Ice Age Trail
Economic Impact Report

ICE AGE TRAIL
ALLIANCE

February 2020

University of Wisconsin
Whitewater

Fiscal & Economic Research Center

Table of Contents

Executive Summary

Project Overview

The Ice Age Trail Alliance (IATA) in partnership with the Fiscal and Economic Research Center (FERC) at the University of Wisconsin–Whitewater analyzed and quantified the economic impact of the Ice Age Trail. The objective of this study is to measure the annual economic impact of the Ice Age Trail to the State of Wisconsin and the local trail communities by determining the annual number of users who utilize the trail. The consideration of a variety of factors is necessary to accurately portray the true impact of trail users on the local economies and Wisconsin's economy as a whole. Those factors include but are not limited to the duration of stay, activities partook in, size of the group, and the annual usage of the Ice Age Trail. More than 4,000 surveys were collected and used to quantify the monetary impact on local economies and for the Wisconsin economy as a whole by analyzing the average expenditures of trail users. Additional methods applied were the IMPLAN input/output technique along with other statistical analyses which are discussed further in the report.

Key Findings

Using the input/output analysis with the information collected using the surveys, the FERC was also able to calculate the economic impact of the Ice Age Trail on the State of Wisconsin. Measuring direct effect, indirect effect, and reduced effect of expenditures by trail users, the Ice Age Trail generates about 3,616 full-time equivalents (FTE) jobs, $106,104,844 in labor income, as well as $355,090,682 in output on an annual basis. This economic contribution also exceeds $27 million in additional state and federal taxes annually, from tax on production and goods, household and corporate taxes.

The Fiscal and Economic Research Center (FERC) with assistance from the Ice Age Trail Alliance and Wisconsin Department of Natural Resources, surveyed Wisconsin residents all across the state to ascertain the impact of the trail on the state economy. Some of the relevant findings from the survey include:

- About 90% of respondents stated that they had used the Ice Age Trail before.
- For those individuals that have been to the Ice Age Trail before, the average amount of times they've used the trail in the last 12 months averaged to 33 times.
- The average number of people in a group is three (3).
- About 46 percent of respondents stated that they stay overnight when visiting the trail and of these 46 percent (a large majority) stated that they stay at either a campsite or a hotel/motel.
- Lodging accommodations are the largest expenditure of trail users, followed closely by travel expenses and restaurant/bar tabs.

The FERC studied what activities the Ice Age Trail was being utilized for and of the activities, which activities increased visit frequency. We predict these activities and certain behavioral patterns of the visitors using statistical modeling techniques such as OLS regression and clustering techniques such as Classification and Regression Trees (CART). In terms of the characteristics for the visitors, we find that the number of visits increase (holding all else constant) for the visitors who: listed "live in the area" as their main purpose for visiting the Ice Age Trail. The visitors seem to be familiar with the term "IAT" and or an active volunteer for the

“IATA” (Ice Age Trail Alliance). In terms of activities which the trail is utilized for, we found that visitors use the trail for activities such as trail running/jogging, snowshoeing and wellness/fitness. The “engaging terrain” seems to be the most appealing characteristic of the Ice Age Trail for frequent visitors. The visitors use the Ice Age Trail more often during fall, summer and spring seasons in comparison to the winter season. For the promotional channels, we found visitors who visit more frequently became aware of the Ice Age Trail using the radio and not using social media platforms or state tourism publications. Lastly, these frequent visitors spend a higher amount on overnight accommodations and restaurants/bars on average, in comparison to other items.

Introduction

Wisconsin Tourism

According to “Tourism Economics”, an Oxford Economics Company, Wisconsin tourism saw total business sales eclipse of $21 billion in 2018. The state had over 112 million people visit in 2018, as visitors per year continued to increase between 1.9% and 2.8% for the last five (5) years. **$13.3 billion was spent by tourists in 2018 an increase of 4.7% from 2017** as there was an increase in total visitation along with an increase in tourism prices. This significant increase is the highest since 2014 and is up 45% of tourism spending in 2010. This type of spending supports close to 8% of all private jobs in Wisconsin. One (1) in thirteen (13) jobs in Wisconsin is sustained by tourism spending, as it has been for the last decade.

Visitors to the State of Wisconsin generated $1.2 billion in federal taxes and $1.6 billion in state and local taxes, which resulted in the average Wisconsin household saving $680 due to tourism. In addition, for every $1 spent on advertising for state tourism $7 was returned to the state in the form of tax revenue and $89 in the form of visitor spending.

There have been some significant spending changes over the past five (5) years for Wisconsin Tourism. A $500 million dollar increase in spending was seen in the lodging and food and beverage industries since 2014. This uptake accounts for over half of all growth since 2014 for tourism spending. As of 2018, those two industries represent 53% of all tourism spending and a total of $7 billion in spending. The seasonality of visitor spending in Wisconsin is led by a 4.89% growth in Q3 of 2018, for $4.2 billion. The biggest quarter to grow from 2017 to 2018 was Q4 which experienced a 5.49% growth and eclipsed $3 billion in spending for visitors. **(More information on Wisconsin Tourism 2018 in Appendix C).**

Wisconsin Ice Age Trail Alliance and Ice Age Trail Background

The Wisconsin Ice Age Trail Alliance (IATA), which is headquartered in Cross Plains has the responsibility of developing and maintaining one of only eleven National Scenic Trails in the United States. This stunning thousand-mile footpath is the remnants of a colossal movement of glacial ice which left behind one of the world's premium examples of glaciation.

The Ice Age Trail Alliance (IATA) mission is to create, support, and protect a thousand-mile footpath tracing Ice Age formations across Wisconsin which is known more commonly has the Ice Age National Scenic Trail. The Trail crossing 31 counties provides the ultimate adventure for all types of outdoor enthusiasts. The Ice Age Trail can offer a diversity of silent sport options alongside some of Wisconsin's most iconic lakes and rivers, sceneries, woodlands, and geographical sites.

This National Scenic Trail is part of every Wisconsin resident's life. It offers a wide range of activities across multiple landscapes and waterways. One of the biggest benefactors of the Ice Age Trail is the local communities. Buying local is further promoted by the IATA who encourages trail users to support the local trail communities. The research objective of this project is to quantify the value local businesses and Wisconsin receives from users on the Ice Age Trail along with the people who volunteered their time to maintain and build various segments of the trail.

Hundreds of people every year volunteer their time to preserve and improve the Ice Age Trail. For example, in our 2019 survey, 514 respondents indicated they volunteered their time to the upkeep of the trail. The preservation of the trail is managed through a partnership which encompasses the National Park Service, the Wisconsin Department of Natural Resources and the Ice Age Trail Alliance with additional funding coming from partners of the Ice Age Trail Alliance which include private donors, local business, non-profits, and municipal governments.

The most vital aspect of preserving and maintaining the Ice Age Trail is focusing on the users of the trail. For instance, there are an estimated 1,500,000 visitors of the Ice Age Trail annually, which is up from 1,252,685 based on a 2011 survey. The trail attracts all types of outdoor enthusiasts from animal watchers to hikers to silent sports advocates to vacationers.

Economic Impact

IMPLAN Analysis

There are two major forms of economic impact from the users of the Ice Age Trail, direct and indirect. To calculate the impact of expenditures by businesses around the Ice Age Trail, an IMPLAN input/output (I/O) model was used. IMPLAN (short for "impact analysis for planning") is an economic analysis software system utilized to study the average survey responses. An IMPLAN model is capable of determining the overall economic impact that initial spending has on the local economy. The IMPLAN model uses data gathered in our surveys and estimates to what extent different spending categories affect the local economy in terms of initial effect, direct effect, indirect effect, and induced effect. This input/output (I/O) model provides a means to capture and measure these effects. It uses the following three effects to measure economic impact:

- **Direct effect-** refers to production change associated with a change in demand for the good itself. It is the initial impact on the economy, which is exogenous to the model. In this case, it is the spending brought about by the businesses around the Ice Age Trail.

- **Indirect effect-** refers to the secondary impact caused by changing input needs of directly affected industries (e.g., additional input purchases to produce additional output). It concerns inter-industry transactions: The businesses around the Ice Age Trail have a demand for locally produced materials needed to procure their services. The success of these businesses affects all of the suppliers that provide inputs.

- **Induced effect-** is caused by changes in household spending due to the additional employment generated by direct and indirect effects. The induced effect measures the effects of the changes in household income: those individuals working at the businesses around the Ice Age Trail and the suppliers of those businesses spend money at restaurants, grocery stores, and shops.

These calculated effects can be seen below, yielding the results based on average expenditures of over 2.3 million visitors to the trail annually.

Table 15: Annual Economic Impact of the Ice Age Trail

Impact type	Employment (FTE)	Labor Income	Output
Direct Effect	2,605	$59,918,079	$206,766,895
Indirect Effect	486	$23,746,751	$77,445,281
Induced Effect	525	$22,440,014	$70,878,505
Total Effect	**3,616**	**$106,104,844**	**$355,090,682**

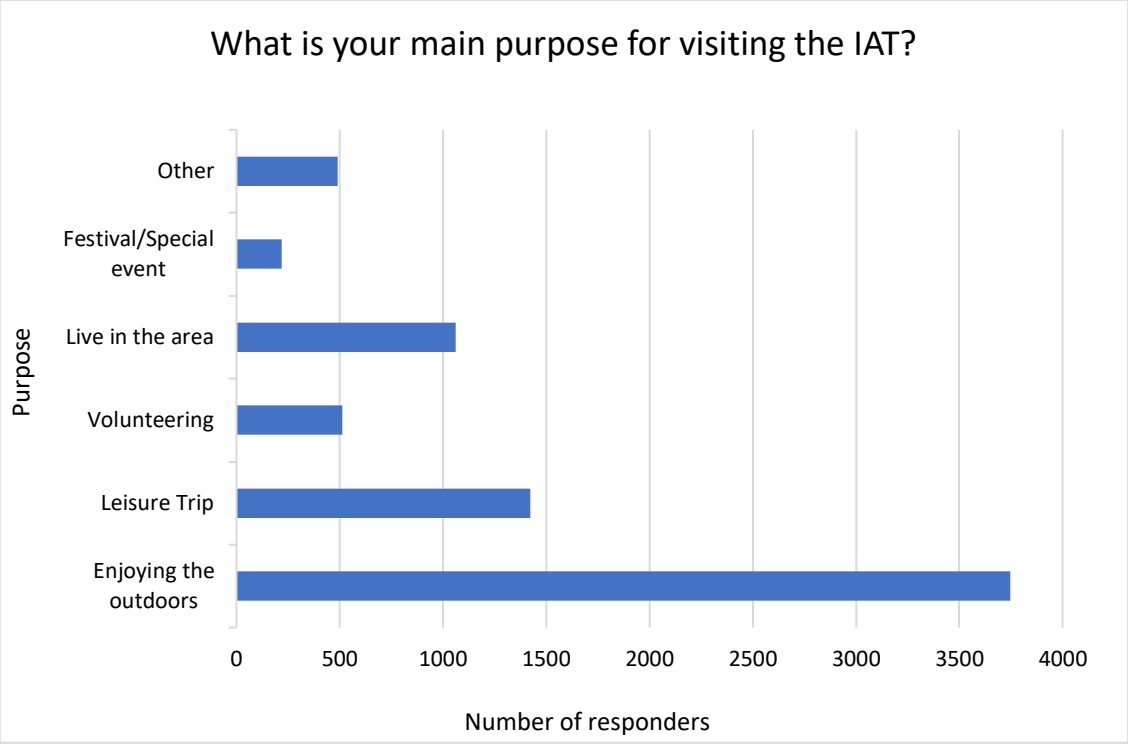
Along with a significant economic impact thanks to the visitors of the Ice Age Trail, IMPLAN analysis shows that these expenditures also lead to an increased tax base for communities around the trail, and the state as a whole. In total, tax revenue from the trail exceeds $27 million, coming from tax on production and goods, household and corporate taxes. These include park fees and taxes derived from tourism. (**See Appendix B for more information on IMPLAN model analysis).**

Qualitative Research – Survey Findings

Analyzing the data from two quantitative surveys reveals visitors' sentiments about the Ice Age Trail along with their spending preferences as it relates to their interaction with local trail communities and their expenditures on travel, shopping, and dining. Thus, this information is essential in developing the model used to quantify the impact the users of the Ice Age Trail have on the economy. The design and distribution of these were carried out from October-November 2019. The survey was provided to the Ice Age Trail Alliance (IATA) as well as the Wisconsin Department of Natural Resources (DNR) who both distributed it to current potential users of the trail via their internal email contact list, as well as a survey distributed by mail. There were about 1,602 respondents for the IATA survey, as well as about 3,431 for the DNR survey, with the FERC using over 4,600 of these surveys for our analysis. **(See Appendix A for Online/Mail Survey Questionnaire).** The data was analyzed and compiled from these surveys. A further visual summary of the results is discussed below.

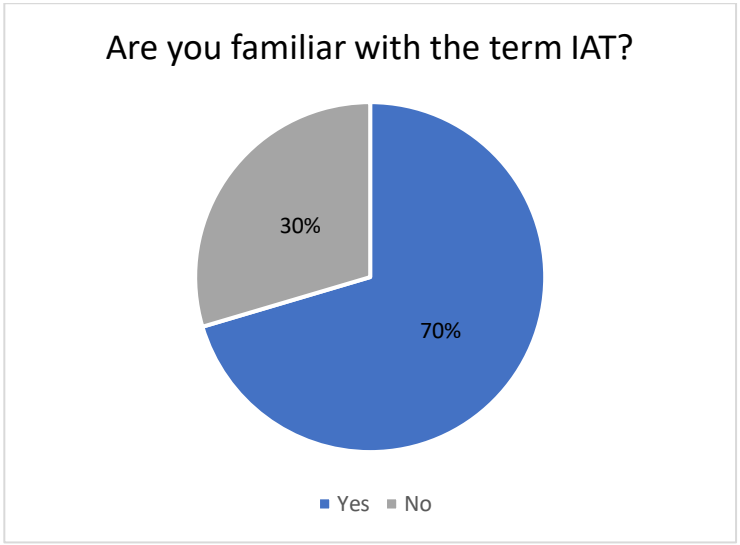
One of the first questions on the survey asked the main "reason(s)" for why the users visited the Ice Age Trail and the results are seen below in Table 1. The results vary, but by and large, simply enjoying the outdoors seems to be the reason why the users visit the IAT.

Table 1: Number of the responders based upon their stated purpose for visiting the IAT



Next, the survey asks respondents if they're familiar with the term IAT (Ice Age Trail). About 70 percent of the responders stated that they were familiar with the term IAT. A pie chart for the percentage of the responders based upon their response is shown in Table 2.

Table 2: Percentage of the responders based upon their familiarity with the term IAT



The survey inquired about the visitor preferences, asking which activities the visitors preferred, as well as which top 3 characteristics of the trail are the most appealing to them. From the number of responses, hiking seems to be the most popular activity among the responders, with "enjoying nature" being the second and "wellness/fitness" being the third most popular activity. Also, the responders chose "scenic", "natural" and "peaceful" most often when choosing their top three characteristics for the Ice Age Trail that are the most appealing to them. In Tables 3 and 4 we observe the number of responders based on their preferred activities and characteristics of the Ice Age Trail.

Table 3: Number of responders based upon their use of the IAT

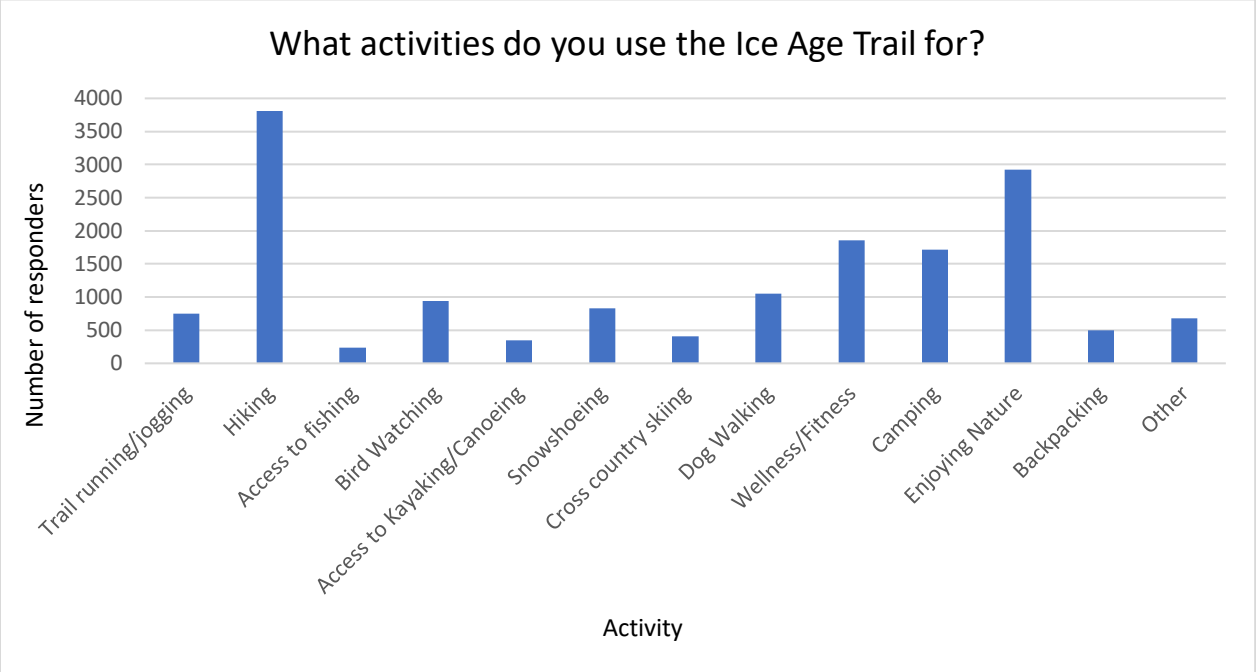
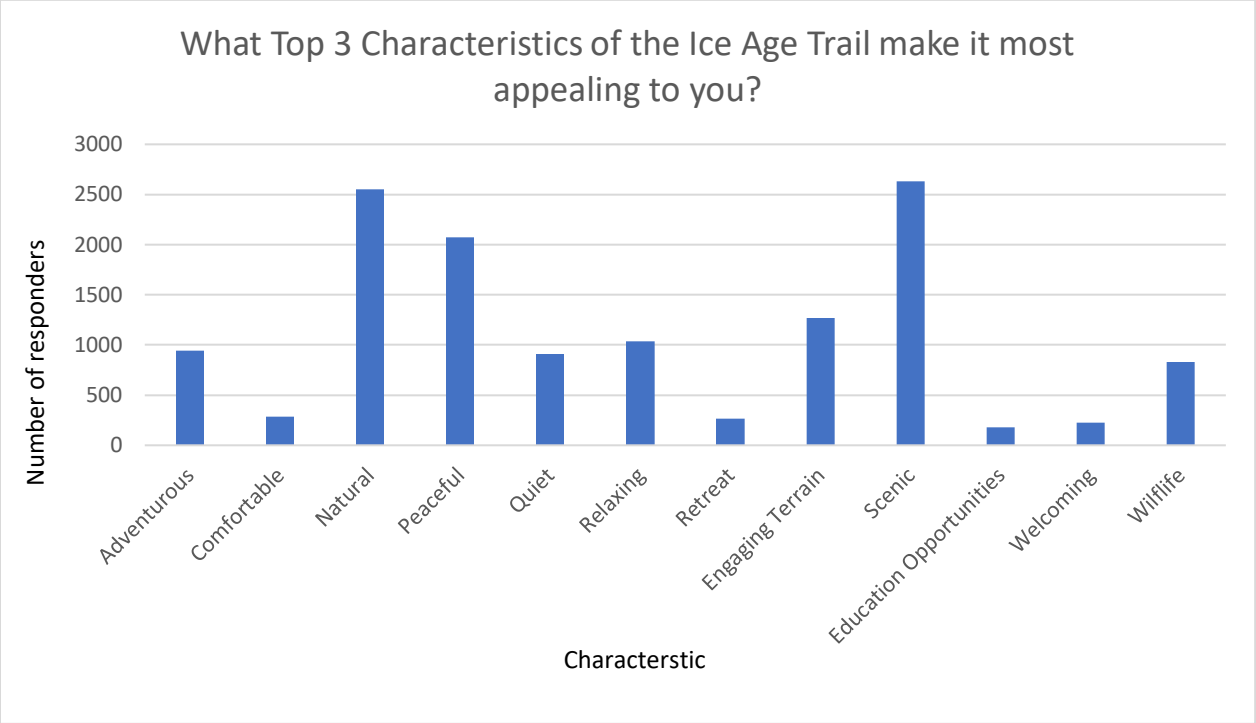
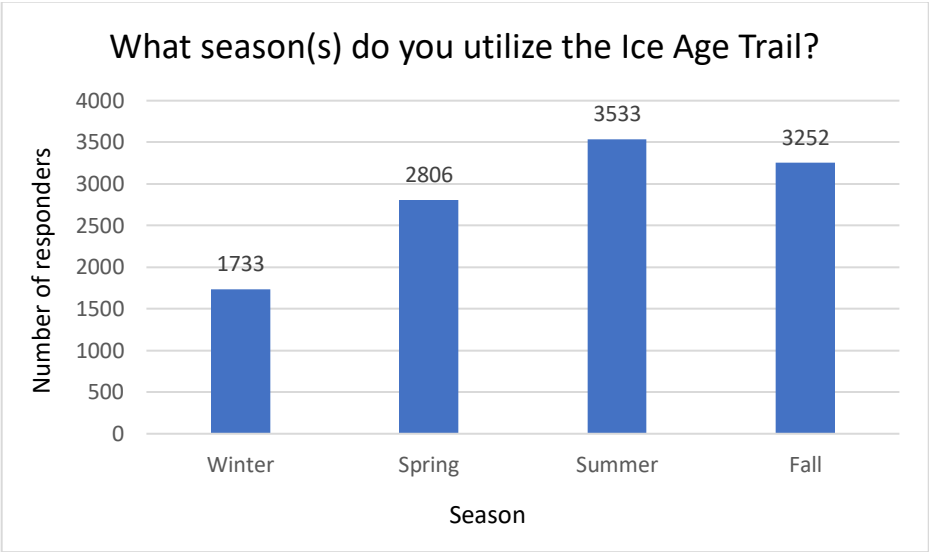


Table 4: Number of responders based upon their desired characteristics of the IAT



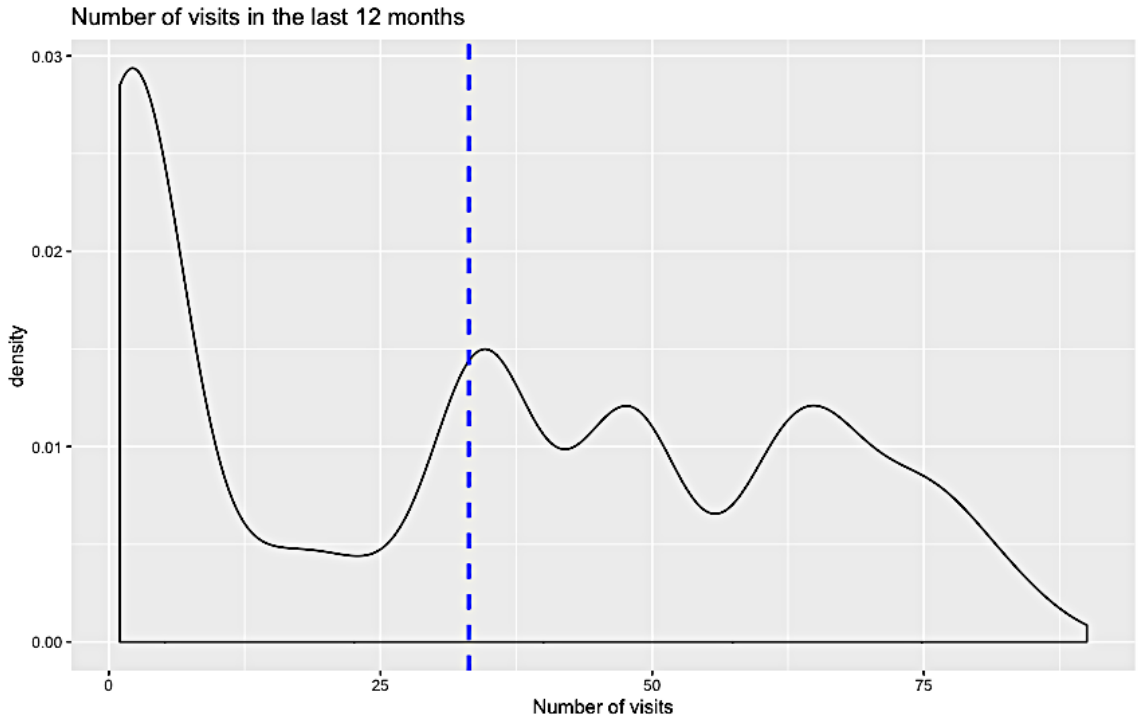
Next, the questionnaire asked responders about the seasons of the year during which visitors use the trail, with the results shown in Table 5 below.

Table 5: Number of responders based upon the season they utilize the IAT



One of the questions asked the responders, “How many times have you been to the IAT in the last 12 months?”, the mean number of trips within the last year were 33. We observe a density plot (Table 6) of the responses provided for this question, with the number of visits on the x-axis and density on the y-axis. The minimum number reported for this question is 1 time and maximum, 90 times, with the median being 34 times. One of the questions asked was about the average size of the party of visitors when they travel the trail, the average size reported was about 3 people.

Table 6: Density plot of the responses for the number of visits in the last 12 months



The next section of the survey goes into travel arrangements for visitors. The survey asked if visitors traveled out of town for their IAT visits, if they stay overnight and if so, what type of lodging they used for their overnight stays. The results of these questions can be seen below in Table 7, 8 and 9, with 46% stating that they stayed overnight for their trips and campsite is the most popular method for lodging.

Table 7: Percentage of visitors who travel from out of town for their IAT trip(s)

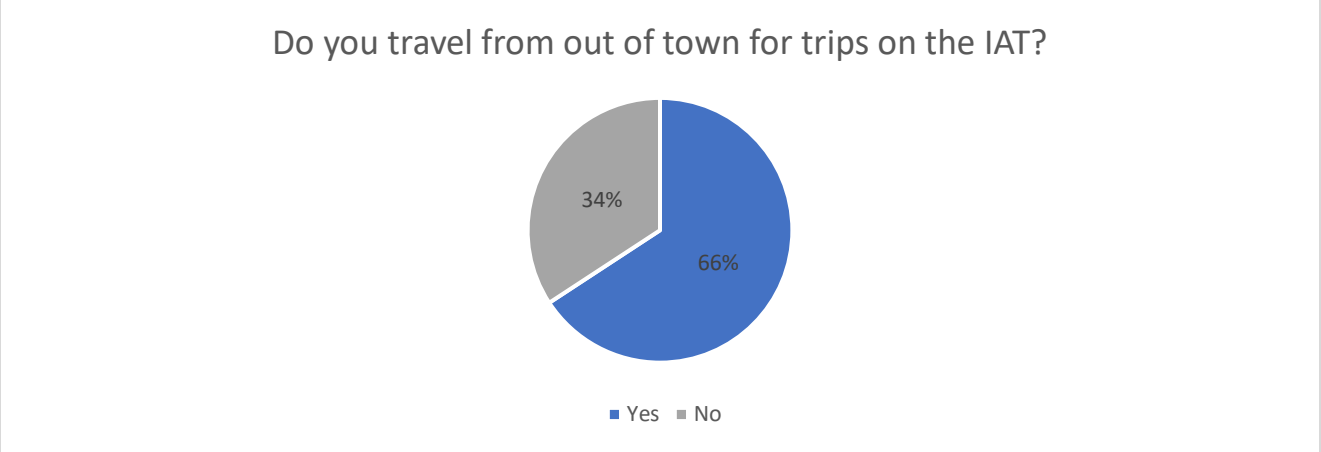


Table 8: Percentage of visitors who typically stay overnight for their IAT trip(s)

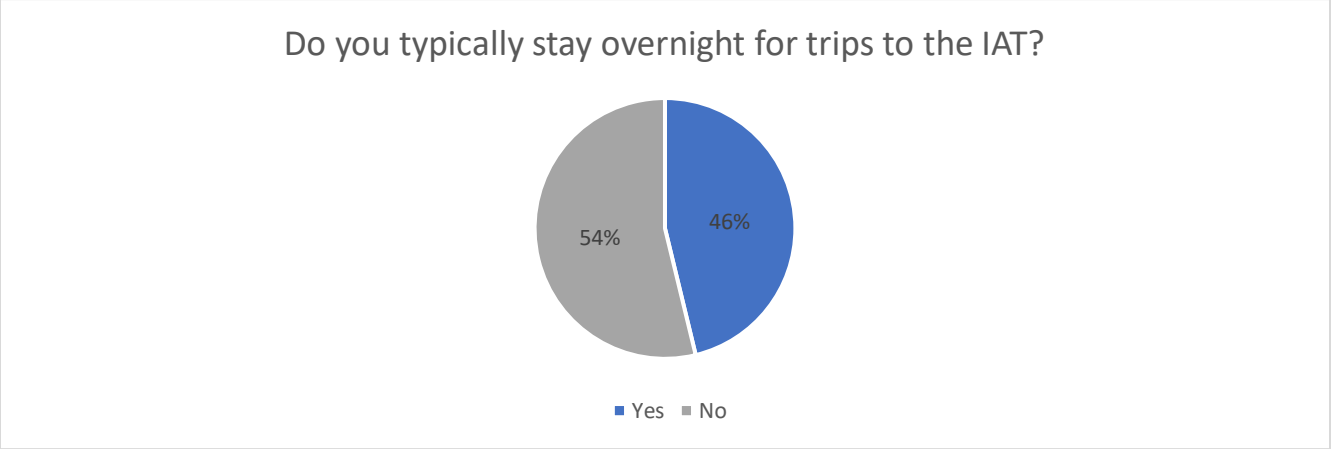
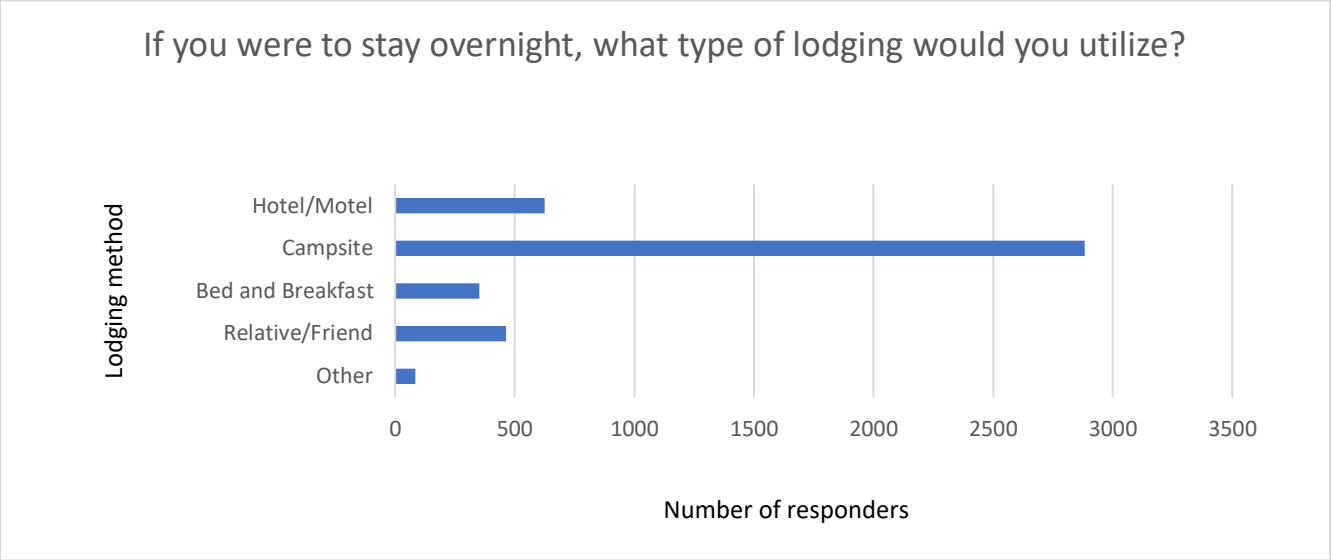


Table 9: Number of visitors based upon their lodging style (for their overnight stay)



The next question asked the responders about the promotional channel from which they became aware of the IAT, the most reported choice was “family/friends” and TV/radio being the least reported, as shown in Table 10 below. To get an understanding of the spending behaviors of the visitors, the survey asked the responders to estimate the amount of money they spend per trip on certain items. Table 11 below shows the average spending by the visitors per trip for on items, with overnight/accommodations being the highest and entertainment/admission fees being the least.

Table 10: Count of responders based upon the channel which made them aware of the IAT

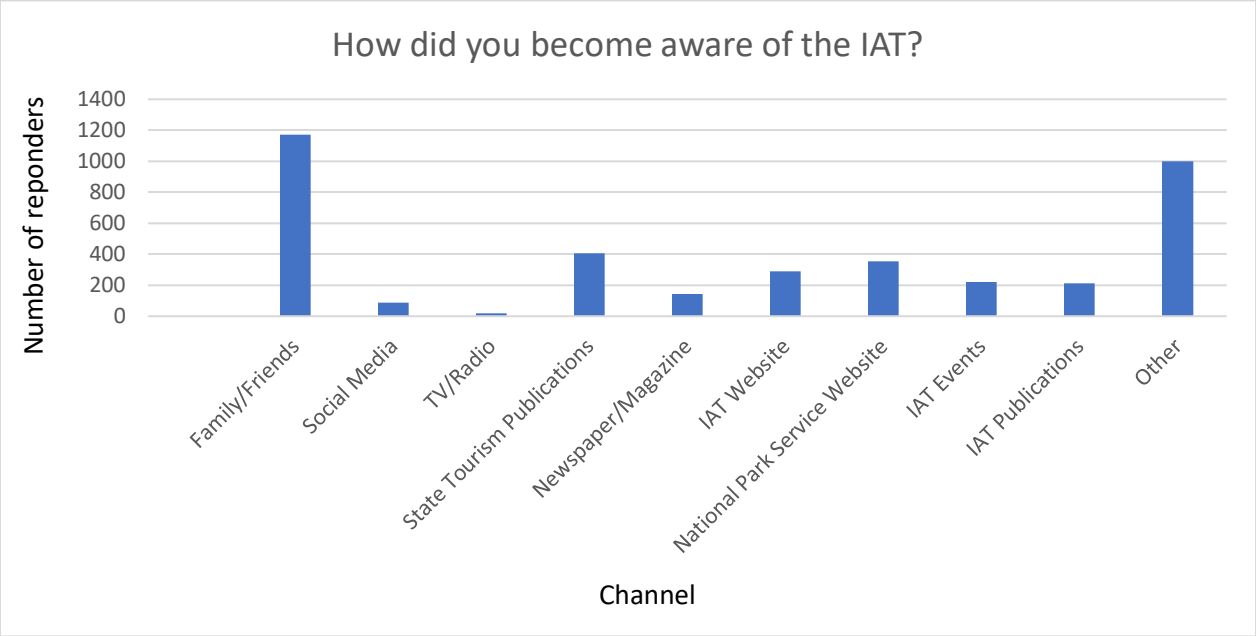
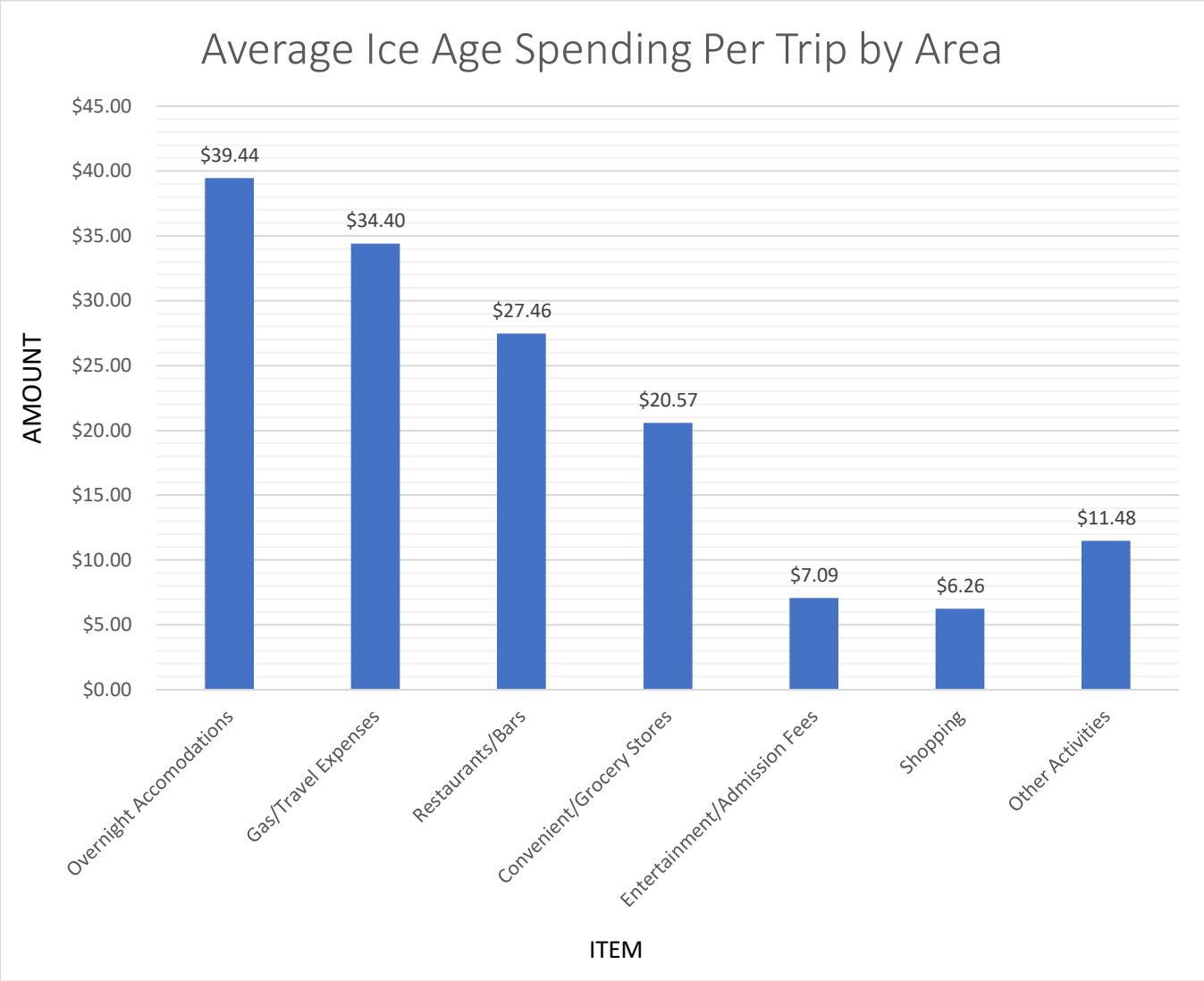


Table 11: Average expenditure per trip by the visitors on the items listed



Finally, the last set of questions on the survey inquired about the demographic information of the respondents such as their household income, age, and educational attainment. A large number of responders reported their income to be greater than $120,00. Secondly, the highest number of responders reported to be over 51 years old and the most prominent (reported) level of educational attainment was a bachelor's degree. We observe the number of responders based upon the responses to these demographic questions below in Table 12, 13 and 14.

Table 12: Number of responders based upon the reported income

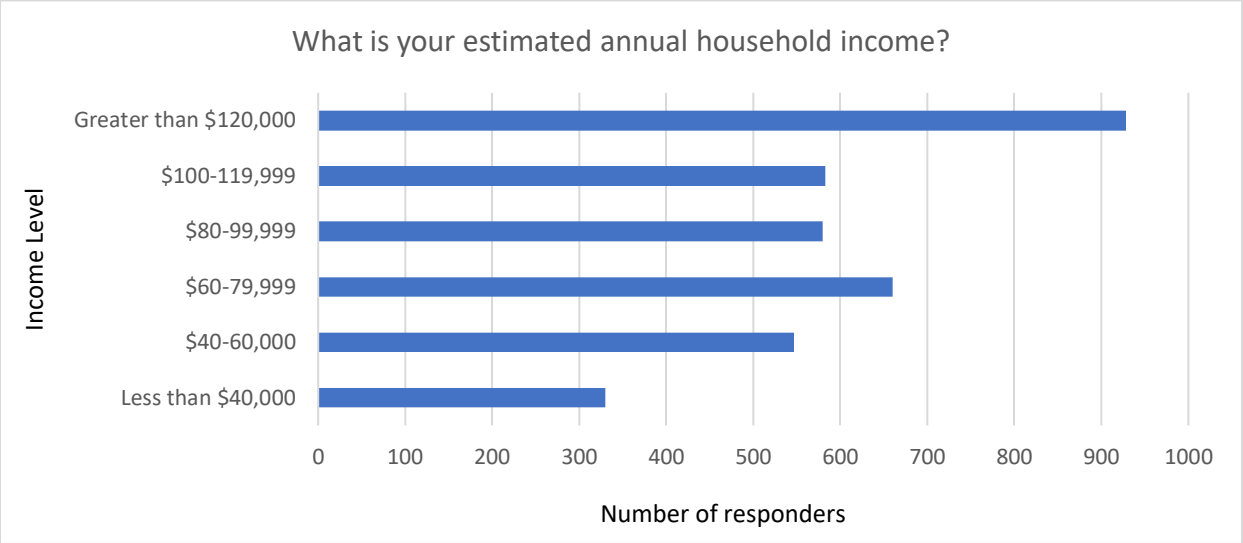


Table 13: Number of responders based upon their age

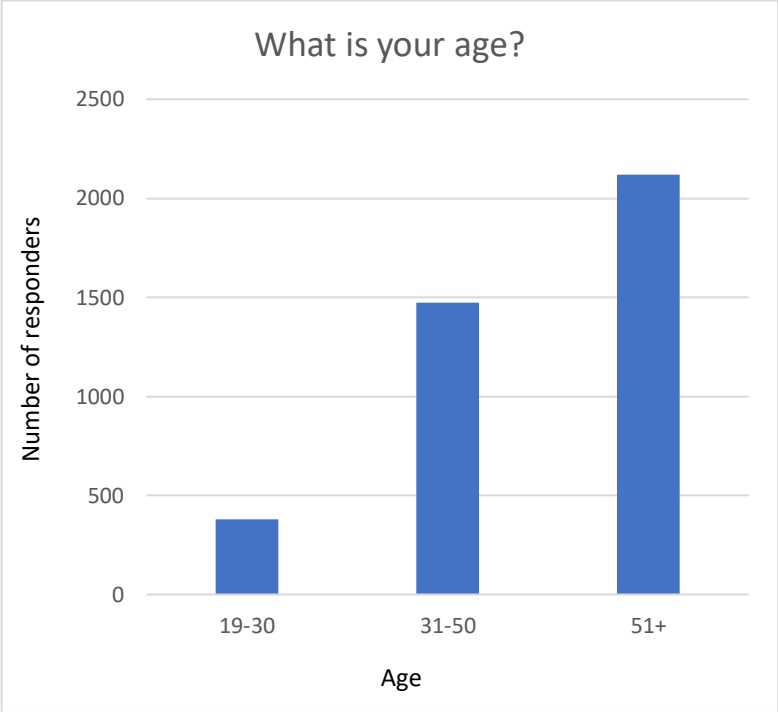
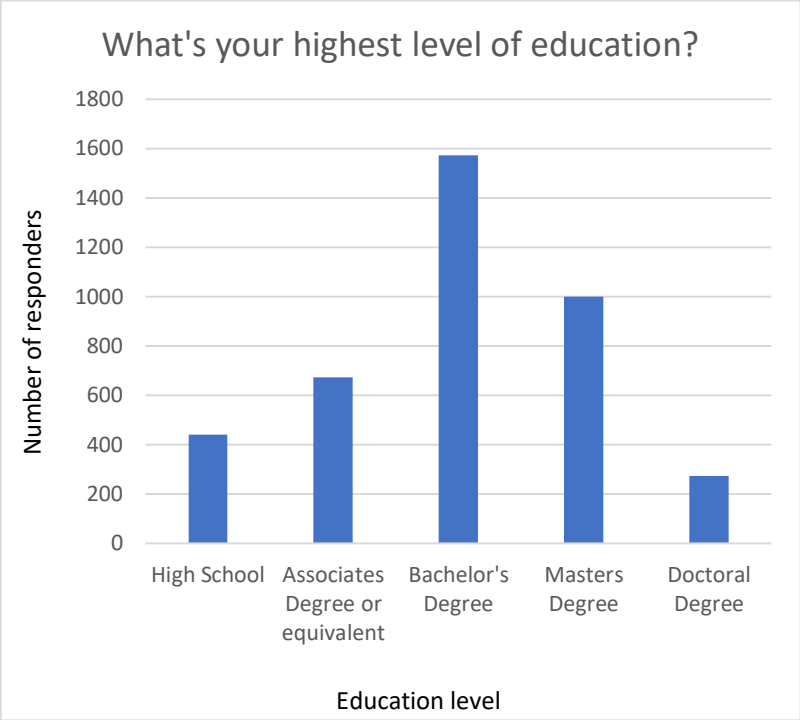


Table 13: Number of responders based upon their educational attainment



Statistical Analysis

The data collected through the surveys were analyzed using statistical techniques to predict the different habits of the visitors who use the Ice Age Trail and what they use the trail for. We use predictive models such as Classification and Regression Trees (CART) and several OLS regression models in our analysis. In this section, we interpret the significant findings using the results from our models. We will briefly discuss how these models can predict the following results since a detailed understanding of these models and techniques requires broad knowledge in data science and much intricate explanation, which is not the main purpose of this report.

First, we build an OLS model where our response variable is a quantitative variable which is "the number of times the respondent visited the Ice Age Trail in the past 12 months", we construct this variable using responses to a question asked in the survey. The question asked the respondents, "How many times in the past 12 months have you used the Ice Age Trail?". Model (1) below shows our predicted regression model, which predicts this dependent variable ($\hat{Y}_{(Number\ of\ visits)}$) using various sets of explanatory variables, and where ($\beta_1 x_1 + \cdots \beta_p x_p$) represent the coefficients for these various explanatory variables and the control variables. Our control variables are total household income, age of the responder, individual's education attainment level, IATA (Ice Age Trail Alliance) volunteer status, individual's location status (visiting from out of town or not), overnight lodging status. Including these controls in our model enables us to compare individuals that are almost identical to one another and allows us to tease out the causal relationship between their habits and the number times they visit the Ice Age Trail. These control variables added with another set of variables were constructed using the responses from the survey, make up our model's explanatory variables which we use to predict our dependent variable (the number of visits to the Ice Age Trail in the last 12 months), which is depicted as ($\hat{Y}$) in the LHS of our model (1). In total, we constructed 8 models similar using various sets of explanatory variables in each. We now describe the results from each regression model and interpret our findings in context.

$$\hat{Y}_{(Number\ of\ visits)} = \widehat{\beta_0} + \widehat{\beta_1} x_1 + \ \ldots + \hat{\beta}_p x_p \qquad (1)$$

The first model predicted the number of visits to the Ice Age Trail using only the control variables. A list of the control variables used in our model is shown below in Table 14. We analyze such a model to observe how the controls themselves affect the dependent variable before we start adding other explanatory variables. The output from this model (1) suggests that if we have two similar individuals and one of them usually stays overnight, then we expect the number of times visited for that individual (staying overnight) to decrease by about 5, in comparison to the individual who does not stay overnight, holding all else constant. Secondly, the coefficient for our variable Q15 is positive and significant, which means that if we have two similar individuals and one of those individuals is an active volunteer for IATA*, then the number of days visited for that individual increases by about 3, in comparison to the individual who is not an active volunteer for the IATA*, holding all else constant.

Table 14: Control Variables implemented in our Model

Q10: binary variable {1 if the respondents listed that they are from out of town, else 0}
Q11: binary variable {1 if the respondents listed that they usually stay overnight, else 0}
Q16: a vector of dummy variables based upon the age of the respondents
Q17: a vector of dummy variables based upon the education level of the respondents
Q18: natural logarithms of the household income reported by the respondents
Q15: binary variable {1 if the respondents listed that they an active volunteer for IATA*, else 0}
* Ice Age Trail Alliance (IATA)

In our second model, we add a set of explanatory variables called “Q2_response” to the RHS of the model along with our control variables. These variables (Q2_response) were constructed using the responses to the question, “What is your main purpose for visiting the Ice Age Trail?”. The choices presented to answer this question were: enjoying the outdoors, leisure trip, volunteering, live in the area, festival/special event and other. We constructed these dummy variables (Q2_response) for each of these choices and populated them based upon the responses of the respondents. For instance, if an individual selected volunteering as a response to this question, then the dummy variable for the response “volunteering” (Q2_volunteering) becomes a 1 or else remains 0. Including these dummies for each choice with the controls, let’s us analyze how each of these “purposes of visiting the Ice Age Trail” affects the individual’s number of

visits to the trail. The results from the second model (Model 2) conclude that if we have two similar individuals and one of them stated his/her main purpose as “lives in the area”, then the number of times that individual visits increase by about four (4) times, holding all else constant. This increase is in comparison to an individual who did not list “living in the area” as his/her main purpose. This shows that the residents visit the Ice Age Trail more often in comparison to all the other main purposes of visiting the Ice Age Trail. This again might not be too surprising since the distance between the residents living in the area is much smaller than people who do not live in the area, hence increasing the number of visits for the residents.

In our third model (Model 3), we add an explanatory variable “Q3” to the RHS of our model along with the control variable listed in Model 1. This explanatory variable added in Model 3 is a binary variable that becomes active if the respondents are familiar with the term “IAT”. We constructed the variable “Q3” based upon one of the questions in the survey which asked the respondents, “Are you familiar with the term IAT?”. The output from this model suggests surprising results, as the coefficient for the variable added in this model (“Q3”) is positive and significant. This suggests that if we have two similar individuals and one of them is familiar with the term “IAT”, then the number of visits for that individual increases by about 6 times in comparison to the other individual, who is not familiar with the term “IAT”. This is unsurprising because one would assume that an individual who is familiar with the term “IAT” would visit the Ice Age Trail more frequently.

As mentioned earlier, the main goal is to predict what the visitors use the Ice Age Trail for. Using the same method used earlier, we add a new set of explanatory variables called “Q4_(response)”. We construct this set of binary variables “Q4_(response)” based upon the responses to one of the questions on the survey which asked the respondents, “What activities do you use the Ice Age Trail for?”. The choices presented to the respondents for this question were: trail running/jogging, hiking, access to fishing, bird watching, access to kayaking/canoeing, snowshoeing, cross country, skiing, dog walking, wellness/fitness, camping, enjoying nature, backpacking, and other. We constructed a binary variable for each of these choices, which takes the value 1 only if a responder selects that choice as one of his/her responses for this question, else remains 0. Using the results from this model four (Model 4) we conclude that, if we have

two similar individuals, and one of them chooses trail running/jogging, snowshoeing or wellness/fitness, then the number of visits for that individual increases by about 3 days in comparison to the individual who does not choose any of these responses, holding all else constant. To clarify further, if an individual chooses (uses the trail for all three of the three activities) then the number of visits would increase by about 9. This model helps us determine what specific activities are the trail being implemented for, which are trail running/jogging, snowshoeing or wellness/fitness, in comparison to all of the other activities.

Through Model 5, we analyze how certain characteristics of the trail affect the number of visits to the Ice Age Trail by the responders. We use a new set of variables called "Q5_(choice)", which is based upon a question on the survey which asked, "What TOP 3 characteristics of the Ice Age Trail make it most appealing to you? ". The choices presented to the responders included: adventurous, comfortable, natural, peaceful, quiet, relaxing, retreat, engaging terrain, scenic, education opportunities, welcoming, wildlife, other. We included a binary variable for each of these choices along with the control variables to the RHS of our model and our LHS variable is the same as our previous models (the number of visits by an individual in the last 12 months). The results from his model concluded that if we have two similar individuals and one of them listed "engaging terrain" as their choice of appealing characteristic of the trail, then we would expect the number of visits by that individual to be about 3.5 more than an individual who does not choose "engaging terrain", holding all else constant. We now know that the specifically enjoy the "engaging terrain" of the Ice Age Trail far more than the other characteristics. The results suggest visitors can be attracted to visit the trail more often if the "engaging terrain" aspect of the trail is presented and improved further.

In our sixth model, we try to analyze the seasonal effects (summer, fall, winter, spring) on the number of visits by the responders. We create a set of binary variables based upon the responses to a question on the survey which asked the responders, "What season(s) do you utilize the Ice Age Trail?". We set one of the seasons as the base group to compare that group with the other seasons (groups). We pick "winter season" as our base group meaning that we interpret the effects of the other seasons in comparison to the effects of the "winter season". We find that the individuals who utilize the trail during the fall season, spend about eight (8) more days than the

individuals that visit during the winter season, holding all else constant. Secondly, the individuals who utilize the trail during the spring season, spend about seven (7) more days than the individuals that visit during the winter season, holding all else constant. Lastly, the individuals who utilize the trail during the summer season, spend about 6 more days than the individuals that visit during the winter season, holding all else constant. This tells us that the individuals utilize the trail during the winter, make the least number of trips compared to the other seasons.

Our next model tries to analyze the effects of different promotional channels on the use of the Ice Age Trail. We are particularly curious to predict what type of promotional channels do the visitors of the Ice Age Trail utilize. We construct binary variables for the responses based upon the question, "How did you become aware of the Ice Age Trail?". The results from this model state the coefficients for the variables "social media" (e.g. Facebook, Twitter, Instagram, etc.) and "state tourism publications" to be negative and significant. This means that if an individual utilized these platforms then the number of times, they visited decreased by 6 and 3, respectively in comparison to an individual who did not utilize these platforms, holding all else constant. Secondly, we find the coefficient for the variable "radio" to be positive and significant, this means that if an induvial utilized "radio" as a channel to become aware of the Ice Age Trail, then the number of visits for that individual increases by about 25, compared to an individual who did not use the radio as a promotional channel, holding all else constant. The model suggests that promotional channels such as social media platforms and state tourism publications may not be helping attract visitors to the trail whereas radio seems to be the prominent driver for attracting individuals to the Ice Age Trail.

Lastly, to make inferences on the behavior of the visitors utilizing the Ice Age Trail. Using the survey, we estimate the amount of money the visitors typically spend in total during their trip in each of the following categories:

- Overnight Accommodations
- Gas/Travel Expense
- Restaurants/Bars
- Convenient/Grocery Store Shopping

- Entertainment and Admission Fees
- Shopping (Souvenirs, Gifts, Clothing, etc.)
- Other activities (Bikes, Canoes, Kayaks, etc.)

We then construct variables for each category by taking the natural logs of the amounts reported for each category by the responders. Adding these variables to the RHS of our model along with the controls, lets us observe how a change in spending for each category affects the number of visits by an individual. We find the coefficients for the variables "overnight accommodations" and "restaurants/bars" to be positive and significant. This means that if we have two individuals and one of them spends one more percent on overnight accommodations or restaurants/bars, then we expect that individual to visit the Ice Age Trail slightly more than the other individual, holding all else constant. We infer that the visitors seem to spend more money on overnight accommodations and restaurants/bars in comparison to other categories listed above.

In summary, these models explain certain activities for which the Ice Age Trail is being utilized, which helps us understand who and how to attract more visitors or have the current visitors spend more time on the Ice Age Trail. We find that the number of visits increase (holding all else constant) for the visitors who:

- Typically, do not stay overnight for trips to the Ice Age Trail
- Listed "live in the area" as their main purpose for visiting the Ice Age Trail
- Are familiar with the term "IAT" and or an active volunteer for the IATA (Ice Age Trail Alliance)
- Utilize the Ice Age Trail for activities such as trail running/jogging, snowshoeing and wellness/fitness
- State "engaging terrain" as the most appealing characteristic of the Ice Age Trail
- Utilize the Ice Age Trail more often during fall, summer and spring seasons in comparison to the winter season
- Become aware of the Ice Age Trail using the radio and not using social media platforms or state tourism publications
- Spend a higher amount on overnight accommodations and restaurants/bars in comparison to other items

We now further analyze the data and examine our findings using Classification and Regression Trees (CART), which identify distinct subgroups of respondents who would spend more time at their lake property if the water quality improved, based on subsets with different responses to certain questions held constant. Using the same sets of questions for independent variables as the regression models, we can visualize which questions are most predictive of the respondent's interest in spending more time at the lake.

Tree models for the regression formulas generally pick the same variables as significant predictors to split into subsets on but may vary slightly on occasion. Model 6 shows that respondents who use the trail in the fall and the summer season, which is n=2871 or 61% of respondents, use the trail 42 times a year on average, as opposed to the full set of respondents who spend only 32 days. This may indicate room to increase the use of the trail in the winter season, through promotions or new activities. Model 5 shows that respondents who cited the scenery as one of their top three positive features of the trail, or 56% of the full set, spent 38 days on average at the trail instead of 32. Model 4 shows that 80% respondents who use the trail for hiking spend 38 days at the trail. Those who cited fitness in addition to hiking, makeup 38% of the full set and spend 41 days at the trail. This could indicate opportunities in marketing the trail to fitness conscious individuals and hikers. **(See Appendix D for partial output of the models discussed in this section).**

Appendix A: Online & Field Surveys Questionnaire

1. What is your main purpose for traveling to this area? **Select all that apply.**
   - ☐ Enjoying the outdoors
   - ☐ Leisure Trip
   - ☐ Business
   - ☐ Live in the area
   - ☐ Festival/Special Event
   - ☐ Other:_____

2. Are you familiar with the term IAT?
   - ☐ Yes
   - ☐ No

3. Please review the map and select your most recent entry point to the IAT.

4. What activities do you use the Ice Age Trail for? **Select all that apply**.
   - ☐ Trail running/Jogging
   - ☐ Hiking
   - ☐ Access to Fishing
   - ☐ Bird watching
   - ☐ Access to Kayaking/Canoeing
   - ☐ Snowshoeing
   - ☐ Cross Country Skiing
   - ☐ Dog Walking
   - ☐ Wellness/Fitness
   - ☐ Camping
   - ☐ Enjoying Nature
   - ☐ Other:_____

5. What **TOP 3** characteristics of the Ice Age Trail make it most appealing to you? **Select all that apply**.
   - ☐ Adventurous
   - ☐ Comfortable
   - ☐ Nature
   - ☐ Peaceful
   - ☐ Quiet
   - ☐ Relaxing
   - ☐ Retreat
   - ☐ Landscape Features
   - ☐ Scenic
   - ☐ Education Opportunities
   - ☐ Welcoming
   - ☐ Wildlife
   - ☐ Other:_____

6. Have you used the Ice Age Trail before?
   - ☐ Yes
   - ☐ No (skip to question 8)

7. How many times in the past 12 months have you used the Ice Age Trail? _____times

8. What season(s) do you utilize the Ice Age Trail?
   - ☐ Winter
   - ☐ Spring
   - ☐ Summer
   - ☐ Fall

9. What access point (e.g. trailhead, park, etc.) did you enter this part of the Ice Trail on? (Example: St. Croix Falls National Scenic River way or Interstate State Park)?

_____

10. How many people are traveling in your party? _____ people

11. Did you travel from out of town on this trip?
    - ☐ Yes
    - ☐ No (skip to question 14)

    12. Are you staying overnight on this trip?
        - ☐ Yes
        - ☐ No (skip to question 14)

13a. What type of lodging are you making use of?

- ☐ Hotel/Motel
- ☐ Campsite
- ☐ Bed and Breakfast
- ☐ Relative/Friend's Home
- ☐ Other:_____

13b. What town are you staying in? _____

13c. How many nights are you staying? _____ night(s)

14. If you were to stay overnight, what type of lodging would you utilize?
    - ☐ Hotel/Motel
    - ☐ Campsite
    - ☐ Bed and Breakfast
    - ☐ Relative/Friend's Home
    - ☐ Other:_____

15. How did you become aware of the Ice Age trail?
    - ☐ Family/Friends
    - ☐ Social Media (e.g. Facebook, Twitter, Instagram, etc.)
    - ☐ TV
    - ☐ Radio
    - ☐ State Tourism Publications
    - ☐ Newspaper/Magazine
    - ☐ Ice Age Trail website
    - ☐ National Park Service website
    - ☐ Ice Age Trail Events
    - ☐ Ice Age Trail Publications
    - ☐ Other:_____

16. Please **estimate** how much you will spend in total on this trip in each of the categories listed below:

Overnight Accommodations	**$**
Gas/Travel Expense	**$**
Restaurants/Bars	**$**
Convenient/Grocery Store Shopping	**$**
Entertainment and Admission Fees	**$**
Shopping (Souvenirs, Gifts, Clothing, etc.)	**$**
Other activities (Bikes, Canoes, Kayaks, etc.)	**$**

Demographic Information

17. Are you an active volunteer for IATA (Ice Age Trail Alliance)?
    - ☐ Yes
    - ☐ No

18. What is your age? _____

19. What is your highest level of education?
    - ☐ Less than High School
    - ☐ High School
    - ☐ Associate degree or Equivalent
    - ☐ Bachelor's Degree
    - ☐ Master's Degree
    - ☐ Doctoral Degree

20. What is your estimated annual income?
    - ☐ Less than $40,000
    - ☐ $40,000 - $59,999
    - ☐ $60,000 - $79,999
    - ☐ $80,000 - $99,999
    - ☐ $100,000 - $119,999
    - ☐ More than $120,000

21. What is the zip code of your primary residence? _____

Appendix B: IMPLAN Analysis for Ice Age Trail

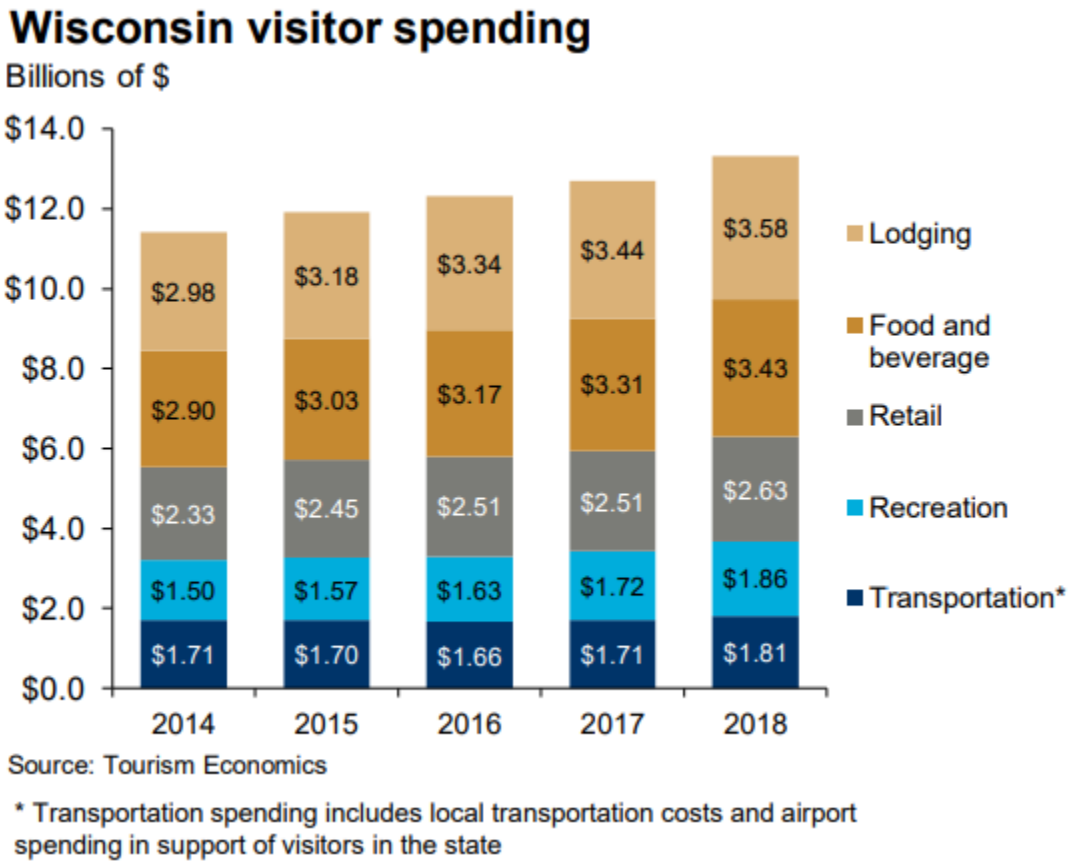
The economic impact of the Ice Age Trail on the State of Wisconsin employs the IMPLAN economic modeling system. This produces an economic multiplier, which is a quantitative measure of economic impact that recognizes that all levels of economies are interconnected networks of interdependent activity. When one part of the economy changes, the rest of economy will be influenced by that change. This will typically result in a greater total impact than was caused by the original injection of capital into the economy. When spending, a portion of that money will "leak" out of the local economy through taxes or be spent outside of the local economy. Only a fraction of the money spent by the businesses around the Ice Age Trail will probably stay in the local economy. For instance, people who work within these businesses could reside outside the state or insurance paid by the employers and employees might be paid to a company in a different state. Also, the maintenance equipment could have been not only assembled by people from outside the community, but also designed and fabricated in a state other than Wisconsin. Each of these and many more possibilities allow for money to leak out of the economy and to have effects on other areas. The multiplier effect compensates for this "leak".

For instance, if 30 employees were hired to work in the businesses around the Ice Age Trail; employment will increase by more than just those 30 jobs directly tied to those businesses. Employment increases beyond those 30 new employees because of two reasons. First, the operations of those businesses require several expenditures including utilities, insurance and maintenance costs. This spending creates additional jobs in the industries that supply those services. These impacts are referred to as indirect effects because they are indirectly created by the establishment of jobs around the Ice Age Trail. The second impact comes from the people who work at these businesses and spend their earned income in the local community. This spending creates jobs in the businesses that provide these services. These impacts are called induced impacts. This defines the employment multiplier as the number that is multiplied by the number of jobs directly involved with the businesses around the Ice Age Trail to give the total number of jobs created (both directly and those created in the community). If the total number of jobs created was 40, then the employment multiplier would be 1.33 (40/30).

Appendix C: Wisconsin Tourism Data 2018

Visitor Spending

Visitor Spending in Wisconsin reached $13.3 billion in 208, which is a 4.1% increase versus only a 3.5% from 2016 to 2017.



Source: Tourism Economics

* Transportation spending includes local transportation costs and airport spending in support of visitors in the state

Visitor spending in Wisconsin

Nominal dollars, millions

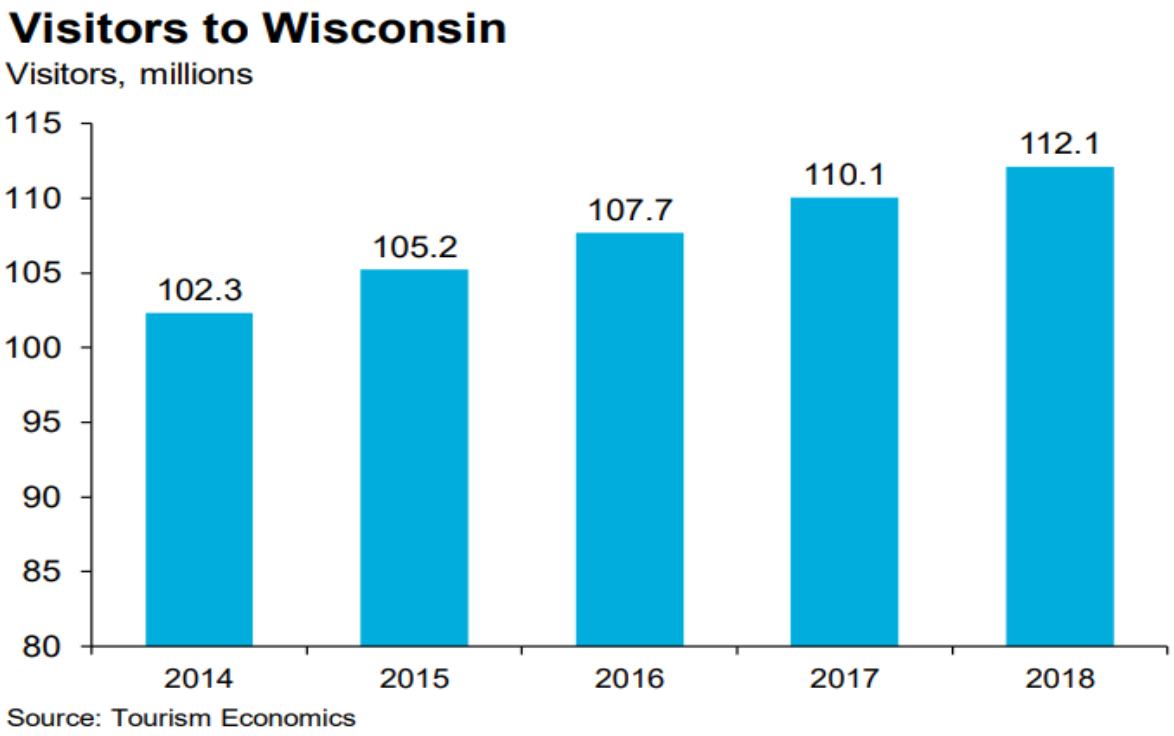
	2014	2015	2016	2017	2018	2018 Growth	2014-2018 CAGR
Lodging	$2,977.8	$3,175.5	$3,336.8	$3,441.3	$3,582.9	4.1%	3.8%
Food & beverages	$2,904.6	$3,026.5	$3,172.1	$3,310.1	$3,427.4	3.5%	3.4%
Retail	$2,327.9	$2,449.0	$2,508.9	$2,511.1	$2,634.2	4.9%	2.5%
Recreation	$1,502.4	$1,566.0	$1,631.4	$1,717.7	$1,862.1	8.4%	4.4%
Local Transportation	$1,283.8	$1,270.8	$1,219.5	$1,256.0	$1,337.2	6.5%	0.8%
Air Transportation	$421.5	$431.6	$442.1	$458.2	$474.9	3.6%	2.4%
Total	**$11,417.9**	**$11,919.4**	**$12,310.7**	**$12,694.3**	**$13,318.6**	**4.9%**	**3.1%**

* Lodging includes 2nd home spending

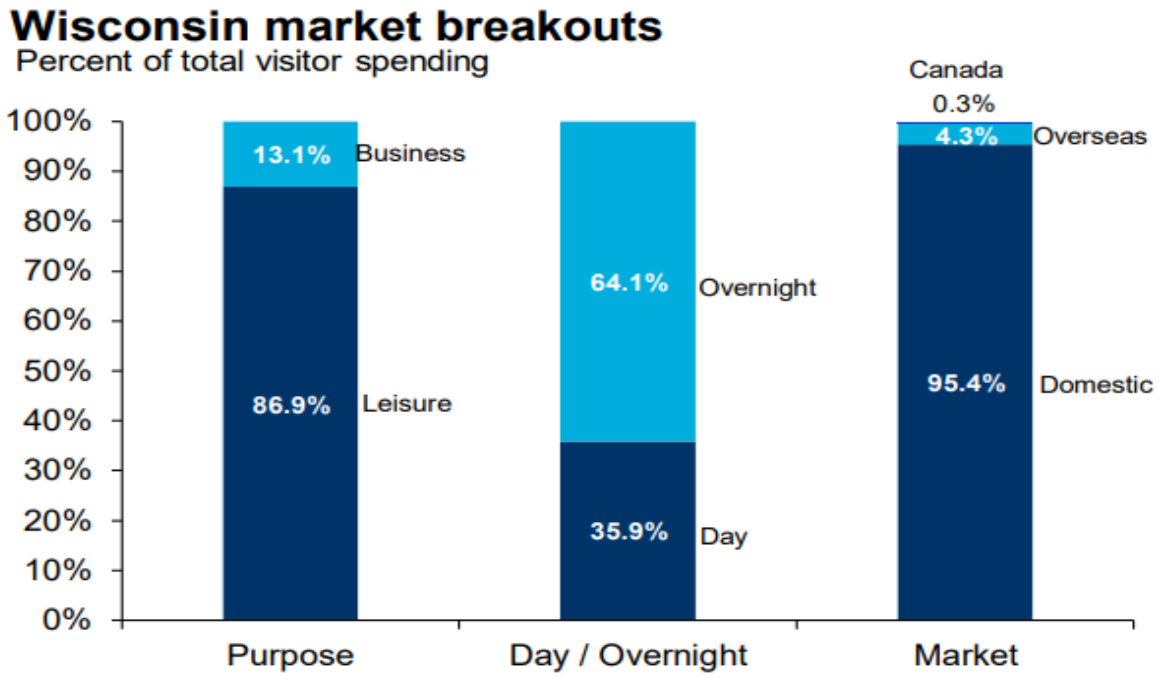
Source: Tourism Economics

Visitation

Wisconsin saw an increase in total visitation in 2018 resulting in 112 million visitors coming to the state. Furthermore, over 64% of all visitor spending is on overnight accommodations.



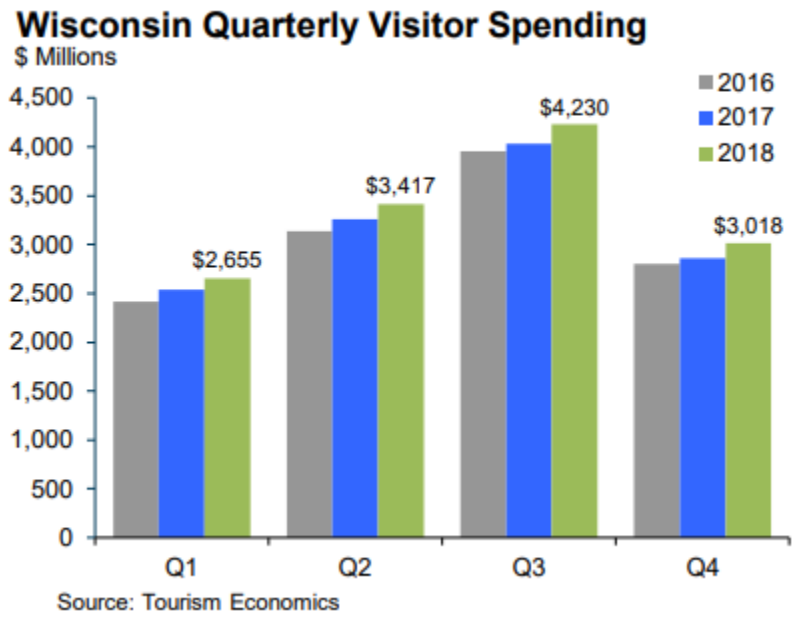
Source: Tourism Economics



Source: Tourism Economics

Visitor Spending by Season

Wisconsin experiences its greatest influx of tourism spending in Q3 traditionally. Q4 of 2018 experienced the biggest growth from 2017 of nearly 5.5% eclipsing over $3 billion in spending.



Visitor Spending by Quarter Wisconsin				
	Q1	Q2	Q3	Q4
2014	$2,279.3	$2,861.6	$3,644.3	$2,632.8
2015	$2,346.8	$3,031.2	$3,823.8	$2,717.6
2016	$2,414.0	$3,139.9	$3,953.8	$2,803.0
2017	$2,541.4	$3,260.0	$4,032.3	$2,860.6
2018	$2,654.5	$3,416.9	$4,229.6	$3,017.5
% Chn	4.45%	4.81%	4.89%	5.49%

Appendix D: Output from Statistical Models

Model: 1

Observations:	3598
Dependent Variable:	Q6 ("How many times in the past 12 months have you used the Ice Age Trail? ")
Type:	OLS linear regression
F =	5.03
p=	0
R^2 =	0.02
Adj. R^2 =	0.01

Standard errors: Robust	type = HC3	CI				
	Est.	2.5%	97.5%	t-val.	p-val.	
(Intercept)	68.92	36.27	101.57	4.14	0	*
Q10	0.21	-2.07	2.49	0.18	0.86	
Q11	**-4.98**	**-6.81**	**-3.15**	**-5.33**	**0**	*
Q16_YoungAdult	-16.08	-42.54	10.37	-1.19	0.23	
Q16_MiddleAge	-14.35	-40.7	12	-1.07	0.29	
Q16_Senior	-13.55	-39.9	12.79	-1.01	0.31	
Q17_HS	-12.38	-26.1	1.34	-1.77	0.08	
Q17_Associates	-7.97	-21.67	5.73	-1.14	0.25	
Q17_Bachelors	-10.3	-23.94	3.33	-1.48	0.14	
Q17_Master	-9.3	-22.97	4.38	-1.33	0.18	
Q17_Doctoral	-9.88	-23.91	4.15	-1.38	0.17	
lnQ18	-0.44	-2.64	1.76	-0.39	0.69	
Q15	**3.28**	**0.76**	**5.8**	**2.55**	**0.01**	*

* Significant at <0.05>

Model: 2

Observations: **3598**

Dependent Variable:	Q6 ("How many times in the past 12 months have you used the Ice Age Trail? ")
Type:	OLS linear regression
F =	4.75
p=	0
R^2 =	0.02
Adj. R^2 =	0.02

Standard errors: Robust type = HC3 CI

	Est.	2.5%	97.5%	t-val.	p-val.	
(Intercept)	67.38	34.59	100.16	4.03	0	*
Q10	0.74	-1.57	3.05	0.63	0.53	
Q11	-4.26	-6.15	-2.37	-4.42	0	*
Q16_YoungAdult	-17.69	-44.01	8.63	-1.32	0.19	
Q16_MiddleAge	-15.9	-42.12	10.31	-1.19	0.23	
Q16_Senior	-15.06	-41.28	11.15	-1.13	0.26	
Q17_HS	-13.36	-27.37	0.65	-1.87	0.06	
Q17_Associates	-8.88	-22.86	5.1	-1.25	0.21	
Q17_Bachelors	-11.37	-25.3	2.56	-1.6	0.11	
Q17_Master	-10.26	-24.23	3.7	-1.44	0.15	
Q17_Doctoral	-10.72	-25.03	3.59	-1.47	0.14	
lnQ18	-0.42	-2.63	1.78	-0.37	0.71	
Q15	2.93	-0.29	6.14	1.78	0.07	
Q2.1	2.37	-0.96	5.69	1.4	0.16	
Q2.2	0.12	-1.71	1.95	0.13	0.9	
Q2.3	-0.27	-3.73	3.2	-0.15	0.88	
Q2.4	**4.11**	**1.98**	**6.24**	**3.78**	**0**	*****
Q2.5	-2.35	-6.4	1.7	-1.14	0.26	

* Significant at <0.05>

Model: 3

Observations:	**3586**
Dependent Variable:	Q6 ("How many times in the past 12 months have you used the Ice Age Trail? ")
Type:	OLS linear regression
F =	7.52
p=	0
R^2 =	0.03
Adj. R^2 =	0.02

Standard errors: Robust	type = HC3	CI				
	Est.	2.5%	97.5%	t-val.	p-val.	
(Intercept)	63.85	29.96	97.73	3.69	0	*
Q10	-0.49	-2.79	1.8	-0.42	0.67	
Q11	-4.09	-5.95	-2.24	-4.32	0	*
Q16_YoungAdult	-15.05	-42.45	12.34	-1.08	0.28	
Q16_MiddleAge	-13.46	-40.75	13.83	-0.97	0.33	
Q16_Senior	-13.01	-40.3	14.27	-0.94	0.35	
Q17_HS	-14.88	-30.38	0.62	-1.88	0.06	
Q17_Associates	-10.54	-26.01	4.94	-1.33	0.18	
Q17_Bachelors	-13.24	-28.68	2.19	-1.68	0.09	
Q17_Master	-12.19	-27.66	3.28	-1.54	0.12	
Q17_Doctoral	-12.93	-28.71	2.86	-1.61	0.11	
lnQ18	-0.15	-2.33	2.04	-0.13	0.9	
Q15	1.63	-0.95	4.2	1.24	0.22	
Q3	**5.99**	**4.07**	**7.92**	**6.09**	**0**	*

* Significant at <0.05>

Model: 4

Observations:	3598
Dependent Variable:	Q6 ("How many times in the past 12 months have you used the Ice Age Trail? ")
Type:	OLS linear regression
F =	6.25
p=	0
R^2 =	0.04
Adj. R^2 =	0.03

Standard errors: Robust	type = HC3	CI				
	Est.	2.5%	97.5%	t-val.	p-val.	
(Intercept)	63.23	30.77	95.69	3.82	0	*
Q10	-0.81	-3.1	1.48	-0.69	0.49	
Q11	-3.92	-5.88	-1.96	-3.92	0	*
Q16_YoungAdult	-12.63	-38.44	13.17	-0.96	0.34	
Q16_MiddleAge	-10.95	-36.64	14.74	-0.84	0.4	
Q16_Senior	-9.42	-35.1	16.27	-0.72	0.47	
Q17_HS	-14.75	-28.3	-1.19	-2.13	0.03	*
Q17_Associates	-10.85	-24.4	2.7	-1.57	0.12	
Q17_Bachelors	-13.12	-26.62	0.38	-1.91	0.06	
Q17_Master	-12.37	-25.91	1.16	-1.79	0.07	
Q17_Doctoral	-12.65	-26.53	1.22	-1.79	0.07	
lnQ18	-0.65	-2.86	1.57	-0.57	0.57	
Q15	1.41	-1.24	4.07	1.04	0.3	
Q4.1	**3.11**	**0.85**	**5.37**	**2.7**	**0.01**	*
Q4.2	2.36	-1.23	5.95	1.29	0.2	
Q4.3	-1.21	-4.91	2.48	-0.64	0.52	
Q4.4	0.65	-1.48	2.78	0.6	0.55	
Q4.5	2.74	-0.48	5.96	1.67	0.1	
Q4.6	**3.41**	**1.1**	**5.71**	**2.9**	**0**	*
Q4.7	2.09	-1.03	5.2	1.31	0.19	
Q4.8	1.74	-0.2	3.68	1.76	0.08	
Q4.9	**3.54**	**1.66**	**5.42**	**3.7**	**0**	*
Q4.10	1.71	-0.18	3.6	1.77	0.08	
Q4.11	1.1	-0.95	3.14	1.05	0.29	
Q4.12	0.03	-2.61	2.68	0.02	0.98	

* Significant at <0.05>

Model: 5

Observations:	3598
Dependent Variable:	Q6 ("How many times in the past 12 months have you used the Ice Age Trail? ")
Type:	OLS linear regression
F =	3.36
p=	0
R^2 =	0.02
Adj. R^2 =	0.02

Standard errors: Robust	type = HC3	CI				
	Est.	2.5%	97.5%	t-val.	p-val.	
(Intercept)	71.21	37.79	104.63	4.18	0	*
Q10	-0.15	-2.45	2.14	-0.13	0.9	
Q11	-4.73	-6.58	-2.88	-5.02	0	*
Q16_YoungAdult	-17.38	-44.57	9.81	-1.25	0.21	
Q16_MiddleAge	-15.76	-42.84	11.31	-1.14	0.25	
Q16_Senior	-14.84	-41.91	12.23	-1.07	0.28	
Q17_HS	-12.59	-26.53	1.34	-1.77	0.08	
Q17_Associates	-8.22	-22.11	5.67	-1.16	0.25	
Q17_Bachelors	-10.71	-24.56	3.13	-1.52	0.13	
Q17_Master	-9.57	-23.46	4.31	-1.35	0.18	
Q17_Doctoral	-10.43	-24.68	3.82	-1.43	0.15	
lnQ18	-0.55	-2.76	1.66	-0.49	0.63	
Q15	2.91	0.38	5.45	2.25	0.02	*
Q5.1	0.78	-1.27	2.84	0.75	0.45	
Q5.2	0.4	-2.99	3.79	0.23	0.82	
Q5.3	-1.24	-3.02	0.53	-1.38	0.17	
Q5.4	0.2	-1.54	1.95	0.23	0.82	
Q5.5	0.79	-1.32	2.9	0.74	0.46	
Q5.6	-0.77	-2.79	1.25	-0.75	0.45	
Q5.7	0.46	-3.27	4.2	0.24	0.81	
Q5.8	**3.56**	**1.68**	**5.44**	**3.71**	**0**	*
Q5.9	0.4	-1.39	2.19	0.44	0.66	
Q5.10	-1.51	-5.97	2.95	-0.66	0.51	
Q5.11	-0.02	-3.93	3.89	-0.01	0.99	
Q5.12	-0.21	-2.37	1.94	-0.19	0.85	

* Significant at <0.05>

Model: 6

Observations:	3598
Dependent Variable:	Q6 ("How many times in the past 12 months have you used the Ice Age Trail? ")
Type:	OLS linear regression
F =	21.33
p=	0
R^2 =	0.08
Adj. R^2 =	0.08

Standard errors: Robust	type = HC3	CI				
	Est.	2.5%	97.5%	t-val.	p-val.	
(Intercept)	48.71	15.64	81.78	2.89	0	*
Q10	-0.97	-3.2	1.26	-0.85	0.39	
Q11	-1.99	-3.81	-0.18	-2.15	0.03	*
Q16_YoungAdult	-15	-42.34	12.34	-1.08	0.28	
Q16_MiddleAge	-13.47	-40.73	13.79	-0.97	0.33	
Q16_Senior	-12.49	-39.74	14.77	-0.9	0.37	
Q17_HS	-17.33	-29.84	-4.81	-2.71	0.01	*
Q17_Associates	-13.33	-25.82	-0.84	-2.09	0.04	*
Q17_Bachelors	-15.68	-28.1	-3.27	-2.48	0.01	*
Q17_Master	-14.64	-27.1	-2.19	-2.31	0.02	*
Q17_Doctoral	-15.4	-28.21	-2.6	-2.36	0.02	*
lnQ18	0.12	-2.03	2.27	0.11	0.91	
Q15	0.14	-2.43	2.72	0.11	0.91	
Q7.2	**7.53**	**5.56**	**9.49**	**7.52**	**0**	*
Q7.3	**6.69**	**4.15**	**9.22**	**5.17**	**0**	*
Q7.1.1	**8.98**	**6.69**	**11.27**	**7.7**	**0**	*

* Significant at <0.05>

Model: 7

Observations:	3539
Dependent Variable:	Q6 ("How many times in the past 12 months have you used the Ice Age Trail? ")
Type:	OLS linear regression
F =	3.46
p=	0
R^2 =	0.02
Adj. R^2 =	0.02

Standard errors: Robust	type = HC3	CI				
	Est.	2.5%	97.5%	t-val.	p-val.	
(Intercept)	66.97	34.28	99.67	4.02	0	*
Q10	0.07	-2.24	2.37	0.06	0.95	
Q11	-4.71	-6.58	-2.84	-4.94	0	*
Q16_YoungAdult	-14.86	-41.07	11.35	-1.11	0.27	
Q16_MiddleAge	-13.31	-39.41	12.79	-1	0.32	
Q16_Senior	-12.66	-38.77	13.44	-0.95	0.34	
Q17_HS	-13.33	-27.6	0.94	-1.83	0.07	
Q17_Associates	-8.87	-23.12	5.39	-1.22	0.22	
Q17_Bachelors	-11.44	-25.64	2.76	-1.58	0.11	
Q17_Master	-10.35	-24.59	3.9	-1.42	0.15	
Q17_Doctoral	-11.15	-25.76	3.46	-1.5	0.13	
lnQ18	-0.14	-2.37	2.09	-0.12	0.9	
Q15	2.64	0.02	5.26	1.98	0.05	
Q13_1	-0.95	-3.27	1.36	-0.81	0.42	
Q13_2	**-6.55**	**-12.08**	**-1.02**	**-2.32**	**0.02**	*
Q13_3	-4.32	-22.44	13.81	-0.47	0.64	
Q13_4	**24.74**	**13.47**	**36.01**	**4.31**	**0**	*
Q13_5	**-3.65**	**-6.79**	**-0.51**	**-2.28**	**0.02**	*
Q13_6	-2.91	-7.69	1.87	-1.19	0.23	
Q13_7	-0.66	-4.21	2.89	-0.36	0.72	
Q13_8	-2.99	-6.23	0.25	-1.81	0.07	
Q13_9	-1.73	-5.73	2.27	-0.85	0.4	
Q13_10	-0.46	-4.49	3.56	-0.22	0.82	

* Significant at <0.05>

Model: 8

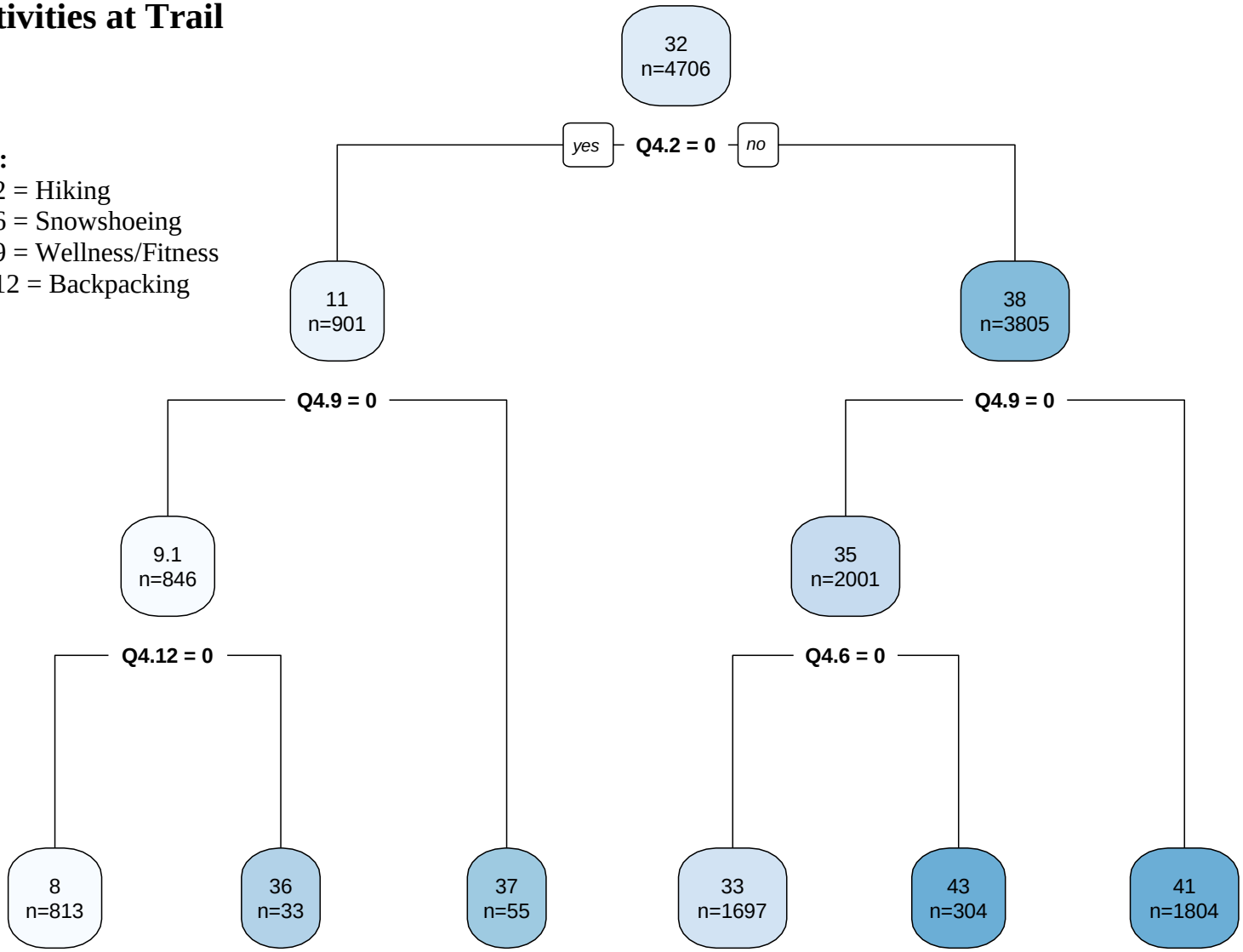
Observations:	3538
Dependent Variable:	Q6 ("How many times in the past 12 months have you used the Ice Age Trail? ")
Type:	OLS linear regression
F =	4.62
p=	0
R^2 =	0.02
Adj. R^2 =	0.02

Standard errors: Robust	type = HC3	CI				
	Est.	2.5%	97.5%	t-val.	p-val.	
(Intercept)	70.318	34.057	106.579	3.802	0.00	*
Q10	-0.887	-3.258	1.484	-0.733	0.46	
Q11	-7.12	-9.313	-4.927	-6.367	0.00	*
Q16_YoungAdult	-14.956	-47.294	17.382	-0.907	0.37	
Q16_MiddleAge	-13.685	-45.931	18.562	-0.832	0.41	
Q16_Senior	-12.994	-45.246	19.258	-0.79	0.43	
Q17_HS	-13.072	-28.397	2.252	-1.673	0.10	
Q17_Associates	-8.737	-24.041	6.567	-1.119	0.26	
Q17_Bachelors	-11.055	-26.308	4.198	-1.421	0.16	
Q17_Master	-9.826	-25.11	5.458	-1.261	0.21	
Q17_Doctoral	-10.377	-25.989	5.236	-1.303	0.19	
lnQ18	-0.7	-2.926	1.527	-0.616	0.54	
Q15	3.061	0.508	5.615	2.351	0.02	*
lnQ14a	**0.609**	**0.005**	**1.213**	**1.977**	**0.048**	*
lnQ14b	0.452	-0.33	1.233	1.134	0.26	
lnQ14c	**0.594**	**0.08**	**1.107**	**2.265**	**0.02**	*
lnQ14d	-0.256	-0.879	0.368	-0.804	0.42	
lnQ14e	0.128	-0.513	0.769	0.392	0.70	
lnQ14f	0.021	-0.69	0.732	0.057	0.96	
lnQ14g	0.36	-0.337	1.057	1.013	0.31	

* Significant at <0.05>

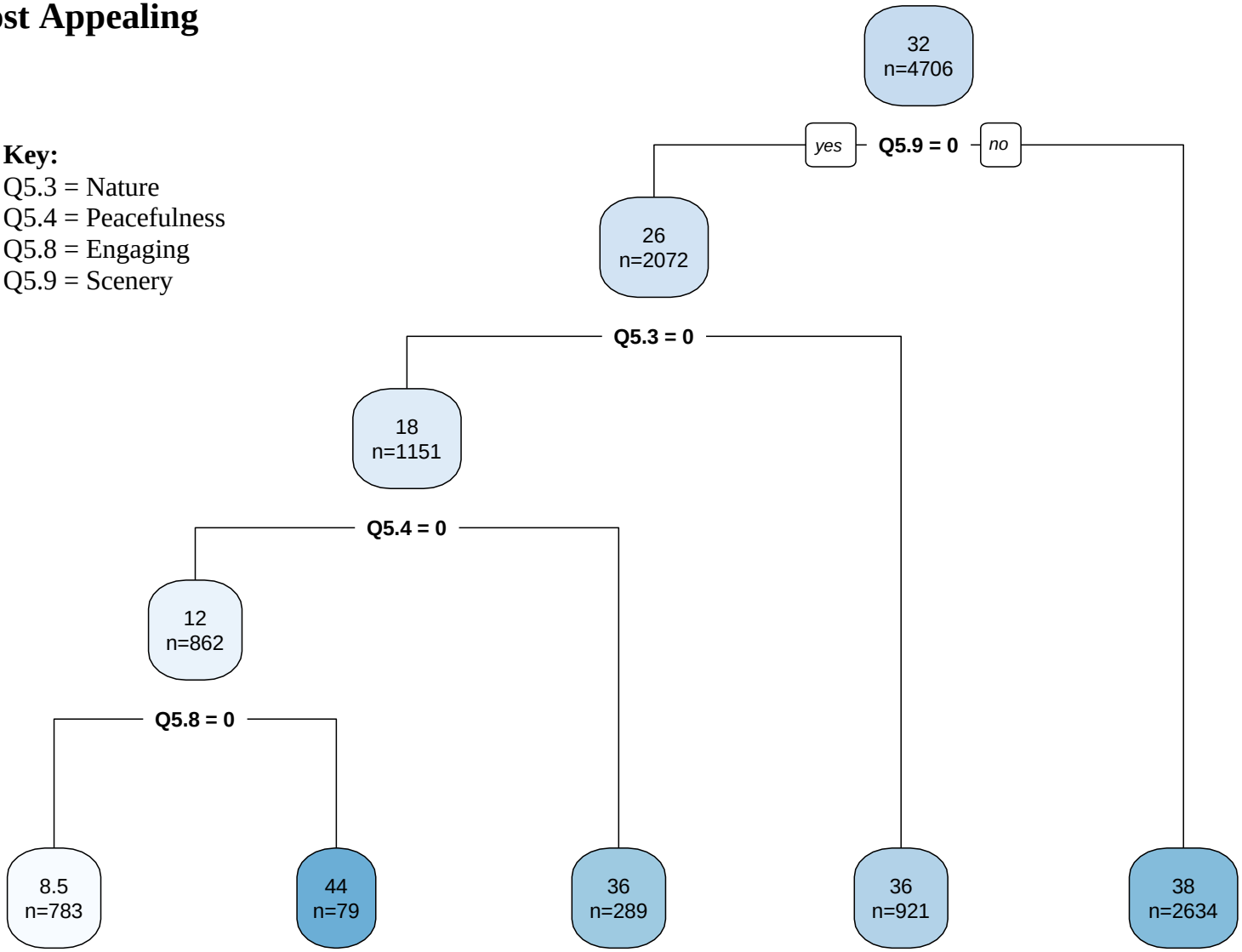
Model 4: Number of Visits to IAT Split by Activities at Trail

Key:
Q4.2 = Hiking
Q4.6 = Snowshoeing
Q4.9 = Wellness/Fitness
Q4.12 = Backpacking



Model 5: What Characteristics of the IAT are Most Appealing

Key:
Q5.3 = Nature
Q5.4 = Peacefulness
Q5.8 = Engaging
Q5.9 = Scenery



Model 6: What Season is IAT Used

Key:
Q7.1.1 = Fall Usage of Trail
Q7.2 = Spring Usage
Q7.3 = Summer Usage
Q17 = Highest Level of Education
Q18 = Annual HH Income