

Where Tourism Flows

Interconnections and linkages in outdoor tourism
and recreation in Southwest North Carolina



Study made possible by funding from these entities



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Executive Summary

Southwestern North Carolina (SWNC) is a premier destination for outdoor recreation, drawing over 5.2 million visitors in 2023 to 122 key points of interest (POIs) such as waterfalls, lakes, scenic overlooks, and recreational areas. These attractions, while vital to the region's economy, are often difficult to monitor using traditional survey methods. To address this, the study employed Placer.AI, a big data analytics platform that utilizes anonymized cell phone and credit card data to analyze visitor demographics, movement patterns, and economic impact. While most POIs were successfully analyzed, some remote areas like Joyce Kilmer Memorial Forest and parts of the Nantahala Gorge were excluded due to insufficient cell coverage. The study focused exclusively on outdoor sites, excluding indoor venues such as casinos and museums, despite their economic contributions.

The analysis revealed that the majority of visitation was concentrated along three major highway corridors: US 64 between Murphy and Cashiers, US 441 from the Georgia border to the Great Smoky Mountains National Park, and US 74 between Murphy and Waynesville. These corridors accounted for 64% of all visits, with US 64 recording the highest total number of visitors and US 441 the highest number of visits per mile. The two most visited destinations were the Nantahala Gorge and the Great Smoky Mountains National Park, which together attracted 28% of all regional visits. Visitors to these areas were more likely to travel from greater distances, stay longer, and spend more, highlighting their significance as national-level attractions. In contrast, locations such as Lake Chatuge and golf courses along US 74 drew more local visitors, often on day trips, forming a critical base for counties like Clay and Haywood.

Visitor origin data showed a mix of local (within 100 miles), regional (100–250 miles), and national (over 250 miles) travelers. The study also incorporated Experian Mosaic market segmentation to better understand visitor profiles. Higher-income segments were more prevalent in eastern areas like Highlands and Waynesville, while middle-income groups were more common in western areas such as Murphy and Robbinsville. Central locations like Bryson City and Franklin attracted a broad cross-section of visitors.

Overall, this study underscores the value of big data in capturing detailed visitation patterns and informing tourism strategy. By focusing on highway corridors rather than county boundaries, the analysis provides a more nuanced understanding of travel behavior. The findings support targeted infrastructure investments, market-specific outreach, and the strategic development of anchor attractions to sustain and grow SWNC's outdoor recreation economy.

Methodology

Southwestern North Carolina (SWNC) is home to a wide variety of attractions, natural wonders, forests, and lakes which bring millions of people into the region every year. While many attractions have the ability to count and survey their customers, there are many places which cannot. Lakeside boat ramps, scenic overlooks, and waterfalls, all of which are vital to the region's economy, cannot be surveyed through conventional means. Placer.AI (Placer), a big data platform, allows for analysis of these challenging areas using anonymized and aggregated cell phone location and credit card data. By demarcating areas of study containing places of interest (POIs), analysts can examine the demographics, movement and timing of those visiting these hidden gems.

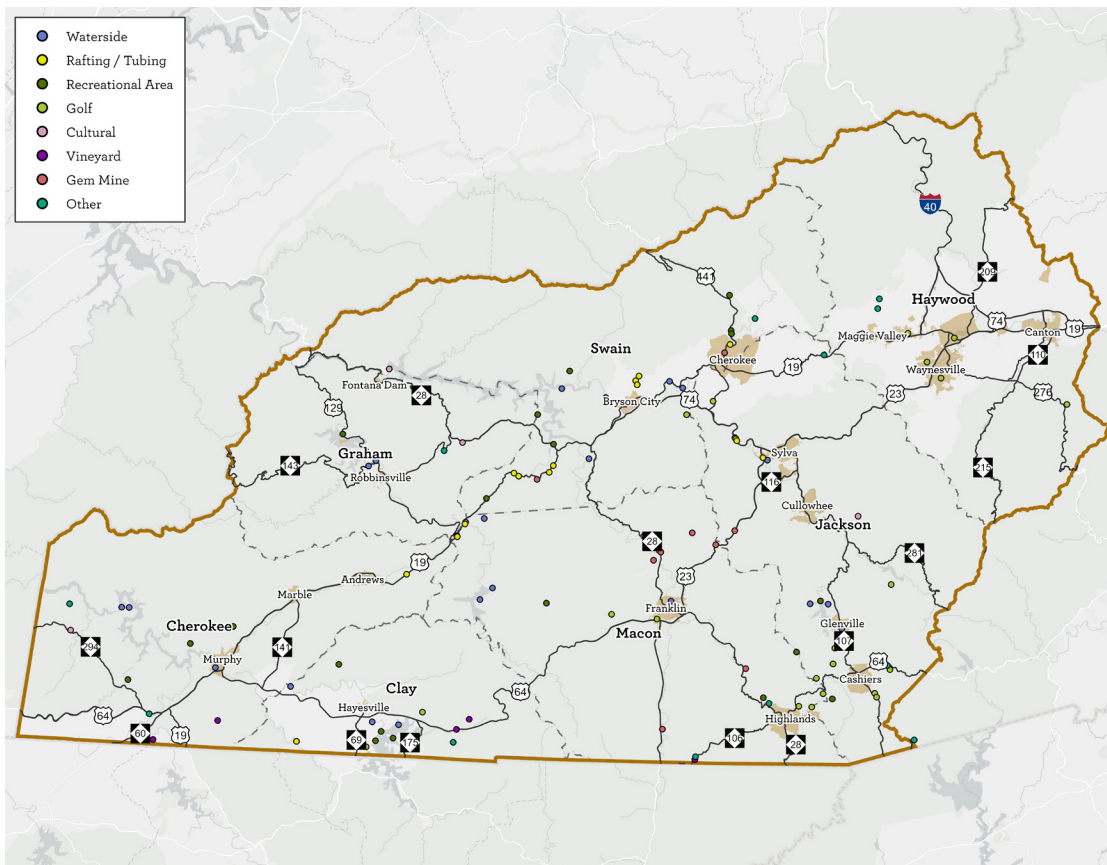


Figure: 1. Location of Study Points of Interest

While Placer allows for the analysis the majority of SWNC POIs, a few places were not able to be included. Cell phone coverage is far from a guarantee in the more remote locations in the region making some areas impossible to gather data for. Joyce Kilmer Memorial Forest, a popular natural area in Graham County known for its old growth forests, is one such location. Due to its remoteness, the forest did not have sufficient cell service to be included in this study. However, most POIs tested had strong enough cell service to be included. Additionally, only outdoor recreation sites were analyzed, so attractions such as museums, casinos, and local shops are not included, though they, too, contribute to the region's prosperity. Murphy's Valley River Casino had 880,000 visitors in 2023, but, as an indoor attraction, would not be included in this study. In total, 122 POIs are included in this analysis, as shown in Figure 1, ranging from small boat ramps to major landmarks. These diverse locations were aggregated into broader categories that are used throughout this study.



POI Categories



Waterside

Places like marinas and boat ramps that allow access to our region's rivers and lakes.



Rafting / Tubing

Commercial outfitters offering guided tours of whitewater rivers.



Recreational Areas

Parks and natural areas that allow visitors access to our natural beauty.

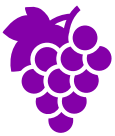


Golf Courses



Cultural

Outdoor areas of cultural or historical significance.



Vineyards and Wineries



Gem Mines

Small operations that allow for visitors to sift through soil to find gemstones.

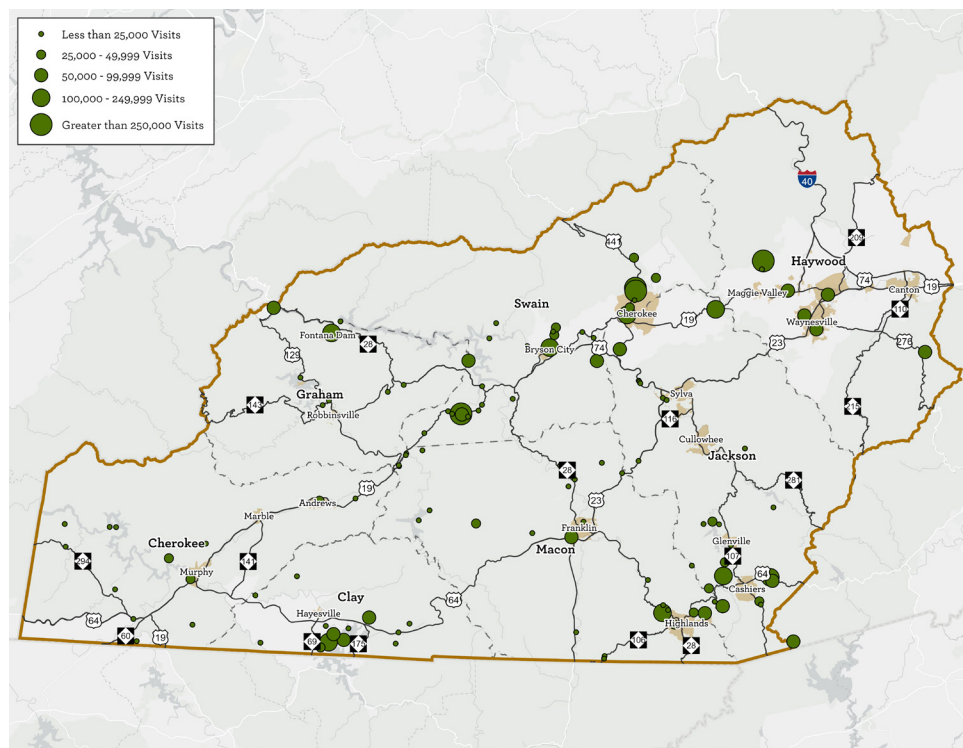


Other

A diverse range of less common locations, such as ski slopes and horse stables, that together contribute greatly to our natural economy.

Regional Visitation

In total the region had 5,223,000 people who visited the 122 included POIs during 2023. These visits are distributed throughout the region with the most popular areas being in Swain County and the surrounding mountains in eastern Macon and southern Jackson counties. Figure 2 and Figure 3 show the total number of visits by POI and by census tract.



5,223,000

Total Visitors

122

Points of Interest

8

POI Categories

Figure 2. Visitors by POI

43,000

*Average Visitors
Per POI*

746,000

*Average Visitors
Per County*

82,000

*Average Visitors
Per Tract*

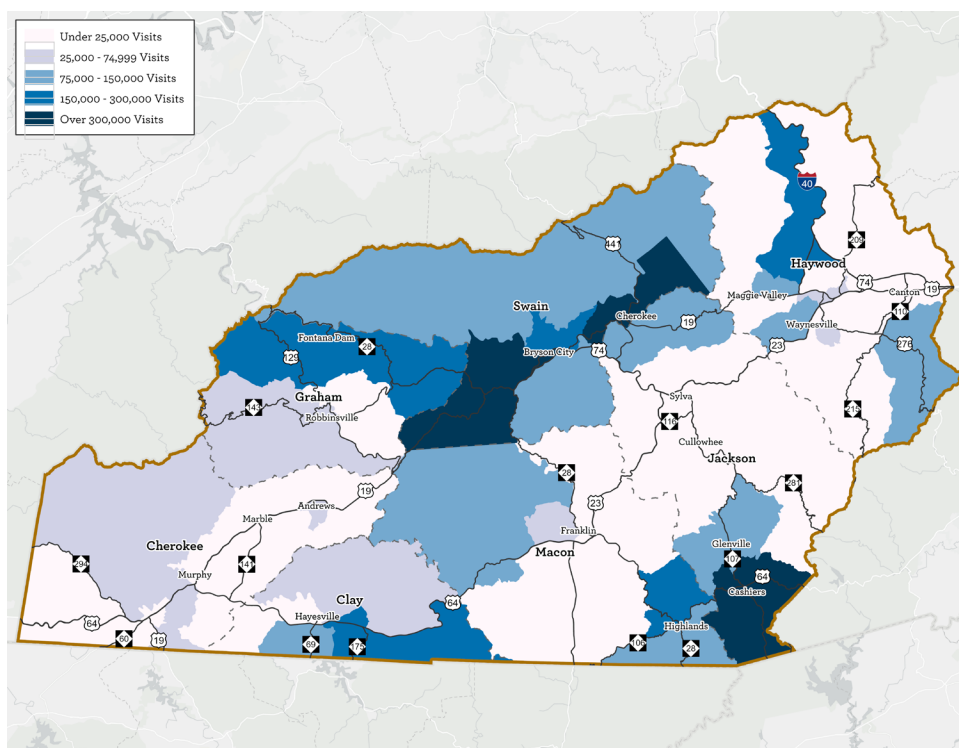


Figure 3. Visitors by Census Tract



The areas with the highest visitation are areas with well known and nationally popular destinations such as the Great Smoky Mountains Railroad, Nantahala Outdoor Center, and the multitude of golf courses and waterfalls in southern Jackson County and eastern Macon County. The infographic below shows the total visits by county, while Figure 4 shows the sum of visits by POI category. Recreational areas, which include popular waterfalls like Dry Falls or Wayah Bald, had the most visits. The “Other” category includes important anchor attractions such as the Great Smoky Mountains Railroad, Andrews Valley Rail Tours, and local horseback riding.

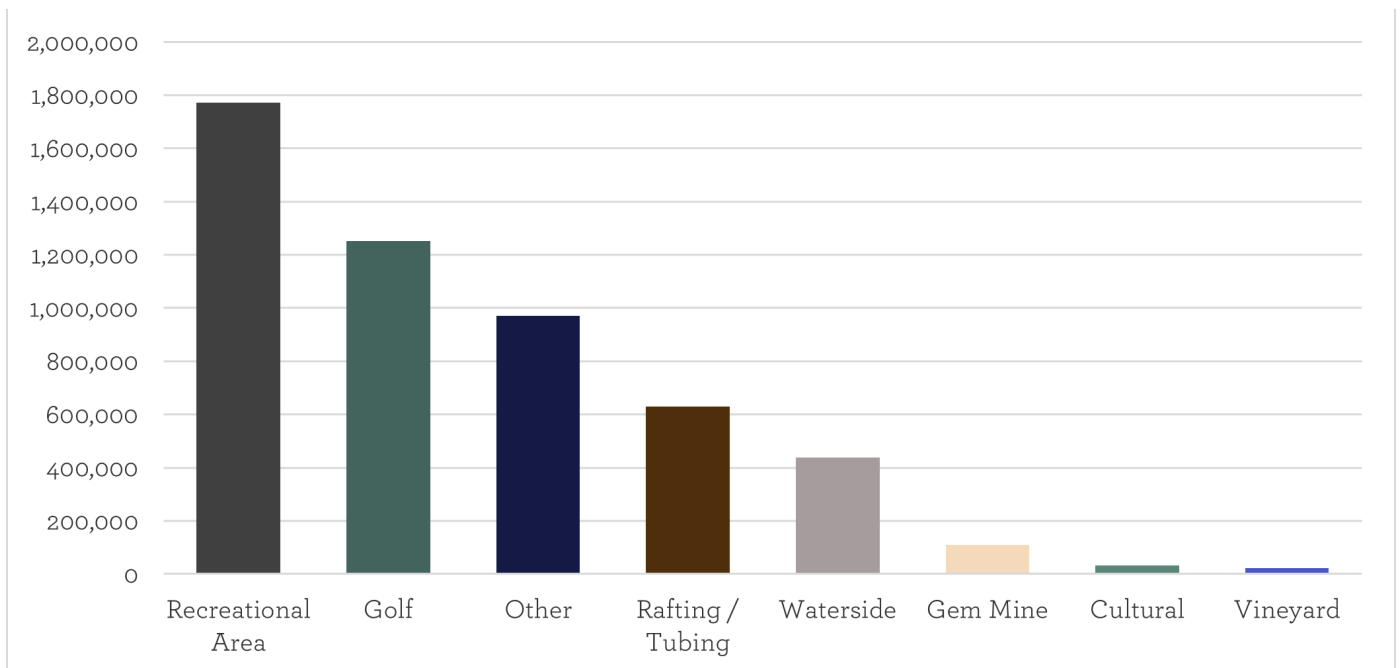
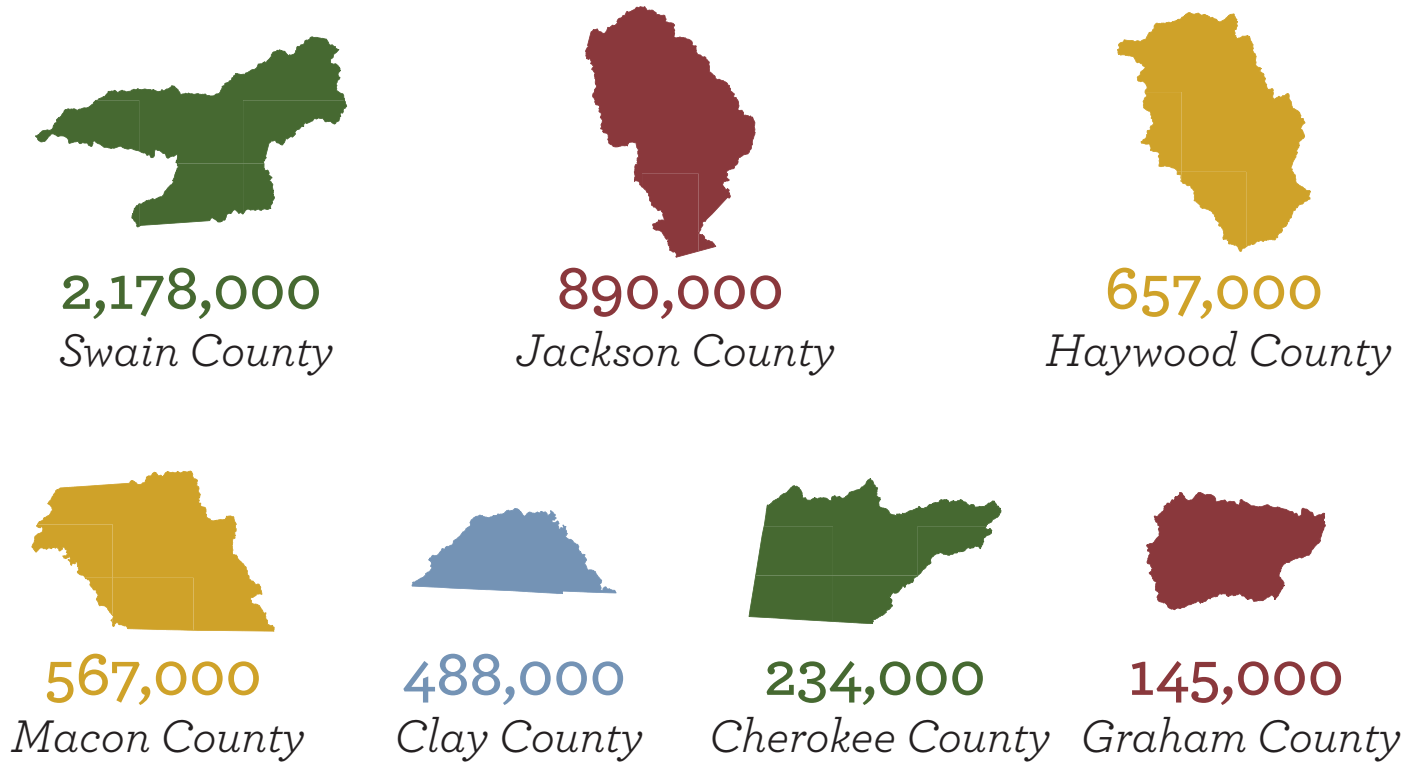


Figure: 4. Sum of Visits by POI Category



Corridors

The study team chose to focus on highway corridors, with less emphasis on census tracts and counties to allow for a more nuanced analysis of the data. The terrain of the region splits counties into multiple sections with varying population densities and visitation patterns which analyzing at the county level would mask. The critical tourism corridors for SWNC with the most POIs and visits are US 74 between Murphy and Waynesville, US 64 between Murphy and Cashiers, and US 441 between the state line at the border with Georgia and the southern entrance of the Great Smoky Mountains National Park.

Combined, these three corridors saw 3,347,000 visitors—64% of total recreational visits to the region. The following charts show the variation of visits along the corridors and the average distance from visitors' homes, broken into bands of less than 100 miles (local), 100 – 250 miles (regional), or greater than 250 miles (national). Looking at the visitation data the two areas with the highest visitation were the Nantahala Gorge and the Great Smoky Mountains National Park, the two locations alone account for 1,4630,000 visits or 28% of visits to the region. These two hot spots, see more visitors who have come from further away with a large number of regional and national visitors. Those who have visited from further away tend to stay longer and spend more in the region.

Some highly visited areas, such as Lake Chatuge on US 64 or golf courses along US 74, have a greater share of local visitors. These patrons are often on day trips and make up an important tourism base for areas such as Clay and Haywood Counties. Other areas, such as Franklin, see a more even mix of local, regional and national visitors.

The following graphic shows the total number of visitors by studied highway corridor and the average number of visits per mile. With its waterfalls in Jackson and Macon Counties and its numerous golf courses, US 64 has the highest number of visitors. US 441, with many notable attractions across its length, has the highest average number of visitors per mile.



1,904,000 Total Visits



1,633,000 Total Visits



1,525,000 Total Visits

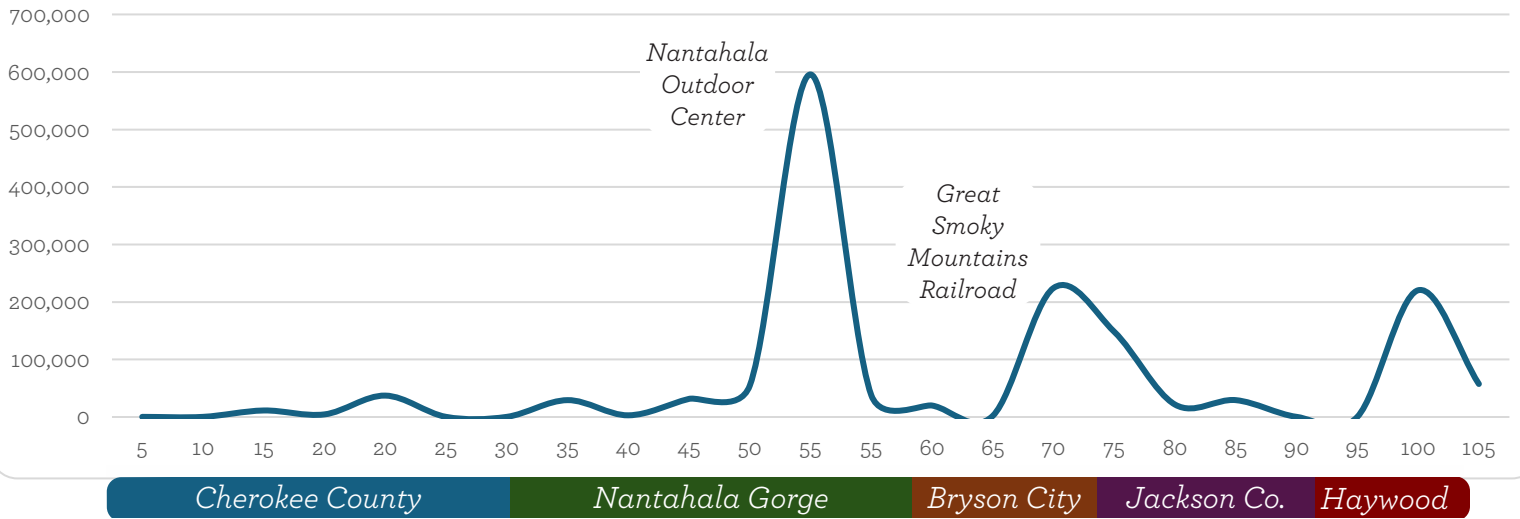
23,800 Average Visits Per Mile

29,700 Average Visits Per Mile

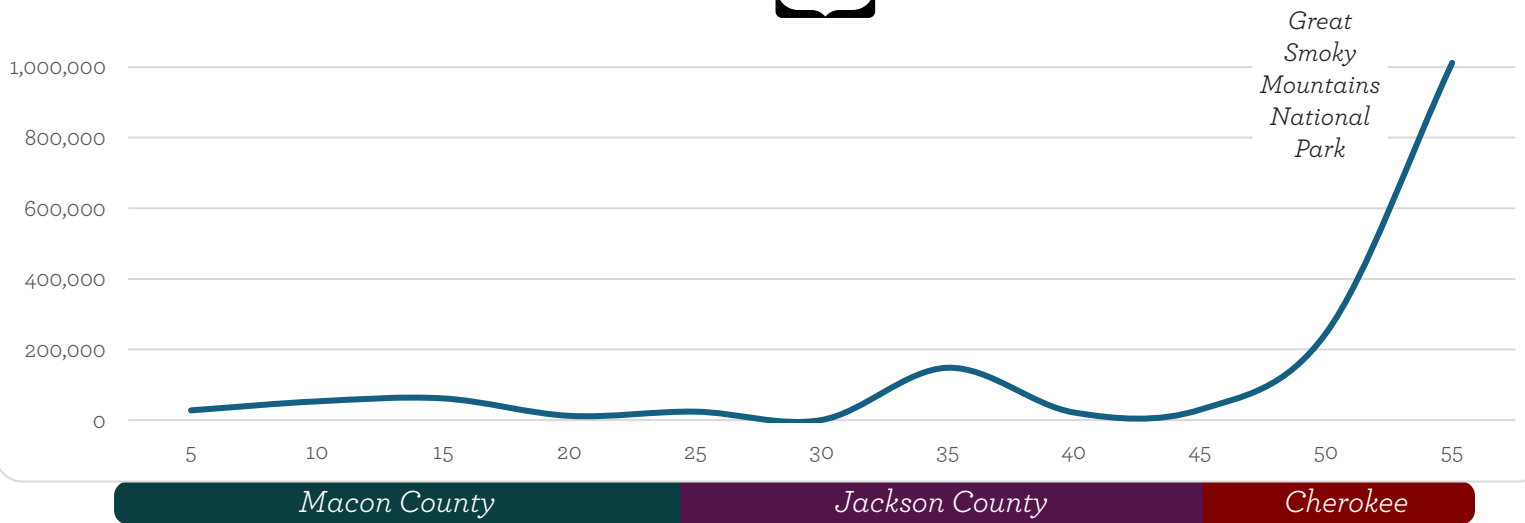
14,500 Average Visits Per Mile



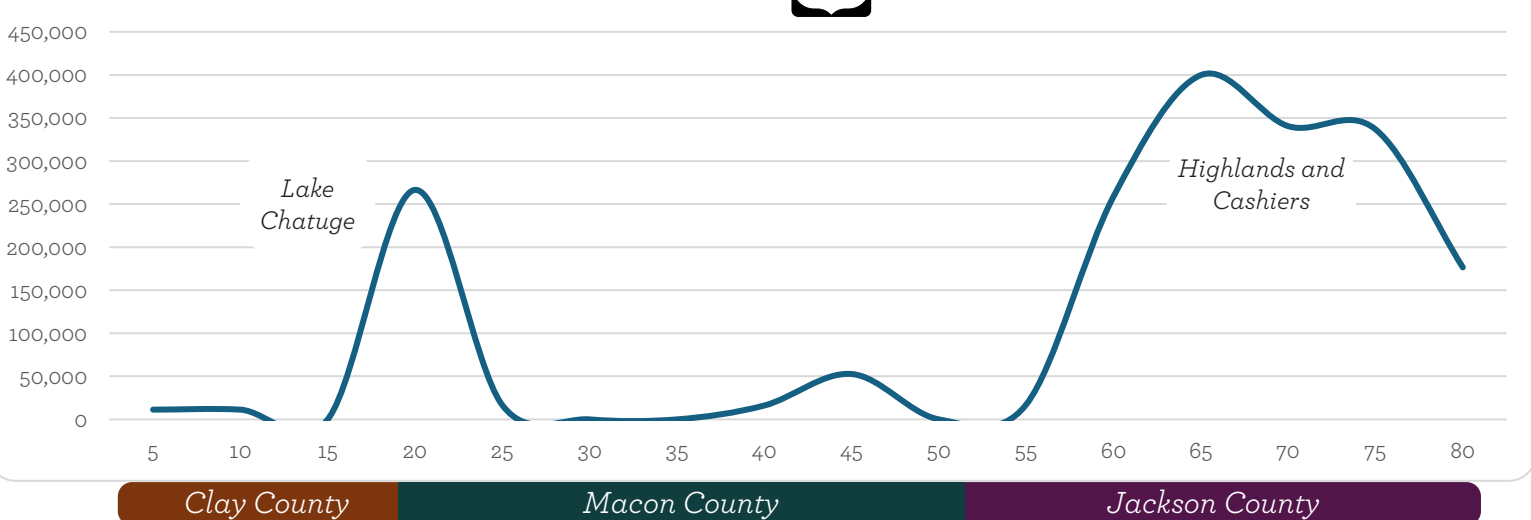
Visitors By Mile



Visitors By Mile

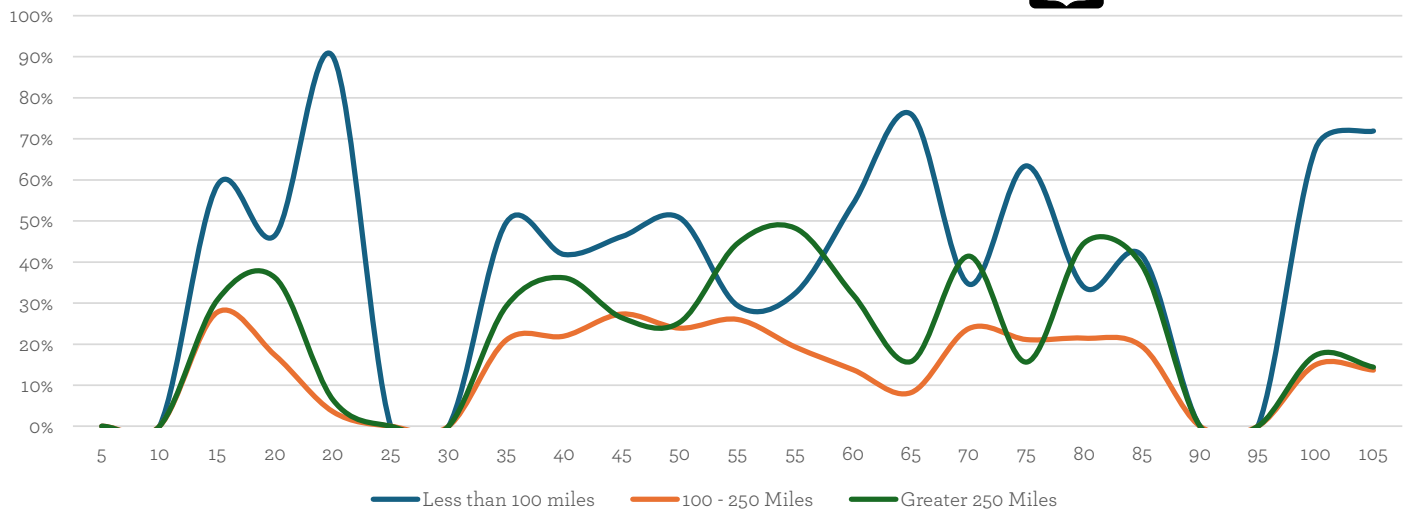


Visitors By Mile





Home Location Distance for Visitors by Mile



Cherokee County

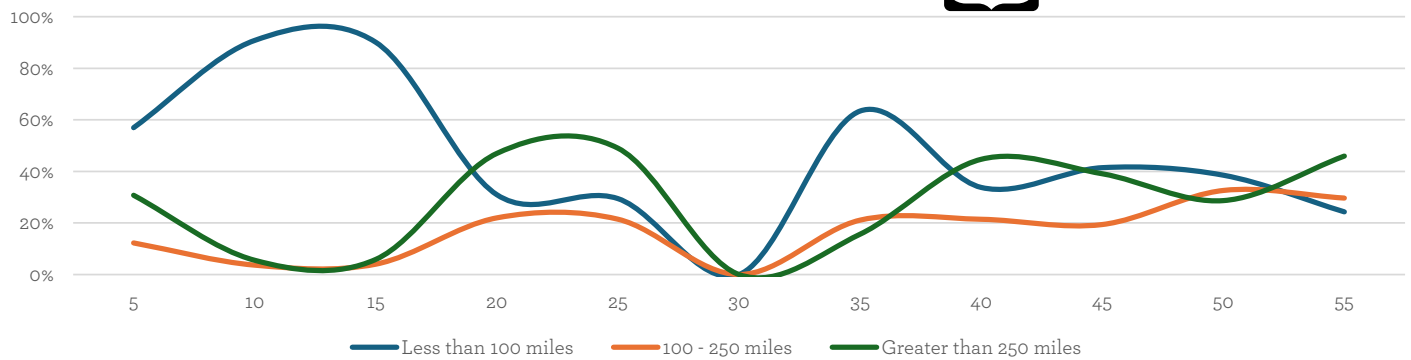
Nantahala Gorge

Bryson City

Jackson Co.

Haywood

Distribution of Home Distance

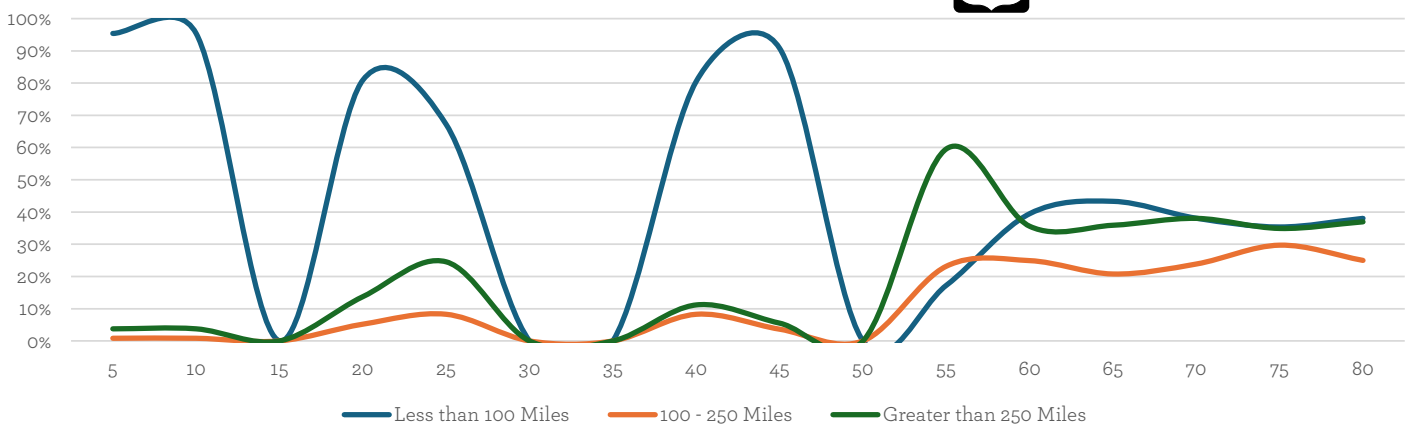


Macon County

Jackson County

Cherokee

Distribution of Home Distance



Clay County

Macon County

Jackson County



Regional Demographics

In addition to traditional demographic data, Placer also allows visitor analysis by consumer market segment. Experian Mosaic, a market segmentation system by the credit rating agency Experian, divides the market into broad psychographic profiles based on a multitude of characteristics, such as income, household type, marital status, age, and home location. Understanding these market segments and their visit patterns can allow the tourism industry to better tailor their offerings and to refine their use of targeted advertising.

The region's market segments are diverse, with visitors from nearly all 19 segments. Eight segments, as described in Table 1, are the most common at the 122 POIs studied. Figure 5 shows the most common segment at each POI studied

Table: 1. Experian Mosaic Market Segments

<i>Mosaic Market Segment</i>	<i>Description</i>
A - Power Elite	The wealthiest households in the US, living in the most exclusive neighborhoods, and enjoying all that life has to offer.
C - Booming with Confidence	Prosperous, established couples in their peak earning years living in suburban homes.
E - Thriving Boomers	Upper-middle-class baby boomer-age couples living comfortable lifestyles settled in suburban homes.
J - Autumn Years	Established and mature couples living gratified lifestyles in older homes.
L - Blue Sky Boomers	Middle-class baby boomer-aged households living in small towns.
N - Pastoral Pride	Eclectic mix of lower middle-class consumers who have settled in country and small-town areas.
O - Singles and Starters	Young singles starting out and some starter families living a city lifestyle.
Q - Golden Year Guardians	Retirees living in old homes, settled residences and communities.

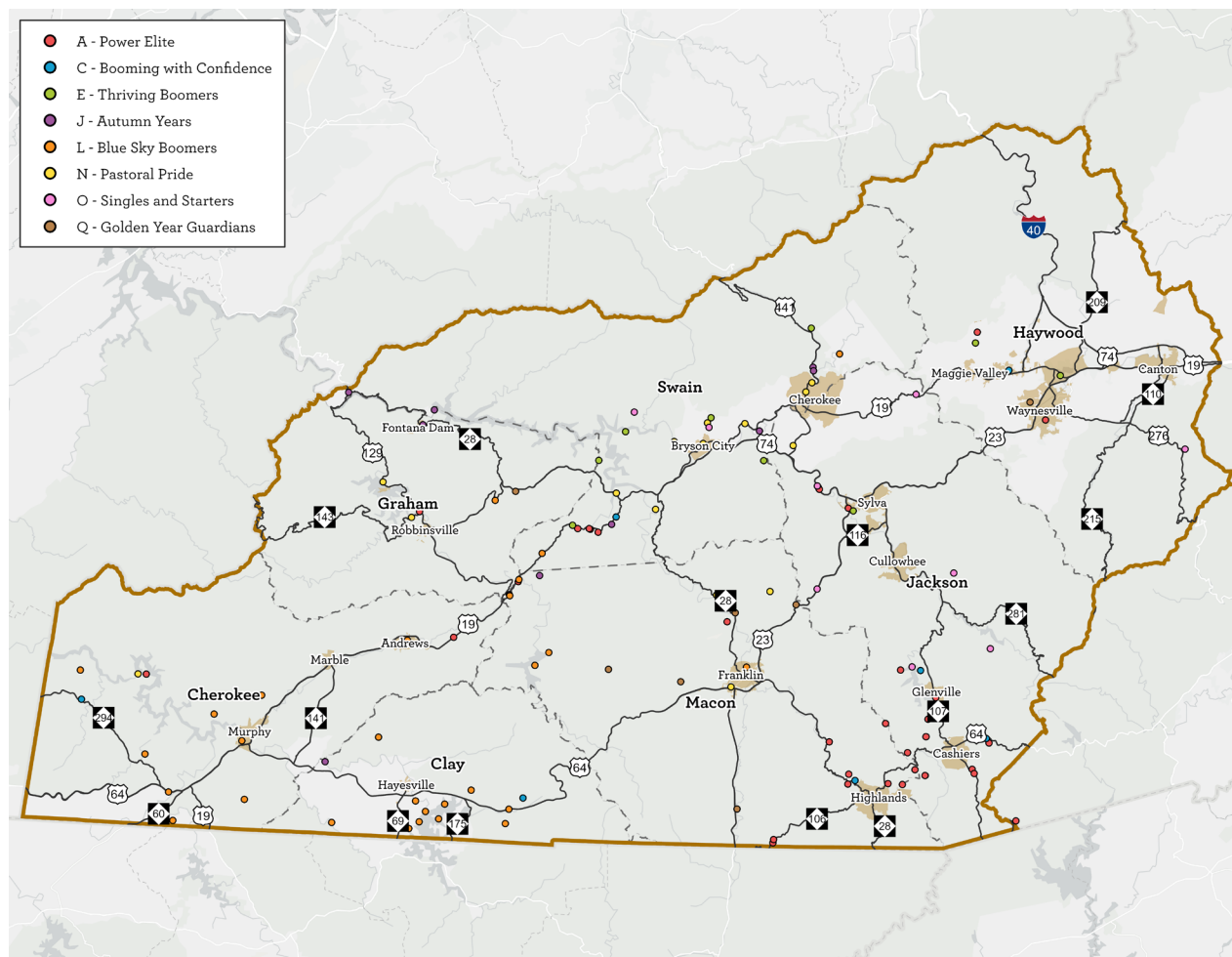


Figure 5. Top Demographic by Study POI

Power Elites (A) are the most dominate segment of visitors, with an especially high prevalence in Highlands and Cashiers. Power Elites (A) accounted for 374,000 of the region's over 5 million visits in 2023, or 7%. The second most prevalent group, Booming with Confidence (C), accounted for 279,200 or 5%. Overall, the geographic distribution of these visitor profiles show that areas in the region serve different market segments. Areas in the eastern part of the study area, such as Highlands and Waynesville, attract higher income, higher status tourists, while those in the western part of the study, like Murphy and Robbinsville, see a larger share of middle class, middle income visitors. Areas in the center of the study area, such as Bryson City and Franklin, are broadly popular across all groups.

Chapter 2

Great Smoky Mountains Railroad





Great Smoky Mountains Railroad

The Great Smoky Mountains Railroad (GSMR) is one of the region's most visited attractions, drawing national visitors from as far as Alaska and Hawai'i to ride its scenic route. As one of SWNC's premier attractions the GSMR acts as like an anchor similar to a mall's anchor, as it pulls traffic for a wide region and gives a boost to other attractions near it. GSMR had 123,800 visitors in 2023 and is likely to continue growing in the coming years. GSMR's strongest markets include local visitors from across SWNC as well as tourists traveling from the Piedmont's major metro areas, such as Atlanta, Charlotte, Greenville-Spartanburg, Piedmont Triad, and the Research Triangle. Florida has the second highest share of visitors with strong showings from Tampa, Jacksonville and Orlando. Figures 6, 7, and 8 show heat maps of the most common home location for visitors from the Piedmont, the eastern United States and the State of Florida respectively.

8%

*Of Visitors Come
From Atlanta*

9%

*Of Visitors Come
From Charlotte*

9%

*Of Visitors Come
From Florida*

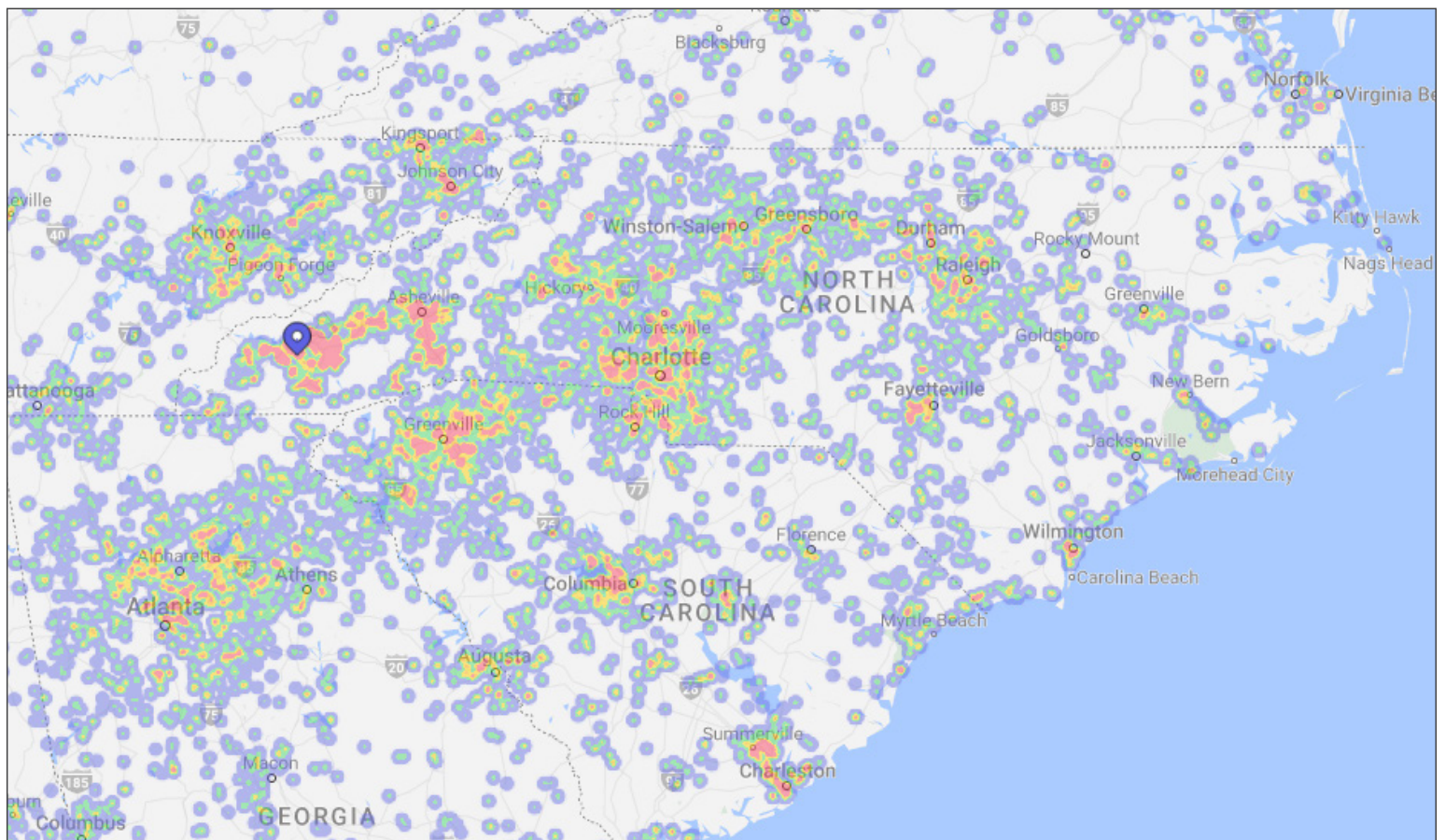


Figure: 6. GSMR Trade Area (Piedmont Region)

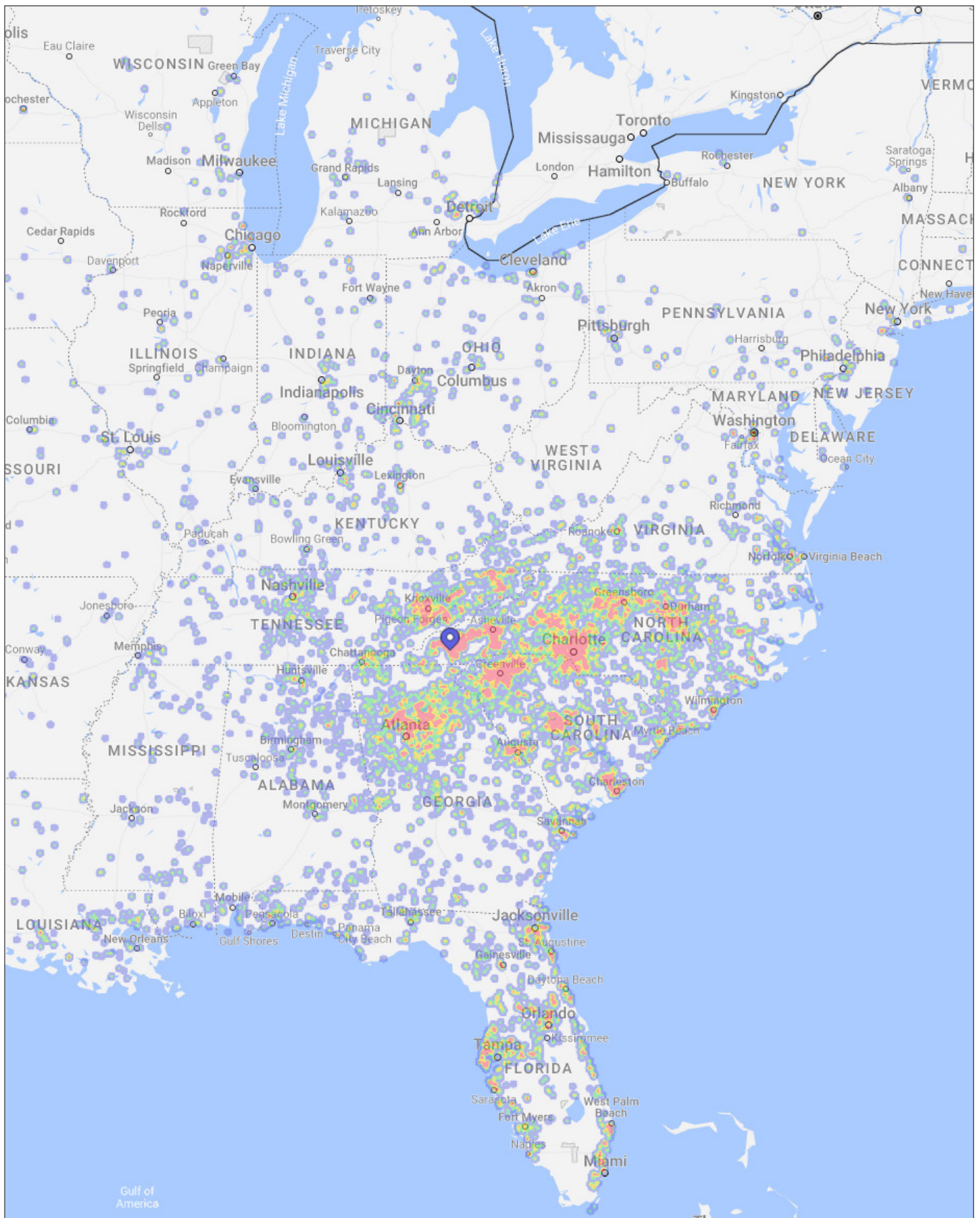


Figure: 7. GSMR Trade Area (Eastern US)

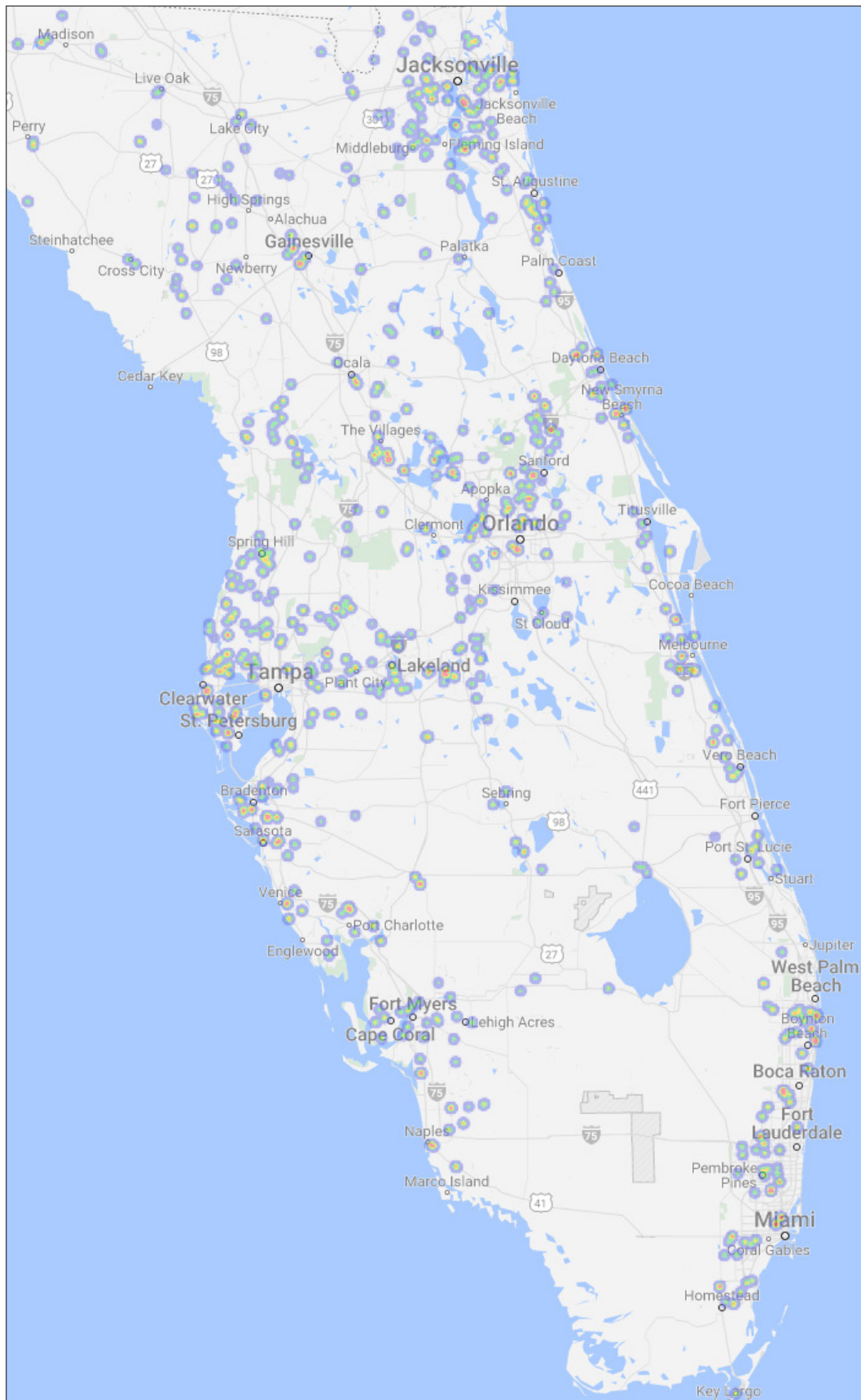


Figure: 8. GSMT Trade Area (Florida)



GSMR Demographics

The Great Smoky Mountain Railroad attracts visitors from across the demographic spectrum. While no one market segment strongly prevails, those containing middle - and higher-income households are the most common. Figure 9 shows the share of visitors by Experian Mosaic segment in 2023.

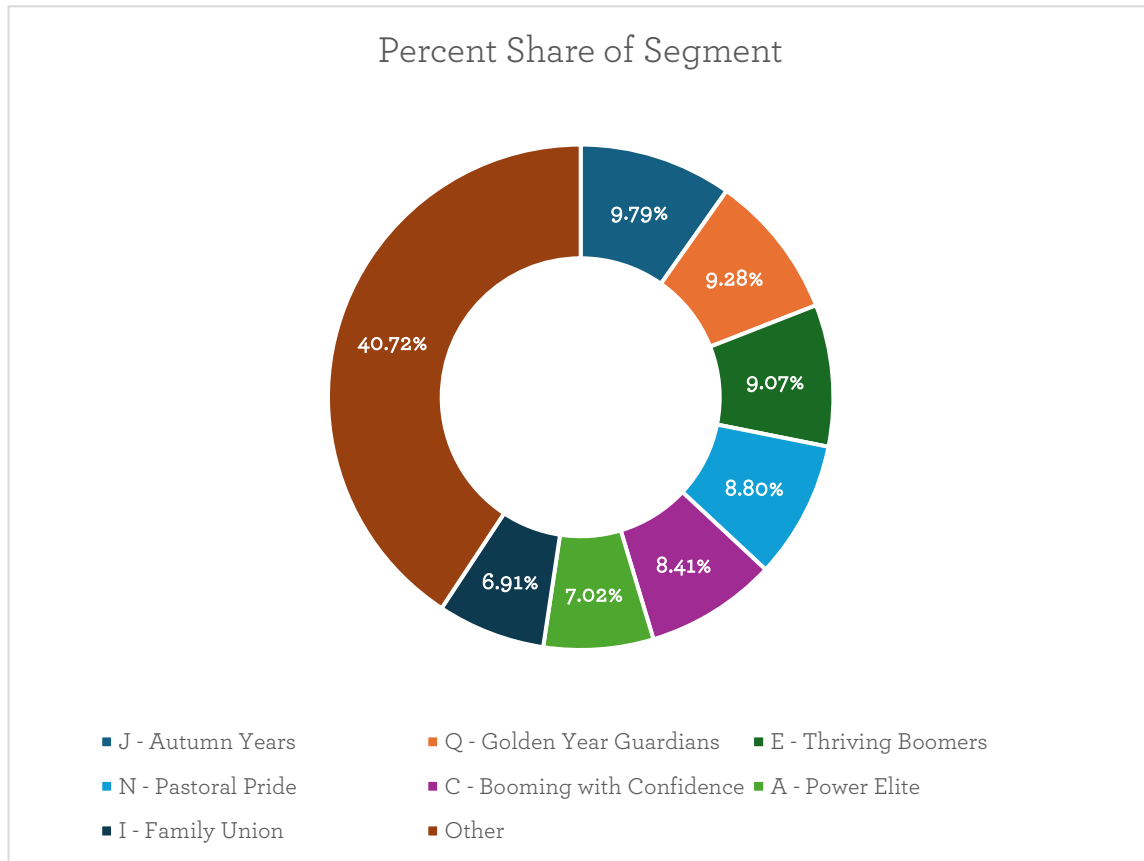
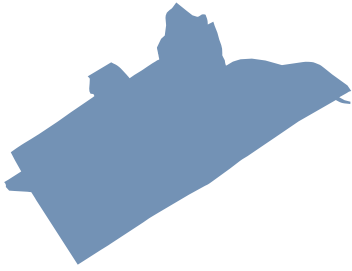


Figure: 9. GSMR Demographic Breakdown

GSMR in the Greater SWNC Region

Before and after their train ride, GSMR patrons also visit other places in Bryson City. Figures 11 and 12 show where visitors went immediately before and after their GSMR visit across the region and in downtown Bryson City respectively, with each dot's color indicating the location type and its size indicating the number of visits. Importantly, only those who spent at least ten minutes at GSMR's Bryson City station and depot are measured, meaning this may, if anything, be an undercount. The most popular places to visit were shops and dining on Everett and Mitchell streets. The most common categories that GSMR riders visit before or after their trip are shops/services, dining and beauty/spa. Visits tend to stay with the downtown area, with the Valley Village shopping center being the next most common destination. 58,500 people visited some place in Bryson City before boarding a GSMR train and 28,400 visited after the scenic excursion. This accounts for 85% of visits occurring directly before a GSMR excursion and 59% of visits occurring afterwards, indicating a strong spillover effect for local business from GSMR visitors. Notably, over 500 riders in 2023 came directly from Pigeon Forge before their visit, while over 400 came directly from the Asheville area, suggesting that visitors are including the railroad and downtown Bryson City as part of larger trips beyond the study area. Darrell Farms, Great Smoky Mountains National park and Oconaluftee Park are also common locations visited before or after the GSMR, as show in Figure 10.



51%
*Of Visitors Stay
in **Bryson City** after
their trip*



94%
*Of Visitors Stay
in **the Region** after
their trip*



3%
*Of Visitors Come
From **Outside the Region**
before their trip*

85%
*Of Visitors Went
Somewhere in
Bryson City
Before Boarding*

59%
*Of Visitors Went
Somewhere in
Bryson City
After Boarding*

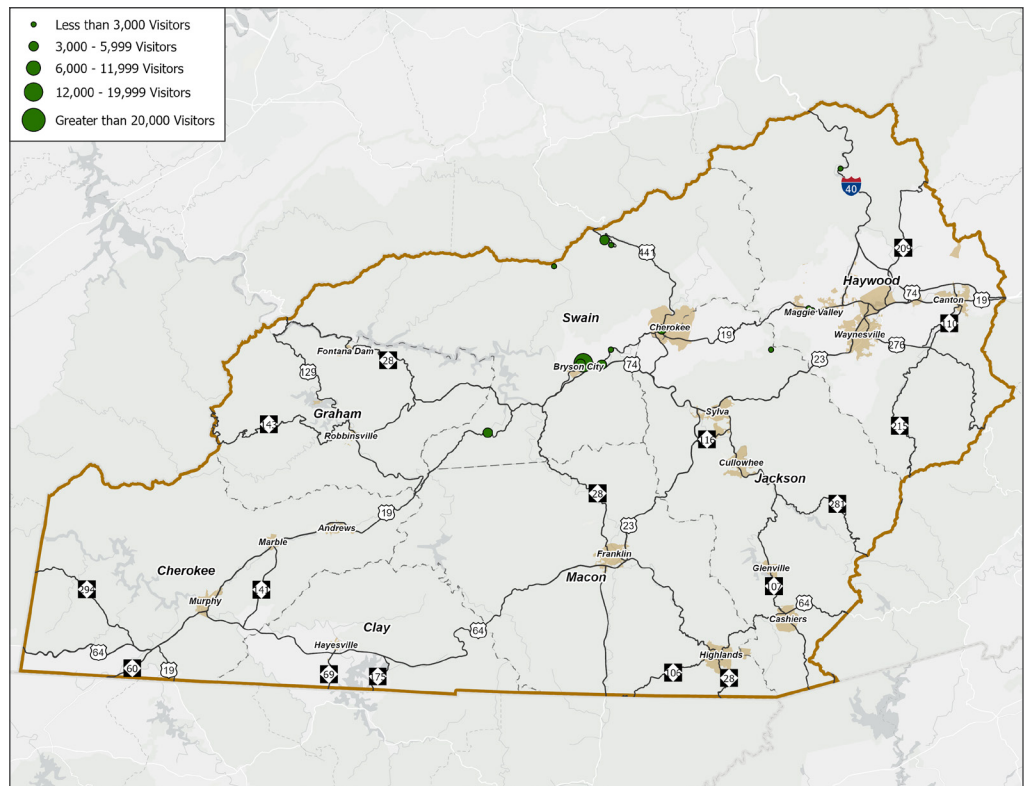


Figure: 10. GSMR Other Places Visited



Figure 11. GSMR Places Visited Before Boarding

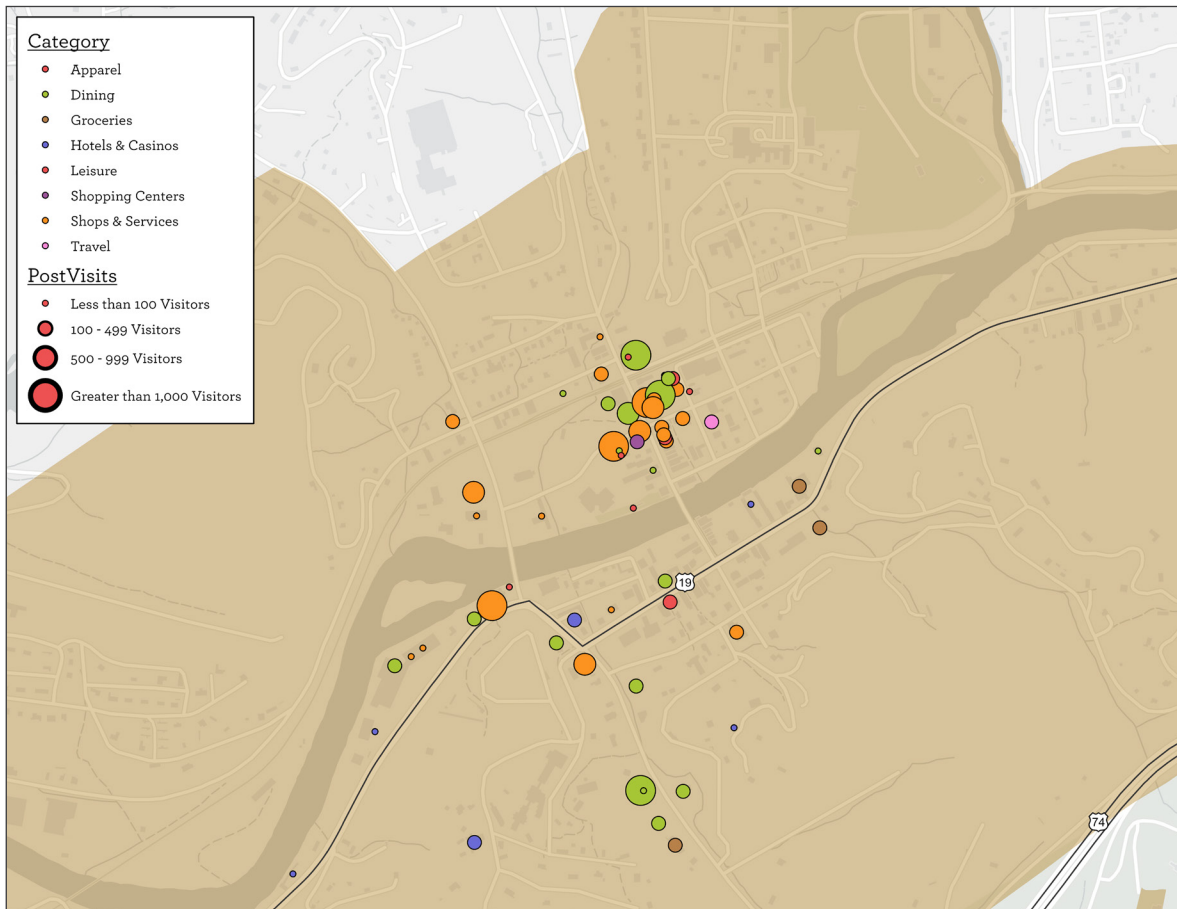
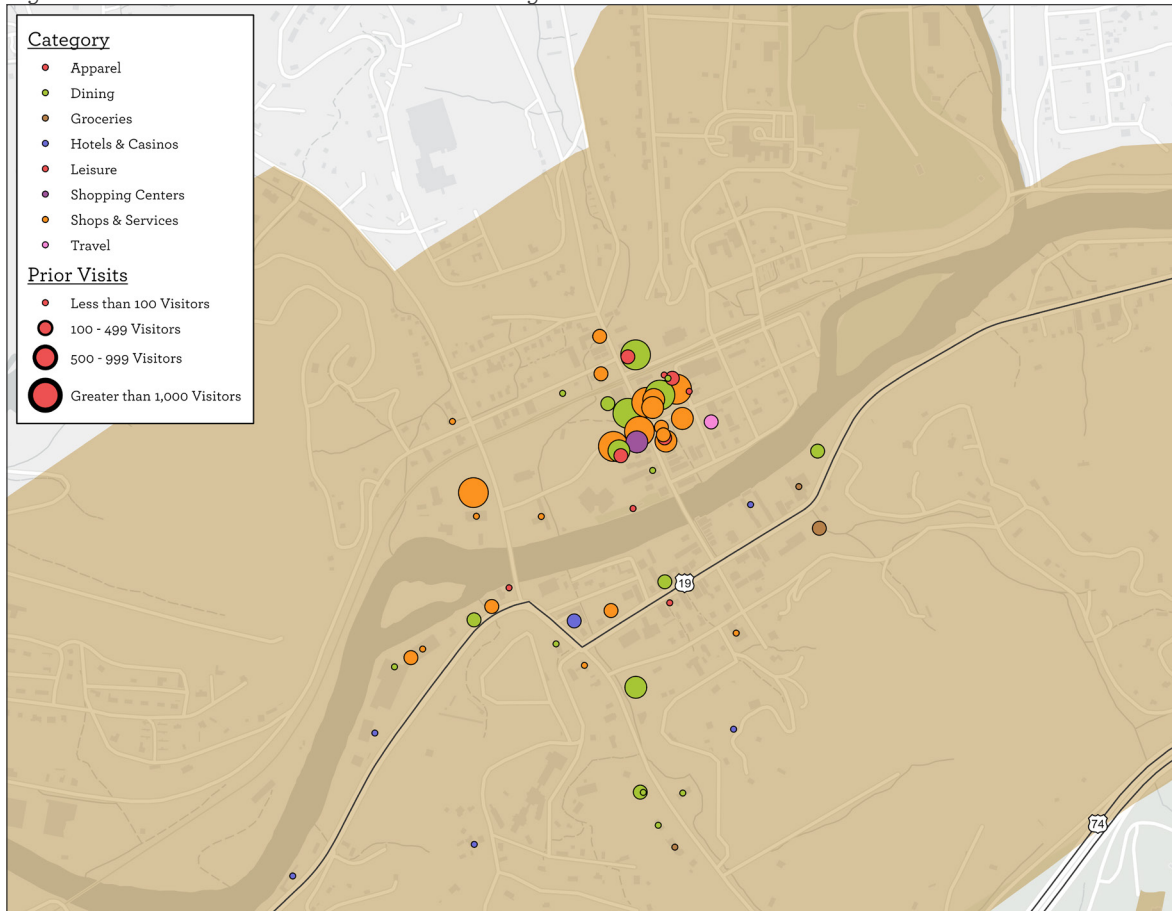
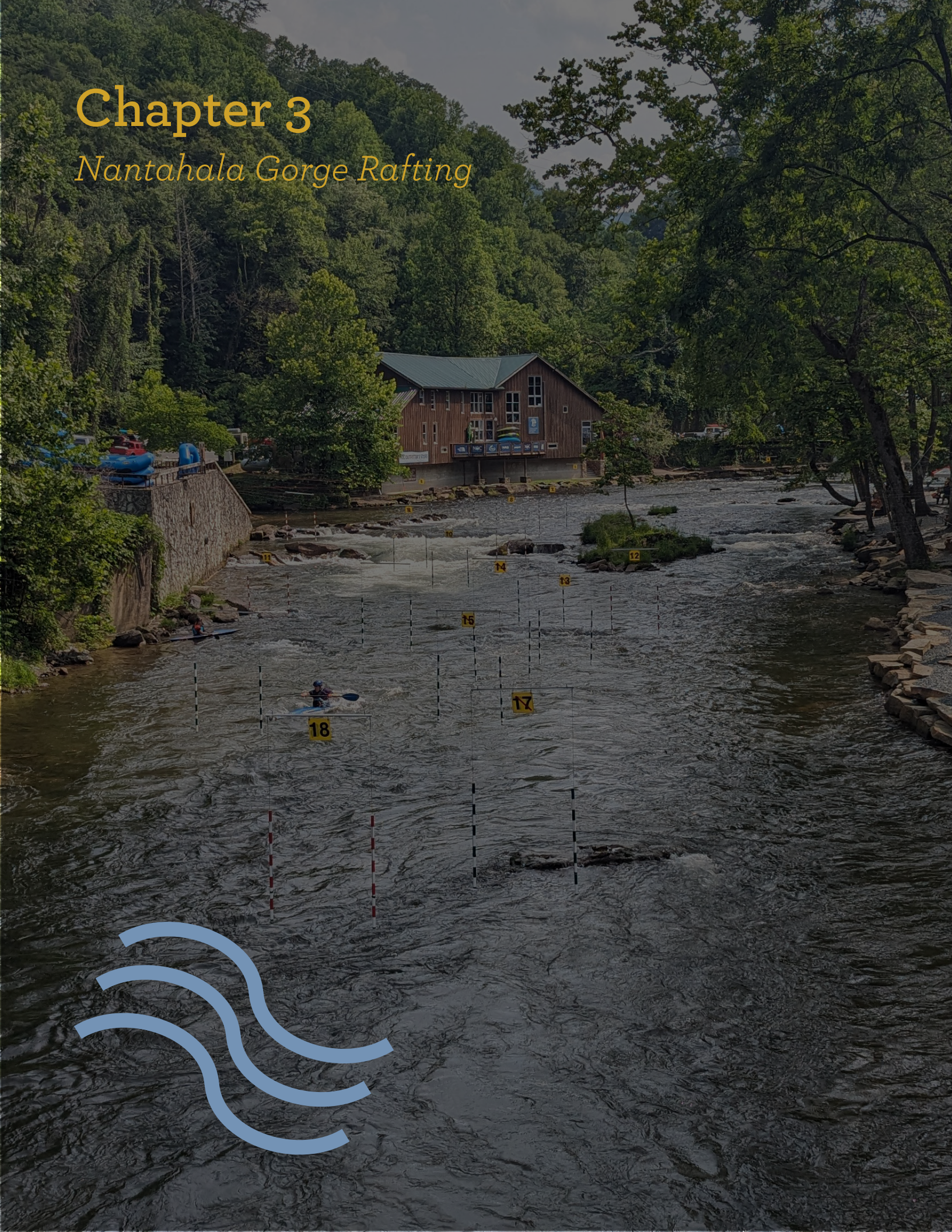


Figure 12. GSMR Places Visited After Disembarking

Chapter 3

Nantahala Gorge Rafting





Nantahala Gorge Rafting

The Nantahala Gorge's high walls give it its name, which means "land of the noon day sun," and with the drop in elevation creates the rapids which makes the Nantahala River nationally renowned. Those high walls also create an area with weak cellular network coverage. This makes measurement using tools such as Placer more difficult, and so the numbers presented here should be taken as an undercount. The Nantahala Gorge has 11 rafting outfitters with a total combined visitation of 551,100 visitors during 2023. Figure 13 shows the visitation by outfitter. The Nantahala Outdoor Center has the largest share of visitors at 481,400 visitors. In addition to the outfitters, two commercial and public put ins also pull in additional individual rafters at the Upper Put In (at the intersection of US 19/74 and Wayah Rd) and Freebee Memorial Park. 1,400 people put in at the Upper Put In and 21,000 people visited the Freebee Park.

Rafters visit many different places in the region before and after their visit to the Nantahala Gorge. Figure 14 shows all the places which were visited. Figure 15 shows the places rafters dined, and Figure 16 shows where rafters stayed with insets for Murphy, the Nantahala Gorge, Cherokee, and Bryson City. Locations within the Nantahala Gorge had the largest share of dining and lodging visits with 37,600 lodging and 28,430 dining visits. The top two largest lodging and camping options in the Nantahala Gorge were Wildwater rafting at 18,800 and The Resort at Nantahala Village at 7,000. Other popular places to stay in the region were Harrah's Cherokee Valley River Resort at 5,900 visits and the Microtel Bryson City with 2,600 visits.

Over 30,000 visitors come from outside the region immediately before rafting trip, showing that visitors consider the Nantahala Gorge as an important part of their trip to the Southern Appalachians even when they are not staying in SWNC. 5,400 visitors came from Blue Ridge, GA and Copperhill, TN, 1,500 visitors came from Gatlinburg, Pigeon Forge, and Sevierville. Asheville also proved an important market with almost 10,000 visitors coming from the Land of the Sky. Finally Atlanta and Chattanooga provided 4,800 and 2,300 visitors respectively.

The combined impact of the Nantahala Gorge rafting outfitters cannot be understated, as the visitation data shows visitors to the gorge spend time and money across the region with 181,300 visits or 86% of visitors staying in the region after their trip. Nearly 30% of visitors spend time at another Nantahala Gorge restaurant, inn, or campground after their trip. 22% of visitors spend time in Bryson City, and another 17% go to locations in Cherokee County.

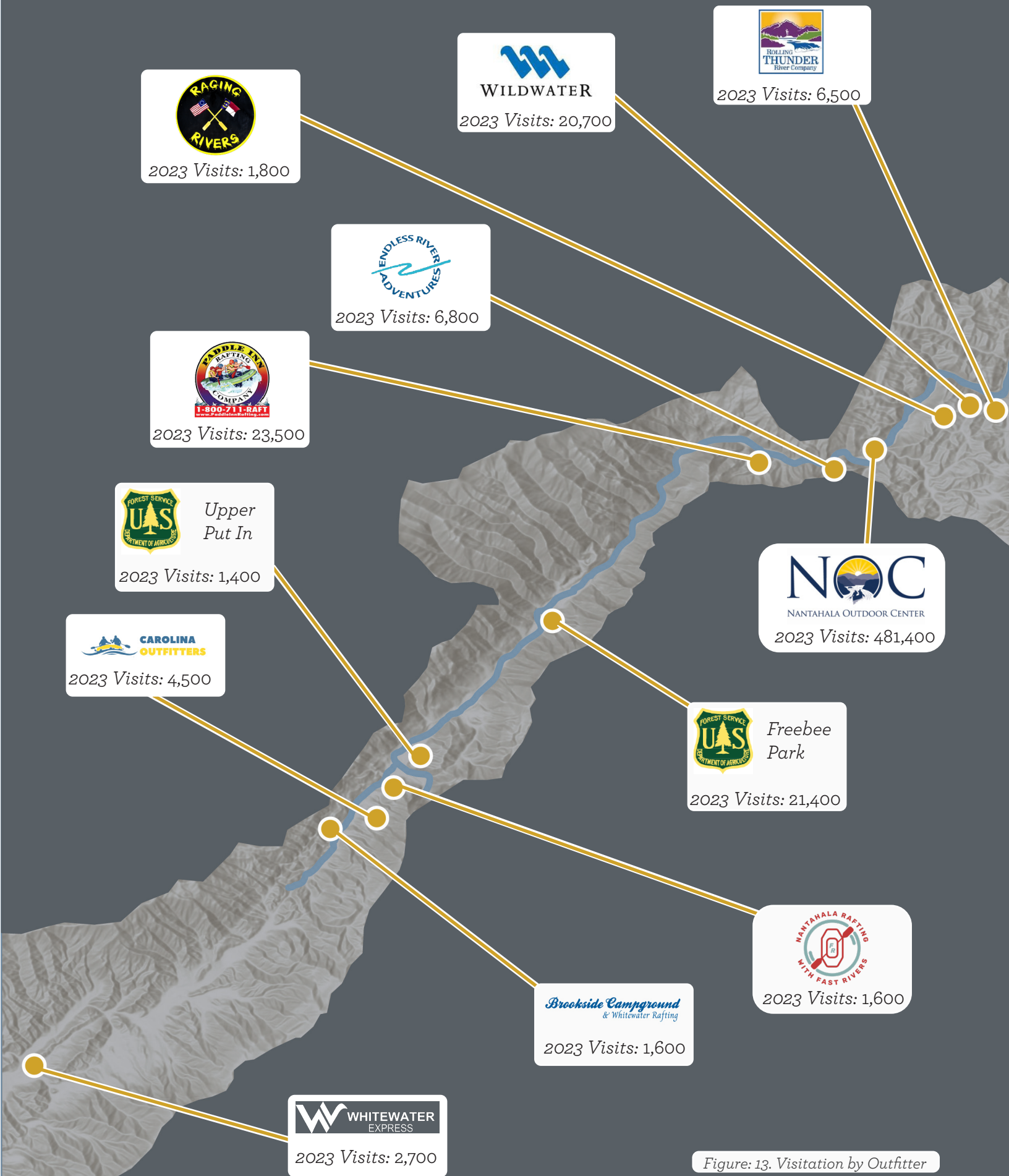


Figure: 13. Visitation by Outfitter



86%
*Of Visitors Stay
in **the Region** after
their trip*



13%
*Of Visitors Come
From **Outside the Region**
before their trip*

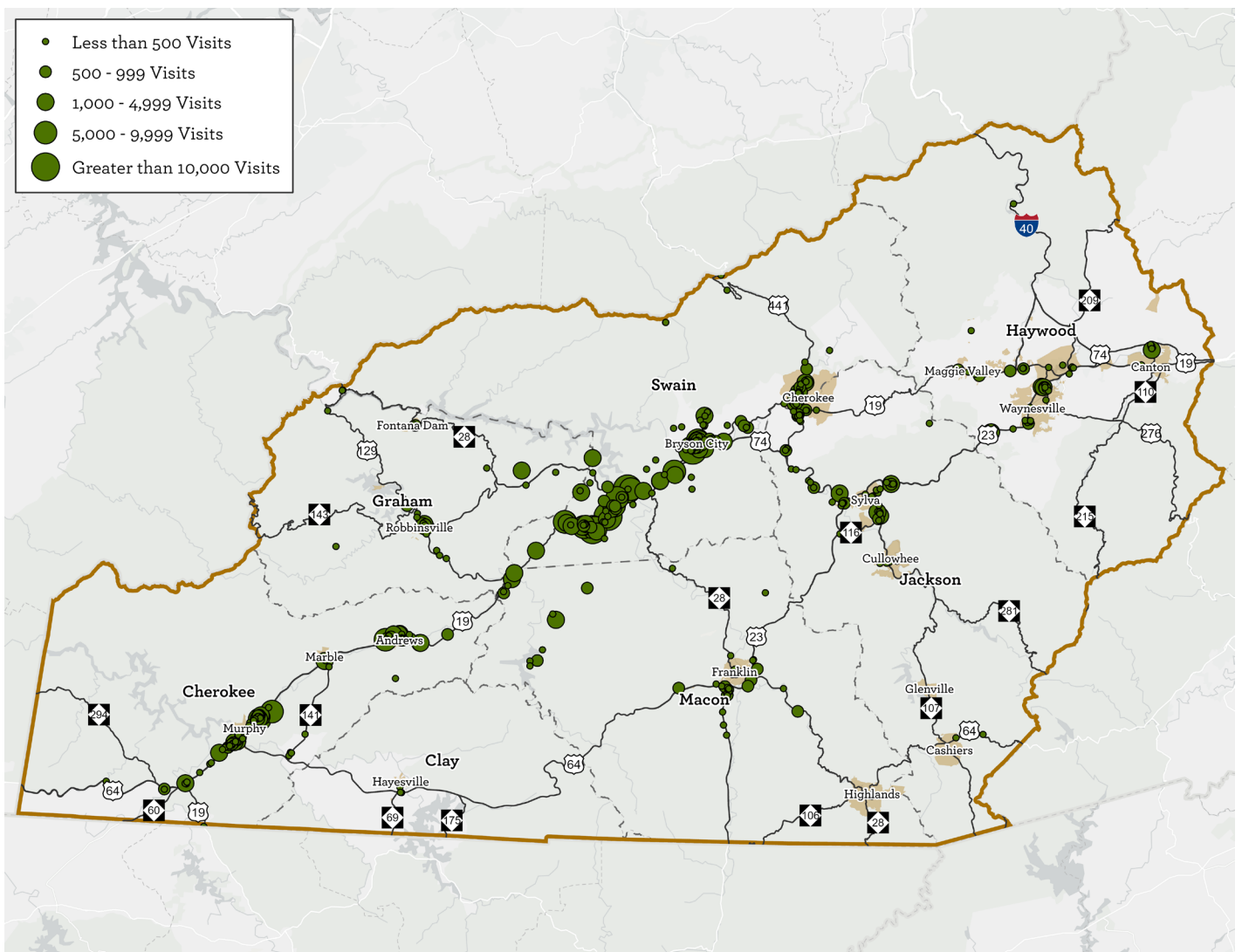


Figure: 14. Nantahala Gorge Places Visited After

- Less than 500 Total Visits
- 500 - 999 Total Visits
- 1,000 - 1,999 Total Visits
- 2,000 - 4,999 Total Visits
- Greater than 5,000 Visits

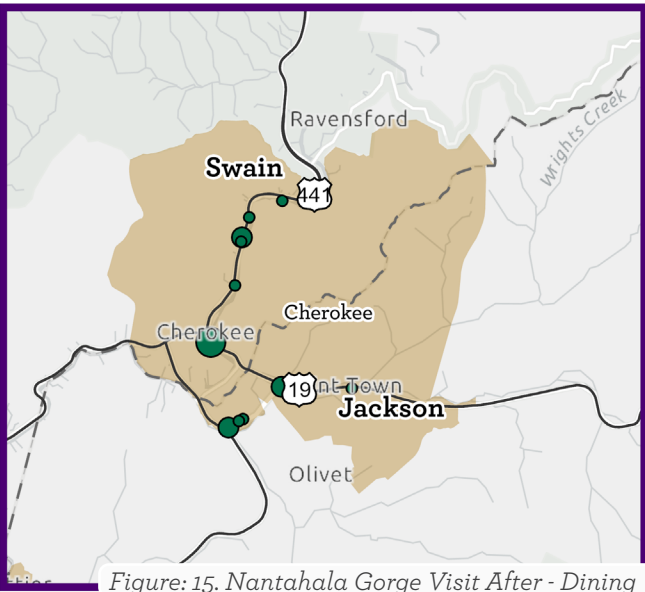
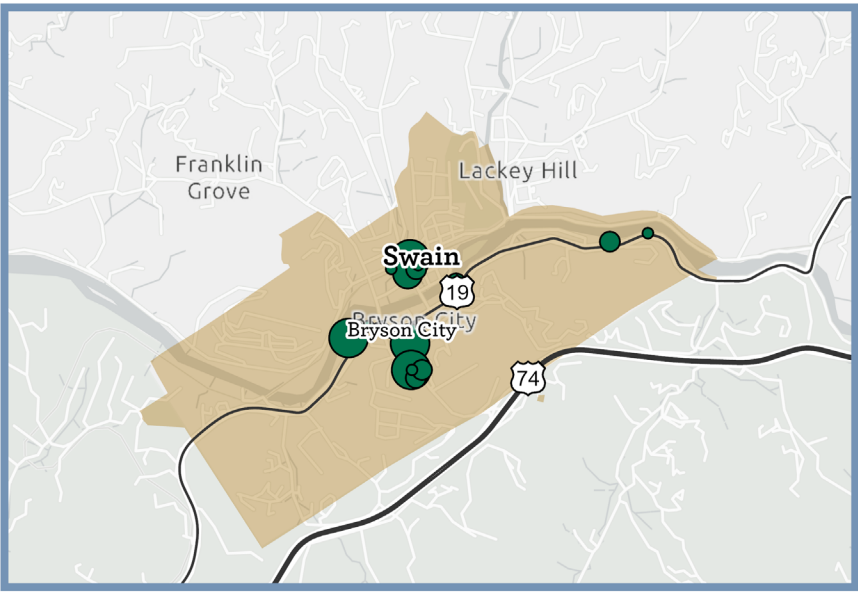
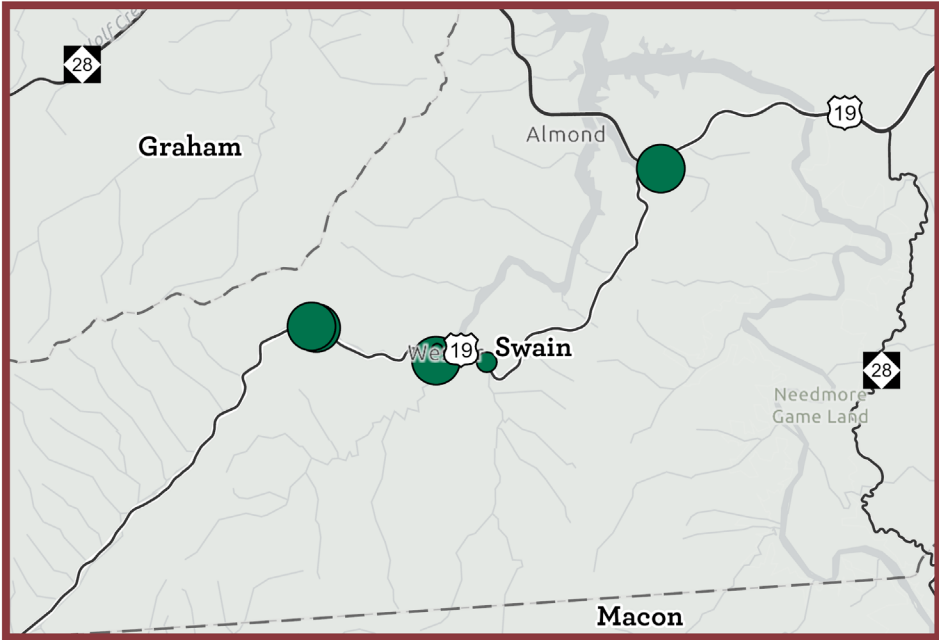
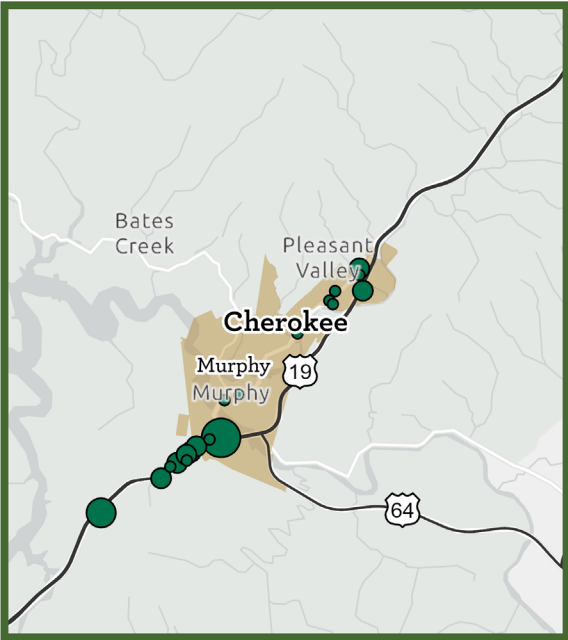
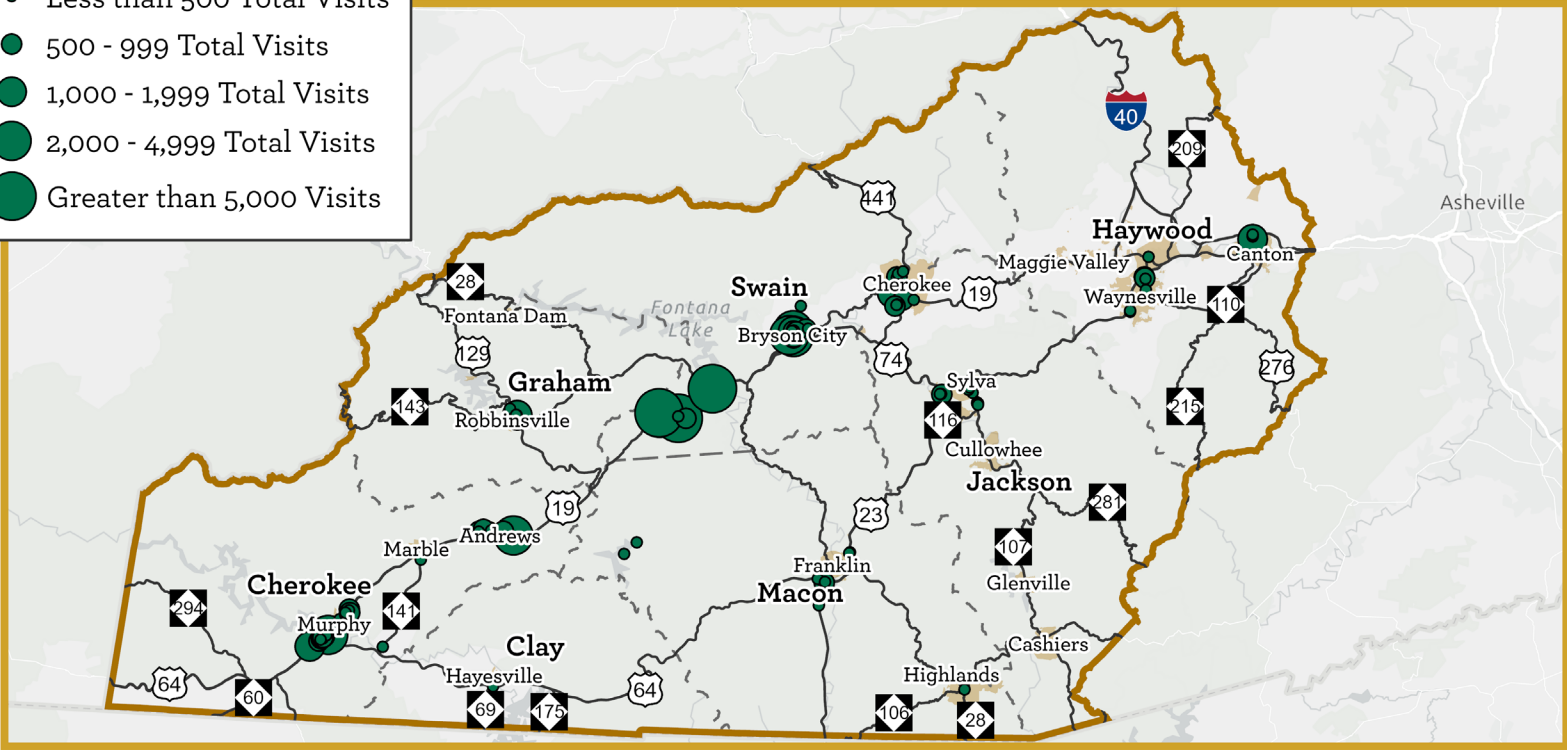
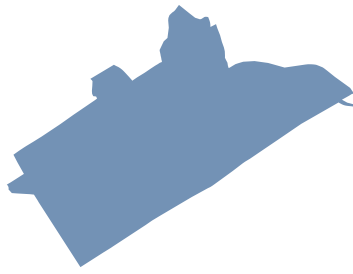


Figure: 15. Nantahala Gorge Visit After - Dining



37%
*Of Visitors Stay
in **Bryson City** after
their trip*



91%
*Of Visitors Stay
in **the Region** after
their trip*



6%
*Of Visitors Come
From **Outside the Region**
before their trip*

29%
*Of Visitors Went
Somewhere in
Bryson City
Before Their
Excursion*

37%
*Of Visitors Went
Somewhere in
Bryson City
After Their
Excursion*

Figure 16: NOC Other Places Visited

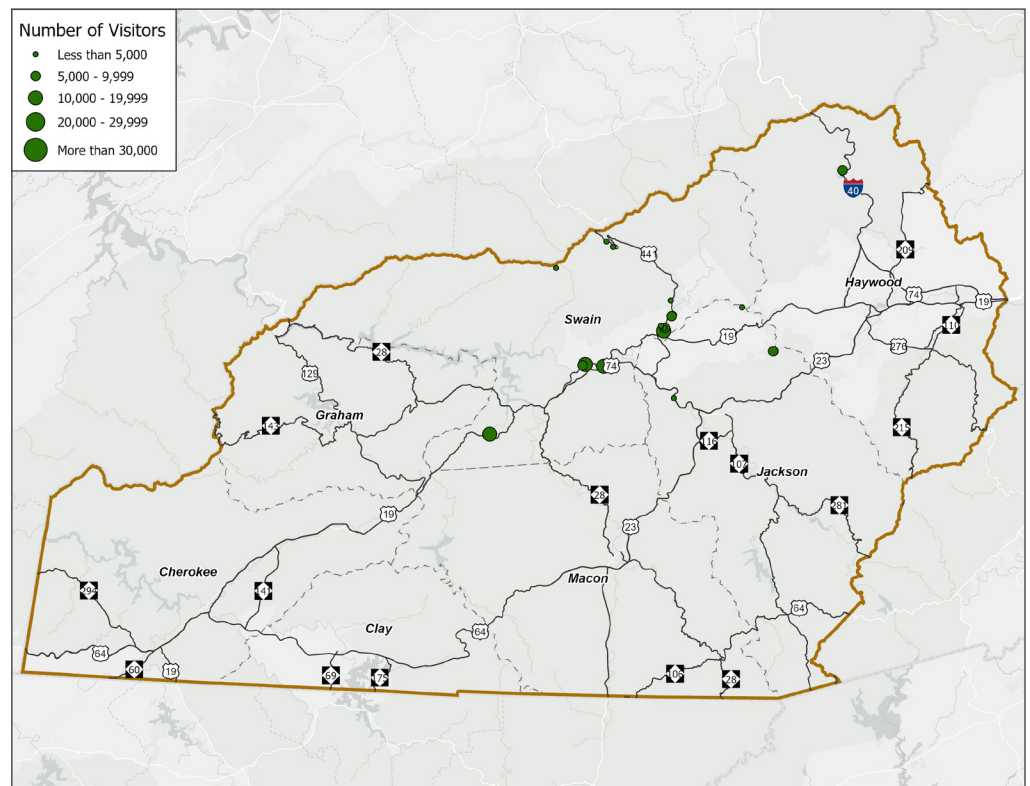




Figure: 21. NOC Places Visited in Bryson City Before an Excursion

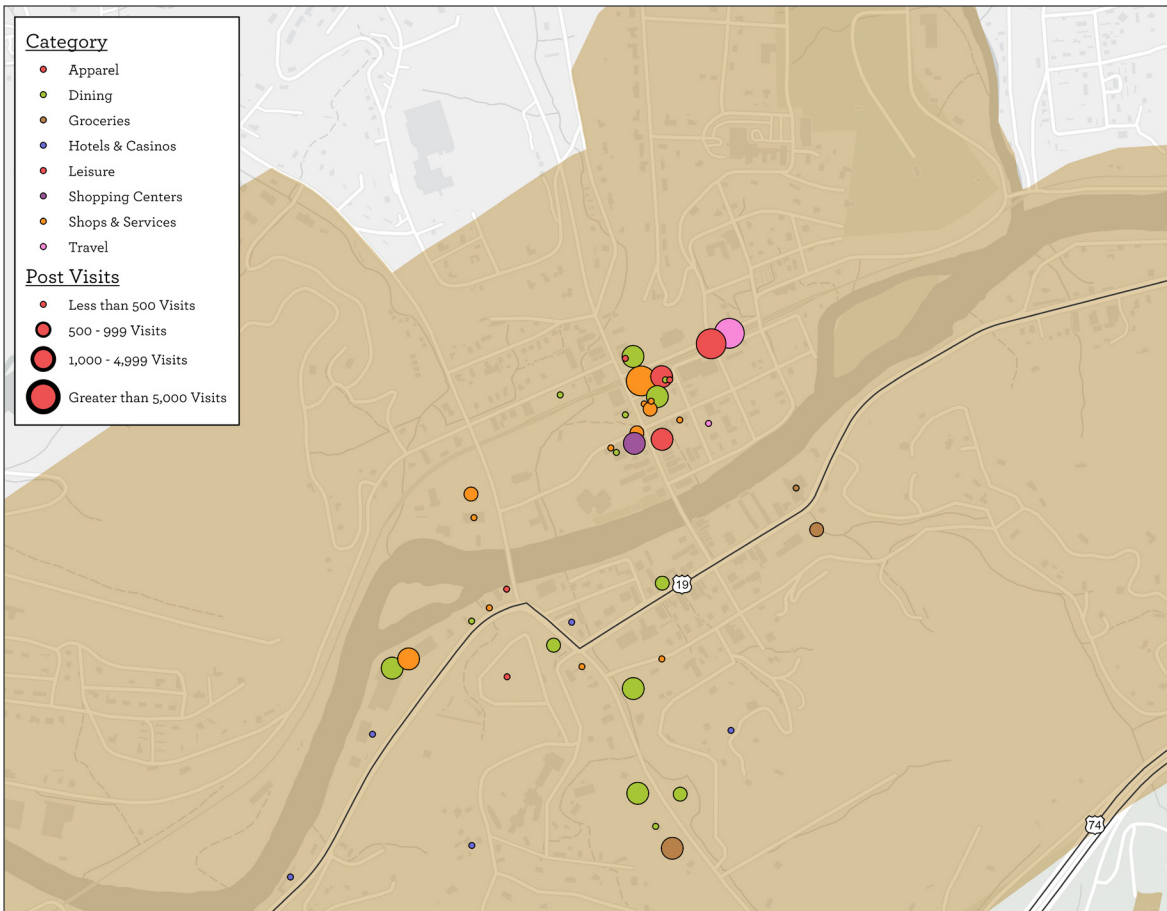
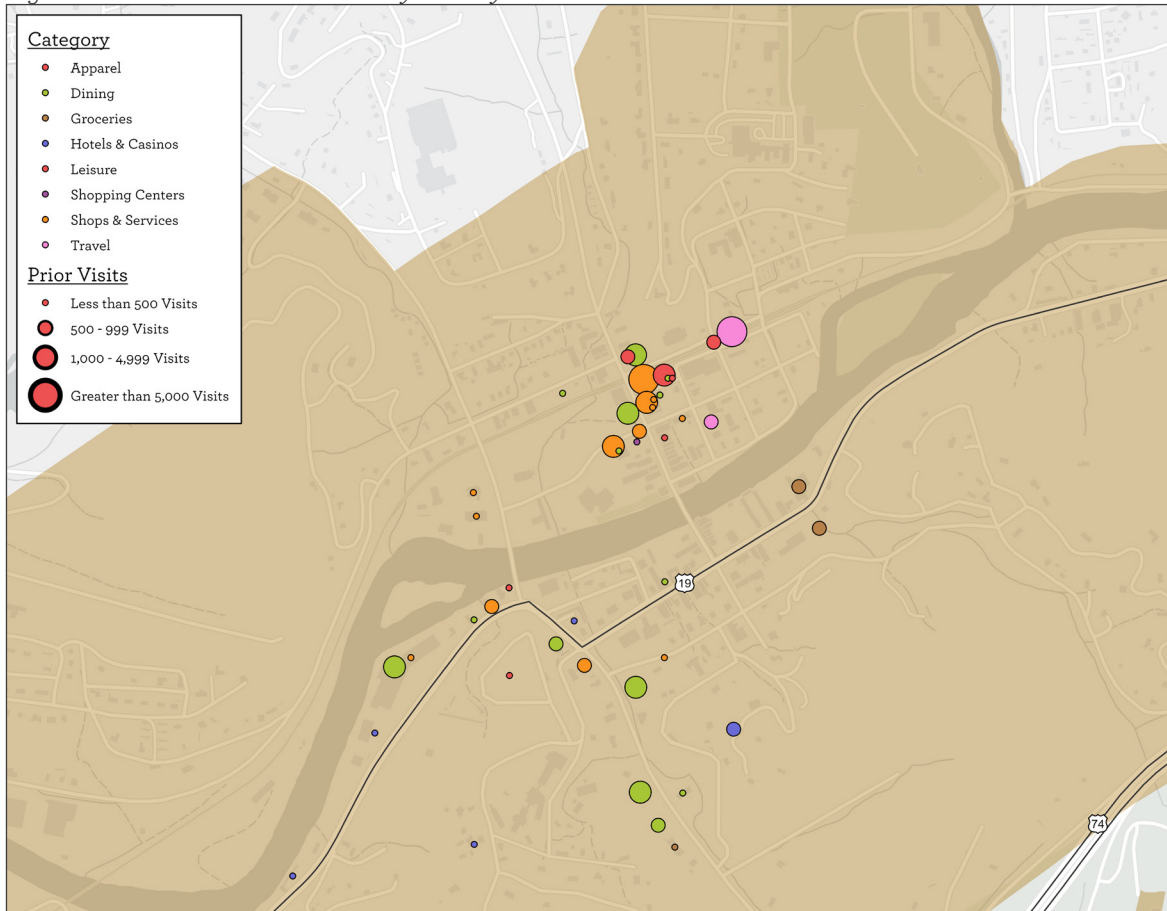


Figure 17: NOC Places Visited in Bryson City After an Excursion