Residents' Perceptions of and Attitudes towards Tourism in the Monongahela National Forest Region:

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Executive Summary

This document presents survey responses provided by residents of the eight counties in West Virginia contained in the Monongahela National Forest (MNF) region. The results presented here provide general indications of community residents' perceptions and participation in tourism and recreation activities, to be used in discussions with local tourism organizations and community leadership.

Local residents who had visited one or more of the other eight counties in the MNF area for recreational purposes mentioned Tucker County most frequently. The Highland Scenic Highway, Blackwater Falls State Park, Seneca Rocks and Snowshoe Mountain Resort were the most visited places, followed by the Canaan Valley Resort. These responses are confirmed in the heatmap location analysis. Fairs and events, hiking, leaf peeping and were the most frequently reported activities during the leisure visit.

Most resident-visitors from within the region (two-thirds) spent $200 or less during their most recent trip. Slightly more than half stayed overnight, with two nights being the most common, while just over 3% spent at least 10 nights. Overnight camping or tenting was the most popular accommodation type used, followed by use of an Airbnb or staying with friends/relatives.

"Environmental quality" (air, water, other resources), "protection of the natural environment," "management of waste," and "control of negative impacts from long-term planning" were ranked as the most important indicators of tourism sustainability in the MNF region. "Improvement of the well-being of rural communities from tourism development" and "economic opportunities from tourism development" were also highly ranked. Two other important indicators were that "Celebration and protection of intangible cultural heritage, including local traditions, arts, music, language, food and other aspects of local identity and distinctiveness" and that "accurate interpretative material that informs visitors of the significance of the cultural and natural aspects of the sites they visit."

Comparing residents' perceptions of the importance of indicators with how well these indicators are currently perceived to perform within the MNF region reveals where the communities needs to "keep up the good work" or "concentrate efforts." Residents felt best about "environmental quality," in that this was important to them, and the community was also performing well on this indicator. "Protection of the natural environment," "rural authenticity," "economic opportunities from tourism development," "rural authenticity" and "Celebration and protection of intangible cultural heritage, including local traditions, arts, music, language, food and other aspects of local identity and distinctiveness" were also areas for "keeping up the good work."

Areas needing attention were "control of negative impacts through long-term planning," "improvement of the well-being of rural communities from tourism development," "guidelines for visitor behavior at sensitive sites and cultural events"; and "contribution to community and sustainability initiatives in a responsible manner from enterprises, visitors and the public." "Career opportunities and training in tourism" was also rated as important but currently low-performing and in need of improvement.

Local resident attitudes towards recreation and tourism were also evaluated. The strongest agreement was with the statement that "long-term planning and managed growth are important to control any negative impacts of tourism," followed by "tourism development will provide more economic opportunities for the area," and "the area should invest in tourism development." The strongest disagreement was with respect to the statement that "an increase in tourism will lead to unacceptable amounts of traffic, crime and pollution."

In terms of competitiveness with other tourism areas they had visited, resident-respondents felt strongly that the "level of crowding" in the MNF was better than that in similar competing destinations, followed by "rural tranquility and authenticity," and "prices." Two areas in which the MNF compared less favorably with the reference destination were "resource conservation" and "accessibility."

While a few respondents had strong reservations about developing the region to increase tourism and recreation in the area, many saw both a need and opportunity for developing the sector to support local incomes and economic development more broadly. There is a clear recognition among those responding that investments in tourism and recreation are needed, but also that safeguards need to be in place to avoid the problems and negative side effects associated with "overtourism." Respondents also indicated that there is a lack of current leadership capacity and funding in this regard, and that a strategic and coordinated approach to destination management is important to ensure a stable and sustainable form of tourism development with benefits accruing to a broad segment of the local population.

Preliminary Survey Results

1. Introduction

This Report presents the results of a survey of residents in the Monongahela National Forest (MNF) area conducted by West Virginia University and Penn State University faculty and staff, in collaboration with the Northeast Regional Center for Rural Development. The Report accompanies a similar document summarizing the results of a survey of visitors to the MNF area (Deng, Arbogast, Zhuang and Goetz, 2024), which also provides more context for the study. Like the visitor survey, this survey of local residents in the eight-county region that is home to the MNF was administered starting in the Spring of 2024. With retrospective questions, it allows comparisons to be made to the before, during and after Covid-19 pandemic periods. As elaborated below, the survey was designed to elicit sociodemographic background information on respondents, current tourism and recreation-related activities pursued, residents' perceptions of and attitudes towards such activities, and basic information about other tourism destinations these residents have visited, as well as their sense of how "competitive" the MNF area is compared to those other destinations. The Report is organized as follows: the first section describes the Methods, followed by the detailed Results, including an assessment of various tourism sustainability performance indicators and the final section presents a conclusion.

2. Methods

2.1 Questionnaire

A questionnaire was designed and ministered to elicit the opinions and attitudes of residents in the Monongahela National Forest (MNF) area about tourism and recreational activities in the region, following a thorough review of the relevant literature and with input from the research team. External reviewers including tourism leaders in the targeted destinations were then invited to comment on the survey. The resulting questionnaire consisted of eight sections: 1) background information, 2) leisure, vacation, and recreation activities, 3) perceptions of tourism sustainability indicators, including their importance and performance, 4) attitudes toward recreation/tourism, 5) perceptions of relative competitiveness of the MNF area relative to other destinations, and 6) socio-demographic variables. The questionnaire was reviewed and approved by the West Virginia University Institutional Review Board (2211673418).

2.2 Data Collection and Analysis

The questionnaire for this study was built in Qualtrics, an online survey platform. The target study area was predetermined as the eight-county region that contains or surrounds the area of the MNF in West

Virginia: Grant, Tucker, Randolph, Pocahontas, Pendleton, Webster, Nicholas, and Greenbrier. The survey was distributed to prospective participants through stakeholder and community channels (e.g., social media groups, flyers, newsletters), whereby initial screening questions filtered in only participants who resided within these identified counties.

The survey opened and began accepting responses on May 2, 2024, and was closed to new response collection on February 4, 2025. This report includes responses from 231 prospective participants; of this number, 28 had to be removed due to systematically incomplete responses filtered by early prescreening questions, resulting in 193 valid responses (83.5%) for further analysis. This report presents descriptive findings; a future study will include regression analysis of the data to generate additional insights.

It should be noted with these results that the percentages from each county should not be used as representative of the entire county populations, as they do not necessarily reflect the actual distributions of county populations.

3. Results

3.1 Demographics of Resident Respondents

Of the 193 valid responses, well over one-half were females (62.07%) while males accounted for 32.18%. A small percent of respondents identified themselves as non-binary (2.3%) while 3.45% preferred not to say (Figure 1).

Most respondents were in the 25 to 65+ years of age range, accounting for about 90% of the total (17.24% for ages 25-34, 20.69 % for ages 35-44, 21.84% for ages 45-54, 16.09% for ages 55-64 and 16.09% for ages 65 and older) (Figure 2). A small percentage of respondents

What is your sex?

Figure 1: Respondents by Sex
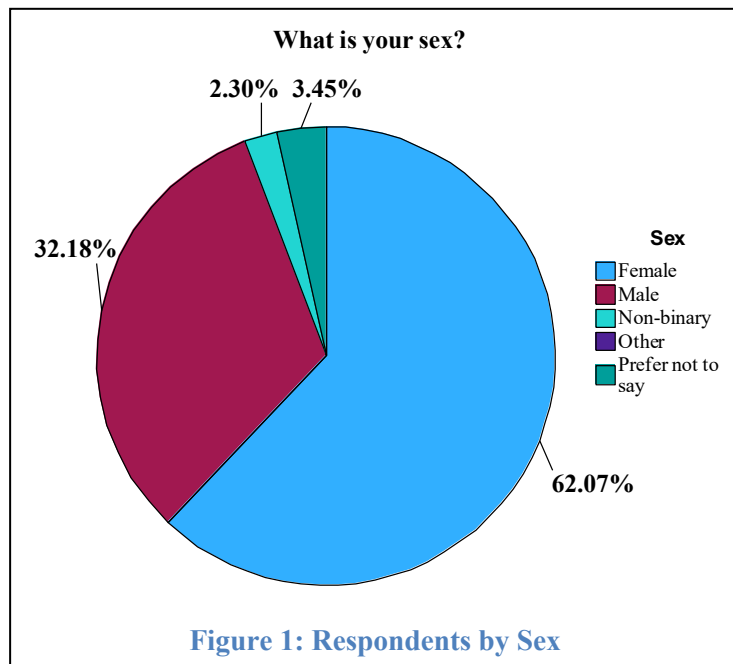
(3.45%) were between 18 and 24 years old. In addition, 4.6% of respondents preferred not to record their age.

Figures 3 and 4 show respondents' characteristics in terms of education and household income, respectively. Most respondents are well-educated, while more variability in household income is present.

Figure 2: Respondents' Age Distribution
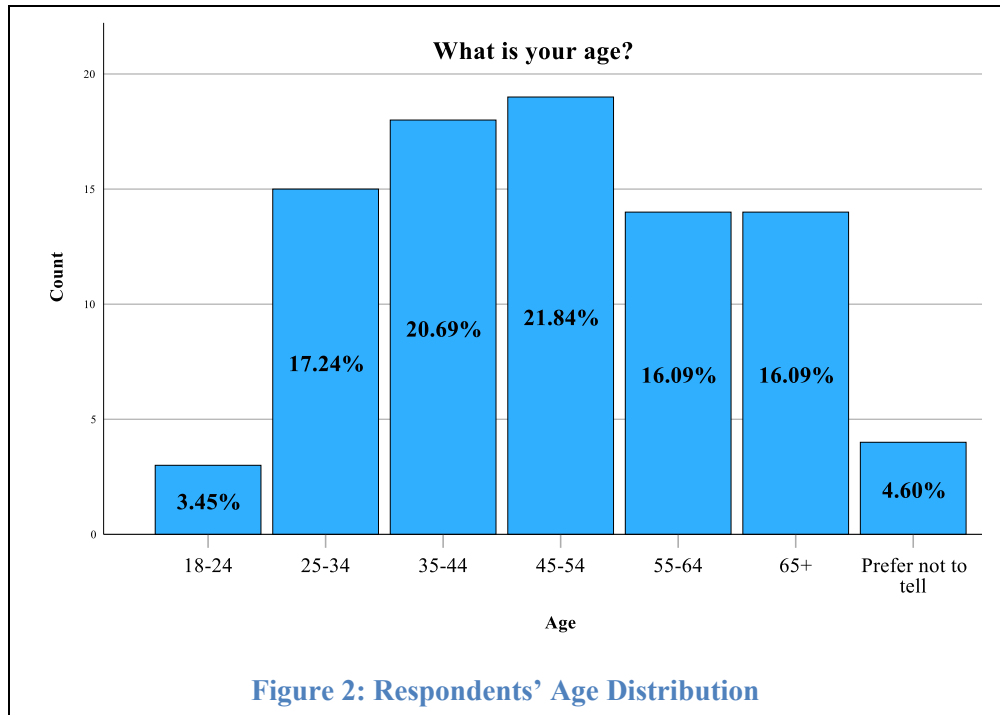
Specifically, most respondents had some level of college education: 16.09% had attended some college, 34.38% held an undergraduate or postsecondary degree, and 36.78% held a graduate school degree. In

Figure 3: Highest Level of Education Completed by Respondents
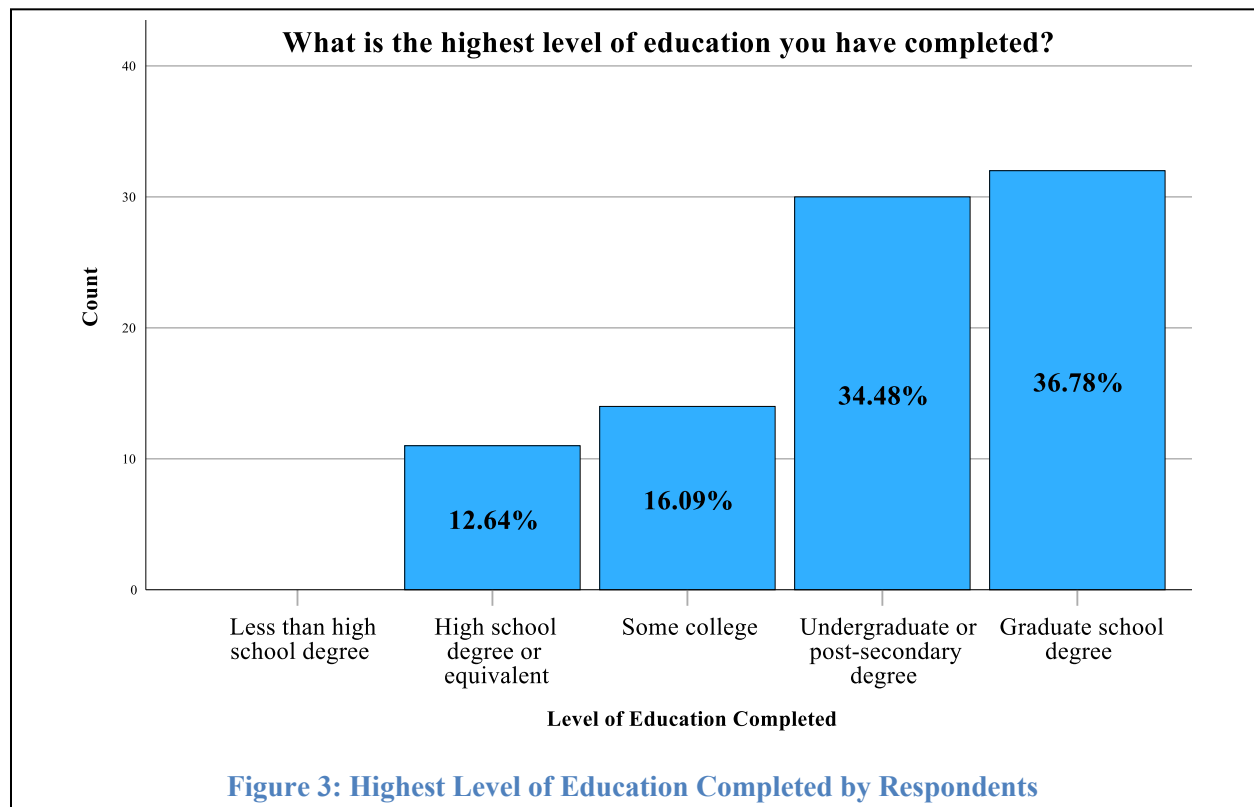
addition, 12.64% had a high school degree or equivalent. None of the respondents reported having less than a high school degree or equivalent.

Over fifty percent of respondents (58.14%) reported a household income before taxes of below $100,000 in 2023. The remainder 41.86% of respondents reported an income of at least $100,001, with just under 5% of those having reported an annual household income before taxes of over $300,000 in 2023.

What was your approximate household income from all sources, before taxes, in 2023?

- $300,001+ : **4.65%**
- $250,001 to $300,000 : **2.33%**
- $200,001 to $250,000 : **5.81%**
- $150,001 to $200,000 : **12.79%**
- $100,001 to $150,000 : **16.28%**
- $80,001 to $100,000 : **17.44%**
- $60,001 to $80,000 : **11.63%**
- $40,001 to $60,000 : **16.28%**
- $20,001 to $40,000 : **9.30%**
- Less than $20,000 : **3.49%**

Figure 4: Approximate Household Income in 2023
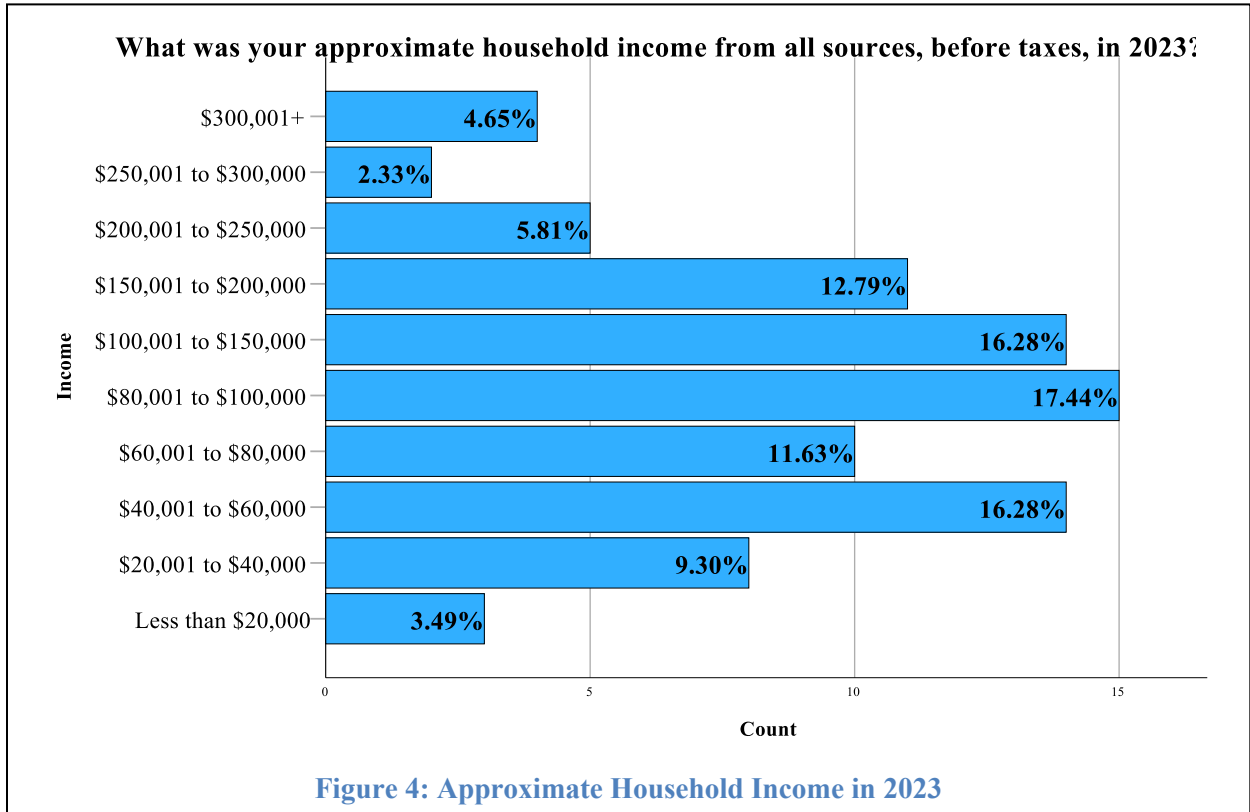
3.2 Other Respondent Characteristics

3.2.1. Respondents' Counties

Figure 5 shows the distribution of counties of residence reported by survey respondents. Two of the eight counties within the study area combined, Randolph and Pocahontas, accounted for over half the respondents (55.44%), with 32.12% being from Randolph County and 23.32% from Pocahontas County. In the northern portion of the region, Tucker, Pendleton, and Grant counties together made up 21.24% of respondents, while in the southern part of the region Webster, Nicholas, and Greenbrier counties represent 23.32% of responses. As indicated above, the percentages from each county should not be used as representative of the entire county populations, as they do not reflect the actual distributions of county populations.

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

County of Residence
- Grant County
- Tucker County
- Randolph County
- Greenbrier County
- Webster County
- Nicholas County
- Pendleton County
- Pocahontas County

5.18%
6.22%
23.32%
32.12%
9.84%
10.88%
3.11%
9.33%

Figure 5: Respondents by County of Residence
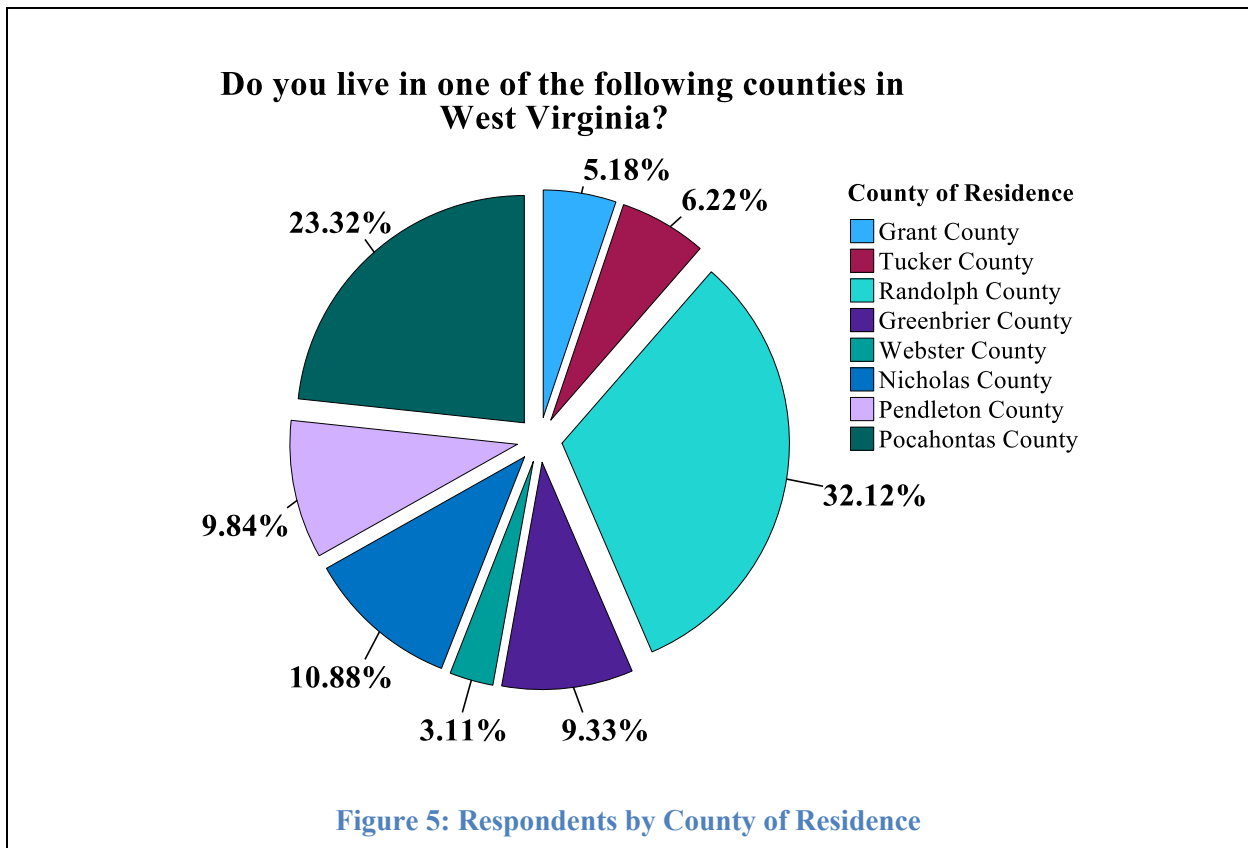
3.2.2. Community Role

Table 1 presents the roles that respondents perform and/or identify with within their communities. Respondents were asked to select all that apply, which is reflected in the percent of cases reporting. Of the reported community roles, over three-quarters (81.4%) of respondents reported being "residents" of the region. This was followed by the next-largest response "non-recreation/tourism related employment" (16.3%), "recreation/tourism related business owner" (15.1%), "recreation/tourism related local or county board" (10.5%), "employed by recreation/tourism" (9.3%) and "non-recreation or tourism related local or county board" (7.0%) and "non-recreation/tourism related business owner" (7.0%). A small percentage (5.8%) reported that they were a "second homeowner", and 2.3% reported that they were a "government official". Additionally, 4.7% of cases reported respondent roles within the community as "Other".

Table 1: Role in Community (Multiple Responses Allowed)

	Respnses		Percent of Cases
	N	Percent	
Resident	70	51.1%	81.4%
Non-recreation/tourism related employment	14	10.2%	16.3%
Recreation/Tourism-related business owner	13	9.5%	15.1%
Recreation/tourism related local or county board	9	6.6%	10.5%
Employed by recreation/tourism	8	5.8%	9.3%
Non-recreation/tourism related local or county board	6	4.4%	7.0%
Non-recreation/tourism related business owner	6	4.4%	7.0%
Second home owner	5	3.6%	5.8%
Other (please specify)	4	2.9%	4.7%
Government Official	2	1.5%	2.3%
Total	**137**	**100.0%**	**159.3%**

Note: The 137 respondents on average listed 1.59 roles in the community (159.3/100). "Percent of responses": calculated by dividing the number of times an answer option was selected by the total number of responses to that question across all participants, regardless of whether they selected other options as well. This shows which answer option was most frequently chosen overall, especially for multiple response questions where individuals can select multiple answers. "Percent of cases": reflects the proportion of participants in the dataset who chose a particular answer option, considering each participant only once. For example, "Government Official" represented 1.5% of all responses given; 2.3% of respondents indicated that they were "Government Officials."

Respondents were further asked to report which of the community roles they identified with they considered to be their primary role within the community, results of which are shown in Figure 6. Aligning with the results in Table 1, "resident" was the most reported primary community role (62.79%). The next highest primary community role reported was "Recreation/tourism related business owner" (8.14%), followed by "employed by recreation/tourism" (6.98%), "non-recreation/tourism related employment" (5.81%), "non-recreation/tourism related business owner" (3.49%), and "recreation/tourism related local or county board, commission, authority or non-profit organization" (3.49%). "Non-recreation/tourism related local or county board, commission, authority or non-profit organization", "second homeowner", and "government official" were least identified as primary community roles of respondents. A small share (2.33%) of respondents reported that their primary community role was "other."

Figure 6: Respondents' Primary Community Role

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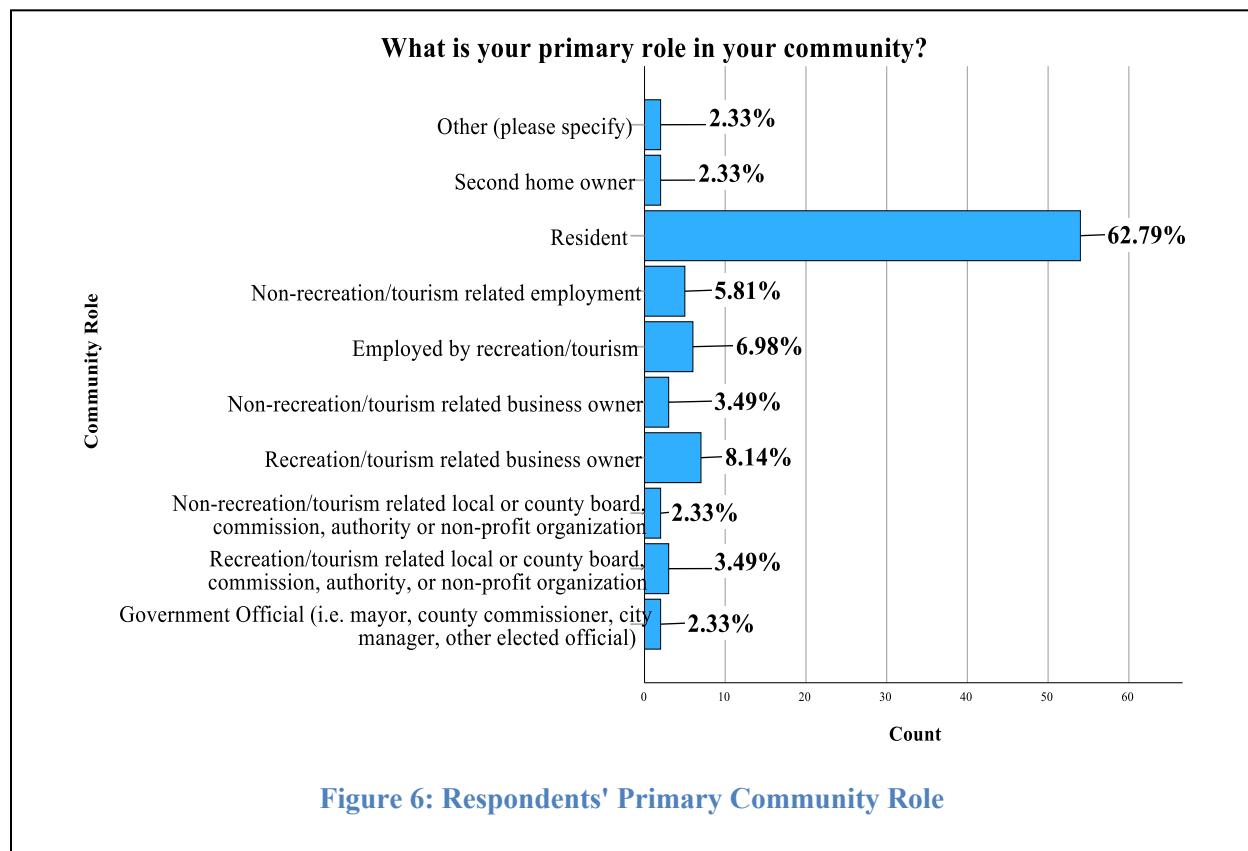
3.2.3. Places Visited

Table 2 presents counties that respondents visited for leisure during their most recent trips to or within the MNF area, outside of the county that they reside in. Tucker County was the most visited for leisure by residents in the region (54.9%), followed closely by Pocahontas County (52.3%) and Greenbrier County (43.5%). Randolph and Pendleton Counties were mentioned less frequently for leisure-related visits (37.8% and 37.3%, respectively), followed by Nicholas, Grant, and

Table 2: Other Counties Visited for Leisure Outside of Resident County			
	Responses		Percent of Cases
	N	Percent	
Tucker County	106	18.6%	54.9%
Pocahontas County	101	17.7%	52.3%
Greenbrier County	84	14.7%	43.5%
Randolph County	73	12.8%	37.8%
Pendleton County	72	12.6%	37.3%
Nicholas County	44	7.7%	22.8%
Grant County	37	6.5%	19.2%
Webster County	33	5.8%	17.1%
I have not visited other counties for leisure, vacation, or other recreation activities	21	3.7%	10.9%
Total	**571**	**100.0%**	**295.9%**

Webster Counties. Additionally, 10.9% of respondents reported that they had not travelled to any county outside of their county of residence for leisure purposes.

Figure 7 shows the frequency of visits to other counties for leisure (within the past 12 months) for those respondents who reported leisure trips to other counties (Table 2). One-third (33.92%) reported taking

Figure 7: Frequency of Visits to Other Counties

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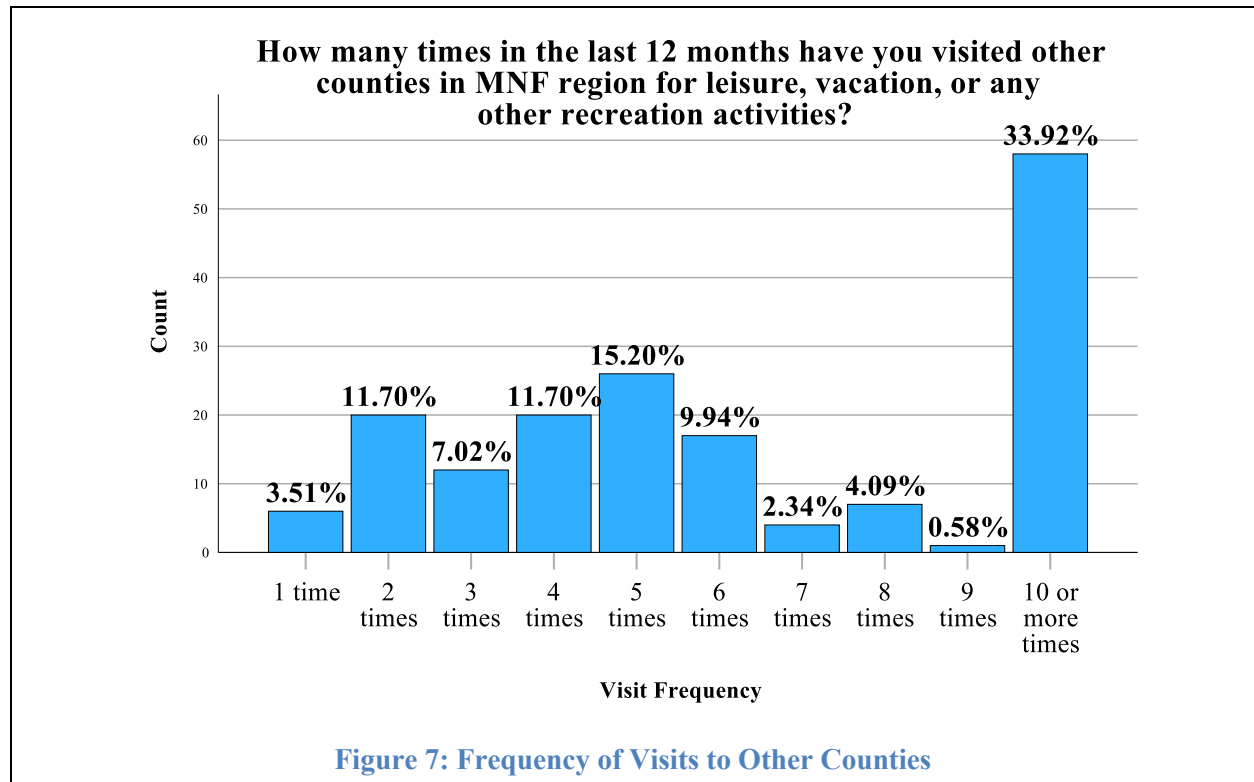
leisure trips to other counties 10 or more times in the last year. Over half had taken leisure trips to other counties 2 to 6 times within the past 12 months with two, four and five times being reported with slightly higher frequencies (11.7%, 11.7% and 15.2%, respectively).

Respondents were then asked to report whether they had visited certain attractions within the region, the results of which are presented in Table 3. The Highland Scenic Highway, Blackwater Falls, Seneca Rocks, and Snowshoe Mountain Resort were the four most visited attractions by residents (62.0%, 60.2%, 57.8%, and 57.2%%, respectively). Canaan Valley Resort, Spruce Knob, Greenbank Observatory, and Dolly Sods (Wilderness Area) were the next most frequently visited attractions in the region, followed by the Mountain State Forest Festival (by over one-third, or 35.5%), Greenbrier River Trail State Park (34.9%), and White Sulphur Springs (33.7%). The remaining locations in Table 3 of places visited were least (less than 30%) visited attractions by residents. Lastly, 22.3% of respondents reported having visited

Table 3: Places visited for leisure in the MNF Region

	Respon⋯ N	Percent of Cases
Highland Scenic Highway	103	62.0%
Blackwater Falls	100	60.2%
Seneca Rocks	96	57.8%
Snowshoe Mountain Resort	95	57.2%
Canaan Valley Resort	86	51.8%
Spruce Knob	86	51.8%
Green Bank Observatory	76	45.8%
Dolly Sods	61	36.7%
Mountain State Forest Festival	59	35.5%
Greenbrier River Trail State Park	58	34.9%
White Sulphur Springs	56	33.7%
Falls of Hills Creek	46	27.7%
Trains (Durbin Rocket; Cass Scenic Railroad; Potomac Eagle; New Tygart Flyer)	44	26.5%
Timberline Resort	39	23.5%
Others (please specify)	37	22.3%
Greenbrier Resort	35	21.1%
Smoke Hole Caverns	33	19.9%
Treasure Mountain Festival	23	13.9%
WV Road Kill Cook Off	22	13.3%
West Fork Trail	18	10.8%
Durbin Days	15	9.0%
Pickens, West Virginia Maple Syrup Festival	13	7.8%
Tri County Fair	12	7.2%
Pickin' in Parsons Bluegrass Festival	7	4.2%
WV Dandelion Festival	6	3.6%
Total	**1226**	**738.6%**

other attractions not listed. Local residents are more likely to be aware of the locations of regional attractions than visitors from outside the region (who may benefit, for example, from more road signage directing them to these attractions).

Respondents were provided with an interactive digital map of the MNF region and asked to click on the approximately locations of the places they had visited during their most recent trip to the area (with a maximum 10 clicks each). Figure 8 shows using a heat map the most popular subregions as determined by the frequency of clicks (red representing the most clicked areas). Table 4 reports the percentages of clicks by each county-bounded region: Pocahontas had the highest frequency of clicks at 83.7%, followed by Tucker at 65.3%, Randolph at 64.6%, and Pendleton at 60.5%. Greenbrier County received nearly one-half (47.6%) of click cases, while Webster, Grant and Nicholas counties accounted each for less than a third of cases (30.6%, 23.8%, and 23.1%, respectively).

Table 4: Heat Map Region (County) Selection Frequency

	Responses		Percent of Cases
	N	Percent	
Pocahontas	123	21.0%	83.7%
Tucker	96	16.4%	65.3%
Randolph	95	16.2%	64.6%
Pendleton	89	15.2%	60.5%
Greenbrier	70	11.9%	47.6%
Webster	45	7.7%	30.6%
Grant	35	6.0%	23.8%
Nicholas	34	5.8%	23.1%
Total	**587**	**100.0%**	**399.3%**
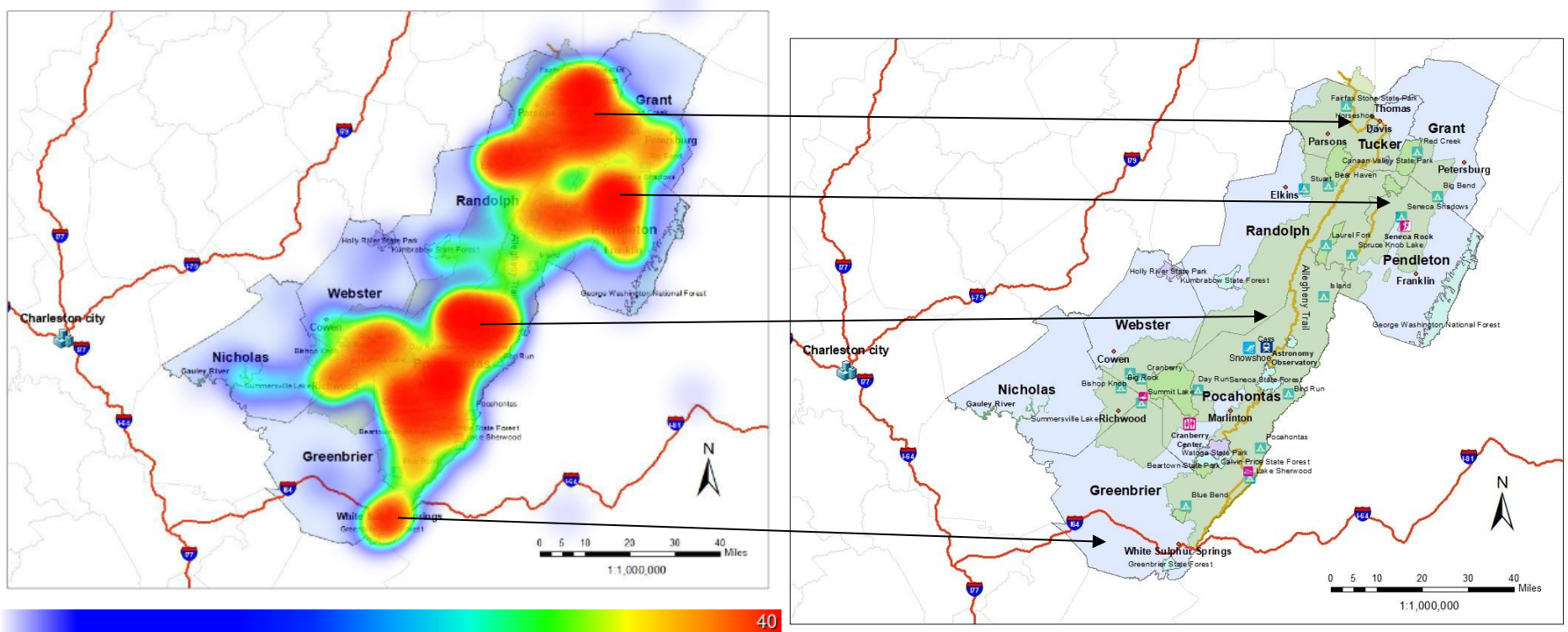
Figure 8: Heat Map of Areas Visited for Leisure

3.2.4. Activities Participated In

Table 5 presents activities that respondents participated in during their most recent trip to the region. Hiking and fairs & events were reported as the most frequent activities (each mentioned by 69% of respondents), followed closely by leaf peeping and sightseeing (58.1% each), food and drink experiences at 54.8%, and viewing wildlife (51%). Of these top six activities, hiking, sightseeing, and fairs & events were also reported as being among the most favorite or primary activities engaged in by respondents (Table 6). Other popular activities include visiting farms/farmer's markets, picnicking, and shopping. In contrast, activities such as factory tours, geocaching, and whitewater rafting were not only engaged in less frequently, but also not listed as one of the favorite activities.

Table 5: Activities Participated in by Respondents

	Responses		Percent of Cases
	N	Percent	
Fairs & events	107	8.3%	69.0%
Hiking	107	8.3%	69.0%
Leaf peeping	90	7.0%	58.1%
Sightseeing	90	7.0%	58.1%
Food & drink experiences	85	6.6%	54.8%
Viewing wildlife	79	6.1%	51.0%
Farms/farmer's markets	72	5.6%	46.5%
Picnicking	72	5.6%	46.5%
Shopping	65	5.0%	41.9%
Swimming	59	4.6%	38.1%
Fishing	57	4.4%	36.8%
Canoeing/Kayaking	51	3.9%	32.9%
Rail-trail/Road Biking	51	3.9%	32.9%
Backpacking	40	3.1%	25.8%
Performing arts	39	3.0%	25.2%
Downhill Skiing/Snowboarding	38	2.9%	24.5%
Civil war sites/historic sites	33	2.6%	21.3%
Mountain Biking	33	2.6%	21.3%
Hunting	28	2.2%	18.1%
XC Skiing	24	1.9%	15.5%
Nightlife	22	1.7%	14.2%
Other (please specify)	14	1.1%	9.0%
Snowmobiling/ATV/UTV riding	12	0.9%	7.7%
Rock Climbing/Bouldering	10	0.8%	6.5%
Whitewater Rafting	9	0.7%	5.8%
Geocaching	6	0.5%	3.9%
Factory tours	1	0.1%	0.6%
Total	**1294**	**100.0%**	**834.8%**

Table 6: Favorite Activities Participated in by Respondents

	N	Percent
Hiking	37	24.5%
Sightseeing	18	11.9%
Fairs & events	11	7.3%
Hunting	10	6.6%
Fishing	9	6.0%
Mountain Biking	9	6.0%
Food & drink experiences	8	5.3%
Swimming	8	5.3%
Viewing wildlife	6	4.0%
Other	6	4.0%
Canoeing/Kayaking	5	3.3%
Downhill Skiing/Snowboarding	4	2.6%
Leaf peeping	4	2.6%
Rail-trail/Road Biking	4	2.6%
XC Skiing	4	2.6%
Snowmobiling/ATV/UTV riding	3	2.0%
Backpacking	2	1.3%
Farms/farmer's markets	2	1.3%
Performing arts	1	0.7%
Civil war sites/historic sites	0	0.0%
Factory tours	0	0.0%
Geocaching	0	0.0%
Nightlife	0	0.0%
Picnicking	0	0.0%
Rock Climbing/Bouldering	0	0.0%
Shopping	0	0.0%
Whitewater Rafting	0	0.0%
Total	**151**	**100.0%**

3.2.5. Spending

Figure 9 presents the distribution of group spending/per trip reported by respondents. As shown, three-quarters (62.26%) of respondents reported group spending of between zero to $200/per trip, which accounted for the majority of respondents. This is followed by the group spending $201 to $300 (9.93%), $301 to $400 (5.3%), and $401 to $500 (7.28%), indicating that only relatively few resident-tourists spend large amounts during their leisure trips to other counties within the region.

Figure 9: Group Spending on Most Recent Trip for Leisure in the Region
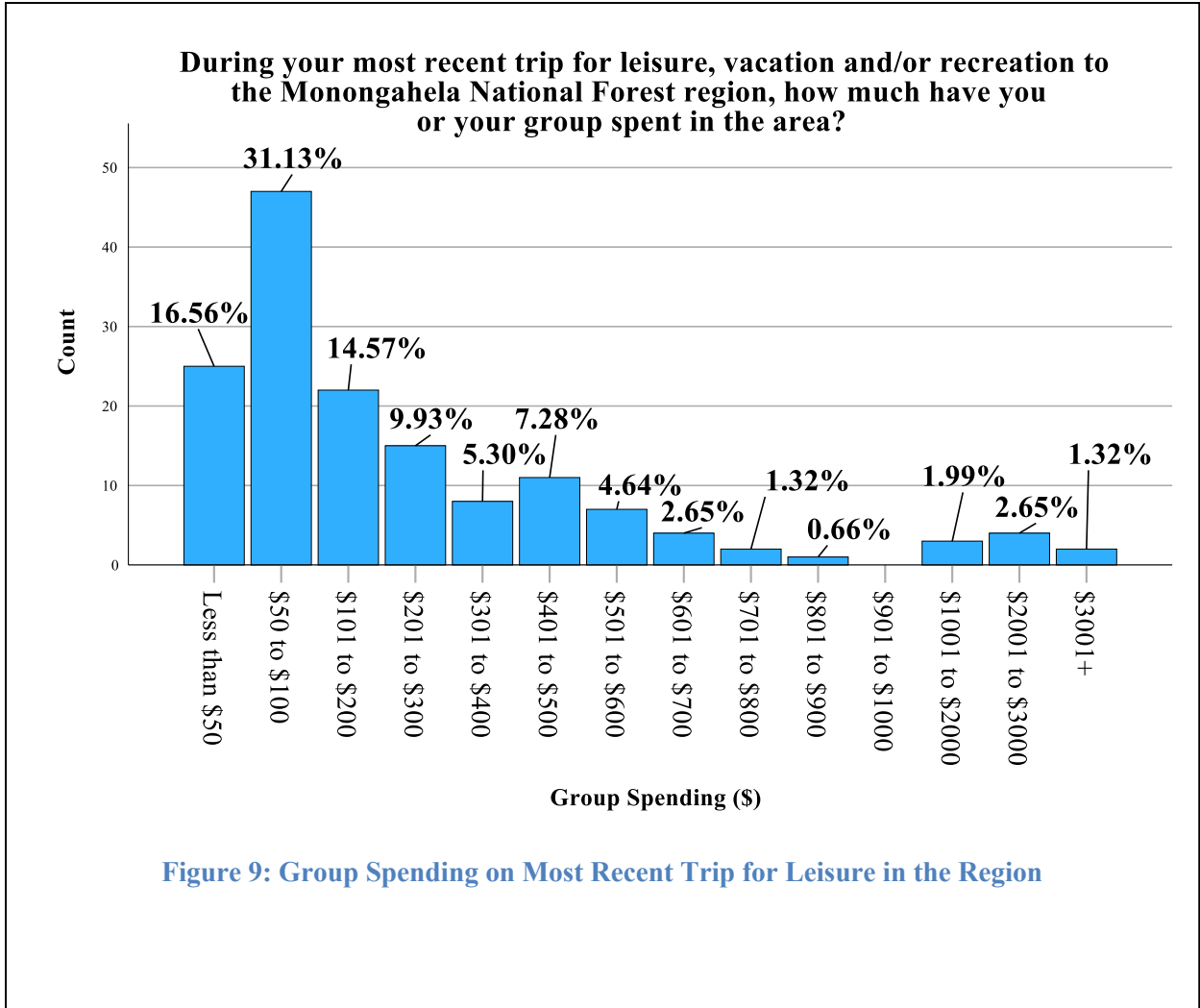
3.2.6. Overnight Stays

The spending patterns shown in Figure 9 generally correspond with most respondents visiting other areas in the region only for day trips (61.59%) vs. just over one-third (38.41%) staying overnight (Figure 10). The 38.41% of respondents who reported having stayed overnight somewhere other than their primary personal homes when taking trips for leisure within the region were then asked to report how many nights they had stayed away from home on their most recent trip. Those results are shown in Figure 11, where a majority of respondents reported staying 1 to 3 nights away from home (82.77%). This may be due

Did you stay overnight in the Monongahela National Forest region outside of your primary residence during your most recent trip for leisure, vacation, or any other recreation activities?

Stay Overnight?
- Yes
- No

38.41%
61.59%

Figure 10: Respondents that Stayed Overnight in the Region
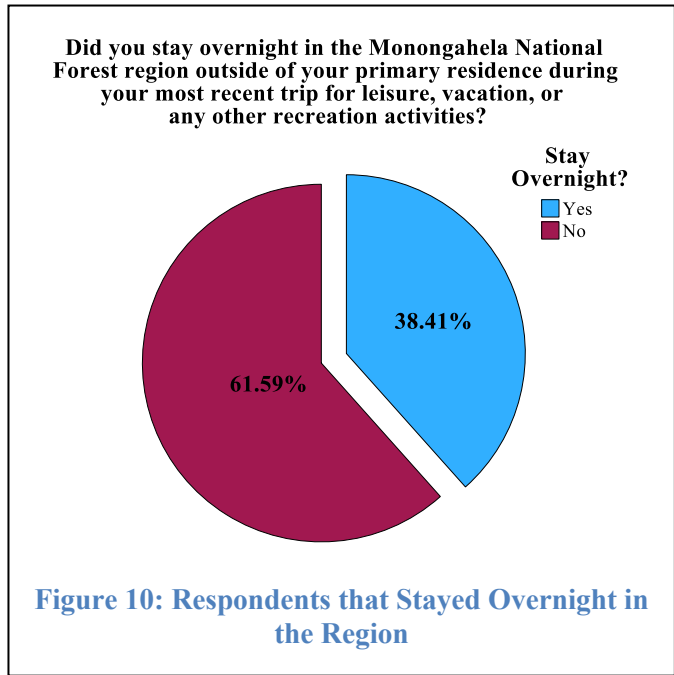
to availability of weekend or long weekend getaways that require minimal travel. The next highest reported number of nights away were 4 nights (5.17%), 5 nights (3.45%), and 7 nights (3.45%). About two percent of respondents reported having spent 6, 10 or more than 10 nights, while no respondents reported having stayed 8 or 9 nights away from home on their most recent trip in the region.

During your most recent trip to the Monongahela National Forest region for leisure, vacation, or any other recreation activities, how many nights did you stay in the area outside of your primary residence?

Figure 11: Respondents by Number of Nights Stayed

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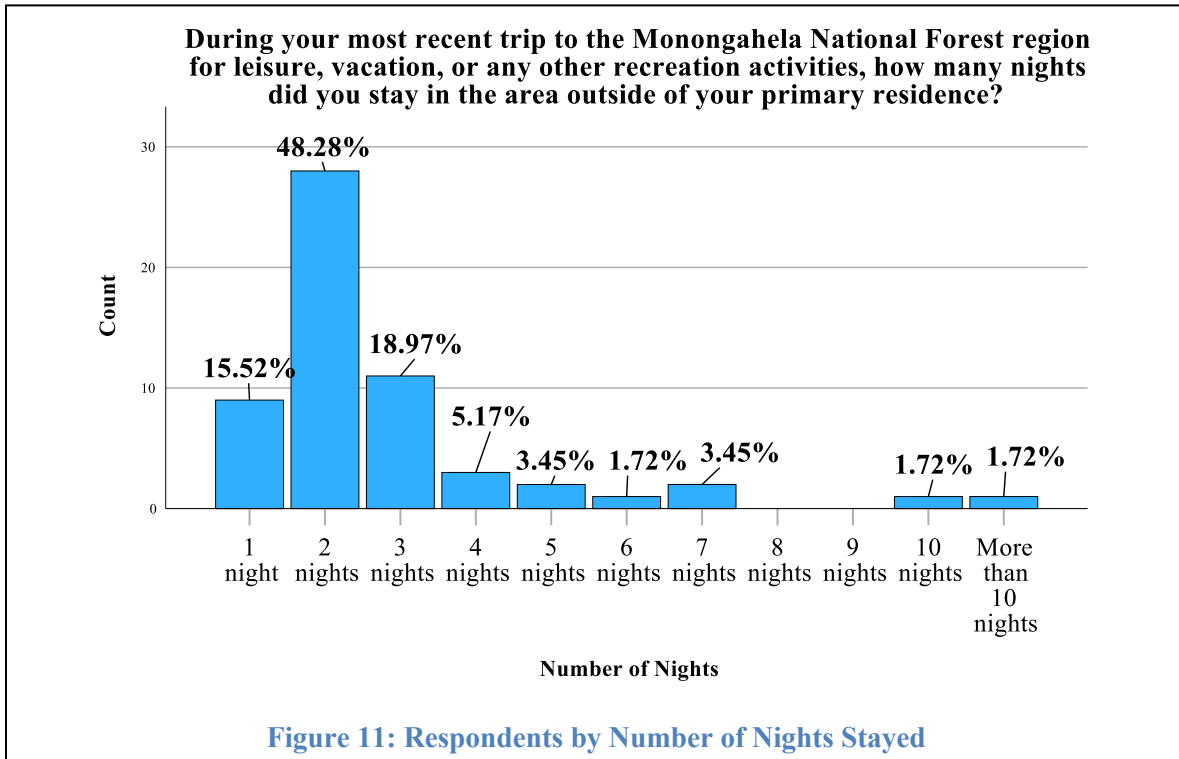
Table 7 highlights respondents' overnight accommodations (outside of a personal home) by type that they stayed in during their most recent trip (multiple choices allowed). Nearly half of the cases reported using camping/tent (46.6%) accommodations, followed by Airbnb (24.1%), and friends and/or relatives and hotel/motel/inn (tied at 19%). Those reporting that they stayed in a RV or some "other" type of accommodation accounted each for slightly under ten

Table 7: Respondent's Types of Overnight Accommodations			
	Responses		Percent of Cases
	N	Percent	
Camping/tent	27	32.9%	46.6%
Airbnb	14	17.1%	24.1%
Friends and/or relatives	11	13.4%	19.0%
Hotel/motel/inn	11	13.4%	19.0%
Second home	6	7.3%	10.3%
RV	5	6.1%	8.6%
Other (please specify)	5	6.1%	8.6%
Rented house/apartment/VRBO	2	2.4%	3.4%
Bed & Breakfast	1	1.2%	1.7%
Youth hostel	0	0.0%	0.0%
Homestays	0	0.0%	0.0%
Timeshare	0	0.0%	0.0%
Total	**82**	**100.0%**	**141.4%**

percent (8.6%) of cases, while the remainder represented smaller proportions of respondents.

3.3 Perceptions of Tourism Sustainability Indicators

3.3.1. Importance

Table 8 presents respondents' assessment of 32 sustainable tourism indicators in terms of their importance in the Monongahela National Forest region, with a Likert scale ranging from 1: Least Important to 5: Most Important. These indicators are organized in four different categories, including 8 items in each, relating to the environment, socio-economic factors, cultural items, and institutional factors, which reflect local tourism leadership and management characteristics. Two key summary statistics are presented: first, the mean or average of the responses to the Likert scale and, second, the aggregated share of respondents evaluating the indicator as "important" or "very important" to them regarding sustainable tourism. The first captures the average sentiment among respondents, while the second reflects the intensity of preferences among respondents. It is possible for the mean response to be high(er) while the intensity is lower, and vice versa. For example, items 27 "local leaders' support for tourism development" and 24 "safeguarding cultural identity of local community" both received a mean score of 4.04, but the former was considered important or very important by 71.4% of the respondents compared with only 68.7% for the latter. This was the same percentage as for item 13 "more investment in tourism development" which received a mean ranking of only 3.88. (Continued on next page.)

Table 8: Perceptions of Tourism Sustainability Indicators: Importance

	Least Important	Less Important	Neutral	Important	Most Important	Not Applicable	Important + Most Important	Mean	Standard Deviation
3. Environmental quality (water, air, resource quality, etc.)	2.7%	0.7%	2.7%	16.3%	77.6%	0.0%	93.9%	4.65	.81
1. Protection of the natural environment	1.4%	1.4%	6.8%	17.0%	73.5%	0.0%	90.5%	4.60	.79
6. Management of waste	2.7%	2.7%	8.2%	22.4%	63.9%	0.0%	86.4%	4.42	.95
5. Control of negative impacts through long-term planning	2.0%	5.4%	10.9%	21.1%	59.9%	0.7%	81.0%	4.32	1.01
11. Improvement of the well-being of rural communities from tourism development	4.1%	5.4%	8.8%	22.4%	58.5%	0.7%	81.0%	4.27	1.10
9. Economic opportunities from tourism developmen	3.4%	4.8%	13.6%	24.5%	53.7%	0.0%	78.2%	4.20	1.07
18. Celebration and protection of intangible cultural heritage, including local traditions, arts, music, language, food and other aspects of local identity and distinctiveness	0.7%	4.8%	16.3%	27.2%	51.0%	0.0%	78.2%	4.23	.94
20. Guidelines for visitor behavior at sensitive sites and cultural events being made available to visitors	2.0%	2.7%	17.0%	26.5%	51.7%	0.0%	78.2%	4.23	.97
19. Accurate interpretative material that informs visitors of the significance of the cultural and natural aspects of the sites they visit	2.0%	4.8%	15.6%	32.7%	44.2%	0.7%	76.9%	4.13	.98
14. Contribution to community and sustainability initiatives in a responsible manner from enterprises, visitors, and the public	2.0%	6.8%	15.0%	25.2%	51.0%	0.0%	76.2%	4.16	1.05
17. A policy and system to evaluate, rehabilitate, and conserve cultural assets, including built heritage and cultural landscapes	1.4%	6.8%	15.6%	32.7%	43.5%	0.0%	76.2%	4.10	.99
21. Optimize visitor flow and minimize adverse impacts in cultural sites	2.0%	2.7%	19.0%	27.9%	48.3%	0.0%	76.2%	4.18	.97
15. Career opportunities and training in tourism	4.1%	6.1%	15.0%	27.2%	47.6%	0.0%	74.8%	4.08	1.11
2. Rural authenticity	3.4%	4.8%	17.0%	27.9%	46.3%	0.7%	74.1%	4.10	1.07
23. Cultural/heritages sites accessible to physically disabled tourists	2.0%	3.4%	19.7%	28.6%	44.9%	1.4%	73.5%	4.12	.99
29. A risk reduction, crisis management and emergency response plan	1.4%	7.5%	17.0%	29.9%	42.9%	1.4%	72.8%	4.07	1.02
10. High-paying jobs from tourism development	6.8%	5.4%	16.3%	26.5%	44.9%	0.0%	71.4%	3.97	1.20
27. Local leaders' support for tourism development	5.4%	7.5%	15.0%	22.4%	49.0%	0.7%	71.4%	4.03	1.20
16. A system to monitor, prevent, publicly report, and respond to crime, safety, and health hazards that addresses the needs of both visitors and residents	4.1%	6.1%	19.7%	26.5%	42.2%	1.4%	68.7%	3.98	1.12
13. More investment in tourism development	5.4%	8.8%	16.3%	30.6%	38.1%	0.7%	68.7%	3.88	1.18
24. Safeguarding cultural identify of local community	0.7%	6.8%	23.1%	27.2%	41.5%	0.7%	68.7%	4.03	1.00
12. Marketing and promotion of tourism assets to visitors	6.8%	8.2%	16.3%	30.6%	37.4%	0.7%	68.0%	3.84	1.21
8. Management of overcrowding	4.8%	4.8%	23.8%	19.7%	46.9%	0.0%	66.7%	3.99	1.16
30. A system to monitor and respond to socio-economic, cultural and environmental issues and impacts arising from tourism	3.4%	10.2%	19.7%	31.3%	35.4%	0.0%	66.7%	3.85	1.12
28. Quality of public-private partnership in tourism	2.7%	8.8%	21.1%	23.8%	42.2%	1.4%	66.0%	3.95	1.12
31. Public participation in sustainable destination planning and management	3.4%	5.4%	29.3%	28.6%	32.7%	0.7%	61.2%	3.82	1.06
32. The destination management strategy/plan clearly visible and available online	4.8%	7.5%	26.5%	28.6%	32.0%	0.7%	60.5%	3.76	1.13
4. Reduction of energy consumption and improvement of efficiency in its use	5.4%	6.1%	30.6%	22.4%	34.7%	0.7%	57.1%	3.75	1.16
7. Reduction of greenhouse gas emissions	8.2%	10.2%	24.5%	19.7%	36.1%	1.4%	55.8%	3.66	1.29
26. Existence of a regional collaboration and marketing organization	8.2%	11.6%	27.9%	21.8%	29.3%	1.4%	51.0%	3.53	1.26
25. Evidence of links and engagement with other bodies	6.8%	12.2%	36.7%	20.4%	14.3%	9.5%	34.7%	3.26	1.11
22. Opportunities for visitors to reflect on religious or other spiritual values	13.6%	20.4%	27.2%	15.0%	19.0%	4.8%	34.0%	3.06	1.32

Note: Items *1-8: Environmental*; *9-16 Socio-economic*; *17-24: Cultural*; *25-32: Institutional*

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For 93.9% of respondents, "environmental quality" (item 3) was rated as an important or the most important indicator, with a mean (M) of 4.65, followed closely by "protection of the natural environment" (90.5%, M = 4.60). The next-highest was "management of waste" (item 6) (86.4%, M = 4.42), followed by "control of negative impacts from long-term planning" (item 5; 81.0%, M = 4.32). Interestingly, the top 4 important/most important indicators identified were all environmental indicators. In contrast, the indicators "evidence of links and engagement with other bodies" (item 25, institutional) and "opportunities for visitors to reflect on religious or other spiritual values" (item 22, cultural) were rated the lowest regarding indicator importance for sustainability at 34.7% (M = 3.26), and 34.0% (M = 3.06), respectively, among respondents.

Overall, resident respondents felt most strongly about the importance of environmental (M= 4.18), socio-economic indicators (M= 4.04), and cultural indicators (M= 4.01), while institutional indicators (M= 3.78) were deemed less important, comparatively, as tourism sustainability measures or indicators.

3.3.2. Performance

After asking respondents to rank those various indicators in terms of their importance for measuring sustainable tourism, they were the asked how well they thought the region performed on the indicators. As discussed further below, when an indicator is considered important, but its performance is assessed to be low or poor, this represents an opportunity where the community may seek to change the underlying conditions that are causing the perceived low performance.

Table 9 presents respondents' assessment of the performance of the 32 sustainable tourism indicators in the MNF region. The highest performance rating was given to "environmental quality (water, air, resource quality)," item 3, with which 67.6% of respondents were satisfied or very satisfied (M = 3.93). This was followed by "protection of the natural environment" (item 1) which received a mean satisfaction rating of 3.85 and a satisfaction share of 65.8% or respondents. Next was "rural authenticity" (item 2), with a lower share (61.3%) of respondents satisfied but a mean score very comparable to "rural authenticity," (M = 3.84). The three highest performing indicators — items 3, 1 and 2 — all relate to the environmental domain of tourism sustainability. Interestingly, the next-highest mean score was given to item 27, an institutional sustainability factor, "local leaders' support for tourism development" but only 51.4% of respondents were satisfied or very satisfied with the performance (M= 3.57). Importantly, the lowest amount of satisfaction with performance was for the indicators of "opportunities for visitors to reflect on religious or other spiritual values" (item 22) (26.1%, M = 3.20) and "evidence of links and engagements with other bodies" (item 25) (26.2%, M = 3.17). (Continued on next page.)

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# Table 9: Perceptions of Tourism Sustainability Indicators: Performance

	1 Very Dissatisfied	2 Dissatisfied	3 Neutral	4 Satisfied	5 Very Satisfied	Unsure	Satisfied + Very Satisfied	Mean	Standard Deviation
3. Environmental quality (water, air, resource quality, etc.)	4.5%	6.3%	17.1%	30.6%	36.9%	4.5%	67.6%	3.93	1.12
1. Protection of the natural environment	5.4%	9.0%	15.3%	30.6%	35.1%	4.5%	65.8%	3.85	1.19
2. Rural authenticity	3.6%	7.2%	23.4%	27.9%	33.3%	4.5%	61.3%	3.84	1.11
27. Local leaders' support for tourism development	8.1%	8.1%	24.3%	26.1%	25.2%	8.1%	51.4%	3.57	1.23
8. Management of overcrowding	9.9%	8.1%	22.5%	25.2%	24.3%	9.9%	49.5%	3.51	1.28
6. Management of waste	9.0%	17.1%	17.1%	22.5%	26.1%	8.1%	48.6%	3.43	1.34
12. Marketing and promotion of tourism assets to visitors	9.0%	5.4%	34.2%	26.1%	19.8%	5.4%	45.9%	3.45	1.17
18. Celebration and protection of intangible cultural heritage, including local traditions, arts, music, language, food and other aspects of local identity and distinctiveness	7.2%	5.4%	28.8%	21.6%	24.3%	13%	45.9%	3.58	1.20
24. Safeguarding cultural identify of local community	8.1%	9.9%	25.2%	27.9%	16.2%	13%	44.1%	3.39	1.19
21. Optimize visitor flow and minimize adverse impacts in cultural sites	6.3%	12.6%	23.4%	23.4%	18.9%	15%	42.3%	3.43	1.20
23. Cultural/heritages sites accessible to physically disabled tourists	10.8%	17.1%	14.4%	28.8%	13.5%	15%	42.3%	3.20	1.29
26. Existence of a regional collaboration and marketing organization	5.4%	9.0%	29.7%	22.5%	18.9%	14%	41.4%	3.47	1.14
4. Reduction of energy consumption and improvement of efficiency in its use	8.1%	8.1%	26.1%	24.3%	16.2%	17%	40.5%	3.39	1.19
19. Accurate interpretative material that informs visitors of the significance of the cultural and natural aspects of the sites they visit	7.2%	16.2%	28.8%	22.5%	17.1%	8.1%	39.6%	3.28	1.19
9. Economic opportunities from tourism developmen	9.9%	8.1%	34.2%	18.9%	19.8%	9.0%	38.7%	3.34	1.23
13. More investment in tourism development	11.7%	14.4%	28.8%	18.9%	18.0%	8.1%	36.9%	3.19	1.28
14. Contribution to community and sustainability initiatives in a responsible manner from enterprises, visitors, and the public	9.0%	15.3%	27.9%	18.9%	18.0%	11%	36.9%	3.24	1.25
20. Guidelines for visitor behavior at sensitive sites and cultural events being made available to visitors	9.0%	18.0%	24.3%	18.0%	18.9%	12%	36.9%	3.22	1.28
28. Quality of public-private partnership in tourism	9.0%	17.1%	22.5%	18.9%	18.0%	14%	36.9%	3.23	1.28
5. Control of negative impacts through long-term planning	11.7%	15.3%	25.2%	16.2%	19.8%	12%	36.0%	3.19	1.33
15. Career opportunities and training in tourism	9.9%	17.1%	27.0%	23.4%	12.6%	9.9%	36.0%	3.13	1.20
17. A policy and system to evaluate, rehabilitate, and conserve cultural assets, including built heritage and cultural landscapes	9.0%	13.5%	25.2%	21.6%	14.4%	16%	36.0%	3.23	1.23
7. Reduction of greenhouse gas emissions	13.5%	8.1%	22.5%	19.8%	15.3%	21%	35.1%	3.19	1.34
11. Improvement of the well-being of rural communities from tourism development	11.7%	17.1%	27.0%	18.0%	17.1%	9.0%	35.1%	3.13	1.29
29. A risk reduction, crisis management and emergency response plan	9.0%	13.5%	20.7%	18.0%	15.3%	23%	33.3%	3.22	1.29
31. Public participation in sustainable destination planning and management	9.9%	16.2%	24.3%	17.1%	16.2%	16%	33.3%	3.16	1.28
16. A system to monitor, prevent, publicly report, and respond to crime, safety, and health hazards that addresses the needs of both visitors and residents	13.5%	12.6%	24.3%	19.8%	12.6%	17%	32.4%	3.07	1.29
30. A system to monitor and respond to socio-economic, cultural and environmental issues and impacts arising from tourism	10.8%	17.1%	18.0%	18.0%	14.4%	22%	32.4%	3.10	1.32
10. High-paying jobs from tourism development	18.9%	19.8%	22.5%	15.3%	13.5%	9.9%	28.8%	2.83	1.35
32. The destination management strategy/plan clearly visible and available online	11.7%	14.4%	22.5%	11.7%	15.3%	24%	27.0%	3.06	1.34
22. Opportunities for visitors to reflect on religious or other spiritual values	7.2%	9.9%	28.8%	13.5%	12.6%	28%	26.1%	3.20	1.18
25. Evidence of links and engagement with other bodies	7.2%	10.8%	26.1%	15.3%	10.8%	30%	26.1%	3.17	1.18

Note: Items *1-8: Environmental*; *9-16 Socio-economic*; 17-24: Cultural; *25-32: Institutional*

Residents responding to the survey were more positive about the performance of environmental (M = 3.54) and least positive about socio-economic (M = 3.17) and institutional indicators (M= 3.25). Cultural indicators (M = 3.32) were perceived as performing worse than the environmental but better than the socio-economic and institutional sustainability indicators.

As a next step, the tourism indicators were compared in terms of their importance to residents relative to whether they were being met, i.e., their performance. Also known as a Gap analysis, this shows where efforts for improvement in the community would have the highest impact, the "concentrate here" quadrant (high importance but low performance), and where residents are satisfied in terms of how the important indicators are performing (i.e., "keep up the good work"). Other quadrants are areas of "possible overkill" in that performance is high but importance is not and areas of "low priority" in that performance is low but importance is also low (Figure 12).

Note: Items 1-8: Environmental; 9-16: Socio-economic; 17-24: Cultural; 25-32: Institutional
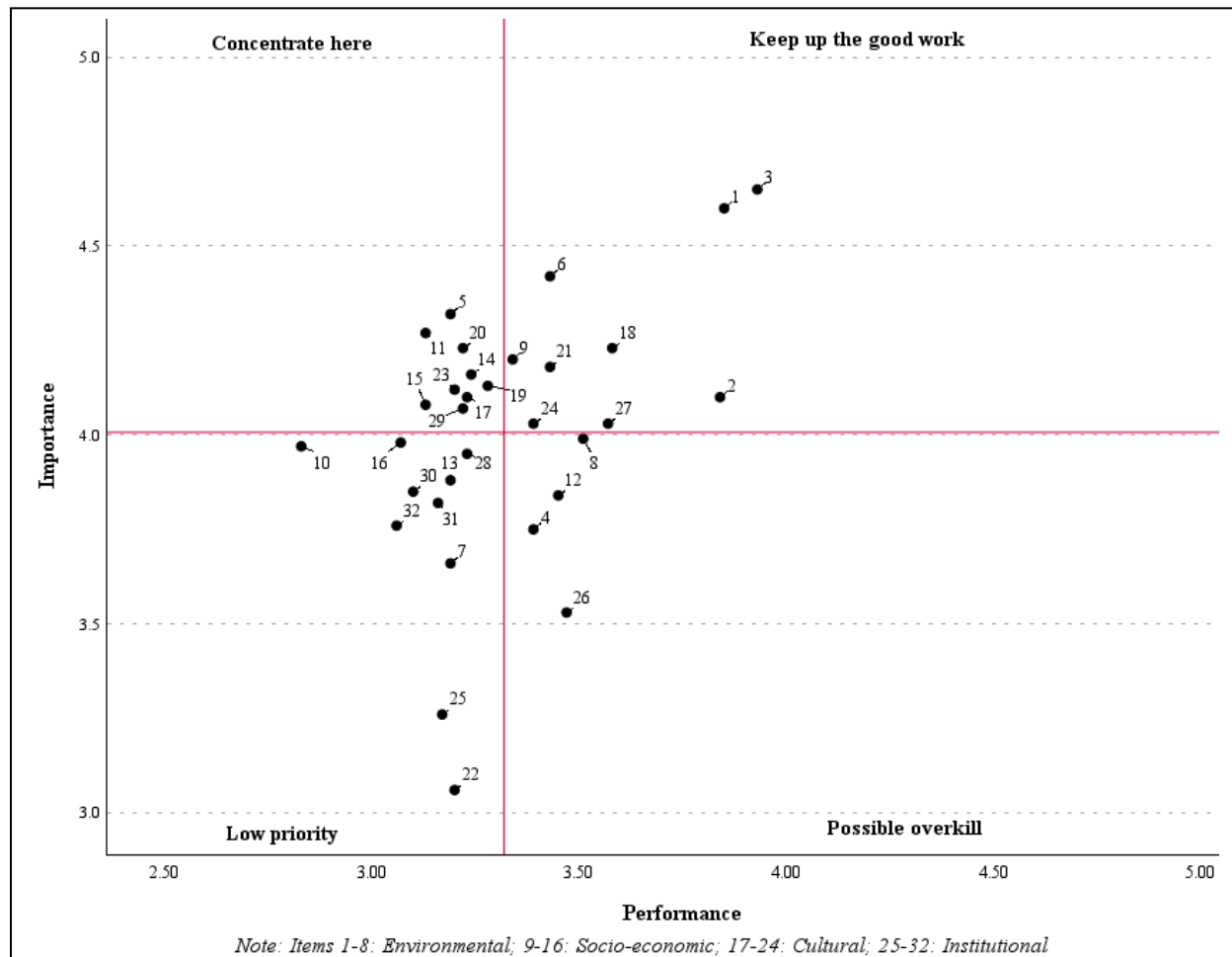
Figure 12: Performance-Importance (Gap) Analysis for MNF Residents

The Gap analysis presented in Figure 12 shows that community residents felt best about the region's environmental quality, in the sense that this was important to them, and that the community also was performing well on this indicator (no. 3. in the Figure). This was followed by "protection of the natural environment", "management of waste", "celebration and protection of intangible cultural heritage, including local traditions, arts, music, language, food and other aspects of local identity and distinctiveness", "rural authenticity", "economic opportunities from tourism development", "optimize visitor flow and minimize adverse impacts in cultural sites", "local leaders' support for tourism development", and "safeguarding cultural identify of local community". These can be classified as areas in which to "keep up the good work". In contrast, residents felt the greatest need for improvement was in the areas of "control of negative impacts through long-term planning", "improvement of the well-being of rural communities from tourism development", "guidelines for visitor behavior at sensitive sites and cultural events being made available to visitors" and "contribution to community and sustainability initiatives in a responsible manner from enterprises, visitors and the public". Among key socio-economic indicators, "career opportunities and training in tourism" was noted as another area for improvement. "Accurate interpretative material that informs visitors of the significance of the cultural and natural aspects of the sites they visit" was also rated as currently low-performing and of medium importance.

Another way to look at this is to use Paired Samples T-tests (see Appendix). This analysis indicates that the greatest differences in perceived importance vs performance are for items 10 and 11, "high-paying jobs from tourism development" and "improvement of the well-being of rural communities from tourism development" with net differences between importance and performance (means) of 1.140 (e.g., item 10: 3.97 – 2.83 = 1.140, which is statistically different from zero. This is followed by item 5, "control of negative impacts through long-term planning" with a mean difference of 1.130, and item 20, "guidelines for visitor behavior at sensitive sites and cultural events being made available to visitors," with a mean difference of 1.010. These are the areas in most urgent need of improvement. In contrast, one indicator that had a better rating regarding its performance than its rating of importance as an indicator is item 22, "opportunities for visitors to reflect on religious or other spiritual values," with a mean difference of -0.140 (also statistically significant).

3.4 Attitudes Toward Recreation and Tourism

Table 10 presents respondents' attitudes toward recreation/tourism in the MNF region; here they were asked to rate their agreement or disagreement with each item. Items 9, "long-term planning and managed growth are important to control any negative impacts of tourism" (90%, M= 4.53) and 2, "tourism development will provide more economic opportunities for the area" (87%, M= 4.12) scored highest in

terms of the mean score and in their combinations of somewhat agree and strongly agree for each. Those were followed by 7, "the area should invest in tourism development" (79%, M= 4.11) and 6, "tourism will improve the wellbeing of communities in the area" (71%, M= 3.78). Also receiving relatively high levels of agreement was "the area should do more to promote its tourism assets to visitors" (item 10, with 71% and M=3.89).
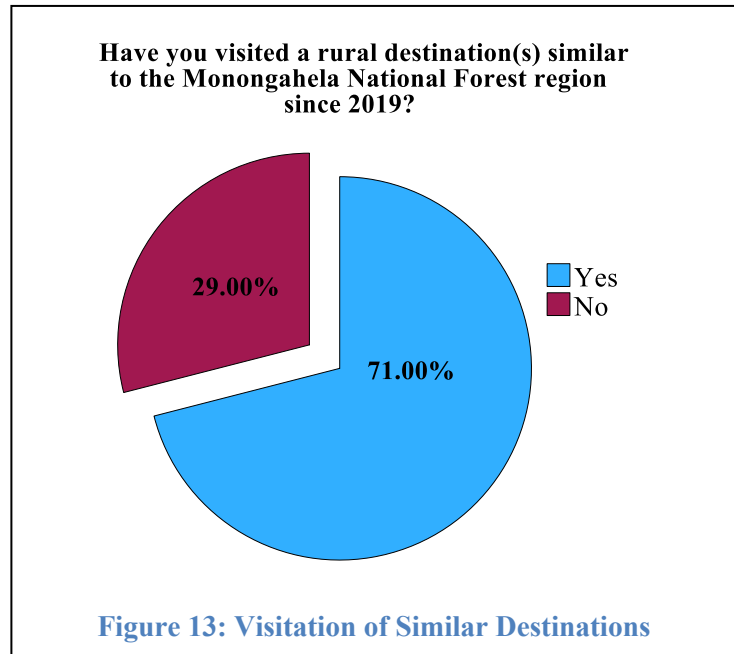
In contrast, items 12, 11, and 3 received the lowest amount of agreement, respondents disagreeing that "an increase in tourism will lead to unacceptable amounts of traffic, crime and pollution", "the area should discourage more intensive development of facilities, services, and attractions for tourists," and "tourism development will only produce low-paying service jobs" (28%, M= 2.58; 36%, M= 2.74; and 37%, M= 2.93), respectively. These findings indicate that resident respondents currently tend to have a positive perception of recreation/tourism development in the area and, furthermore, do not think it will have undesirable effects within their communities. There was mixed support for raising taxes for tourism development in the region (item 4), while the strongest disagreements being "an increase in tourism will lead to unacceptable amounts of traffic, crime, and pollution" (24%) and "the area should discourage more intensive development of facilities, services, and attractions for tourists" (26%).

Table 10: Attitudes Toward Recreation/Tourism Development

	Somewhat Disagree	Neither Disagree nor Agree	Somewhat Agree	Strongly Agree	Somewhat Agree + Strongly Agree	Mean	Standard Deviation
9. Long-term planning and managed growth are important to control any negative impacts of tourism.	0.0%	10.0%	27.0%	63.0%	90.0%	**4.53**	**.67**
2. Tourism development will provide more economic opportunities for the area.	6.0%	3.0%	48.0%	39.0%	87.0%	**4.12**	**1.01**
7. The area should invest in tourism development.	4.0%	11.0%	31.0%	48.0%	79.0%	**4.11**	**1.14**
6. Tourism will improve the wellbeing of communities in the area.	4.0%	17.0%	44.0%	27.0%	71.0%	**3.78**	**1.13**
10. The area should do more to promote its tourism assets to visitors.	12.0%	12.0%	31.0%	40.0%	71.0%	**3.89**	**1.21**
5. Tourism development will help to protect natural/heritage resources in the area.	16.0%	18.0%	43.0%	16.0%	59.0%	**3.45**	**1.15**
4. I support taxes for tourism development in the area.	6.0%	21.0%	36.0%	22.0%	58.0%	**3.44**	**1.31**
8. An increase in tourism will lead to crowding of outdoor recreation, historic, and cultural sites/attractions.	24.0%	20.0%	39.0%	14.0%	53.0%	**3.37**	**1.09**
1. An increase in tourism will increase the cost of living in the Monongahela National Forest Region.	23.0%	21.0%	30.0%	22.0%	52.0%	**3.43**	**1.18**
3. Tourism development will only produce low-paying service jobs.	28.0%	22.0%	27.0%	10.0%	37.0%	**2.93**	**1.22**
11. The area should discourage more intensive development of facilities, services, and attractions for tourists.	25.0%	13.0%	21.0%	15.0%	36.0%	**2.74**	**1.43**
12. An increase in tourism will lead to unacceptable amounts of traffic, crime, and pollution.	31.0%	17.0%	19.0%	9.0%	28.0%	**2.58**	**1.29**

3.5 Perceptions of Relative Competitiveness

Respondents were asked if they had visited other rural destinations that were similar to the MNF region (Figure 13), and if so, how they would compare the region to those comparable other areas. Figure 13 shows that 71.0% of respondents had visited similar destinations elsewhere, while 29.0% had not. Of those that had visited other similar destinations (Table 11), 55.1% (M= 3.52) reported that their local region had either somewhat better or much better levels of crowding (item 15), followed by 50.7% who rated their rural

Have you visited a rural destination(s) similar to the Monongahela National Forest region since 2019?

29.00%

71.00%

☐ Yes
☐ No

Figure 13: Visitation of Similar Destinations

tranquility and authenticity (item 3) as better than other areas that are similar in comparison (M= 3.57). "Prices" was also rated highly in comparison, with 50.7% of respondents indicating this asset was somewhat or much better than the other destination (M=3.45). Conversely, "resource conservation" (item 9), "accessibility" (item 6), and "infrastructure" (item 8) received the lowest scores when comparing the region to similar destinations (8.7%, M= 2.75; 17.4%, M= 2.84; and 18.8%, M= 2.68, respectively), highlighting these items as areas that may need the most improvement as perceived by resident respondents. Overall, the average score of all items regarding respondents' perceptions of competitiveness of the Monongahela National Forest region as compared to similar destinations was rated (average mean of all 18 items) at 3.095, illuding that opportunities exist for improving the area's competitiveness as a tourism destination. These rankings provide clues as to where efforts could or should be expended in order to make the local destination more competitive relative to similar destinations.

Table 11: Perceptions of Competitiveness

	Much Worse	Somewhat Worse	About the Same	Somewhat Better	Much Better	Somewhat Better + Much Better	Mean	Standard Deviation
15. Level of crowding	8.7%	11.6%	24.6%	29.0%	26.1%	55.1%	3.52	1.24
3. Rural tranquility and authenticity	1.4%	14.5%	33.3%	27.5%	23.2%	50.7%	3.57	1.05
12. Prices	5.8%	10.1%	33.3%	34.8%	15.9%	50.7%	3.45	1.06
13. Outdoor recreation opportunities	2.9%	8.7%	39.1%	30.4%	18.8%	49.3%	3.54	.99
1. Natural attraction	1.4%	13.0%	37.7%	24.6%	23.2%	47.8%	3.55	1.04
4. Hospitability and friendliness of local residents	4.3%	15.9%	40.6%	27.5%	11.6%	39.1%	3.26	1.01
10. Festivals and events	4.3%	11.6%	46.4%	23.2%	14.5%	37.7%	3.32	1.01
11. Local food/eatery	17.4%	24.6%	29.0%	15.9%	13.0%	29.0%	2.83	1.27
2. Heritage and cultural assets	2.9%	15.9%	52.2%	26.1%	2.9%	29.0%	3.10	.81
18. Overall competitiveness	4.3%	26.1%	42.0%	20.3%	7.2%	27.5%	3.00	.97
17. Lodging	11.6%	26.1%	34.8%	17.4%	10.1%	27.5%	2.88	1.14
5. Diversity and uniqueness of local products	4.3%	23.2%	47.8%	14.5%	10.1%	24.6%	3.03	.98
7. Security and safety	2.9%	13.0%	60.9%	14.5%	8.7%	23.2%	3.13	.86
14. Entertainment and night life	17.4%	34.8%	26.1%	13.0%	8.7%	21.7%	2.61	1.18
16. Shopping	13.0%	34.8%	33.3%	11.6%	7.2%	18.8%	2.65	1.08
8. Infrastructure	13.0%	27.5%	40.6%	15.9%	2.9%	18.8%	2.68	.99
6. Accessibility	7.2%	26.1%	49.3%	10.1%	7.2%	17.4%	2.84	.96
9. Resource conservation	8.7%	18.8%	63.8%	5.8%	2.9%	8.7%	2.75	.81

Community residents were asked to list up to three rural destinations they have visited since 2019 that they felt were like the MNF region. Out of 154 total other places mentioned, combining the first, second and third responses, the following thirteen locations were listed most frequently (3 or more mentions):

1. George Washington National Forest
2. Great Smoky Mountains
3. New River Gorge National Park
4. Blackwater Falls
5. Grand Tetons
6. Shenandoah National Park
7. Blue Ridge Parkway
8. Hanging Rock Observatory
9. Jefferson National Forest
10. Laurel Highlands
11. Ozark NF
12. Pisgah National Forest
13. Wayne National Forest

3.6 Perceived Strengths for Developing Tourism and Recreation (Assets)

Survey respondents (N= 124) felt that the MNF region's recreation activities and natural resources/beauty (19.4% and 18.5%, respectively) were the most important current assets (or strengths) for developing local recreation and tourism (Figure 14). Support for tourism, infrastructure, weather, and accessibility were mentioned far less frequently (fewer than 3%) and may be relative weaknesses rather than perceived strengths. Nearly thirteen percent of respondents (12.9%) felt that business/economic/community development opportunities were strengths, followed by 8.1% who felt the region did not have any strengths for developing recreation and tourism in the MNF Region.

In your opinion, what are the current strengths for developing recreation an tourism in the Monongahela National Forest region?

Recreational Activities — 19.4%
Natural Resources/Natural Beauty — 18.5%
Business/Economic/Community Development Opportunities — 12.9%
None/NA — 8.1%
Remote and Expansive Location — 7.3%
Tourist Attractions — 8.1%
People/Community Support — 6.5%
Proximity to Metro Markets — 5.6%
Hunting/Fishing/Camping — 3.2%
Affordability — 3.2%
Great Weather — 2.4%
Accessibility — 2.4%
Infrastructure (transportation) — 1.6%
Does not Support Tourism — 0.8%

Figure 14: Respondent Identified Strengths for Tourism Development

For the open-ended question, "In your opinion, what are the current strengths for developing recreation and tourism in the MNF region," the following are representative samples of answers recorded.

- *"There are a wealth of sites with opportunities for growth and development and improvement, hopefully that can also provide equally great opportunities for the community to become involved and develop too"*
- *"The natural one of a kind outdoor adventure opportunities in the most beautiful area with the friendliest people"*
- *"The stunning natural beauty"*
- *"natural beauty, lower cost of vacationing, good weather, different types of lodging"*
- *"Our sparse population and large expanses of forest that are available to people who live in crowded urban areas are our greatest strength. Most people come here to hike/walk in peace and quiet."*
- *"natural beauty, lower cost of vacationing, good weather, different types of lodging"*
- *"So many locals want to see the national forest become a destination that people want to travel to. There are so many opportunities for new businesses to thrive, but in order for new businesses to thrive they need the tourism to pick up to bring people in. As a small business owner, I see the locals complain about pricing and lack of amenities, but they don't support the local businesses they would rather save a tiny bit then to keep businesses afloat."*

3.7 Perceived Weaknesses for Developing Tourism and Recreation

Asked to identify perceived weaknesses in the MNF region in terms of developing the tourism and recreation economy, residents reported (N= 120) a "lack of infrastructure" (17.5%) as well as a "cultural and community concerns" (14.2%) most frequently (Figure 15). A lack of funding and investments for tourism, lack of hotels and hospitality, environmental impact concerns in general were also identified as current weaknesses, although each was mentioned by ten percent or fewer of respondents. Nine percent (9.2%) of respondents felt there were no current weaknesses that needed to be addressed.

In your opinion, what are the current weaknesses for developing recreation and tourism in the Monongahela National Forest region?

Lack of Infrastructure (Roads and Telecommunications)	17.5%
Culture and Community Concerns	14.2%
Lack of Funding and Investments for Tourism (Public and Private)	10.0%
Lack of Hotels/Hospitality	9.2%
None/NA	9.2%
Environmental Impact Concerns	8.3%
Overtoursim Concerns	5.8%
Affordable Housing for Residents	5.8%
Lack of Workforce	5.8%
No Marketing of the Region	5.8%
Lack of Events and Attractions	3.3%
Location is too Remote	2.5%
Organizational and Community Leadership	2.5%

Figure 15: Respondent Identified Weaknesses for Tourism Development

In the open-ended question section, respondents noted the following as illustrative examples of weaknesses for developing the tourism and recreation economy of the MNF region. Two respondents raised concerns about possible adverse effects of having tourists from the outside visit the community.
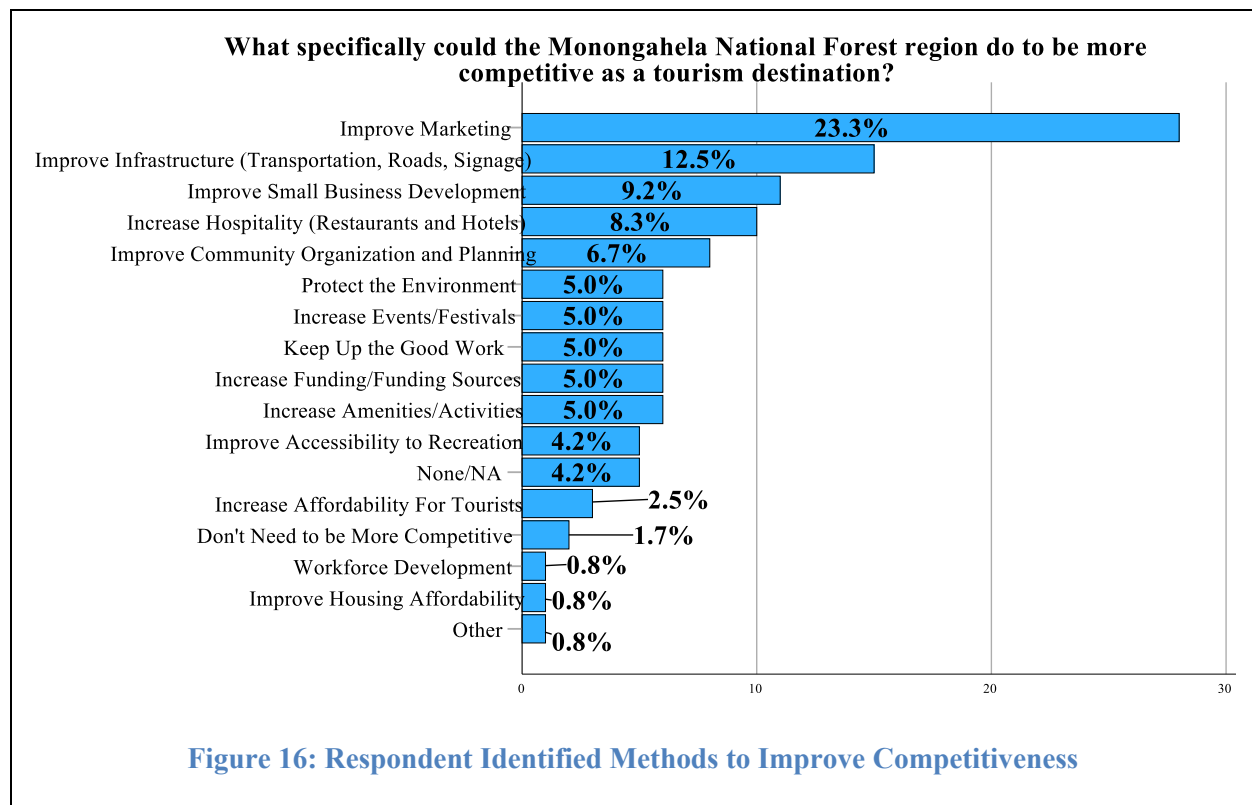
- *"The lack of available housing and workforce, the potential for misplanning, community capacity issues in terms of volunteers and workforce, challenges related to overall low income amongst population and the inability to work and live comfortably, safety and infrastructure concerns (police force, dilapidated buildings)"*

- *"Most activities are repetitive; all the festivals are the same for the most part without, other than the view the experience of visiting most areas consists of walking through it and visiting the gift shop. There's not enough variety in engagement opportunities at existing sites."*
- *"Lack of road access, lack of cell phone coverage and terrible marketing of the region on interstates and local news."*
- *"Extreme lack of multi-use management on the forest. Lack of leadership on the forest due to the high rate of staff turnover and absent staff due to temporary details."*
- *"Weakness in training of front line service staff. Poor signage. Weak events that do not create recreational opportunities for local citizens."*
- *"Lack of infrastructure, fragile natural environments that must be protected"*
- *"Lack of housing and amenities are the usual complaints by visitors."*
- *"Infrastructure, accessibility, worker housing, lack of amenities"*
- *"People do not want change"*

3.8 Suggestions for Improving the Region's Competitiveness

Area residents responding to the survey also had suggestions for making the MNF region more competitive for tourism and the recreation economy. Improving the marketing and infrastructure in the

What specifically could the Monongahela National Forest region do to be more competitive as a tourism destination?

Category	Percentage
Improve Marketing	23.3%
Improve Infrastructure (Transportation, Roads, Signage)	12.5%
Improve Small Business Development	9.2%
Increase Hospitality (Restaurants and Hotels)	8.3%
Improve Community Organization and Planning	6.7%
Protect the Environment	5.0%
Increase Events/Festivals	5.0%
Keep Up the Good Work	5.0%
Increase Funding/Funding Sources	5.0%
Increase Amenities/Activities	5.0%
Improve Accessibility to Recreation	4.2%
None/NA	4.2%
Increase Affordability For Tourists	2.5%
Don't Need to be More Competitive	1.7%
Workforce Development	0.8%
Improve Housing Affordability	0.8%
Other	0.8%

Figure 16: Respondent Identified Methods to Improve Competitiveness
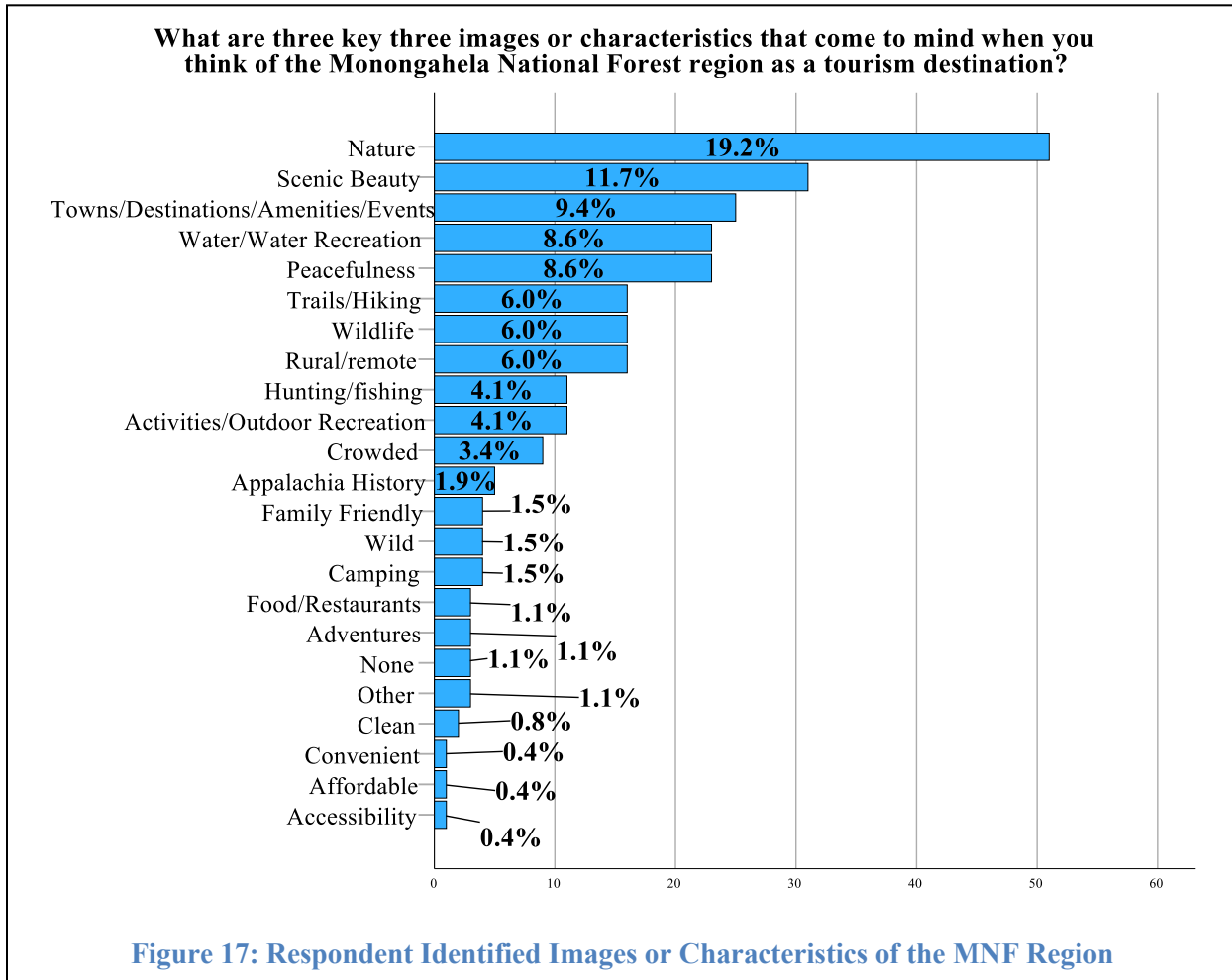
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region along with improving small business development and increased hospitality ranked highest among respondents, followed by improving community organization and planning (Figure 16).

Representative responses to the open-ended questions related to becoming more competitive as a tourism and recreation region included the following:

- *"Offer more engaging activities at existing sites, without the presence of vendors. Occasionally have a local's day for things like the trains, where it's affordable so locals are more likely to feel engaged with the tourism industry and motivated to cooperate in building experiences that complement existing business."*
- *"Perhaps more advertising to larger cities whose residents wish to get away to the mountains and countryside."*
- *"In addition to building trails, keep encouraging businesses to open in our downtowns. Outdoor recreation areas with walkable downtowns that have shopping/food/lodging and limited blight are sought after destinations. Grants?"*
- *"Improve community infrastructure for accessing and enjoying the forest. Proactive outreach to local citizens."*
- *"Focus on small business development and coaching and incentives for local residents to address future growth. Recognize that development pressure from external forces likely to be high - high income folks buying property or large corporate entities seeking to invest. This should be discouraged as much as possible, and local development encouraged."*
- *"Allow a few small businesses to come in, build shops, lodging, a GROCERY STORE, and restaurants and allow them access to do business in the forest. A kayak rental shop would do amazing, guided fishing trips, horseback riding. Snowshoe is an incredible experience and place, and the demand for more is there! Especially if there are small business running them instead of a big corporation that has recently taken over. Make things more accessible and diverse. Have things for families, couples, kids, teenagers."*
- *"Build infrastructure to support employees in tourism"*

3.9 Key Characteristics of the Region for Developing Tourism and Recreation

Nature and scenic beauty were mentioned most frequently respondents as being key images or characteristics of the region as a tourism/recreation destination (Figure 17). This was followed by towns/destinations/amenities/events, water/water recreation, and peacefulness. Accessibility, affordability and convenience were listed by far fewer of the respondents as being a key draw or feature of the MNF region.

What are three key three images or characteristics that come to mind when you think of the Monongahela National Forest region as a tourism destination?

Characteristic	Percentage
Nature	19.2%
Scenic Beauty	11.7%
Towns/Destinations/Amenities/Events	9.4%
Water/Water Recreation	8.6%
Peacefulness	8.6%
Trails/Hiking	6.0%
Wildlife	6.0%
Rural/remote	6.0%
Hunting/fishing	4.1%
Activities/Outdoor Recreation	4.1%
Crowded	3.4%
Appalachia History	1.9%
Family Friendly	1.5%
Wild	1.5%
Camping	1.5%
Food/Restaurants	1.1%
Adventures	1.1%
None	1.1%
Other	1.1%
Clean	0.8%
Convenient	0.4%
Affordable	0.4%
Accessibility	0.4%

Figure 17: Respondent Identified Images or Characteristics of the MNF Region

In response to the open-ended question: "What are three key three images or characteristics that come to mind when you think of the Monongahela National Forest region as a tourism or recreation destination?" respondents gave the following representative answers:

- Nature and Scenic Beauty:
  - Trees
 - Rhododendron
  - Breathtaking

- The beautiful mountains
- Seneca Rocks and Spruce Knob area
- Towns/Destinations/Amenities/Events:
  - Seneca Rocks
  - Dolly Sods
  - Cranberry Glades
  - Cass
  - Leaf peeping on the Scenic Highway
  - Greenbrier River
  - Blackwater Falls
- Water/Water Recreation and Trails/Hiking:
  - Waterfalls
  - Clean rivers and streams
  - Well built and maintained trails and outdoor facilities
  - White water rafting and fishing
  - The sights sound and smell of fall hikes in the forest
- Negative characteristics mentioned by respondents included the following:
  - Overcrowding in popular areas.
  - Damage to forest service roads and expensive repairs from overuse.
  - Increased cost of living and decreased quality of life.
  - Traffic.

Survey respondents were also asked to list up to three specific distinctive or unique attractions or events that they thought represent the Monongahela National Forest region in terms of tourism and recreation. In rough order of frequency, the following were listed:
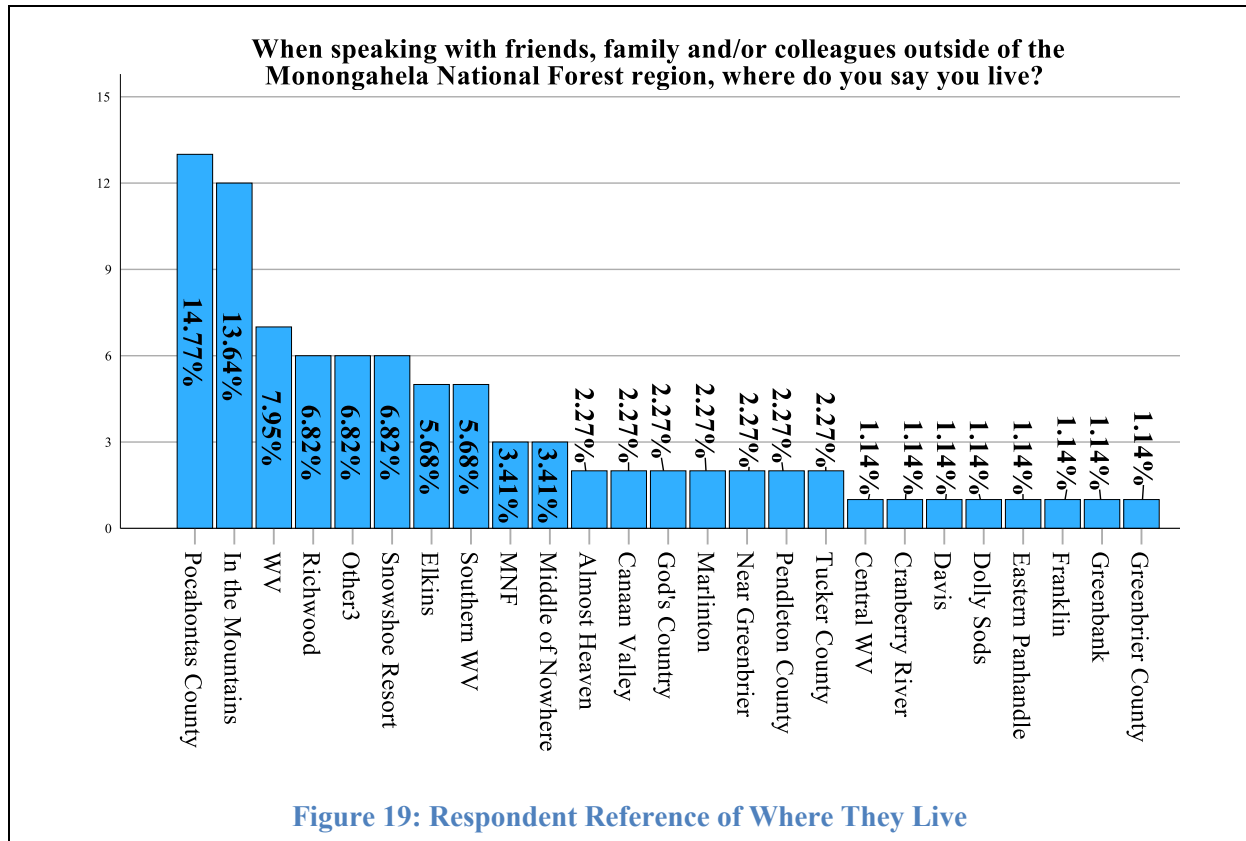
- Attractions
- Seneca Rocks
- Festivals
- Cranberry Glades
- Waterways/water recreation
- Outdoor recreation
- Blackwater Falls
- Hiking/trails

- Highland Scenic Highway

- Towns

- Other

- Snowshoe

- Forest Festival

- Cass

When asked to list the first three words or phrases respondents would use to describe the Monongahela National Forest region to someone who had never been here before, the following were

Figure 18: Respondent Identified Phrases to Describe the MNF Region

mentioned with higher mention frequencies represented in the largest fonts (Figure 18).
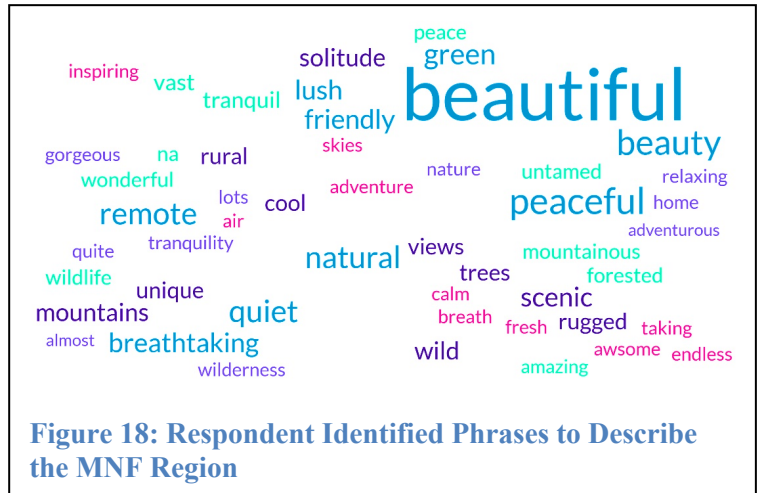
To understand their sense of place in terms of the geography in which they live, residents surveyed were asked which label they used to describe where they live, when talking to others who lived elsewhere (Figure 19). The labels "region" and "landmark" were mentioned most frequently, i.e., by one-quarter of respondents.

When speaking with friends, family and/or colleagues outside of the Monongahela National Forest region, where do you say you live?

Category	%
Pocahontas County	14.77%
In the Mountains	13.64%
WV	7.95%
Richwood	6.82%
Other3	6.82%
Snowshoe Resort	6.82%
Elkins	5.68%
Southern WV	5.68%
MNF	3.41%
Middle of Nowhere	3.41%
Almost Heaven	2.27%
Canaan Valley	2.27%
God's Country	2.27%
Marlinton	2.27%
Near Greenbrier	2.27%
Pendleton County	2.27%
Tucker County	2.27%
Central WV	1.14%
Cranberry River	1.14%
Davis	1.14%
Dolly Sods	1.14%
Eastern Panhandle	1.14%
Franklin	1.14%
Greenbank	1.14%
Greenbrier County	1.14%

Figure 19: Respondent Reference of Where They Live

3.10   Additional Comments Related to Tourism and Recreation

Finally, respondents were asked if they had any additional comments about tourism in the MNF region, related to topics such as improving the infrastructure or general concerns about tourism and underlying economic opportunities. The following open-ended responses are again illustrative of the kinds of comments received. Especially noteworthy are the concerns about "over tourism." While few respondents listed this as an issue, the response underscores the importance of developing and managing natural areas in a way that does not destroy the very features and communities that serve as attractions in the first place.

Improve Infrastructure

- *"Invest in infrastructure but keep the natural integrity and rural feel intact."*
- *"If its at all possible, improving the appearance of its small towns, main street store fronts, removing dilapidated structures, would be extremely helpful.   We've personally removed and/or renovated two awful homes, into new fresh airbnb rentals".*
- *"We need housing and infrastructure to support employees of any planned expansions in the tourism sector."*
- *"We do our best to support any and all places to eat and have a beer in our region. It's tough though, so many are sub-par. When you travel beyond WV, it seems easier to find destinations that are supported by local commerce. It'd be nice to see subsidies perhaps, to help promote that infrastructure that will make our area a true tourist destination".*

Community

- *"I think that the plans for the area sound great. I hope that the money and the development happen for the sake of the youth growing up that would like to live here but can't due to not having good paying jobs."*
- *"It will help communities if it is expanded in the right ways. If it isn't done right it could be disastrous and cause harm to our diverse ecosystems and outrage in our communities"*

Tourism Concerns

- *"Stop trying to increase tourism, especially mountain biking. It wrecks the mountain trails and they don't give a damn."*
- *"It needs regulated look at dolly sods it is a mess to many people it disturbs wildlife and the quiet of the forest"*

- *"When promoting tourism to the Tucker County area, be mindful of the year round residents who live and work here daily. This is our home and please respect it and us"*
- *"Tourism does not help local communities as much as everyone says it does. Tourists may stop for gas and a meal but that is all they give to the community. Tourists also start to overrun the area during certain times of year and cause problems for locals."*
- *"It is over marketed. Every new group that pops up to help the region puts marketing first and on the ground improvements last. Listen more to the locals instead of telling them what they need. Establish long term goals and funding for trail maintenance."*
- *"It will help communities if it is expanded in the right ways. If it isn't done right it could be disastrous and cause harm to our diverse ecosystems and outrage in our communities"*

Tourism and Economic Opportunity

- *"Tourism is a great part of our rural economy. But also, the forests need to be managed as part of a sustainable forestry system that also provides jobs. Land of Many Uses!*
- *"There is significant opportunity in the Mon Forest!"*
- *"I think that the plans for the area sound great. I hope that the money and the development happen for the sake of the youth growing up that would like to live here but can't due to not having good paying jobs."*
- *"More jobs to provide rentals such as kayaks. Not everyone owns one but would like to try it. Signs to show ideal sites to do activities. More sites to provide refreshments in case people get in trouble"*
- *"It is an untapped opportunity for tremendous growth"*
- *"The younger generation wants bike rental, golf disc, hiking trails, wifi"*

Environmental Protection

- *"Don't log it to death!!! Keep the rivers clean"*
- *"Proper timbering needs to occur in order to maintain forest health and provide economic resources to the communities."*
- *"Keep it natural. Keep it real to us."*

4. Conclusion

The kind of information generated and presented in this report can help destination management organizations and other local businesses or non-profits to better understand the tourism-related and recreational activities engaged in by local residents, as well as their perceptions. Knowing residents' perceptions and opinions of key tourism sustainability indicators related to environmental, socio-economic, cultural and institutional factors can help ensure that future developments are consistent with local preferences. For residents in the MNF area, environmental quality in terms of water, air and other resources, rural authenticity of the region and protection of this natural environment were all important and ranked highly with mean scores above 4.0. Having risk reduction, waste management and emergency response plans also were important, as was safeguarding the cultural identity of the local community. Comparing and contrasting this information with that collected in the visitor surveys can be valuable for identifying areas of conflict and synergy, as well as where future investments can help make the area more attractive to all tourists, local and visiting.

Together with the companion report on visitors' travel behavior to and perceptions of tourism sustainability in the MNF region, this report can serve as a potential blueprint for developing the local tourism and recreation economy sectors. Ensuring that such a development benefits the community more broadly requires extensive community discussion and deliberation.

5. References

Deng, J., D. Arbogast, Y. Zhuang and S.J. Goetz (2024), "Visitors' Travel Behavior and Perceptions of the Monongahela National Forest Region," unpubl. Report available at: https://nercrd.psu.edu/wp-content/uploads/2024/12/USDA_NIFA-WV-Visitor-Survey-Report_12-20-2024.pdf

Appendix

Biggest I-P gaps are: Improvement of Well-Being of community resident from tourism development (1.140), High-paying jobs from tourism development (1.140), and Control of negative impacts through long-term planning (1.130).

Paired Samples Test

	Mean Importance	Mean Performance	Mean Difference	Significance p	
1. Protection of the natural environment	4.60	3.85	.75	<.001	***
2. Rural authenticity	4.10	3.84	.260	.144	
3. Environmental quality (water, air, resource quality, etc.)	4.65	3.93	.720	<.001	***
4. Reduction of energy consumption and improvement of efficiency in its use	3.75	3.39	.360	.837	
5. Control of negative impacts through long-term planning	4.32	3.19	1.130	<.001	***
6. Management of waste	4.42	3.43	.990	<.001	***
7. Reduction of greenhouse gas emissions	3.66	3.19	.470	.856	
8. Management of overcrowding[a]	3.99	3.51	.480	.040	*
9. Economic opportunities from tourism developmen	4.20	3.34	.860	<.001	***
10. High-paying jobs from tourism development	3.97	2.83	1.140	<.001	***
11. Improvement of the well-being of rural communities from tourism development	4.27	3.13	1.140	<.001	***
12. Marketing and promotion of tourism assets to visitors	3.84	3.45	.390	.070	
13. More investment in tourism development	3.88	3.19	.690	.003	**
14. Contribution to community and sustainability initiatives in a responsible manner from enterprises, visitors, and the public	4.16	3.24	.920	<.001	***
15. Career opportunities and training in tourism	4.08	3.13	.950	<.001	***
16. A system to monitor, prevent, publicly report, and respond to crime, safety, and health hazards that addresses the needs of both visitors and residents	3.98	3.07	.910	.015	*
17. A policy and system to evaluate, rehabilitate, and conserve cultural assets, including built heritage and cultural landscapes	4.10	3.23	.870	.008	**
18. Celebration and protection of intangible cultural heritage, including local traditions, arts, music, language, food and other aspects of local identity and distinctiveness	4.23	3.58	.650	.015	*
19. Accurate interpretative material that informs visitors of the significance of the cultural and natural aspects of the sites they visit	4.13	3.28	.850	<.001	***
20. Guidelines for visitor behavior at sensitive sites and cultural events being made available to visitors	4.23	3.22	1.010	<.001	***
21. Optimize visitor flow and minimize adverse impacts in cultural sites	4.18	3.43	.750	.007	**
22. Opportunities for visitors to reflect on religious or other spiritual values	3.06	3.20	-.140	<.001	***
23. Cultural/heritages sites accessible to physically disabled tourists	4.12	3.20	.920	.002	**
24. Safeguarding cultural identify of local community	4.03	3.39	.640	.025	*
25. Evidence of links and engagement with other bodies	3.26	3.17	.090	.015	*
26. Existence of a regional collaboration and marketing organization	3.53	3.47	.060	.256	
27. Local leaders' support for tourism development	4.03	3.57	.460	.012	*
28. Quality of public-private partnership in tourism	3.95	3.23	.720	.041	*
29. A risk reduction, crisis management and emergency response plan	4.07	3.22	.850	.179	
30. A system to monitor and respond to socio-economic, cultural and environmental issues and impacts arising from tourism	3.85	3.10	.750	.660	
31. Public participation in sustainable destination planning and management	3.82	3.16	.660	.153	
32. The destination management strategy/plan clearly visible and available online	3.76	3.06	.700	.895	