.464	.663
C8	Counties in the Monongahela National Forest area share commonalities in nature-based tourism resources	4.22	0.96	.438	.713
C9	Counties in the Monongahela National Forest area have similar tourism products and services	3.70	1.05	.108	.805
C10	Counties in the Monongahela National Forest area have the same target market	3.54	1.08	.066	.764
	Eigenvalues			4.89	1.26
	% of variance			48.91	12.55
	Cumulative %				61.47
	Standardized Cronbach's <i>a</i>			.84	.80

Note. KMO = .903

$p < .001$

heritage resources, and products and services that the region has to offer, accounting for 12.55% of the variance.

4.2.3 SWOT

A KMO value of 0.754, close to 0.80, indicates the sample is adequate for factor analysis. Two factors with eigenvalues greater than 1 were derived from the factor analysis. They together explained 34.67% of the variance for the entire set of variables (Table 7). All 21 items were loaded into five initial factors identified by the analysis, but further inspection concluded in the removal of six items and one of the factors (factor 5 threats per politicians, employment, and

image). The exclusions of these items and factor from further analysis are due to crossloading values, a factor including only one item, and a low reliability score (factor 5) (see *Note* at the bottom of Table 7).

Factor 1 was identified perceived Weaknesses ($M = 3.82$, $SD = .76$) and included items referring to accommodation and dining options, limited human capacity for marketing and development, and a lack of investment in the region. Factor 1 explained 15.84% of variance. Factor 2 was labeled Opportunities ($M = 4.00$, $SD = 0.61$) and included items referring to an increased desire to visit natural areas post COVID-19 pandemic, an increasing market for retirees and people looking to experience rural authenticity, and increasing interests in trail recreation and among decision makers in recreational economic development, explaining an additional 13.52% of variance. Factor 3, labeled Strengths ($M = 4.42$, $SD = .60$), refers to the friendliness of the local people, the region's richness in natural and heritage tourism resources and rural authenticity, and the ability of the area to provide numerous outdoor recreation opportunities. Factor 3 explained 6.84% of variance. Lastly, factor 4 was labeled Threats ($M = 3.48$, $SD = .94$) and refers to increasing gas prices and COVID-19 drivers in reduction and reluctance to travel, and explained an additional 6.13% of variance.

Table 7*Exploratory Factor Analysis for SWOT of the MNF Region for Tourism Development*

Code	Factor (Proportion): Scale name & items	M	SD	Factor				
				1	2	3	4	5
Factor 1	Weaknesses	3.82	0.76					
SWOT6	The area is limited in accommodation options	3.95	1.05	.753	.018	.104	-.051	.061
SWOT7	The area is limited in dining options	3.99	1.07	.774	.044	.036	-.005	.061
SWOT8	The area is limited in human capacity for tourism marketing and development	3.43	1.10	.678	.004	-.076	.062	-.030
SWOT11	The area lacks investment.	3.90	1.02	.549	-.003	.040	.049	.324
Factor 2	Opportunities	4.00	0.61					
SWOT12	People's desire to visit natural areas will increase after the Covid-19 pandemic	4.04	1.04	.072	.559	.135	-.074	.007
SWOT13	There is an increasing market for experiencing rural authenticity	4.10	0.92	.108	.645	.338	-.106	.181
SWOT14	There is an increasing retiree market seeking quiet, rural, low cost of living	4.13	0.88	-.042	.632	.168	.074	.445
SWOT15	There are increasing interests among decision makers in developing recreation economy	3.60	0.92	-.012	.683	-.010	.102	-.307
SWOT16	Trails are becoming increasingly popular across the area	4.14	0.84	.051	.616	.212	.000	-.080
Factor 3	Strengths	4.42	0.60					
SWOT1	The area is rich in natural/heritage tourism resources	4.48	0.84	-.016	.097	.706	.056	.083
SWOT2	Local people in the area are friendly	4.34	0.83	-.118	.195	.589	.070	-.151
SWOT4	The area provides opportunities for lots of outdoor recreation activities	4.58	0.79	.058	.090	.727	-.026	-.102
SWOT5	The area allows visitors to experience rural authenticity	4.28	0.88	.030	.231	.717	.003	.081
Factor 4	Threats (gas price and Covid-19)	3.48	0.94					
SWOT20	Increase of gas price may reduce people's desire to travel	4.01	1.05	-.002	-.082	.100	.800	.029
SWOT21	People may be reluctant to travel because of Covid-19	2.94	1.23	.036	-.016	.085	.648	-.011
Factor 5	Threats (politicians, employment, and image)	3.77	0.60					
SWOT3	Politicians and decision makers support recreation economy in the area	3.13	1.07	-.017	.257	.070	.262	-.671
SWOT18	Employment opportunities are limited.	4.04	1.01	.352	.120	-.103	.290	.467
SWOT19	People tend to have a poor image of the state	4.14	0.95	.226	.069	.037	.254	.555
	Eigenvalues			3.33	2.84	1.44	1.29	1.23
	% of variance			15.84	13.52	6.84	6.13	5.86
	Cumulative %				29.36	36.19	42.33	48.19
	Standardized Cronbach's <i>a</i>			.68	.68	.68	.50	.21

Note. Six items were removed from further analysis due to 1) cross loading (SWOT9 “The area is distant from markets”), 2) low loading (SWOT10 “The area lacks cell phone service”), 3) factor with a single item (SWOT17 “There is a negative impact of shale gas extraction on recreation and tourism in the area”), and 4) factor with low reliability (Factor 5 with three items).

KMO = .754

$p < .001$

4.3 ANOVA

In order to test for differences between each of the eight counties within the region, each of the identified factors from factor analyses are examined using pairwise comparisons of the counties to one another using ANOVA. Both the Fisher's Least Significant Differences (LSD) and Bonferroni tests for significant differences were analyzed for each factor. The more conservative Bonferroni test is included for its ability to control the overall error rate and reduce the possibility of false positives as it corrects the p values for the fact that multiple comparisons are being made. Results of each pairwise comparison are presented in Tables 8 through 15.

4.3.1 Attitudes toward Sustainable Tourism Development

Pairwise comparisons of the factors related to resident attitudes on sustainable tourism development in the region between counties are presented in Tables 8 and 9. In terms of Positive Impacts (Table 8), Greenbrier ($M = 4.05$, $SD = 0.71$) and Nicholas ($M = 4.08$, $SD = 0.70$) are the two counties with highest mean scores on the positive aspect of sustainable tourism development which mainly relates to the economic dimension of sustainability. Specifically, the two counties are significantly more positive in their perceptions of the socio-economic dimension than other four counties, including Grant ($M = 3.64$, $SD = 0.82$) ($p < .05$), Tucker ($M = 3.69$, $SD = 0.88$) ($p < .01$), Randolph ($M = 3.80$, $SD = 0.92$) ($p < .05$), Pocahontas ($M = 3.80$, $SD = 0.98$) ($p < .05$), while no significant differences exist between the counties ($p > .05$). In addition, Pendleton ($M = 3.98$, $SD = 0.79$) is significantly more positive than Tucker ($M = 3.69$, $SD = 0.88$) ($p < .05$) where there does not exist a significant difference between it and other three counties such as Randolph, Webster ($M = 3.78$, $SD = 0.87$) and Pocahontas ($p > .05$). However, only one pair comparison, Tucker vs Nicholas, is significant from each other at the Bonferroni level ($p < .05$).

Table 8*Analysis of Variance (ANOVA) of Positive Impacts by County*

County of Residence (I)	County of Residence (J)	Mean Difference (I - J)	Std. Error	P Value	
				LSD	Bonferroni
Grant	Tucker	-0.05	0.17	.766	1.000
	Randolph	-0.16	0.16	.318	1.000
	Greenbrier	-0.41	0.17	.017**	.466
	Webster	-0.14	0.20	.486	1.000
	Nicholas	-0.42	0.16	.010**	.284
	Pendleton	-0.34	0.18	.058*	1.000
	Pocahontas	-0.15	0.16	.349	1.000
Tucker	Randolph	-0.11	0.10	.312	1.000
	Greenbrier	-0.36	0.13	.004***	.124
	Webster	-0.09	0.16	.583	1.000
	Nicholas	-0.38	0.12	.002***	.043**
	Pendleton	-0.29	0.14	.034**	.956
	Pocahontas	-0.11	0.12	.375	1.000
	Greenbrier	-0.25	0.11	.024**	.682
Randolph	Webster	0.02	0.15	.906	1.000
	Nicholas	-0.27	0.10	.010**	.267
	Pendleton	-0.18	0.12	.139	1.000
	Pocahontas	0.00	0.10	.995	1.000
Greenbrier	Webster	0.27	0.17	.102	1.000
	Nicholas	-0.02	0.13	.900	1.000
	Pendleton	0.07	0.14	.625	1.000
	Pocahontas	0.25	0.13	.043**	1.000
Webster	Nicholas	-0.29	.16	.073*	1.000
	Pendleton	-0.20	0.17	.247	1.000
	Pocahontas	-0.02	0.16	.915	1.000
Nicholas	Pendleton	0.09	0.14	.529	1.000
	Pocahontas	0.27	0.12	.022**	.611
Pendleton	Pocahontas	0.18	0.14	.175	1.000

* $p < .10$, ** $p < .05$, *** $p < .01$.

Table 9*Analysis of Variance (ANOVA) of Negative Impacts by County*

County of Residence (I)	County of Residence (J)	Mean Difference (I - J)	Std. Error	P Value	
				LSD	Bonferroni
Grant	Tucker	-0.28	0.17	.101	1.000
	Randolph	0.04	0.16	.811	1.000
	Greenbrier	0.22	0.17	.211	1.000
	Webster	0.25	0.20	.215	1.000
	Nicholas	0.27	0.17	.110	1.000
	Pendleton	0.32	0.18	.083*	1.000
	Pocahontas	0.08	0.17	.641	1.000
Tucker	Randolph	0.32	0.11	.003***	.092*
	Greenbrier	0.50	0.13	<.001****	.004***
	Webster	0.53	0.16	.001***	.038**
	Nicholas	0.55	0.12	<.001***	<.001****
	Pendleton	0.59	0.14	<.001****	<.001****
	Pocahontas	0.36	0.12	.003***	.094*
Randolph	Greenbrier	0.18	0.11	.118	1.000
	Webster	0.21	0.15	.168	1.000
	Nicholas	0.23	0.11	.029**	.818
	Pendleton	0.28	0.13	.029**	.799
	Pocahontas	0.04	0.11	.702	1.000
Greenbrier	Webster	0.03	0.17	.850	1.000
	Nicholas	0.05	0.13	.687	1.000
	Pendleton	0.10	0.15	.498	1.000
	Pocahontas	-0.14	0.13	.277	1.000
Webster	Nicholas	0.02	0.16	.905	1.000
	Pendleton	0.07	0.18	.708	1.000
	Pocahontas	-0.17	0.16	.295	1.000
Nicholas	Pendleton	0.05	0.14	.734	1.000
	Pocahontas	-0.19	0.12	.112	1.000
Pendleton	Pocahontas	-0.24	0.14	.087*	1.000

* $p < .10$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

In terms of residents' perceptions of the second factor associated with the social aspect of the sustainability (Table 9), Tucker ($M = 3.39$, $SD = 0.90$) and Grant ($M = 3.12$, $SD = 0.92$) are the two counties with highest mean scores on the negative aspect of sustainable tourism development. Specifically, Tucker county is significantly more negative in their perceptions of the social dimension than the other six counties, including Randolph ($M = 3.08$, $SD = 0.89$) ($p <$

.01), Greenbrier ($M = 3.90$, $SD = 0.81$) ($p < .001$), Webster ($M = 2.87$, $SD = 0.88$) ($p < .01$), Nicholas ($M = 2.85$, $SD = 0.75$) ($p < .01$), Pendleton ($M = 2.80$, $SD = 0.85$) ($p < .001$), Pocahontas ($M = 3.04$, $SD = 0.94$) ($p < .01$), while no significant differences exist between Tucker and Grant ($p > .05$). In addition, Randolph is significantly more negative than Nicholas and Pendleton ($p < .05$) where there does not exist a significant difference between those counties. However, four of the pair comparisons, Tucker vs Greenbrier, Webster, Nicholas, and Pendleton are significantly different from each other at the Bonferroni level ($p < .05$).

4.3.2 Regional Collaboration

Pairwise comparisons of the factors related to resident perceptions of collaboration in the region between counties are presented in Tables 10 and 11. In terms of the first factor (Table 10), Greenbrier ($M = 4.28$, $SD = 0.58$), Nicholas ($M = 4.24$, $SD = 0.63$), and Pendleton ($M = 4.28$, $SD = 0.70$) are the three counties with highest mean scores on the Importance and Benefits aspect of regional collaboration which mainly relates to the group marketing benefits, costs reductions, and resource sharing for sustainable tourism development. Specifically, the three counties are significantly more positive in their perceptions of the importance and benefits dimension than four counties, including Tucker ($M = 3.89$, $SD = 0.79$) ($p < .001$), Grant ($M = 3.92$, $SD = 0.81$) ($p < .05$), Randolph ($M = 4.07$, $SD = 0.79$) ($p < .05$), Pocahontas ($M = 3.92$, $SD = 0.74$) ($p < .01$), while no significant differences exist between the counties ($p > .05$). In addition, Randolph is significantly more positive than Tucker ($p > .05$), where there does not exist a significant difference between it and the other three counties such as Grant, Webster ($M = 4.01$, $SD = 0.72$) and Pocahontas ($p > .05$). However, five pair comparisons, Tucker vs Greenbrier, Nicholas, and Pendleton, Greenbrier vs Pocahontas, and Nicholas vs Pocahontas are significant from each other at the Bonferroni level ($p < .05$).

Table 10

Analysis of Variance (ANOVA) of Collaboration Perceptions (Importance and Benefits) by County

County of Residence (I)	County of Residence (J)	Mean Difference (I - J)	Std. Error	P Value		
				LSD	Bonferroni	
Grant	Tucker	.03	.14	.847	1.000	
	Randolph	-.15	.13	.247	1.000	
	Greenbrier	-.36	.14	.011**	.306	
	Webster	-.09	.16	.564	1.000	
	Nicholas	-.32	.14	.018**	.491	
	Pendleton	-.36	.15	.016**	.445	
	Pocahontas	.00	.14	.997	1.000	
Tucker	Randolph	-.17	.09	.047**	1.000	
	Greenbrier	-.38	.10	<.001****	.007***	
	Webster	-.12	.13	.365	1.000	
	Nicholas	-.35	.10	<.001****	.012**	
	Pendleton	-.38	.11	<.001****	.025**	
	Pocahontas	-.03	.10	.796	1.000	
	Randolph	Greenbrier	-.21	.09	.025**	.708
Randolph	Webster	.06	.12	.654	1.000	
	Nicholas	-.17	.09	.044**	1.000	
	Pendleton	-.21	.10	.046**	1.000	
	Pocahontas	.15	.09	.089*	1.000	
	Greenbrier	Webster	.26	.14	.051*	1.000
Greenbrier	Nicholas	.03	.10	.735	1.000	
	Pendleton	.00	.12	.995	1.000	
	Pocahontas	.36	.10	<.001****	.018**	
	Webster	Nicholas	-.23	.13	.080*	1.000
	Pendleton	-.26	.14	.066*	1.000	
Webster	Pocahontas	.09	.13	.477	1.000	
	Nicholas	Pendleton	-.04	.11	.754	1.000
	Pocahontas	.32	.10	.001***	.029**	
Pendleton	Pocahontas	.36	.11	.002***	.053*	

* $p < .10$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

Table 11

Analysis of Variance (ANOVA) of Collaboration Perceptions (Foundation for Collaboration) by County

County of Residence (I)	County of Residence (J)	Mean Difference (I - J)	Std. Error	P Value	
				LSD	Bonferroni
Grant	Tucker	0.01	0.15	.967	1.000
	Randolph	-0.09	0.14	.526	1.000
	Greenbrier	-0.23	0.15	.140	1.000
	Webster	0.07	0.18	.697	1.000
	Nicholas	-0.18	0.15	.226	1.000
	Pendleton	-0.26	0.16	.109	1.000
	Pocahontas	-0.01	0.15	.950	1.000
Tucker	Randolph	-0.10	0.10	.322	1.000
	Greenbrier	-0.24	0.12	.042**	1.000
	Webster	0.06	0.15	.665	1.000
	Nicholas	-0.19	0.11	.085*	1.000
	Pendleton	-0.27	0.13	.035**	.981
	Pocahontas	-0.02	0.11	.886	1.000
	Greenbrier	-0.14	0.10	.178	1.000
Randolph	Webster	0.16	0.14	.242	1.000
	Nicholas	-0.09	0.10	.337	1.000
	Pendleton	-0.17	0.12	.137	1.000
	Pocahontas	0.08	0.10	.406	1.000
Greenbrier	Webster	0.30	0.15	.047**	1.000
	Nicholas	0.05	0.11	.677	1.000
	Pendleton	-0.03	0.13	.798	1.000
	Pocahontas	0.22	0.12	.058*	1.000
Webster	Nicholas	-0.25	0.14	.083*	1.000
	Pendleton	-0.33	0.16	.037**	1.000
	Pocahontas	-0.08	0.15	.588	1.000
Nicholas	Pendleton	-0.08	0.13	.519	1.000
	Pocahontas	0.17	0.11	.114	1.000
Pendleton	Pocahontas	0.25	0.13	.047**	1.000

* $p < .10$, ** $p < .05$.

In terms of the second factor (Table 11), Greenbrier ($M = 4.04$, $SD = 0.71$) and Pendleton ($M = 4.07$, $SD = 0.75$) are the two counties with highest mean scores on the Foundations for Collaboration aspect which mainly relates to commonalities in target market and resources for tourism portfolio and development. Specifically, the two counties are significantly more positive in their perceptions of the foundations for collaboration dimension than two counties, including Tucker ($M = 3.80$, $SD = 0.80$) ($p < .05$) and Webster ($M = 3.74$, $SD = 0.84$) ($p < .05$), while no

significant differences exist between the counties ($p > .05$). In addition, Pendleton is significantly more positive than Pocahontas ($M = 3.82, SD = 0.85$), where there does not exist a significant difference between it and the other three counties such as Grant ($M = 3.81, SD = 0.84$), Randolph ($M = 3.90, SD = 0.86$), and Nicholas ($M = 3.99, SD = 0.76$) ($p < .05$). However, no comparisons are significant from each other at the Bonferroni level ($p < .05$).

4.3.3 SWOT

Pairwise comparisons of the factors related to resident perceived Strengths, Weaknesses, Opportunities, and Threats of sustainable tourism development in the region between counties are presented in Tables 12 through 15. In terms of the first factor (Table 12), Greenbrier ($M = 4.54, SD = 0.42$) is the county with highest mean scores on the perceived strengths aspect which mainly relates to the locally available cultural and natural resources. Specifically, Greenbrier is significantly more positive in its perceptions of the strengths dimension than one other county, Randolph ($M = 4.37, SD = 0.68$) ($p < .05$), while no significant differences exist between the other 6 counties such as Grant ($M = 4.47, SD = 0.53$), Tucker ($M = 4.39, SD = 0.60$), Webster ($M = 4.36, SD = 0.71$), Nicholas ($M = 4.46, SD = 0.51$), Pendleton ($M = 4.35, SD = 0.65$), Pocahontas ($M = 4.45, SD = 0.58$) ($p > .05$). However, no comparisons are significant from each other at the Bonferroni level ($p > .05$).

In terms of the second factor (Table 13), Pendleton ($M = 4.21, SD = 0.71$) is the county with highest mean score on the perceived Weaknesses aspect which mainly relates to infrastructure and investment for tourism development. Specifically, Pendleton is significantly less positive in its perceptions of the weaknesses dimension than Grant ($M = 3.79, SD = 0.66$) ($p < .01$), Tucker ($M = 3.91, SD = 0.81$) ($p < .05$), Randolph ($M = 3.70, SD = 0.71$) ($p < .001$), Greenbrier ($M = 3.74, SD = 0.77$) ($p < .001$), Nicholas ($M = 3.74, SD = 0.66$) ($p < .001$),

Pocahontas ($M = 3.77, SD = 0.90$) ($p < .001$), while no significant differences exist between Grant, Tucker, Nicholas, and Pocahontas counties ($p > .05$). In addition, Tucker is significantly less positive than both Randolph and Pocahontas ($p < .05$), and Webster ($M = 4.01, SD = 0.62$) is significantly less positive than Randolph ($p < .01$). However, four of the pair comparisons, Pendleton vs Randolph, Greenbrier, Nicholas, and Pocahontas, are significantly different from each other at the Bonferroni level ($p < .01$).

Table 12

Analysis of Variance (ANOVA) of SWOT (Strengths) by County

County of Residence (I)	County of Residence (J)	Mean Difference (I - J)	Std. Error	P Value	
				LSD	Bonferroni
Grant	Tucker	0.09	0.12	.472	1.000
	Randolph	0.10	0.11	.370	1.000
	Greenbrier	-0.07	0.12	.557	1.000
	Webster	0.11	0.14	.442	1.000
	Nicholas	0.01	0.12	.946	1.000
	Pendleton	0.12	0.13	.365	1.000
	Pocahontas	0.02	0.12	.856	1.000
Tucker	Randolph	0.01	0.07	.842	1.000
	Greenbrier	-0.16	0.09	.077*	1.000
	Webster	0.02	0.11	.839	1.000
	Nicholas	-0.08	0.08	.360	1.000
	Pendleton	0.03	0.10	.752	1.000
	Pocahontas	-0.06	0.09	.452	1.000
Randolph	Greenbrier	-0.17	0.08	.031**	.868
	Webster	0.01	0.11	.939	1.000
	Nicholas	-0.09	0.07	.217	1.000
	Pendleton	0.02	0.09	.859	1.000
	Pocahontas	-0.08	0.08	.295	1.000
Greenbrier	Webster	0.18	0.12	.124	1.000
	Nicholas	0.08	0.09	.370	1.000
	Pendleton	0.19	0.10	.064*	1.000
	Pocahontas	0.09	0.09	.297	1.000
Webster	Nicholas	-0.10	0.11	.378	1.000
	Pendleton	0.01	0.12	.951	1.000
	Pocahontas	-0.09	0.11	.446	1.000
Nicholas	Pendleton	0.11	0.10	.268	1.000
	Pocahontas	0.01	0.09	.874	1.000
Pendleton	Pocahontas	-0.09	0.10	.334	1.000

* $p < .10$, ** $p < .05$.

Table 13*Analysis of Variance (ANOVA) of SWOT (Weaknesses) by County*

County of Residence (I)	County of Residence (J)	Mean Difference (I - J)	Std. Error	P Value	
				LSD	Bonferroni
Grant	Tucker	-0.12	0.15	.417	1.000
	Randolph	0.09	0.14	.534	1.000
	Greenbrier	0.04	0.15	.782	1.000
	Webster	-0.22	0.18	.208	1.000
	Nicholas	0.05	0.15	.730	1.000
	Pendleton	-0.43	0.16	.007***	.201
	Pocahontas	0.01	0.15	.927	1.000
Tucker	Randolph	0.21	0.09	.028**	.789
	Greenbrier	0.16	0.11	.147	1.000
	Webster	-0.10	0.14	.476	1.000
	Nicholas	0.17	0.11	.108	1.000
	Pendleton	-0.31	0.12	.011**	.319
	Pocahontas	0.13	0.11	.028**	1.000
Randolph	Greenbrier	-0.04	0.10	.656	1.000
	Webster	-0.31	0.13	.022***	.612
	Nicholas	-0.04	0.09	.706	1.000
	Pendleton	-0.51	0.11	<.001****	<.001****
	Pocahontas	-0.07	0.09	.436	1.000
Greenbrier	Webster	-0.26	0.15	.073*	1.000
	Nicholas	0.01	0.11	.936	1.000
	Pendleton	-0.47	0.13	<.001****	.006***
	Pocahontas	-0.03	0.11	.798	1.000
Webster	Nicholas	0.27	0.14	.057*	1.000
	Pendleton	-0.21	0.15	.182	1.000
	Pocahontas	0.23	0.14	.100	1.000
Nicholas	Pendleton	-0.48	0.12	<.001****	.003***
	Pocahontas	-0.04	0.11	.724	1.000
Pendleton	Pocahontas	0.44	0.12	<.001****	.008***

* $p < .10$, ** $p < .05$, *** $p < .01$, **** $p < .001$

In terms of the third factor (Table 14), Grant ($M = 4.14$, $SD = 0.57$), Tucker ($M = 4.08$, $SD = 0.67$), and Pendleton ($M = 4.10$, $SD = 0.78$) were the counties with highest mean scores on the perceived Opportunities aspect which mainly relates to the market availability and popularity of tourism development. Specifically, the three counties are significantly more positive in their perceptions of the opportunities dimension than one other county, Randolph ($M = 3.89$, $SD =$

0.60) ($p < .05$), while no significant differences exist between the counties ($p < .05$). In addition, no significant differences exist between those four counties and the other three counties such as Greenbrier ($M = 4.05$, $SD = 0.55$), Webster ($M = 3.87$, $SD = 0.55$), Nicholas ($M = 3.97$, $SD = 0.62$) ($p > .05$). However, no comparisons are significant from each other at the Bonferroni level ($p > .05$).

Table 14

Analysis of Variance (ANOVA) of SWOT (Opportunities) by County

County of Residence (I)	County of Residence (J)	Mean Difference (I - J)	Std. Error	P Value	
				LSD	Bonferroni
Grant	Tucker	0.06	0.12	.635	1.000
	Randolph	0.25	0.11	.030**	.833
	Greenbrier	0.09	0.12	.464	1.000
	Webster	0.27	0.14	.057*	1.000
	Nicholas	0.17	0.12	.151	1.000
	Pendleton	0.04	0.13	.742	1.000
	Pocahontas	0.11	0.12	.360	1.000
Tucker	Randolph	0.19	0.08	.012**	.348
	Greenbrier	0.03	0.09	.711	1.000
	Webster	0.22	0.12	.063*	1.000
	Nicholas	0.12	0.09	.177	1.000
	Pendleton	-0.01	0.10	.884	1.000
	Pocahontas	0.05	0.09	.536	1.000
Randolph	Greenbrier	-0.16	0.08	.052*	1.000
	Webster	0.03	0.11	.815	1.000
	Nicholas	-0.07	0.08	.328	1.000
	Pendleton	-0.20	0.09	.023**	.656
	Pocahontas	-0.14	0.08	.074*	1.000
Greenbrier	Webster	0.18	0.12	.126	1.000
	Nicholas	0.08	0.09	.359	1.000
	Pendleton	-0.05	0.10	.641	1.000
	Pocahontas	0.02	0.09	.825	1.000
Webster	Nicholas	-0.10	0.12	.389	1.000
	Pendleton	-0.23	0.13	.067*	1.000
	Pocahontas	-0.16	0.12	.162	1.000
Nicholas	Pendleton	-0.13	0.10	.186	1.000
	Pocahontas	-0.06	0.09	.468	1.000
Pendleton	Pocahontas	0.07	0.10	.494	1.000

* $p < .10$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

Table 15*Analysis of Variance (ANOVA) of SWOT (Threats) by County*

County of Residence (I)	County of Residence (J)	Mean Difference (I - J)	Std. Error	P Value	
				LSD	Bonferroni
Grant	Tucker	0.40	0.18	.029**	.823
	Randolph	0.08	0.17	.660	1.000
	Greenbrier	-0.30	0.19	.105	1.000
	Webster	0.09	0.22	.670	1.000
	Nicholas	-0.09	0.18	.619	1.000
	Pendleton	-0.11	0.19	.562	1.000
	Pocahontas	0.00	0.18	1.000	1.000
Tucker	Randolph	-0.32	0.11	.006***	.154
	Greenbrier	-0.70	0.14	<.001****	<.001****
	Webster	-0.30	0.18	.085*	1.000
	Nicholas	-0.48	0.13	<.001****	.006***
	Pendleton	-0.51	0.15	<.001****	.019**
	Pocahontas	-0.39	0.13	.002***	.069*
	Randolph	Greenbrier	-0.38	0.12	.002***
Greenbrier	Webster	0.02	0.16	.917	1.000
	Nicholas	-0.17	0.11	.152	1.000
	Pendleton	-0.19	0.14	.167	1.000
	Pocahontas	-0.08	0.11	.513	1.000
	Webster	0.39	0.18	.030**	.830
Webster	Nicholas	0.21	0.14	.123	1.000
	Pendleton	0.19	0.15	.224	1.000
	Pocahontas	0.30	0.14	.028**	.775
	Nicholas	-0.18	0.18	.300	1.000
Nicholas	Pendleton	-0.21	0.19	.281	1.000
	Pocahontas	-0.09	0.18	.600	1.000
	Pendleton	-0.02	0.15	.878	1.000
Pendleton	Pocahontas	0.09	0.13	.489	1.000
Pendleton	Pocahontas	0.11	0.15	.448	1.000

* $p < .10$, ** $p < .05$, *** $p < .01$, **** $p < .001$.

Lastly, in terms of the fourth factor (Table 15), Tucker ($M = 3.11$, $SD = 0.97$) is the county with the lowest mean scores on the perceived Threats aspect of tourism development which mainly relates to the increasing gas prices and threats of COVID-19 to tourism development. Specifically, Tucker is significantly more positive in its perceptions of the threats dimension than Greenbrier ($M = 3.80$, $SD = 0.84$), Nicholas ($M = 3.59$, $SD = 0.96$), and

Pendleton ($M = 3.61, SD = 0.89$) ($p < .001$), while no significant differences exist between those counties ($p > .05$). Tucker is also significantly more positive than Randolph ($M = 3.43, SD = 0.88$), Pocahontas ($M = 3.50, SD = 1.00$) ($p < .01$), and Grant ($M = 3.50, SD = 0.84$) ($p < .05$) while no significant differences exist between those three counties ($p > .05$). Additionally, Randolph ($p < .01$), Webster ($M = 3.41, SD = 0.96$) ($p < .05$), and Pocahontas ($p < .05$) are significantly more positive than Greenbrier, where no significant differences exist between those counties. However, three pair comparisons, Tucker vs Greenbrier, Nicholas, and Pendleton, are significant from each other at the Bonferroni level ($p < .05$).

Chapter 5: Discussion

This study makes an important contribution to the literature on resident attitudes toward tourism development by identifying the effect that tourism development has on both the social and economic factors within rural communities from the perspective of the local resident population. This study confirms the findings of other studies that concern for the potential social impacts of tourism can be related to the amount of development, where more development leads to more perceived negative impacts from the local population (Allen et al., 1988; Allen et al. 1990; Andereck & Vogt, 2000; Mcgee & Andereck, 2004). This was found to be true particularly within Tucker County residents where higher level of tourism development was reached more rapidly than other counties within the region (direct travel spending increased from \$50.3 million in 2019 to \$37.4 million in 2020 to \$81.1 million in 2021, and increase of 116.7% from 2020-2021). In contrast, Greenbrier County, also identified within the development stage, did not recognize those negative impacts of tourism development as heavily as Tucker. Direct travel spending in Greenbrier County increased but at a less rapid rate (from \$240.1 million in 2019 to \$214.3 million in 2020 to \$275.1 million in 2021, an increase of 28.4% from 2020-2021).

This difference in perception could be linked to SET and newness of the development, whereas the residents are not yet reaping the benefits of the new and rapid development in Tucker county and are experiencing more of the costs at current; tourism development within Greenbrier county is not as new, and thus may be benefiting more from tourism development and experiencing less of the initial costs, thus having a more positive attitude on the social aspects of development. Grant county, a direct neighbor of Tucker, was found to have similar perceptions of the negative aspects of tourism development (though existing at a lower level of tourism development) potentially due to their spatial relationship and travel routes used by tourists from major metropolitan areas (e.g. U.S. Highway 48). There exists the possibility that Grant County residents have higher rates of interactions with those tourists en route to Tucker County, soliciting similar attitudes.

In addition, the perceptions of the economic benefits of tourism development were found to be positive, particularly where those residents are more dependent upon tourism and overall as a potential stimulation tool of the local economies, similar to previous findings (Hassan et al., 2022; Knollenberg 2011; Milman & Pizam, 1998; Murphy, 2001; Um & Crompton 1987; Wang & Pfister, 2008). The region as a whole held positive attitudes about the economic potentials of tourism development, where the more developed Greenbrier County residents had the highest perception of the economic opportunities of tourism development.

Thus, hypothesis 1 was partially supported: resident attitudes of the economic benefits of tourism development were found to be positively related to the level of tourism development, but those experiencing more rapid growth in higher levels of development were not as positive as those whose development is not as new. Hypothesis 2 was also partially supported: those counties with higher levels of development were more pessimistic of the social impacts of

tourism development in more rapidly growing counties within the region while those at similar levels of development that are not as new did not perceive the social impacts as negatively.

Regarding resident perceptions of regional collaboration, this study found levels of tourism development are closely related to resident perceptions of collaboration's importance and benefits, but not in the same direction. The residents of the MNF region as a whole were found to have a generally positive perception of the importance and benefits of regional collaboration for sustainable tourism development, while both counties of the highest and lowest levels of development were found to be the most positive in their perceptions. Greenbrier (development stage) has experienced recent declines in its overall economic status and could perceive regional collaboration as beneficial to reorienting that economic trend. Contrarily, Nicholas and Pendleton (lower levels of development) could view collaboration as a more sustainable way for their communities to reduce the costs and competition for tourism development ~~reduced~~ as well as provide better access to resources needed to capitalize on ~~the available~~ target -markets ~~as identified in previous literature, similar to the plans and thoughts in the limited body of literature~~ (Destination Development, 2022, Naipaul et al. 2009, Regional Destination Development Projects, 2018).

Interestingly, the residents of the MNF as a whole were positive in their perceptions of the necessary foundations of collaboration, with little significant differences found between the counties. Counties with both the highest levels of development as well as the lowest were found to be positive in those perceptions, thus indicating little relationship between ~~these~~ the level of tourism development and ~~these~~ resident perceptions of the foundations of collaboration. ~~It is agreed by the R~~ residents within the region agreed that similar tourism product portfolios,

resource commonalities and tourism markets make the region a good candidate for collaboration amongst the communities for tourism development.

Thus, hypothesis 3 is partially supported, in that there is a significant and positive relationship between the level of tourism development and resident support for regional collaboration on the factor of its importance and benefits, but little differences were found in relation to the foundations for collaboration dependent of the level of tourism development.

In regards to SWOT, this study contributes to the existing body of literature by identifying those areas within the region attributable to future success of sustainable tourism development as identified by the local resident population. This is in line with current literature that uses SWOT as a way to inventory and assess the current ~~assets and weak points~~ strengths and weaknesses of a tourism destination (Goranczewski & Puciato, 2011; NOAA, 2011). Resident perceptions of the region's strengths, weaknesses, ~~and opportunities~~, and threats can be used to promote the area and understand the ~~outlook~~ perceptions of the resident population as related to future tourism ~~development's~~ potentials. In addition, those perceptions of the region's internal weakness and external threats pinpoint problems that may be able to be addresses as well as possible factors that inhibiting successful tourism development.

Both of the positive aspects of the SWOT section of this study, strengths and opportunities, found that the residents across the region collectively agree on the presence of strengths and opportunities as related to sustainable tourism development. There was a general consensus that the region has ample cultural and natural resources, identified as strengths that the can be leveraged upon for future development and attractiveness to tourists. Similarly, opportunities available were equal in their perceived availability by residents across the region, indicating the existence of a equal opportunity for everyone as related to tourism development.

This study found there to be only minor differences in resident perceived strengths and opportunities between the eight counties where work could be done to bring those counties with lower perceptions to the same levels as the region. The overall positive consensus should be maintained by tourism planners as tourism development continues to grow within the region.

Alternatively, the negative aspects of the SWOT portion of this study, weaknesses and threats, found that residents within the region do have concerns for tourism development both internally and externally regardless of the county. Those perceived weaknesses were found to be related to lacking infrastructure and accommodation services as well as a lack of investment in tourism development currently within the region. Interestingly, this study found that there do exist differences between some counties within the region regarding the perceived weaknesses, indicating that counties contain their own unique problems that need to be addressed pertaining to tourism development. In particular, Pendleton County residents had the held the most negative perceptions of weaknesses and therefore could be a target area for investment efforts. Though there were identifiable differences related to weaknesses, there were only minor differences found between the eight counties as related to threats of gas prices and COVID-19, where Tucker County did not perceive those threats as much as others but that they were still present in impacting tourism development. This difference may be attributed to Tucker County's increased rate of tourism development as compared to the rest of the region, but the regional consensus is that the threats exist generally no matter individual counties' location.

Thus, hypothesis 4 was supported: there did not exist significant differences between the eight counties related to perceived strengths; hypothesis 5 was partially supported: there does exist differences in the perceived weaknesses between some of the eight counties, but not between every county within the region; hypothesis 6 was partially supported: there do exist

minor differences between some of the counties within the MNF region of their perceptions of existing opportunities; and hypothesis 7 was partially supported: there was only one minor difference is Tucker County's perception of the threats to tourism development compared to the other counties, but the general consensus of the region is that those threats exists in all counties.

Chapter 6: Conclusion

In summary, this study finds that tourism development within the Monongahela National Forest region is still at early stages of development, but there exists an increase in its attractiveness for recreation and tourism development. Proximity to public federal lands, natural and cultural/heritage resources, and outdoor recreation experiences opportunities provides opportunities for the region to look to tourism as a more sustainable economic alternative for the local communities than the previous traditional (e.g., extractive) industries. Having access to attractive tourism and recreation assets within the region, coupled with an increasing acknowledgement of rural recreation and tourism by federal entities provides the MNF region with ample opportunities for successful and sustainable tourism development. This study demonstrates that the local residents in the area are aware of the potential for tourism development in their communities, and that there already exists attitudes on the current interactions between resident communities and tourism within the area.

This study found that at a regional level, residents support and see the potential benefits of tourism development for the well-being of their communities, but that it does not come without at least some concerns. The same is found in regards to resident perceptions of regional collaboration for tourism management in the area, where residents identified that the region contains resources and opportunities necessary as the foundations for successful collaboration.

There does exist different perceptions between residents at the county level with regards to the importance and benefits of regional collaboration. Based on findings pertaining to resident identified strengths, weaknesses, opportunities, and threats, the author concluded that residents agree across the region that there exists ample strengths and opportunities for sustainable tourism development, but held differing feelings regarding the weaknesses and threats that exist.

The general resident attitudes on tourism development and its impacts was found to be positive across the region, while perceptions of negative impacts of tourism were present but not as prominent within the resident population. One county within the region, Tucker county, was the one outlier in its residents' attitudes, perceiving less positive impacts than other counties as well as more negative impacts. This could be tied to Tucker county's further maturation of its level of tourism development as compared to other counties within the region. Residents within Tucker county presenting less positive attitudes on tourism development is consistent with findings from Long et al. (1990), Andereck and Vogt, (2000), and Mcgee and Andereck, (2004). That is, resident attitudes are initially positively correlated with increases in levels of tourism in their communities, but eventually reach a threshold where additional development negatively effects residents' attitudes. Also, differing levels of tourism development are found to foster differing attitudes by residents on tourism, and communities with dependency on tourism are more likely to agree that tourism has negative impacts.

Future research is needed in order to continue to develop improved methodologies for determining the levels of tourism development for rural areas. This could include, not limited to better access to data on total tourist visitation numbers being for rural communities and their surrounding areas, and a complete repository of tourism assets (i.e. accommodations, bed numbers, restaurants, tourism related businesses, outdoor recreation businesses/services, visitor

centers, etc.). In addition to assets, other identifiable indicators of the levels of TALC for rural areas are needed to have a better understanding of the TALC model as it relates to rural destinations. From a methodological approach, a full SWOT analysis with stakeholder contributions and a system of weighting items in future research could better equip local stakeholders and managers with tools for future tourism development strategies and policy decisions. Lastly, from a managerial standpoint, research into the best practices and conflict reduction methods between leadership and other involved parties in regional collaboration efforts should be addressed for better success of long term sustainable regional collaboration; essentially efforts to reduce the possibility of conflicts and evenly disperse the costs and benefits of the collaborative effort between all groups. While this study provided more complete understanding of resident support for sustainable tourism development, further analysis incorporating the perspective of visitors to the area as well as those interactions between resident and visitor groups should be included into future studies for a more complete look into the factors contributing to the successes of tourism development as well as to monitor its progress into the future for the Monongahela National Forest region and its local communities.

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Appendix A: Cover Letter

7/13/22, 6:50 PM

Qualtrics Survey Software



Jan. 7, 2022

Dear Participant:

We are writing to ask your help to determine local residents' attitudes regarding recreation economy in the Monongahela National Forest region. We hope you can help by filling out this online survey which simply asks what you think about recreation and tourism development in this region. This survey is open to anyone 18 years of age or older residing in the region (Grant, Tucker, Randolph, Greenbrier, Webster, Nicholas, Pendleton, and Pocahontas).

The study is funded by Benedum Foundation, and is being conducted by Dr. Doug Arbogast, an extension associate professor with WVU Extension Service and Dr. Jinyang Deng, a professor with WVU Recreation, Parks and Tourism Resources Program. The results of this survey will be used to improve policy makers' understanding of resident attitudes and opinions toward tourism in the region and help them determine future tourism development opportunities. The information obtained from this survey will also provide recreation/tourism leaders the opportunity to learn about and respond to public opinions.

Your participation in this survey is voluntary and you can quit at any time. However, you can help us very much by taking a few minutes to respond. You do not have to answer all of the questions, but any information you provide will contribute to the project's success.

You will be entered into a raffle for some Mon Forest Towns swag (bumper stickers, tote bags, water bottles, t-shirts, etc.) to commensurate your time spent taking this survey if you qualify for and complete the survey.

All information collected will be kept strictly confidential. Information you provide is anonymous and only summaries will be reported in which an individual's answers will not be identified.

This survey was reviewed and approved by WVU Institutional Review Board (IRB) and a **WVU IRB acknowledgement is on file**. If you have any further questions, please feel free to contact Doug Arbogast at 304-293-8686. Your contribution to this study is greatly appreciated and will be a great benefit to this region.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jinyang Deng'.

Dr. Jinyang Deng
West Virginia University
Professor
Recreation, Parks and Tourism Resources

A handwritten signature in black ink, appearing to read 'Doug Arbogast'.

Doug Arbogast
West Virginia University
Extension Specialist
Rural Tourism Development

Appendix B: Survey Questionnaire

7/13/22, 6:52 PM

Qualtrics Survey Software

Is this your **first time** taking this survey?

- Yes**, this is my first time taking the survey.
- No**, I have already taken this survey. *(previously accessed from social media, newsletter, etc.)*

You will be entered into a raffle for some Mon Forest Towns swag (bumper stickers, tote bags, water bottles, t-shirts, etc.) to commensurate your time spent taking this survey if you qualify for and complete the survey.

If you agree to participate in this survey, please check "Yes" below:

- Yes
- No

Are you over the age of 18 as of today?

- Yes
- No (under 18 years old)

Do you live in one of the following counties in West Virginia?

- Grant County
- Tucker County
- Randolph County
- Greenbrier County
- Webster County
- Nicholas County
- Pendleton County
- Pocahontas County
- I do not live in one of the counties listed above

Section 1: Trip Characteristics

Section 1: Trip Characteristics

1. How many times have you visited the Monongahela National Forest in the past 3 years?

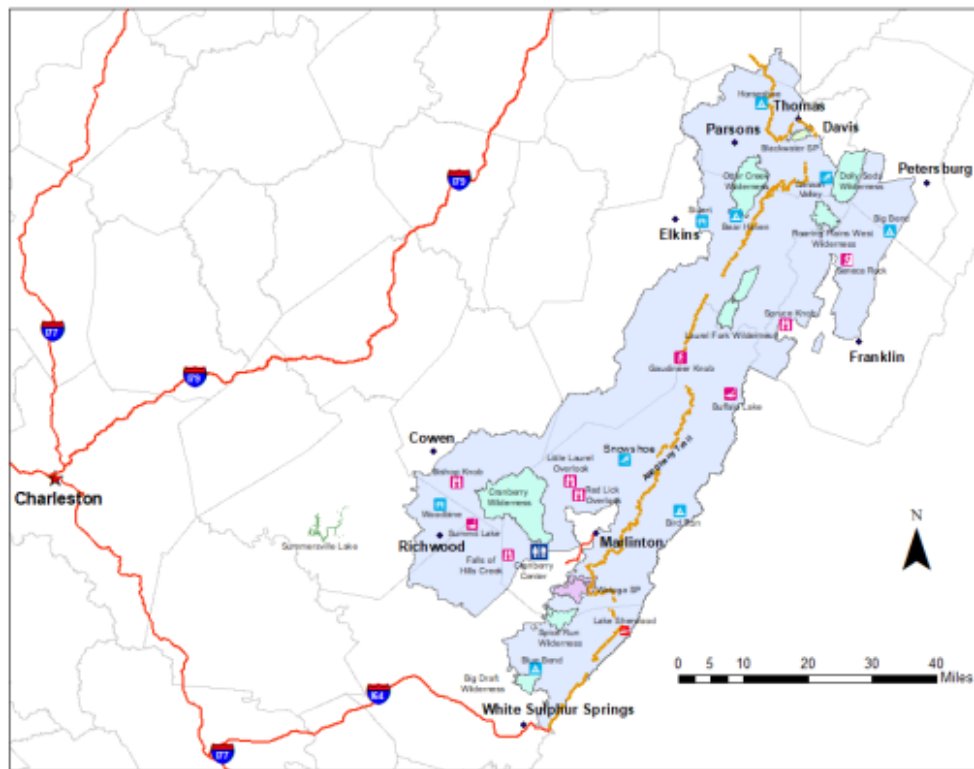
- Never

- Only once
- 2 - 5 times
- 6 - 10 times
- More than 10 times

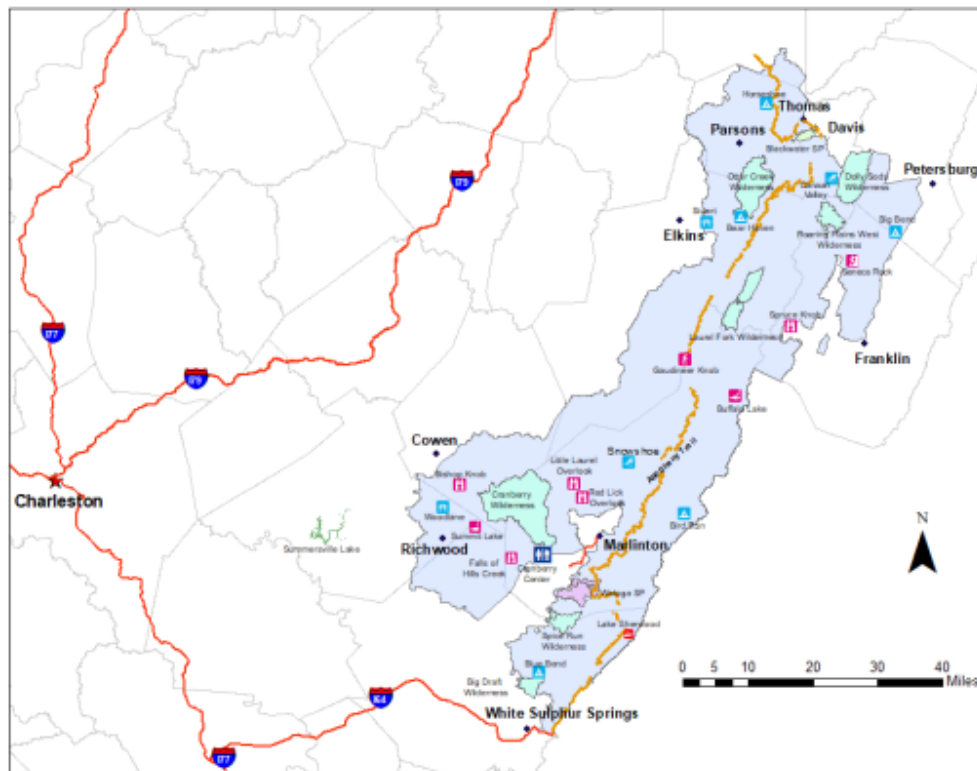
2. How many times have you visited the Monongahela National Forest in the previous 12 months?

- Never
- Only once
- 2 - 5 times
- 6 - 10 times
- More than 10 times

3. Below is a map that shows the Monongahela National Forest (shaded region). If you have visited the forest in the past 3 years, please list the sites you visited **during your most recent trip** to the forest (Maximum 10 sites. If you visited more than 10 sites, please list the 10 most important ones).



4. Following the previous question, please click on the map (shaded region) to roughly show sites that you have visited during your **most recent trip to the forest**.
(Maximum of 10 clicks. To delete a point, put the cursor on the point, then left click. To move the point, put the cursor on the point, left click, hold, and drag. If you use a mobile device: simply finger touch the forest area, touch again to delete. To move the point, touch, hold and drag)



5. Including yourself, how many people were traveling with you during your **most recent trip to the forest**? (Numbers only)

6. During your **most recent trip** to the Monongahela National Forest, how much have you or your group spent in the area? (If you travelled as a group, enter the estimated spending for the whole group. If you travelled alone, enter the spending for yourself.)

- Less than \$100
- \$101 to \$200
- \$201 to \$300
- \$301 to \$400
- \$401 to \$500
- \$501 to \$600
- \$601 to \$700
- \$701 to \$800
- \$801 to \$900
- \$901 to \$1,000
- More than \$1,001

7. Did you stay overnight in the Monongahela National Forest area (anywhere in the forest and/or any of the towns near the forest) during your **most recent trip**?

- Yes
- No

8. During your **most recent trip** to the forest, how many nights have you stayed in or near the forest?

- 1
- 2
- 3
- 4
- 5
- More than 5

9. Please indicate your main type(s) of accommodation during your **most recent visit** to the Monongahela National Forest.

- Youth Hostel
- RV

- Homestays
- Hotel/Motel/Inn
- Second Home
- Camping/Tent
- Timeshare
- Airbnb
- Bed & Breakfast
- Rented house/Apartment
- Other (Please specify)

Section 2:

Section 2: Perceptions of Regional Collaboration and Marketing in the Monongahela National Forest Area

1. The Mon Forest Towns Initiative was created to connect 10 towns near and within the Monongahela National Forest , aiming to cultivate relations across lands and forest gateway communities that will enhance the economy and quality of life for residents and visitors while sustaining the quality of the environment at the regional level. Were you aware of the Mon Forest Towns Initiative prior to this survey?

- Yes
- No

2. Below is a question about how familiar you are with the Initiative, please indicate to what extent you know about the Initiative?

	Extremely familiar	Moderately familiar	Somewhat familiar	Slightly Familiar	Not at all familiar
How familiar are you with the Initiative?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Listed below are phrases about your perceptions of regional collaboration and marketing for recreation economy in the Monongahela National Forest area. Regional collaboration and marketing address regional challenges by engaging and connecting people and resources within the region and market collectively for

the region. Please indicate how much you disagree or agree with each phrase by circling your response.

	Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree
1. Regional Collaboration and marketing play an important role in the success of recreation economy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. There is a lack in regional collaboration and marketing in the area.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Regional collaboration and marketing can enhance tourism product portfolio.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Regional collaboration and marketing can leverage on each county's unique tourism product.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Regional collaboration and marketing can reduce costs and increase efficiency.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree
6. Counties in the Monongahela National Forest area can achieve more by working together.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Counties in the Monongahela National Forest area share commonalities in heritage tourism resources.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Counties in the Monongahela National Forest area share commonalities in nature-based tourism resources.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree
9. Counties in the Monongahela National Forest area have similar tourism products and services.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Counties in the Monongahela National Forest area have the same target market.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Strongly Agree

Section 3

Section 3: Perceptions of Branding for Recreation Economy in the Monongahela National Forest Area

1. Below is the logo recently developed for the Monongahela Forest Towns Initiative which connects the 10 gateway towns in the Monongahela National Forest area. Have you known about this logo prior to this survey?



- Yes
- No

2. How did you first learn about the logo for the Monongahela Forest Towns Initiative?



- Social Media
- Roadside Sign
- Website
- Word of Mouth
- News Letter
- Other (please specify)

3. Below is the logo recently developed for the Monongahela Forest Towns Initiative which connects the 10 small towns in the Monongahela National Forest Area.



Listed below are phrases about the logo/branding for recreation economy in the Monongahela National Forest Area. Please indicate how much you disagree or agree with each phrase by circling your response.

- | | | | | |
|-------------------|-------------------|----------------------------|----------------|----------------|
| Strongly Disagree | Somewhat Disagree | Neither Agree Nor Disagree | Somewhat Agree | Strongly Agree |
|-------------------|-------------------|----------------------------|----------------|----------------|

	Strongly Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Strongly Agree
1. This brand makes a strong impression on my visual sense or other senses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. I find this brand interesting in a sensory way.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. This brand does not appeal to my senses.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. This brand includes feelings and sentiments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I do not have strong emotions for this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. This brand is an emotional brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I engage in a lot of thinking when I encounter this brand.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. This brand stimulates my curiosity and problem solving.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. This brand does not make me think.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Somewhat Disagree	Neither Agree Nor Disagree	Somewhat Agree	Strongly Agree

Section 4: Attitudes toward Recreation/Tourism in the Monongahela National Area

Section 4: Attitudes toward Recreation/Tourism in the Monongahela National Area

1. Please indicate the extent to which you agree or disagree with the following statements on your perceptions of recreation/tourism development in the Monongahela National Forest area by circling the number that best represents your answer.

Strongly Disagree	Somewhat Disagree	Neither Disagree nor Agree	Somewhat Agree	Strongly Agree
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	Strongly Disagree	Somewhat Disagree	Neither Disagree nor Agree	Somewhat Agree	Strongly Agree
1. An increase in tourism will increase the cost of living in the Monongahela National Forest area.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Tourism development will provide more economic opportunities for the area.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Tourism development will only produce low-paying service jobs.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I support taxes for tourism development in the area.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Somewhat Disagree	Neither Disagree nor Agree	Somewhat Agree	Strongly Agree
5. Tourism development will help to protect natural/heritage resources in the area.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Tourism will improve the wellbeing of communities in the area.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. The area should invest in tourism development.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. An increase in tourism will lead to crowding of outdoor recreation, historic, and cultural sites/attractions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Somewhat Disagree	Neither Disagree nor Agree	Somewhat Agree	Strongly Agree
9. Long-term planning and managed growth are important to control any negative impacts of tourism.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Disagree	Somewhat Disagree	Neither Disagree nor Agree	Somewhat Agree	Strongly Agree
10. The area should do more to promote its tourism assets to visitors.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. The area should discourage more intensive development of facilities, services, and attractions for tourists.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. An increase in tourism will lead to unacceptable amounts of traffic, crime, and pollution.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Somewhat Disagree	Neither Disagree nor Agree	Somewhat Agree	Strongly Agree

Section 5: Perceptions of COVID-19

Section 5: Perceptions of Strengths, Weaknesses, Opportunities, and Threats about Recreation/Tourism in the Monongahela National Forest Area

1. Please identify your thoughts and feelings toward recreation economy in the Monongahela National Forest Area by indicating how much you disagree or agree with each statement by circling the response that best represents your answer.

	Strongly Disagree	Somewhat Disagree	Neither Disagree or Agree	Somewhat Agree	Strongly Agree
1. The area is rich in natural/heritage tourism resources.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Local people in the area are friendly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Politicians and decision makers support recreation economy in the area.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Disagree	Somewhat Disagree	Neither Disagree or Agree	Somewhat Agree	Strongly Agree
4. The area provides opportunities for lots of outdoor recreation activities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. The area allows visitors to experience rural authenticity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. The area is limited in accommodation options.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Somewhat Disagree	Neither Disagree or Agree	Somewhat Agree	Strongly Agree
7. The area is limited in dining options	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. The area is limited in human capacity for tourism marketing and development.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. The area is distant from markets.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. The area lacks cell phone service.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. The area lacks investment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. People's desire to visit natural areas will increase after the Covid-19 pandemic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Somewhat Disagree	Neither Disagree or Agree	Somewhat Agree	Strongly Agree
13. There is an increasing market for experiencing rural authenticity.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. There is an increasing retiree market seeking quiet, rural, low cost of living.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Disagree	Somewhat Disagree	Neither Disagree or Agree	Somewhat Agree	Strongly Agree
15. There are increasing interests among decision makers in developing recreation economy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Trails are becoming increasingly popular across the area.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. There is a negative impact of shale gas extraction on recreation and tourism in the area.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Employment opportunities are limited.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Somewhat Disagree	Neither Disagree or Agree	Somewhat Agree	Strongly Agree
19. People tend to have a poor image of the state.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Increase of gas price may reduce people's desire to travel.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. People may be reluctant to travel because of Covid-19.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Somewhat Disagree	Neither Disagree or Agree	Somewhat Agree	Strongly Agree

Section 6: Perceptions of the Impacts of COVID-19 Pandemic on Recreation and Tourism in the Monongahela National Forest and Surrounding Areas

	Strongly Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Strongly Agree
1. Covid-19 reduces the possibility of travelling with groups.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Strongly Agree
2. I prefer to avoid traveling to urban areas due to COVID-19 pandemic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Number of daily COVID-19 cases is a key factor that affects my intention to travel to the Monongahela National Forest.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. There is a low likelihood of contracting COVID-19 when travelling to the Monongahela National Forest area.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. The Monongahela National Forest will become more popular for city dwellers post the COVID-19 pandemic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Strongly Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Strongly Agree
6. People may choose to stay in Airbnb over hotels/motels while travelling to the forest area during the pandemic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Camping has become more popular across the U.S. due to the pandemic. This popularity may fade away post the pandemic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. People's travel preferences and behaviors have been changed due to the pandemic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Tourism in the forest area was hit hard by the pandemic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	Strongly Disagree	Somewhat Disagree	Neither Disagree Nor Agree	Somewhat Agree	Strongly Agree
10. New forms of tourism may emerge in the forest area due to the pandemic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Recreation economy/tourism industry in the forest area will never come back to the pre-pandemic level.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Recreation/tourism in the forest area will end up being more resilient and sustainable post the pandemic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. People will care about safety and hygiene while travelling more than they used to due to the pandemic.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. COVID-19 increases the possibility of travelling alone or with family.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Number of COVID-19 cases in the forest area may increase with influx of tourists.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Section 7: Background Information

1. What is your Zipcode?

2. What is your gender?

- Female
- Male
- Prefer not to say

3. What is your age?

- 18-24
- 25-34
- 35-44
- 45-50
- 51-60
- 61-69
- 70+
- Prefer not to say

4. What is the highest level of education you have completed?

- Less than high school degree
- High school degree or equivalent
- Some college
- Undergraduate or post-secondary degree
- Graduate school

5. What was your approximate household income from all sources, before taxes, in 2020?

- Less than \$20,000
- \$20,001 to \$40,000
- \$40,001 to \$60,000
- \$60,001 to \$80,000
- \$80,001 to \$100,000
- \$100,000 +

6. What is your role in your community? (Please check all that apply)

- Government Official
- Local or county board, commission, authority
- Non-profit organization (please specify)
- Recreation/Tourism-related business owner
- Non-recreation/tourism related business owner

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- Employed by recreation/tourism (please specify employer)
- Non-recreation/tourism related employment (please specify employer)
- Resident
- Part-time Resident
- Second home owner
- Other (please specify)

7. Do you have any other comments?

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