Attitudes Toward Elk Among EBCI Members and Visitors, and the Economic Impact of Having Elk on the Qualla Boundary

Conducted for the Eastern Band of Cherokee Indians

By Responsive Management

2020
Attitudes Toward Elk Among EBCI Members and Visitors, and the Economic Impact of Having Elk on the Qualla Boundary

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EXECUTIVE SUMMARY

This study was conducted for the Eastern Band of Cherokee Indians (EBCI) to determine the attitudes of its members toward elk on the Qualla Boundary, the attitudes of visitors to the area regarding elk, and the economic impact of having elk on the Qualla Boundary. The study entailed a scientific, probability-based telephone survey of EBCI members (referred to as Tribal members in this report) and an online survey of visitors to the area.

The overwhelming majority of members (80%) like having elk around, although some of those members like them but worry about the problems that elk cause (24%). A relatively small percentage of members (7%) regard elk as a nuisance. The 24% who like elk but worry about the problems they cause and the 7% who regard elk as a nuisance were combined: the sum (on unrounded numbers) is 30% who have concerns about elk.

Members were asked about their opinion on the size of the elk herd on the Qualla Boundary. The majority think it is about right (61%); otherwise, they are divided, with 19% saying it is too high and 13% saying it is too low.

Half of members (50%) viewed wildlife more than a mile from home, including 42% who viewed (or tried to view) elk. Additionally, just over three quarters of members (76%) viewed wildlife around home, including 51% who viewed elk. Putting the two together, 86% of members viewed wildlife either at home or away from home, including 71% who viewed elk. About two thirds of visitors (63%) traveled to the Cherokee area to view wildlife, including 49% who did so to view elk (or try to view elk).

The economic impact analysis found that elk viewing is likely generating at least $29 million in economic impacts to the Cherokee area from visitors (and perhaps more—assumptions used in this figure were those that produced the lowest impacts—one could argue that the impacts are greater, as fully explained in the body of the report). This economic impact accounts for about 400 jobs in the area. It was calculated that a quarter of these impacts in the Cherokee area go to the Qualla Boundary itself (the Qualla Boundary has about a quarter of the population of the study area), then approximately $7 million in impacts and approximately 100 jobs result from elk viewing.

An important finding is that members have problems with people viewing elk at twice the rate of problems with the elk themselves. In the past 12 months, 13% of members had problems with elk, while 26% had problems with people viewing elk. Most commonly, the damage from the elk themselves was to gardens, landscaping, or crops (78% of those who experienced problems). Nearly all problems with tourists involved vehicles: either traffic jams or illegal/obstructive parking. Combining the two damage questions shows that 34% of members had problems either with elk or with tourists viewing elk.

Nearly a quarter of members (22%) have fencing to protect gardens, landscaping, and/or crops, including 6% who have electric fencing. Members are equally divided: 44% would be comfortable with electric fencing, but 44% would be uncomfortable (the remainder are neutral or do not know).

A sizeable percentage of visitors (43%) had been to Harrah’s Cherokee Casino within the past 12 months, with about a third of those visitors saying that having elk in the area influenced their decision to come to Harrah’s Casino a great deal or a moderate amount.
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INTRODUCTION AND METHODOLOGY

This study was conducted for the Eastern Band of Cherokee Indians (EBCI) to determine the attitudes of its members toward elk on the Qualla Boundary, the attitudes of visitors to the area regarding elk, and the economic impact of having elk on the Qualla Boundary. The study entailed a scientific, probability-based telephone survey of EBCI members (referred to as Tribal members in this report) and an online survey of visitors to the area. Specific aspects of the research methodology are discussed below.

BACKGROUND OF ELK ON THE QUALLA BOUNDARY

Following the successful reintroduction of elk into the Great Smoky Mountains National Park in the early 2000s, surrounding communities have benefited from the presence of the species by marketing elk-related recreational attractions to residents and visitors. The most-visited national park in the United States, the Great Smoky Mountains National Park, has been home to a growing elk herd since 2001, when elk were first released in Cataloochee Valley. Since then, surrounding towns have prominently advertised elk-related activities unique to the Great Smoky Mountains National Park region. Note the following examples:

- The websites of the Bryson City / Swain County Chamber of Commerce and the National Park Service’s Great Smoky Mountains National Park offer recommendations on where and the best times for viewing elk in the Cataloochee area.
- Similarly, Friends of the Smokies, a volunteer stewardship organization associated with the Great Smoky Mountains National Park, notes that a special “Great Smoky Mountains Bugle Corps” was formed in response to the sharp uptick in park visitation following the reintroduction of elk in Cataloochee Valley.¹
- The North Carolina Wildlife Resources Commission and The Conservation Fund recently partnered to obtain several parcels of land to form a combined new state game land, principally for more elk habitat in the area adjacent to the Great Smoky Mountains National Park. In addition to providing new habitat for the growing elk herd, The Conservation Fund notes that the new game land will “bring new economic development opportunities to

Haywood County and surrounding counties” as a result of state and local tax revenues, wages, and salaries associated with local outdoor recreation and wildlife.²

The prominence of elk in marketing and advertising for tourism-related activities and attractions in and around Cherokee, North Carolina, follows the examples of other areas of the country in which reintroduced elk have contributed to local economies thanks to increased tourism and participation in recreational activities involving elk.

The presence of the elk also can create problems. For instance, elk can damage gardens, landscaping, and crops. For this reason, the EBCI wanted to assess the degree of the problems among Tribal members in addition to the economic benefits of having the elk on the Qualla Boundary.

**USE OF TELEPHONES FOR THE SURVEY OF MEMBERS**

For the survey of Tribal members, telephones were selected as the preferred sampling medium because of the almost universal ownership of telephones among this group (both landlines and cell phones were called). Additionally, telephones allow for the most rigorous screening process because a live interviewer conducts the survey and can properly administer the screener, which required that the respondent be a member of the EBCI and living on the Qualla Boundary.

**USE OF AN ONLINE SURVEY FOR VISITORS**

For the survey of visitors, an online questionnaire was developed. Note that the online survey was closed, meaning it was available only to respondents who were specifically selected for the survey and subsequently provided with a link to the survey and a unique access code. The survey could not be accessed through a general internet search, and respondents could complete the survey only once. The survey included a screener to ensure that the visitor had taken a trip to the Cherokee area within the previous 5 years.

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QUESTIONNAIRE DESIGN
The survey questionnaires were developed cooperatively by Responsive Management and the EBCI, based on the research team’s familiarity with elk specifically and natural resources in general. One questionnaire was used for members (coded for a telephone survey), and a separate questionnaire was used for visitors (-coded for an online survey). Responsive Management conducted pre-tests of the questionnaires to ensure proper wording, flow, and logic in the surveys. Note that the introduction to the surveys did not mention elk (only wildlife) so as to not bias the survey toward those interested in elk.

SURVEY SAMPLES
The sample of Tribal members was obtained through use of a sample obtained from MSG, a firm that specializes in providing scientifically valid samples for survey research. The sample consisted of people with the zip codes that matched the Qualla Boundary and included both landlines and cell phones. A screener then ensured that the respondent was a member of the EBCI.

The sample of visitors was provided by an agency that handles EBCI social media, Element Advertising, which provided a list of email addresses. Note that the provision of this list required a confidentiality agreement and an explanation of the project for which the email addresses would be used, including the steps that Responsive Management would take to prevent any use of the email addresses other than for the survey. The list consisted of emails of people who had visited the Cherokee area.

CONTACT PROCEDURES
To help publicize the legitimacy of the survey, the EBCI posted an announcement on its website and on its Facebook page. Screenshots of these announcements are shown on the following page.
The Eastern Band of the Cherokee Indians is currently working with Responsive Management, a research firm specializing in attitudes toward natural resources and outdoor recreation, to conduct a study about wildlife management in the Cherokee, North Carolina region. As part of this study, enrolled members of the EBCI are being surveyed about their opinions on wildlife management issues.

You do NOT have to participate in outdoor recreation or be knowledgeable about any specific issues to qualify for the survey—the researchers are looking for input from ALL EBCI members. Also note that this is a scientific, probability-based survey, which means that you can only participate in the survey if you are randomly selected to do so. This is why your participation in the survey is so important. As a survey respondent you are representing many other EBCI members.

We encourage you to participate in the survey if you happen to receive a call from one of Responsive Management’s telephone interviewers (calling on behalf of the Eastern Band of the Cherokee Indians) and are at least 18 years old. The survey takes around 10 minutes to complete and your responses will remain completely anonymous. Thank you in advance for your input!
Contact of Tribal members was made by telephone. A five-callback design was used to maintain the representativeness of the sample of Tribal members, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all members to participate. When a Tribal member could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day. The survey was conducted at the time of initial contact, or a callback time was set that was more convenient for the respondent. Telephone surveying times were Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 8:00 p.m., and Sunday from 2:00 p.m. to 9:00 p.m., local time.

The contact of visitors was made via email with an invitation to take the survey, sent on February 12, 2020. The email contained a direct link to the online survey, as well as a brief description of the purpose of the survey.

DATA COLLECTION
A central polling site at the Responsive Management office allowed for rigorous quality control over the telephone interviews and data collection. Responsive Management maintains its own in-house telephone interviewing facilities. These facilities are staffed by interviewers with experience conducting computer-assisted telephone interviews on the subjects of outdoor recreation and natural resources.

The telephone survey was coded using Responsive Management’s computer-assisted telephone interviewing (CATI) system. Note that the computer only controls which questions are asked and allows for immediate data entry; the telephone survey is administered by a live interviewer.

To ensure the integrity of the telephone survey data, Responsive Management has interviewers who have been trained according to the standards established by the Council of American Survey Research Organizations. Methods of instruction included lecture and role-playing. The Survey Center Managers and other professional staff conducted a project briefing with the interviewers prior to the administration of this survey. Interviewers were instructed on type of study, study goals and objectives, handling of survey questions, interview length, termination points and qualifiers for participation, interviewer instructions within the survey questionnaire, reading of
the survey questions, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey questionnaire. The CATI system data are then exported into Responsive Management’s data management system for the subsequent analysis.

The data from the online survey platform was also exported into Responsive Management’s data management system for use in the analysis. The progress of the online survey was continually monitored by Responsive Management to ensure that the sample was representative of visitors to the Cherokee area.

The telephone survey of members was conducted in February 2020. The online survey was active from February 12 through 26, 2020.

**QUALITY CONTROL**

For both the telephone and online surveys, the questionnaires were programmed to branch and substitute phrases in the surveys based on previous responses to ensure the integrity and consistency of the data collection. The survey questionnaires also contained error checkers and computation statements to ensure quality and consistent data.

The most important quality control measure for online surveys is to ensure that only those invited to participate can take the survey. As previously discussed, the online survey was closed, meaning it was available only to respondents who were specifically selected for the survey and subsequently provided with a direct link to the survey and a unique access code. The survey could not be accessed through a general internet search.

For the telephone interviews, the survey data were entered into the computer as each interview was being conducted, eliminating manual data entry after the completion of the survey and the concomitant data entry errors that may occur with manual data entry. The survey center managers and statisticians monitored the telephone data collection, including monitoring of the actual telephone interviews without the interviewers’ knowledge to evaluate the performance of each interviewer and ensure the integrity of the data.
After the surveys were obtained by the interviewers or through the online platform, the Survey Center Managers and/or statisticians checked each completed survey to ensure clarity and completeness. Responsive Management obtained a total of 501 completed interviews of Tribal members and 1,082 completed online questionnaires from visitors.

**DATA ANALYSIS**

The analysis of data was performed using IBM SPSS Statistics as well as proprietary software developed by Responsive Management.

The sample of residents was weighted by age and gender to ensure that it was fully representational of Tribal members on the Qualla Boundary. No weighting was applied to the sample of visitors.

**SAMPLING ERROR**

For the entire sample of Tribal members, the sampling error is at most plus or minus 4.21 percentage points. This means that if the survey were conducted 100 times on different samples that were selected in the same way, the findings of 95 out of the 100 surveys would fall within plus or minus 4.21 percentage points of each other. Sampling error was calculated using the formula described below, with a sample size of 501 members and an estimated population size of 6,756 (as provided by the Tribal government). No sampling error was calculated for visitors, as no established population size is available.

**Sampling Error Equation**

\[ B = \sqrt{\frac{N_p(.25)^2}{N_s(N_p - 1)}}(1.96) \]

Where:
- \( B \) = maximum sampling error (as decimal)
- \( N_p \) = population size (i.e., total number who could be surveyed)
- \( N_s \) = sample size (i.e., total number of respondents surveyed)


**Note:** This is a simplified version of the formula that calculates the maximum sampling error using a 50:50 split (the most conservative calculation because a 50:50 split would give maximum variation).
ADDITIONAL INFORMATION ABOUT THE PRESENTATION OF RESULTS IN THE REPORT

In examining the results, it is important to be aware that the questionnaire included several types of questions:

- Open-ended questions are those in which no answer set is read to the respondents; rather, they can respond with anything that comes to mind from the question.
- Closed-ended questions have an answer set from which to choose.
- Single or multiple response questions: Some questions allow only a single response, while other questions allow respondents to give more than one response or choose all that apply. Those that allow more than a single response are indicated on the graphs with the label, “Multiple Responses Allowed.”
- Scaled questions: Many closed-ended questions (but not all) are in a scale, such as “too high,” “about right,” and “too low.”
- Series questions: Many questions are part of a series, and the results are primarily intended to be examined relative to the other questions in that series (although results of the questions individually can also be valuable). Typically, results of all questions in a series are shown together.

Some graphs show an average, either the mean or median (or both). The mean is simply the sum of all numbers divided by the number of respondents. Because outliers (extremely high or low numbers relative to most of the other responses) may skew the mean, the median may be shown. The median is the number at which half the sample is above and the other half is below. In other words, a median of $150 means that half the sample gave an answer of more than $150 and the other half gave an answer of less than $150.

Most graphs show results rounded to the nearest integer; however, all data are stored in decimal format, and all calculations are performed on unrounded numbers. For this reason, some results may not sum to exactly 100% because of this rounding on the graphs. Additionally, rounding may cause apparent discrepancies of 1 percentage point between the graphs and the reported results of combined responses (e.g., when “strongly support” and “moderately support” are summed to determine the total percentage in support).
The report is divided into separate sections for each theme of the surveys, with results from both surveys that pertain to that theme being presented. Each section of the report starts with a summary page of all of the findings that pertain to that theme, followed by all the graphs for that section.
KNOWLEDGE OF ELK

Several questions determined the percentage of members and visitors who know that elk are on the Qualla Boundary or in the state (members were asked about the Qualla Boundary; visitors were asked about North Carolina statewide).

- Nearly all members (99%) know that the Qualla Boundary has elk.
- A large majority of visitors (83%) know that North Carolina has elk.
  - No graphs are shown of these findings.
ATTITUDES TOWARD ELK AND THE ELK POPULATION

The survey then informed all respondents that the Qualla Boundary has wild elk through the statements shown below: those who had known were presented with the first statement; the second statement was presented to those who had not known that elk are on the Qualla Boundary/in the state. These statements ensured that, from this point in the survey onward, all respondents were the same in knowing that the Qualla Boundary has wild elk.

You are correct. [The Qualla Boundary / North Carolina] has wild elk. The National Park Service successfully reintroduced elk to the Great Smoky Mountains in 2001, and there are now self-sustaining, wild herds whose range includes the Qualla Boundary.

Actually, [The Qualla Boundary / North Carolina] has wild elk. The National Park Service successfully reintroduced elk to the Great Smoky Mountains in 2001, and there are now self-sustaining, wild herds whose range includes the Qualla Boundary.

➢ An overwhelming majority of members (80%) like having elk around, although some of those members like them but worry about the problems that elk cause (24%). A relatively small percentage of members (7%) regard elk as a nuisance. (The remainder have no particular feeling about elk.)

• The 24% who like elk but worry about the problems they cause and the 7% who regard elk as a nuisance were combined: the sum (on unrounded numbers) is 30% who have concerns about elk. A demographic analysis was conducted, shown on a single graph, that suggests that those who worry about elk or regard them as a nuisance are associated with the following characteristics: having experienced damage from elk or tourists, being in support of an elk hunting season, and being in one of the lower educational brackets.

• Near the conclusion of the survey, after the questions about problems that elk cause, members were asked again. While nearly the same percentage (78%) liked having elk around, the percentage who selected the “but worry” response increased to 34%. The percentage thinking elk are a nuisance also increased just slightly to 9%.

➢ Visitors were asked about their opinions on elk in the state: 91% like having elk in the state, with just a small percentage doing so while still worrying about problems (5%). Just a tiny percentage (less than 0.5%) regard elk as a nuisance.
Which of the following best describes your feelings about elk on the Qualla Boundary?  
(Members)

- I like having elk on the Qualla Boundary: 56%  
- I like having elk on the Qualla Boundary but worry about the problems they can cause: 24%  
- I generally regard elk as a nuisance: 7%  
- I have no particular feeling about elk: 13%

* Rounding on graph causes apparent discrepancy in sum; calculation made on unrounded numbers.
Percent of each of the following groups who like having elk around the Qualla Boundary but worry about the problems they can cause or who generally regard elk as a nuisance. (Members)

- Experienced damage from elk or tourists: 44%
- Would support an elk hunting season: 36%
- Some college or trade school, no degree: 35%
- High school diploma or less: 34%
- 55 years old or older: 33%
- Male: 32%
- 35-54 years old: 31%
- Overall: 30%
- Female: 29%
- 18-34 years old: 28%
- Associate's or trade school degree or higher: 27%
- Did not experience damage from elk or tourists: 23%
- Would oppose an elk hunting season: 18%

The overall rate of worrying about elk / thinking that they are a nuisance is 30% among members overall, shown by the patterned bar.

Those groups above the overall bar are more likely to worry / think they are nuisance. For instance, 44% of those who experienced damage think this.

Additionally, 35% of those with some college but no degree and 34% of those with no more than a high school diploma think this.

On the other hand, those groups below the overall bar are less likely to think this. For instance, 27% of those with a college degree and 23% of those who did not experience damage worry about elk or think that they are a nuisance.
Earlier we talked about problems that you had experienced because of elk. With that in mind, which of the following best describes your feelings about elk on the Qualla Boundary? (Asked of members who had problems with elk or tourists viewing elk.) (Members)

- I like having elk on the Qualla Boundary: 44% (78%)
- I like having elk on the Qualla Boundary but worry about the problems they can cause: 34%
- I generally regard elk as a nuisance: 9%
- I have no particular feeling about elk: 9%
- Don't know: 4%

(Percent n=164)
Which of the following best describes your feelings about elk in North Carolina? (Visitors)

- I like having or seeing elk in North Carolina: 86%
- I like having or seeing elk in North Carolina but worry about the problems they can cause: 5%
- I generally regard elk as a nuisance: Less than 0.5%
- I have no particular feeling about elk: 8%
- Don't know: 1%

Percent (n=1082)
ATTITUDES TOWARD MANAGING ELK

Members were asked about their opinion on the size of the elk herd on the Qualla Boundary. The majority think it is about right (61%); otherwise, they are divided, with 19% saying it is too high and 13% saying it is too low.

- Those who think it is too high are correlated with the following characteristics: have experienced damage from elk or tourists and would support an elk hunting season. None of the other characteristic groups are markedly higher than members overall in thinking that the elk population is too high.

Members and visitors were asked to name the agency with responsibility to manage elk both inside and outside of the Qualla Boundary.

- About one third of members (32%) knew that the Tribal government has primary responsibility to manage elk on the Qualla Boundary. Among visitors, 20% correctly named the Tribal government.
- Outside of the Qualla Boundary but within North Carolina, the North Carolina Wildlife Resources Commission has the primary responsibility: 25% of members and 30% of visitors correctly named this agency.
  - While the National Park Service may respond to nuisance calls or emergencies in the Great Smoky Mountains National Park that involve elk, the agency does not have the primary responsibility for managing elk; nonetheless, the agency was commonly named as having the responsibility for managing elk.

The final question in this section concerned whether establishing a hunting season for elk would be effective in reducing the elk herd on the Qualla Boundary (assuming it was determined that the herd needed to be reduced). The overwhelming majority of members (87%) think that a hunting season for elk would be very or somewhat effective at reducing the herd.
In your opinion, is the elk population on the Qualla Boundary too high, about right, or too low? (Among those who knew elk were on the Qualla Boundary.) (Members)

- Too high: 19
- About right: 61
- Too low: 13
- Don't know: 6

Percent (n=483)
Percent of each of the following groups who think the elk population on the Qualla Boundary is too high. (Members)

- Experienced damage from elk or tourists: 28%
- Would support an elk hunting season: 23%
- Some college or trade school, no degree: 22%
- 35-54 years old: 21%
- Female: 19%
- Overall: 19%
- Male: 19%
- High school diploma or less: 19%
- Associate’s or trade school degree or higher: 18%
- 55 years old or older: 17%
- 18-34 years old: 16%
- Did not experience damage from elk or tourists: 15%
- Would oppose an elk hunting season: 11%

An explanation of how to interpret these types of graphs is presented on page 13.
Which government agency would you say has the primary responsibility to manage elk on the Qualla Boundary? (Members)

- EBCI (Correct answer): 32
- National Park Service: 17
- NC Wildlife Resources Commission ("Fish and Game / Wildlife") / game wardens: 16
- Forest service / rangers: 6
- Great Smoky Mountains National Park: 5
- DNR: 2
- Federal government (general): 1
- Other: 2
- Don't know: 20

Percent (n=501)
Which government agency would you say has the primary responsibility to manage elk in the Cherokee area? (Visitors)

EBCI (correct answer) 20
NC Wildlife Resources Commission ("Fish and Game / Wildlife") / game wardens 18
National Park Service 9
State Parks 6
Forest service / rangers 5
DNR 5
USFWS 2
Dept. of Interior 2
Federal government (general) 1
Great Smoky Mountains National Park 1
BLM 1
Natural Resources Defense Council 1
Other 3
Don't know 33

Percent (n=1082)
Which government agency would you say has the primary responsibility to manage elk in North Carolina outside of the Qualla Boundary? (Members)

- National Park Service: 30
- NC Wildlife Resources Commission ("Fish and Game / Wildlife") / game wardens (correct answer): 25
- Forest service / rangers: 5
- Great Smoky Mountains National Park: 2
- Federal government (general): 1
- USFWS: 1
- EBCI: 1
- DNR: 1
- Don't know: 31

Percent (n=501)
Which government agency would you say has the primary responsibility to manage elk in North Carolina outside of the Cherokee area? (Visitors)

- NC Wildlife Resources Commission ("Fish and Game / Wildlife") / game wardens (correct answer) - 30%
- National Park Service - 13%
- DNR - 8%
- Forest service / rangers - 6%
- State Parks - 5%
- Great Smoky Mountains National Park - 3%
- USFWS - 3%
- Federal government (general) - 2%
- EBCI - 2%
- Dept. of Interior - 1%
- BLM - 1%
- Natural Resources Defense Council - 1%
- Other - 3%
- Don't know - 32%

Percent (n=1082)
How effective would a hunting season be at reducing the elk herd on the Qualla Boundary, if it was determined that the herd needed to be reduced? Would you say...? (Among those who support elk hunting on the Qualla Boundary.)

(Members)

<table>
<thead>
<tr>
<th>Attitude</th>
<th>Percent (n=382)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very effective</td>
<td>56</td>
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<tr>
<td>Somewhat effective</td>
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</tr>
<tr>
<td>A little effective</td>
<td>6</td>
</tr>
<tr>
<td>Not at all effective</td>
<td>3</td>
</tr>
<tr>
<td>Don't know</td>
<td>4</td>
</tr>
</tbody>
</table>

87%*

* Rounding on graph causes apparent discrepancy in sum; calculation made on unrounded numbers.
PARTICIPATION IN VIEWING ELK

- The survey asked members about viewing wildlife and elk more than a mile from home as well as around home. It then asked visitors about traveling to the Cherokee area to view wildlife and elk.

- Half of members (50%) viewed wildlife more than a mile from home, including 42% who viewed (or tried to view) elk. Additionally, just over three quarters of members (76%) viewed wildlife around home, including 51% who viewed elk.
  - Putting the two together, 86% of members viewed wildlife either at home or away from home, including 71% who viewed elk.

- About two thirds of visitors (63%) traveled to the Cherokee area to view wildlife, including 49% who did so to view elk (or try to view elk).
  - The visitor characteristics associated with viewing elk include having spent money on the Qualla Boundary, having visited Harrah’s Casino, being a resident of North Carolina or Tennessee, and being less than the median age.
  - Another analysis was conducted of those who viewed elk and visited Harrah’s casino compared to those who viewed elk but did not visit the casino, shown in two graphs. Elk viewers who did not visit the casino tend to be a little more educated than elk viewers who did. Additionally, non-casino elk viewers are more likely to be in the middle age brackets than are their counterparts.
Did you go more than a mile from your home to view wildlife on the Qualla Boundary in the past 12 months? (If yes, did you view or try to view elk?) (Members)

- Viewed or tried to view elk: 42%
- Viewed wildlife, but not elk: 8%
- Did not go 1 mile or more to view wildlife: 49%
- Don't know: Less than 0.5%

Percent (n=501)
Did you view wildlife or take an interest in wildlife around home in the past 12 months? (If yes, did you view or try to view elk?) (Members)

- Viewed or tried to view elk around home: 51%
- Viewed wildlife, but not elk, around home: 24%
- Did not go view wildlife around home: 24%
- Don't know: Less than 0.5%

* Rounding on graph causes apparent discrepancy in sum; calculation made on unrounded numbers.
Did you travel to the Cherokee area to view wildlife in the past 12 months? (If yes, did you view or try to view elk?) (Visitors)

- Viewed or tried to view elk in the Cherokee area: 49
- Viewed wildlife, but not elk, in the Cherokee area: 14
- Did not go to the Cherokee area to view wildlife: 36
- Don't know: 1

Percent (n=1082)
Percent of each of the following groups who viewed or tried to view elk in the Cherokee area in the past 12 months. (Visitors)

- Spent money in the Qualla Boundary in the past 12 months: 76%
- Visited Harrah's casino in past 12 months: 60%
- Resides in North Carolina: 53%
- Less than median age of 58: 53%
- Resides in Tennessee: 53%
- Resides in South Carolina: 52%
- Resides in other nearby Southern state: 52%
- Education level less than bachelor's degree: 52%
- Male: 51%
- Overall: 49%
- Female: 48%
- Resides in Georgia: 48%
- Median age of 58 or older: 45%
- Education level of bachelor's degree or higher: 44%
- Did not visit Harrah's casino in past 12 months: 41%
- Resides in other state or outside of U.S.: 31%
- Did not spend money in the Qualla Boundary in the past 12 months: 17%

An explanation of how to interpret these types of graphs is presented on page 13.
What is the highest level of education you have completed?

- Not a high school graduate
  - Viewed elk and visited casino (n=277): 1
  - Viewed elk, did not visit casino (n=254): 1

- High school graduate or equivalent
  - Viewed elk and visited casino (n=277): 21
  - Viewed elk, did not visit casino (n=254): 20

- Some college or trade school, no degree
  - Viewed elk and visited casino (n=277): 31
  - Viewed elk, did not visit casino (n=254): 28

- Associate’s degree or trade school degree
  - Viewed elk and visited casino (n=277): 24
  - Viewed elk, did not visit casino (n=254): 19

- Bachelor’s degree
  - Viewed elk and visited casino (n=277): 16
  - Viewed elk, did not visit casino (n=254): 18

- Master’s degree
  - Viewed elk and visited casino (n=277): 4
  - Viewed elk, did not visit casino (n=254): 12

- Professional or doctorate degree (e.g., M.D. or Ph.D.)
  - Viewed elk and visited casino (n=277): 1
  - Viewed elk, did not visit casino (n=254): 2

* Rounding on graph causes apparent discrepancy in sum; calculation made on unrounded numbers.
What is your age?

- 65 years old or older: 23% viewed elk and visited casino, 19% viewed elk but did not visit casino.
- 55-64 years old: 34% viewed elk and visited casino, 37% viewed elk but did not visit casino.
- 45-54 years old: 22% viewed elk and visited casino, 27% viewed elk but did not visit casino.
- 35-44 years old: 15% viewed elk and visited casino, 9% viewed elk but did not visit casino.
- 25-34 years old: 5% viewed elk and visited casino, 4% viewed elk but did not visit casino.
- Don't know: 3% viewed elk and visited casino, 3% viewed elk but did not visit casino.

Legend:
- Blue square: Viewed elk and visited casino (n=277)
- Light grey box: Viewed elk, did not visit casino (n=254)
PARTICIPATION IN ANCILLARY ACTIVITIES

- Both members and visitors were presented with a list of other activities that do not directly involve elk, and they were asked about their participation on the Qualla Boundary/in the Cherokee area.
  - The majority of members participate in cultural recreation (68%), swimming (59%), and hiking (52%). Fishing (42%) and river tubing (34%) are also quite popular. The graph shows the full listing.
  - Among visitors, 45% do cultural recreation in the Cherokee area, and 36% go hiking—the leading activities. Fishing (18%) and camping (14%) are next. The graph shows the full listing.
    - Graphs show the characteristics associated with both cultural recreation and hiking. Some characteristics common to both include having spent money on the Qualla Boundary in the past 12 months, being in the higher education bracket, residing in North Carolina. For hiking, an additional characteristic is being less than the median age.
    - A graph shows the characteristics associated with fishing, as well. Those characteristics include being male, having spent money on the Qualla Boundary, and residing in North Carolina.
    - Other popular activities (that were not in the list presented to respondents) among members include walking, hunting, team sports, and viewing/photographing wildlife. Among visitors, the most popular “other” activity is viewing/photographing wildlife.

- For each activity that visitors had done, the survey asked them how much elk played in their decision to come to the Cherokee area to do the activity.
  - Among hikers and campers, elk is a big draw: 42% of both hikers and campers said that elk influenced their decision a great deal or a moderate amount. In the next tier are mountain bikers (36%) and those going to cultural events or museums (34%). The graph shows the full list of activities.
    - Putting together the size of the group that did the activity and the influence that elk had on their participation shows the activities that encompass the most people being influenced by elk. The tabulation shows that elk’s influence makes the greatest impact to the Cherokee area in combination with hiking and cultural recreation.
Did you participate in any of these activities on the Qualla Boundary in the past 12 months? What about...? (Members)

- Cultural recreation, such as fairs or bonfires or museums: 68%
- Swimming: 59%
- Hiking: 52%
- Fishing: 42%
- Tubing in the river: 34%
- Camping: 18%
- Mountain biking: 13%

Multiple Responses Allowed
Percent (n=501)
Did you participate in any of these activities in the Cherokee area in the past 12 months? (Visitors)

- Cultural recreation, such as fairs, bonfires, or museums: 45%
- Hiking: 36%
- Fishing: 18%
- Camping: 14%
- Swimming: 11%
- Tubing in the river: 11%
- Mountain biking: 1%
- None of these: 35%

Multiple Responses Allowed

Percent (n=1082)
Percent of each of the following groups who participated in cultural recreation in the Cherokee area in the past 12 months. (Visitors)

- Spent money in the Qualla Boundary in the past 12 months: 53%
- Education level of bachelor's degree or higher: 52%
- Resides in North Carolina: 51%
- Female: 47%
- Resides in other nearby Southern state: 47%
- Less than median age of 58: 46%
- Visited Harrah's casino in past 12 months: 45%
- Resides in other state or outside of U.S.: 45%
- Overall: 45%
- Did not visit Harrah's casino in past 12 months: 45%
- Median age of 58 or older: 43%
- Education level less than bachelor's degree: 42%
- Resides in Tennessee: 41%
- Resides in South Carolina: 40%
- Male: 39%
- Resides in Georgia: 39%
- Did not spend money in the Qualla Boundary in the past 12 months: 35%

An explanation of how to interpret these types of graphs is presented on page 13.
Percent of each of the following groups who went hiking in the Cherokee area in the past 12 months. (Visitors)

Spent money in the Qualla Boundary in the past 12 months
Less than median age of 58
Resides in North Carolina
Education level of bachelor's degree or higher
Resides in other nearby Southern state
Resides in other state or outside of U.S.
Visited Harrah's casino in past 12 months
Male
Overall
Female
Did not visit Harrah's casino in past 12 months
Education level less than bachelor's degree
Resides in Georgia
Median age of 58 or older
Resides in South Carolina
Resides in Tennessee
Did not spend money in the Qualla Boundary in the past 12 months

An explanation of how to interpret these types of graphs is presented on page 13.
An explanation of how to interpret these types of graphs is presented on page 13.
Did you participate in any other outdoor recreation on the Qualla Boundary in the past 12 months? (Members)

- Yes: 27
- No: 72
- Don't know: 1

Percent (n=501)
Other outdoor recreation participated in. (Among those who participated in other activities.) (Members)
Did you participate in any other outdoor recreation in the Cherokee area in the past 12 months? (Visitors)

- Yes: 16
- No: 82
- Don't know: 3

Percent (n=1071)
What other outdoor recreation did you participate in? (Asked of those who participated in another outdoor recreation activity.) (Visitors)

- Viewing / photographing wildlife / nature: 52%
- Picnicking: 13%
- Shopping: 10%
- Motorcycling: 9%
- Horseback riding: 4%
- Whitewater rafting / canoeing: 3%
- Running / jogging: 1%
- Kayaking: 1%
- Other: 10%
- Don’t know: 6%
Among participants in each activity, the percentage who indicated that having elk in the area influenced their decision the given amount to come to the Cherokee area to participate.

(Visitors)

A great deal | A moderate amount | A little | None at all | Don't know
---|---|---|---|---
Hiking 21 | 21 | 22 | 35 | 42% | 0
Camping 24 | 18 | 18 | 40 | 42% | 0
Mountain biking 27 | 9 | 9 | 55 | 36% | 0
Cultural event or museum 15 | 19 | 21 | 45 | 34% | 0
Fishing 18 | 11 | 15 | 56 | 29% | 0
Tubing 13 | 13 | 18 | 56 | 26% | 0
Swimming 13 | 13 | 14 | 60 | 26% | 0

Sum of "A great deal" and "A moderate amount" is shown in box underneath each bar.
Values for "Don't know" not shown to improve legibility; graph ranked by "A great deal" and "A moderate amount" combined.

Percent (11 ≤ n ≤ 395)
Visitors: Percentage Who Did the Activity and the Amount That Elk Influenced Their Participation

<table>
<thead>
<tr>
<th>Activity</th>
<th>Hiking</th>
<th>Cultural event or museum</th>
<th>Camping</th>
<th>Fishing</th>
<th>Swimming</th>
<th>Tubing</th>
<th>Mountain biking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage who participated</td>
<td>35.6</td>
<td>44.7</td>
<td>14.1</td>
<td>17.6</td>
<td>11.3</td>
<td>10.9</td>
<td>1.1</td>
</tr>
<tr>
<td>Percentage who were influenced a great deal or moderate amount by elk</td>
<td>42.4</td>
<td>33.7</td>
<td>42.0</td>
<td>29.3</td>
<td>26.0</td>
<td>26.0</td>
<td>36.4</td>
</tr>
<tr>
<td>Percentage of visitors who did the activity and were influenced a great deal or moderate amount</td>
<td>15.1</td>
<td>15.1</td>
<td>5.9</td>
<td>5.2</td>
<td>2.9</td>
<td>2.8</td>
<td>0.4</td>
</tr>
</tbody>
</table>
SPENDING ON ELK AND WILDLIFE VIEWING

For this survey, an economic analysis was performed of spending on elk viewing. The survey asked about equipment purchases, transportation expenses, and food/entertainment expenses related to wildlife viewing (among those who viewed wildlife on the Qualla Boundary/in the Cherokee area). Expenses were divided into those spent outside the Qualla Boundary and those within the Qualla Boundary. Finally, respondents were asked to rate how important elk was to the equipment expenses. (The economic impact analysis based on these data is contained in the next section of the report.)

- Graphs show the expenses overall and within the Qualla Boundary among members and then among visitors in a 12-month timeframe.
  - These data were also used in an economic impact analysis of elk, discussed in the next section.
    - The characteristics associated with those visitors who spend money on Qualla Boundary related to elk viewing include having also visited Harrah’s Casino, being male, residing in Tennessee, and having an education level of less than a bachelor’s degree.
How much did you spend in the past 12 months on purchasing equipment, such as binoculars, cameras, day packs, for wildlife viewing? (Among those who viewed elk on the Qualla Boundary.) (Members)

- More than 250 dollars: 4
- 101-250 dollars: 3
- 51-100 dollars: 5
- 1-50 dollars: 5
- Did not spend money on this: 81
- Don't know: 4

Mean = 38.82
Median = 0

Percent (n=360)
How much of that was spent at stores and establishments specifically on the Qualla Boundary? (Among those who viewed elk on the Qualla Boundary and who spent on equipment.) (Members)

- 251-500 dollars: 7
- 101-250 dollars: 5
- 51-100 dollars: 9
- 1-50 dollars: 21
- None was spent on the Qualla Boundary: 56
- Don't know: 3

Mean = 47.71
Median = 0
Did you spend anything on transportation, including gas, for viewing elk on the Qualla Boundary in the past 12 months? Please give me only the amount spent on the Qualla Boundary. (Among those who viewed elk on the Qualla Boundary.) (Members)

- More than 250 dollars: 4
- 101-250 dollars: 4
- 51-100 dollars: 6
- 1-50 dollars: 28
- Did not spend money on this: 51
- Don't know: 7

Mean = 52.06
Median = 0

Percent (n=360)
Did you spend anything on food, drinks, dining, or entertainment on the Qualla Boundary related to viewing elk? (Among those who viewed elk on the Qualla Boundary.) (Members)

- More than 250 dollars: 5
- 101-250 dollars: 2
- 51-100 dollars: 6
- 1-50 dollars: 11
- Did not spend money on this: 72
- Don't know: 4

Mean = 57.53
Median = 0
How much did you spend in the past 12 months on purchasing equipment, such as binoculars, cameras, day packs, for wildlife viewing? (Asked of those who visited the Cherokee area to view elk.) (Visitors)

- More than 1,000 dollars: 2
- 501-1,000 dollars: 2
- 401-500 dollars: 2
- 301-400 dollars: 1
- 201-300 dollars: 5
- 101-200 dollars: 8
- 51-100 dollars: 9
- 26-50 dollars: 7
- 1-25 dollars: 5
- Did not spend anything: 56
- Don't know / did not answer: 3

Mean = 120.64
Median = 0
How much of that was spent at stores and establishments specifically in the Cherokee area? (Asked of those who purchased equipment for wildlife viewing in the past 12 months.) (Visitors)

- More than 1,000 dollars: 3
- 501-1,000 dollars: 5
- 401-500 dollars: 4
- 301-400 dollars: 5
- 201-300 dollars: 7
- 101-200 dollars: 18
- 51-100 dollars: 17
- 26-50 dollars: 13
- 1-25 dollars: 10
- None in the Cherokee area: 16
- Don't know / did not answer: 3

Mean = 235.25  
Median = 100
Did you spend anything on transportation, including gas, for viewing elk in the Cherokee area in the past 12 months? If yes, how much? (Among those who viewed elk.) (Visitors)

More than 200 dollars: 7
101-200 dollars: 9
51-100 dollars: 16
26-50 dollars: 24
1-25 dollars: 19
Did not spend money on this: 21
Don't know / did not answer: 4

Mean = 78.06
Median = 40
Did you spend anything on food, drinks, dining, or entertainment in the Cherokee area related to viewing elk? If yes, how much? (Among those who viewed elk.) (Visitors)

![Bar Chart]

- More than 200 dollars: 13
- 101-200 dollars: 13
- 51-100 dollars: 18
- 26-50 dollars: 18
- 1-25 dollars: 11
- Did not spend money on this: 23
- Don't know / did not answer: 4

Mean = 130.36
Median = 50

Percent (n=531)
Percent of each of the following groups who spent money related to elk viewing in the Cherokee area in the past 12 months. (Visitors)

- Visited Harrah's casino in past 12 months: 62%
- Male: 59%
- Resides in Tennessee: 59%
- Education level less than bachelor's degree: 59%
- Resides in North Carolina: 58%
- Less than median age of 58: 58%
- Resides in South Carolina: 57%
- Resides in other nearby Southern state: 55%
- Overall: 55%
- Female: 54%
- Resides in Georgia: 54%
- Median age of 58 or older: 53%
- Did not visit Harrah's casino in past 12 months: 50%
- Education level of bachelor's degree or higher: 47%
- Resides in other state or outside of U.S.: 41%

An explanation of how to interpret these types of graphs is presented on page 13.
ECONOMIC IMPACT OF ELK ON THE QUALLA BOUNDARY

This section first describes the economic modeling software that estimates the economic effects of elk viewing and the variables used. The section then includes a short review of economic data of nearby counties to the Qualla Boundary as a comparison with the results of the modeling for this project. The section ends with the results of the modeling—the estimations of economic impacts of elk viewing.

IMPLAN MODELING AND VARIABLES USED

The data analyses included an estimation of the economic impact of elk viewing to the Qualla Boundary and to Jackson and Swain Counties. To estimate the size of the economic contributions made by elk viewing, this analysis used economic data and software called IMPLAN (a name derived from Impact Analysis for Planning), produced by IMPLAN Group, LLC, whose information can be found at www.IMPLAN.com.

The IMPLAN model uses publicly available economic data to calculate several economic multipliers and uses them to estimate and break down the total impact of an activity into three separate effects:

1. Direct effects.
2. Indirect effects.
3. Induced effects.

The direct effects result from the home-based and location-specific spending by elk viewers on each viewing trip. Direct effects represent the money spent by individuals, businesses, and other institutions for the various products used for elk viewing. The first-round money includes expenditures for wildlife viewing equipment, lodging, groceries, and restaurants.

Indirect effects represent subsequent rounds of money spent among local businesses based on the direct effects. Subsequent rounds of money (or indirect effects) include the impact of local industries buying goods and services from other local industries. These purchases are also known as intermediate expenditures.
The last effect, the induced effect, includes all money spent by the employees who receive salaries and benefits from jobs created by elk viewing expenditures and local businesses on purchases such as those from stores, restaurants, and other local businesses. Breaking out and examining the two types of secondary effects (indirect and induced effects) helps illustrate the types of economic relationships in a large economy. For example, industries that are more labor-intensive will tend to have larger induced effects and smaller indirect effects. In addition, industries that tend to pay higher wages and salaries will also tend to have larger induced effects. Decomposing the multiplier into its induced and indirect effects can provide a better understanding of the industry under examination and its relationship to the larger economy.

The survey included several questions to obtain expenditure data on elk viewing. The survey first asked respondents if they knew that wild elk were in North Carolina. They were later asked if they had traveled to Cherokee to view wildlife, with the answer set that separated visitors into the following groups:

- Viewed (or tried to view) elk
- Viewed wildlife, but not elk (and did not try to view elk)
- Did not view wildlife

Later, those who viewed or tried to view elk were asked about three types of expenditures related to elk viewing: equipment, transportation (including gas and personal transportation), and food/lodging/entertainment.

The question about equipment expenditures asked about wildlife viewing rather than elk viewing specifically (but the question was only asked of those who had viewed or tried to view elk) because the equipment can be used for nearly all types of wildlife. A follow-up question then asked them to estimate the amount they had spent, and then the amount that they had spent specifically in stores and establishments in the Cherokee area.

For the transportation and food/lodging/entertainment expenses, the questions both specified that the respondent was to indicate the amount spent in the Cherokee area on trips that included elk viewing. These questions were limited to those who had viewed or tried to view elk.
Those who viewed elk were further broken down for the analysis into two groups, because it was conjectured that the two groups might have some fundamental differences in their spending habits regarding elk viewing. One analysis was run of those who viewed elk and also went to Harrah’s Casino, and a second analysis was run of those who viewed elk and did not go to the Casino. Tables are shown separately for these groups, and then an additional table shows the two groups together. That way, the reader can readily see the economic impact of those who are going to Harrah’s (for whom elk is not the primary draw) and those who are not (for whom elk is perhaps the primary draw). (Note that the survey did not ask visitors to name the primary reason that they visited the area; it only asked if they had engaged in wildlife and elk viewing and how important elk was to their trip.) There is also a table of Tribal members’ economic impact, as well.

One input of the IMPLAN modeling is the number of visitors to the Qualla Boundary. One source of data on visitation comes from the National Park Service’s records of the use of two highways that feed into the Blue Ridge Parkway: U.S. Route 19 and U.S. Route 441. These data come from the National Park Service’s Visitor Use Statistics Program, which provides statistically valid, reliable, and uniform methods of collecting and reporting visitor use data for each independently authorized unit administered by the National Park Service.

The Visitor Use Statistics Office of the National Park Service coordinates visitor counting protocols and provides visitation statistics and forecasts. The responsibility for compiling and summarizing visitation records lies with the Social Science Program in the Environmental Quality Division, Natural Resource Stewardship and Science Directorate. The Program relies on the conscientious efforts of National Park Service field staff to count, record, and report visitor use. This system of collecting and analyzing monthly visitor use data is combined with continuous review and assessment of park counting procedures to ensure consistency and accuracy of the data. Detailed, unit-specific instructions for the units that collect data are available on the Visitor Use Statistics website (https://irma.nps.gov/Stats/).

This report used the annual estimates of park visits within the Blue Ridge Parkway for 2019. Specifically, the two main feeder roads to the Qualla Boundary (U.S. 19 and U.S. 441) were used
to estimate the number of visitors during 2019. The total number of visits for U.S. 19 was 166,026, and the total number of visits for U.S. 441 was 140,228. The sum of these two is 306,254 visitors. While this is not a perfect match to the number of visitors to the Qualla Boundary (other than for exclusive visits to Harrah’s Casino), it is a good estimation of the visitation.

This estimation also appears to be in line with the number of visitors to the Cherokee Welcome Center in 2019, which was said to be 218,358.³ Based on these sources of information, the assessment of the economic impacts of elk viewing used a based number of 306,254 visitors to the Qualla Boundary.

**OTHER RESEARCH ABOUT THE ECONOMIC EFFECTS OF TOURISM**

To help put the above findings in context, other economic data were reviewed, including data from the North Carolina Department of Commerce on the economic effect of tourism on a county-by-county basis. The three counties that border the Qualla Boundary are shown in the tabulation below. In particular, Jackson County receives an estimated $205.81 million in tourist expenditures, creating an estimated 1,890 jobs with an estimated payroll of $50.87 million.

<table>
<thead>
<tr>
<th>County</th>
<th>Visitor Expenditures (in millions)</th>
<th>Employment</th>
<th>Payroll (in millions)</th>
<th>State Taxes (in millions)</th>
<th>Local Taxes (in millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jackson</td>
<td>$205.81</td>
<td>1,890</td>
<td>$50.87</td>
<td>$11.34</td>
<td>$9.50</td>
</tr>
<tr>
<td>Macon</td>
<td>$178.37</td>
<td>1,390</td>
<td>$33.04</td>
<td>$7.95</td>
<td>$14.27</td>
</tr>
<tr>
<td>Swain</td>
<td>$215.17</td>
<td>2,250</td>
<td>$65.31</td>
<td>$13.31</td>
<td>$4.78</td>
</tr>
</tbody>
</table>

Data Source: These data can be accessed through the NC Dept. of Commerce website: [https://www.nccommerce.com/data-tools-reports/economic-development-reports#tourism-data](https://www.nccommerce.com/data-tools-reports/economic-development-reports#tourism-data)

This site provides a link to its data-gathering entity: [https://partners.visitnc.com/economic-impact-studies](https://partners.visitnc.com/economic-impact-studies)

From this page, a link goes to this: [https://partners.visitnc.com/contents/sdownload/71272/file/2018+NC+County+PRELIMINARY+Estimates+ALPHA.pdf](https://partners.visitnc.com/contents/sdownload/71272/file/2018+NC+County+PRELIMINARY+Estimates+ALPHA.pdf)

³ In a personal communication with the following people on March 17, 2020: Tammy Jackson, EBCI Cooperative Extension Center; Zena Rattler, Snowbird Library; Adam Lambert, Qualla Boundary Library; and Tom Camacho, U.S. Census Field Manager
IMPLAN MODELING RESULTS: THE ECONOMIC IMPACTS OF ELK VIEWING

The economic effects and tax revenues are presented in the tables that follow; these are the economic and tax revenues for Swain and Jackson Counties (IMPLAN does not analyze data at a level smaller than the county level; these were the counties that encompass the Cherokee area and that have elk). The tables show the direct effects, indirect effects, and induced effects as defined previously. The tables show four values for each of these effects:

- **Output**: In this context, this is the dollar amount of goods and services produced by all businesses located in the study area for calendar year 2019 related to the expenditures received on elk viewing trips.
- **Value Added**: This is another measure of total economic activity generated in the study area. It is a subset of total output that results from elk viewing trips that considers the value of inventory that business may have on hand and the exchange of intermediate products between businesses. Value added provides a better measure of the increase in economic activity in the local economy than does output. It represents the wealth created by industry activity.
- **Labor Income**: In this context, this is the dollar amount of wages paid by the businesses related to the expenditures received on elk viewing trips plus proprietor income earned through those same activities.
- **Employment**: In this context, this is the number of jobs (both full- and part-time) supported by the expenditures received on elk viewing trips, as well as the output and value added from those original expenditures.

The first table (on the following page) shows the economic effects of Tribal members. Their effects are straightforward, needing only the single column of data. Note that only integers are shown, but the results are actually calculated out several decimal places. For this reason, some apparent discrepancies are the result of the summing being performed on unrounded numbers (e.g., where the employment of 2, 1, and 0 jobs is summed to 4 jobs).
The economic effects of visitors were conjectured (and subsequently proven) to be different among elk viewers who also went to Harrah’s Casino versus elk viewers who did not visit the casino. For that reason, the economic effects of visitors were analyzed separately for the two groups. This allows the economic valuation of the elk to be done in a way that accounts for the draw that Harrah’s Casino has for tourists. Those using the data can attribute as much as they want to Harrah’s as the draw versus elk as the draw that pulled in tourists for those viewers who also went to the casino.

The table on the following page shows in the first data column the economic impacts of those coming to the Cherokee area for non-casino recreation for which elk viewing was a component of the recreation. For this group, all of their economic impact would be included as elk-related. The second data column contains the economic impacts of elk viewers who also went to Harrah’s Casino. The third column shows the total of the two.
Elk Viewers Who Did Not Go to Harrah’s | Elk Viewers Who Went to Harrah’s | All Visitor Elk Viewers
--- | --- | ---
**Direct Effects**
Output | $14,466,209 | $25,750,622 | $40,216,831
Value Added | $3,910,747 | $6,455,979 | $10,366,726
Labor Income | $2,353,074 | $3,691,289 | $6,044,363
Employment (Jobs) | 223 | 403 | 625

**Indirect Effects**
Output | $2,990,005 | $5,328,456 | $8,318,461
Value Added | $1,366,883 | $2,442,304 | $3,809,187
Labor Income | $711,952 | $1,266,701 | $1,978,653
Employment (Jobs) | 25 | 46 | 71

**Induced Effects**
Output | $1,384,333 | $2,240,171 | $3,624,504
Value Added | $737,591 | $1,193,610 | $1,931,201
Labor Income | $373,768 | $604,830 | $978,598
Employment (Jobs) | 12 | 19 | 32

**Total Effects**
Output | $18,840,547 | $33,319,248 | $52,159,796
Value Added | $6,015,221 | $10,091,893 | $16,107,114
Labor Income | $3,438,794 | $5,562,821 | $9,001,615
Employment (Jobs) | 260 | 468 | 728

Note, however, that other users of the data can attribute as much or as little of the second column to elk recreation, depending on how much of a draw elk is compared to coming to the casino, as some visitors to the area would come regardless of whether a casino is in the area, while other visitors would not come for any other recreation if the casino was not in the area.

For instance, if a data user conjectured that about a third of those elk viewers who also went to Harrah’s were drawn to the area in large measure because of the elk, then all the economic effects could be reduced to a third of what is shown for this group. In fact, in the follow-up survey question asked of Harrah’s visitors who had also viewed elk, 30% indicated that having elk in the area influenced their decision to come to the Cherokee area *a great deal* or *a moderate amount* (this graph is shown in a subsequent section of this report, “Visiting Harrah’s Casino”). Therefore, taking only 30% of the economic impacts of elk viewers who also went to Harrah’s produces the values in the table shown on the following page.
### Direct Effects

<table>
<thead>
<tr>
<th></th>
<th>Elk Viewers Who Did Not Go to Harrah’s</th>
<th>30% of the Impact from Elk Viewers Who Went to Harrah’s</th>
<th>All Visitor Elk Viewers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>$14,466,209</td>
<td>$7,725,187</td>
<td>$22,191,396</td>
</tr>
<tr>
<td>Value Added</td>
<td>$3,910,747</td>
<td>$1,936,794</td>
<td>$5,847,541</td>
</tr>
<tr>
<td>Labor Income</td>
<td>$2,353,074</td>
<td>$1,107,387</td>
<td>$3,460,461</td>
</tr>
<tr>
<td>Employment (Jobs)</td>
<td>223</td>
<td>121</td>
<td>343</td>
</tr>
</tbody>
</table>

### Indirect Effects

<table>
<thead>
<tr>
<th></th>
<th>Elk Viewers Who Did Not Go to Harrah’s</th>
<th>30% of the Impact from Elk Viewers Who Went to Harrah’s</th>
<th>All Visitor Elk Viewers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>$2,990,005</td>
<td>$1,598,537</td>
<td>$4,588,542</td>
</tr>
<tr>
<td>Value Added</td>
<td>$1,366,883</td>
<td>$732,691</td>
<td>$2,099,574</td>
</tr>
<tr>
<td>Labor Income</td>
<td>$711,952</td>
<td>$380,010</td>
<td>$1,091,962</td>
</tr>
<tr>
<td>Employment (Jobs)</td>
<td>25</td>
<td>14</td>
<td>39</td>
</tr>
</tbody>
</table>

### Induced Effects

<table>
<thead>
<tr>
<th></th>
<th>Elk Viewers Who Did Not Go to Harrah’s</th>
<th>30% of the Impact from Elk Viewers Who Went to Harrah’s</th>
<th>All Visitor Elk Viewers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>$1,384,333</td>
<td>$672,051</td>
<td>$2,056,384</td>
</tr>
<tr>
<td>Value Added</td>
<td>$737,591</td>
<td>$358,083</td>
<td>$1,095,674</td>
</tr>
<tr>
<td>Labor Income</td>
<td>$373,768</td>
<td>$181,449</td>
<td>$555,217</td>
</tr>
<tr>
<td>Employment (Jobs)</td>
<td>12</td>
<td>6</td>
<td>18</td>
</tr>
</tbody>
</table>

### Total Effects

<table>
<thead>
<tr>
<th></th>
<th>Elk Viewers Who Did Not Go to Harrah’s</th>
<th>30% of the Impact from Elk Viewers Who Went to Harrah’s</th>
<th>All Visitor Elk Viewers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td>$18,840,547</td>
<td>$9,995,775</td>
<td>$28,836,322</td>
</tr>
<tr>
<td>Value Added</td>
<td>$6,015,221</td>
<td>$3,027,568</td>
<td>$9,042,789</td>
</tr>
<tr>
<td>Labor Income</td>
<td>$3,438,794</td>
<td>$1,668,846</td>
<td>$5,107,640</td>
</tr>
<tr>
<td>Employment (Jobs)</td>
<td>260</td>
<td>140</td>
<td>400</td>
</tr>
</tbody>
</table>

The final analysis of economic impact relates to apportioning these impacts to the Qualla Boundary. The IMPLAN analysis is based on Jackson and Swain Counties. U.S. Census data show that Jackson County has 43,327 residents and Swain County has 14,245 residents, a sum of 57,572. The estimated population of the Qualla Boundary for this analysis was 15,000, which means that the Qualla Boundary is approximately 26% of the total population. Therefore, taking 26% of the total effects shows the estimated economic effects on the Qualla Boundary itself. This is not a perfect way to determine the effects on the Qualla Boundary itself, but it is the best valuation that can feasibly be done in this study. The table that follows shows the total effects (of members and all visitor effects not discounted for Harrah’s) and then the portion of the effects that apply to the Qualla Boundary itself.
<table>
<thead>
<tr>
<th></th>
<th>Tribal Members</th>
<th>Elk Viewers Who Did Not Go to Harrah’s</th>
<th>Elk Viewers Who Went to Harrah’s</th>
<th>All</th>
<th>Population Scaled Impacts (26%) for the Qualla Boundary Only</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direct Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output</td>
<td>$525,439</td>
<td>$14,466,209</td>
<td>$25,750,622</td>
<td>$40,742,270</td>
<td>$10,346,023</td>
</tr>
<tr>
<td>Value Added</td>
<td>$125,194</td>
<td>$3,910,747</td>
<td>$6,455,979</td>
<td>$10,491,920</td>
<td>$2,655,562</td>
</tr>
<tr>
<td>Labor Income</td>
<td>$74,458</td>
<td>$2,353,074</td>
<td>$3,691,289</td>
<td>$6,118,821</td>
<td>$1,563,557</td>
</tr>
<tr>
<td>Employment (Jobs)</td>
<td>2</td>
<td>223</td>
<td>403</td>
<td>627</td>
<td>152</td>
</tr>
<tr>
<td><strong>Indirect Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output</td>
<td>$97,944</td>
<td>$2,990,005</td>
<td>$5,328,456</td>
<td>$8,416,404</td>
<td>$2,112,775</td>
</tr>
<tr>
<td>Value Added</td>
<td>$44,194</td>
<td>$1,366,883</td>
<td>$2,442,304</td>
<td>$3,853,381</td>
<td>$966,895</td>
</tr>
<tr>
<td>Labor Income</td>
<td>$23,187</td>
<td>$711,952</td>
<td>$1,266,701</td>
<td>$2,001,840</td>
<td>$502,935</td>
</tr>
<tr>
<td>Employment (Jobs)</td>
<td>1</td>
<td>25</td>
<td>46</td>
<td>72</td>
<td>18</td>
</tr>
<tr>
<td><strong>Induced Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output</td>
<td>$44,736</td>
<td>$1,384,333</td>
<td>$2,240,171</td>
<td>$3,669,240</td>
<td>$921,574</td>
</tr>
<tr>
<td>Value Added</td>
<td>$23,848</td>
<td>$737,591</td>
<td>$1,193,610</td>
<td>$1,955,049</td>
<td>$491,131</td>
</tr>
<tr>
<td>Labor Income</td>
<td>$12,069</td>
<td>$373,768</td>
<td>$604,830</td>
<td>$990,667</td>
<td>$248,845</td>
</tr>
<tr>
<td>Employment (Jobs)</td>
<td>0</td>
<td>12</td>
<td>19</td>
<td>32</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total Effects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Output</td>
<td>$668,118</td>
<td>$18,840,547</td>
<td>$33,319,248</td>
<td>$52,827,914</td>
<td>$13,380,371</td>
</tr>
<tr>
<td>Value Added</td>
<td>$193,236</td>
<td>$6,015,221</td>
<td>$10,091,893</td>
<td>$16,300,350</td>
<td>$4,113,588</td>
</tr>
<tr>
<td>Labor Income</td>
<td>$109,714</td>
<td>$3,438,794</td>
<td>$5,562,821</td>
<td>$9,111,328</td>
<td>$2,315,337</td>
</tr>
<tr>
<td>Employment (Jobs)</td>
<td>4</td>
<td>260</td>
<td>468</td>
<td>731</td>
<td>178</td>
</tr>
</tbody>
</table>

Again, a researcher who wishes to use the data may attach other percentages to the “all” column to calculate the scaled impacts on the Qualla Boundary. The scaled impacts above are based on running the IMPLAN model when all expenditure inputs are scaled at 26% of the total. Other researchers may decide that a different percentage is appropriate for analysis.

In summary, the research suggests that elk viewing is likely generating about $29 million in economic impacts to the Cherokee area from visitors (the table that has Harrah’s visitors discounted to 30%). This economic impact accounts for about 400 jobs in the area. If 26% is the percentage used for scaling to the Qualla Boundary itself, then approximately $7 million in impacts and approximately 100 jobs apply to the Qualla Boundary itself.
Another measure in this study is the economic value of the elk themselves. Counts are made of the elk, referred to as the Minimum Visual Count, with the latest in the Fall of 2019. The count is actually several counts at different times averaged. The resulting mean count was 51.75 elk with a standard deviation of plus or minus 16.64 elk. Taking the mean plus the maximum standard deviation (51.75 + 16.64) gives a sum of 68.39 elk (which is rounded to 68 visual elk).

Using the figure of $28,836,322 in total effects (the table that has Harrah’s visitors discounted to 30%) and the figure of 68 elk, the analysis suggests that each elk is worth $110,257 in economic impacts.

The next table shows tax revenues, based on IMPLAN data for Jackson and Swain Counties. This does not include any discounting as described above.

<table>
<thead>
<tr>
<th>Tax revenue generated in Qualla Boundary, All Spending for Elk Related Visitation, 2019</th>
<th>State and Local Tax Revenues</th>
<th>Federal Tax Revenues</th>
<th>Total Tax Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribal Members</td>
<td>$33,861</td>
<td>$22,501</td>
<td>$56,362</td>
</tr>
<tr>
<td>Elk Viewers Who Did Not Go to Harrah's</td>
<td>$1,067,017</td>
<td>$732,798</td>
<td>$1,799,815</td>
</tr>
<tr>
<td>Elk Viewers Who Went to Harrah's</td>
<td>$1,849,262</td>
<td>$1,199,012</td>
<td>$3,048,273</td>
</tr>
<tr>
<td>All</td>
<td>$2,950,140</td>
<td>$1,954,310</td>
<td>$4,904,450</td>
</tr>
</tbody>
</table>

OPINIONS ON HUNTING ELK

- Members and visitors were asked about their support for or opposition to the establishment of an elk hunting season and their likelihood to hunt elk if a season were established, and visitors were then asked how much they would be willing to pay for a permit to hunt elk (again, if a season were established—after these questions, respondents were reminded that the situation is hypothetical, as there is currently no plan to establish a season).
  - The large majority of members (63%) would support an elk hunting season on the Qualla Boundary, and 72% would support it knowing that the herd would be monitored to prevent overhunting. Nonetheless, 27% would oppose in general, and 18% would oppose elk hunting even knowing that the herd would be monitored.
    - The characteristics associated with support of hunting in general is being male, being in the lower educational bracket, being younger than 55 years old, and having experienced damage from elk or tourists.
  - Visitors were asked about a hunting season in North Carolina rather than specifically on the Qualla Boundary. Among visitors, 50% would support an elk hunting season statewide in general (while 25% would oppose), and 61% would support an elk season in North Carolina if they knew the herd would be monitored (19% would oppose).

- Just over a third of members (36%) indicated that they would be very or somewhat likely to hunt elk if a season were created, and 20% of visitors say the same.
  - The characteristics associated with being likely to hunt elk in the Cherokee area include being male, being less than the median age, residing in South Carolina, and having spent money on the Qualla Boundary in the past 12 months.
  - Among visitors who would be likely to hunt elk in the Cherokee area, the median price that they would be willing to pay for a permit is $100. (This question specifically asked only about the permit and did not include any other expenses.)

- A graph that was previously shown in the section, “Attitudes Toward Managing Elk,” also pertains to this section. The question asked Tribal members whether they thought that the establishment of a hunting season for elk would be effective in reducing the elk herd on the Qualla Boundary (assuming it was determined that the herd needed to be reduced). The overwhelming majority of members (87%) think that a hunting season for elk would be very or somewhat effective (including 56% who think it would be very effective).
Once the elk herd is large enough to support a hunting season, would you support or oppose a legal, regulated elk hunting season on the Qualla Boundary? (Members)

- Strongly support: 34%
- Moderately support: 29%
- Neither support nor oppose: 6%
- Moderately oppose: 8%
- Strongly oppose: 20%
- Don't know: 3%

* Rounding on graph causes apparent discrepancy in sum; calculation made on unrounded numbers.
Percent of each of the following groups who would support an elk hunting season.
(Members)

- Male: 77%
- High school diploma or less: 73%
- 35-54 years old: 72%
- Experienced damage from elk or tourists: 70%
- 18-34 years old: 69%
- Some college or trade school, no degree: 64%
- Associate's or trade school degree or higher: 59%
- 55 years old or older: 56%
- Female: 52%

An explanation of how to interpret these types of graphs is presented on page 13.
An explanation of how to interpret these types of graphs is presented on page 13.
Would you support or oppose the legal, regulated hunting of elk on the Qualla Boundary if you knew that the herd would be monitored so that there would be no danger to the overall health of the deer population in North Carolina? (Members)
Once the elk herd is large enough to support a hunting season, would you support or oppose a legal, regulated elk hunting season in North Carolina? (Visitors)

- Strongly support: 27% (n=27)
- Moderately support: 23% (n=23)
- Neither support nor oppose: 20% (n=20)
- Moderately oppose: 9% (n=9)
- Strongly oppose: 16% (n=16)
- Don’t know: 5% (n=5)

Percent (n=1076)
Would you support or oppose the legal, regulated hunting of elk in North Carolina if you knew that the herd would be monitored so that there would be no danger to the overall health of the elk population? (Visitors)

![Bar graph showing attitudes.](image)

- Strongly support: 32 (61%*)
- Moderately support: 28
- Neither support nor oppose: 17
- Moderately oppose: 7 (19%)
- Strongly oppose: 12
- Don't know: 4

* Rounding on graph causes apparent discrepancy in sum; calculation made on unrounded numbers.
How likely or unlikely would you be to hunt elk if a legal, regulated season was enacted in North Carolina, assuming that it would not negatively affect the elk herd as a whole? (Members)

- Very likely: 23 (36%)
- Somewhat likely: 13
- A little likely: 3
- Not at all likely: 56
- Don't know: 4
How likely or unlikely would you be to travel to the Cherokee area to hunt elk if a legal, regulated season was enacted there, assuming that it would not negatively affect the elk herd as a whole? (Visitors)

- Very likely: 11 (20%)
- Somewhat likely: 9
- A little likely: 6
- Not at all likely: 70
- Don't know: 4

Percent (n=1082)
About how much would you be willing to pay for a permit to take a bull elk in a hunt? (Asked of those who would be likely to travel to the Cherokee area to hunt elk if a legal, regulated season was enacted there.) (Visitors)

![Bar chart showing the distribution of responses.]

More than 500 dollars: 4
401-500 dollars: 8
301-400 dollars: 1
201-300 dollars: 6
101-200 dollars: 13
51-100 dollars: 26
26-50 dollars: 17
1-25 dollars: 10
Did not spend anything: 7
Don't know / did not answer: 8

Mean = 171.77
Median = 100

Percent (n=281)
PROBLEMS CAUSED BY ELK AND BY ELK TOURISTS

Only members were asked these questions about problems with elk and with elk tourists. Members were first asked about problems from elk (including type and amount) and then about problems with elk tourists (also to include type and amount). Members were then asked about non-financial “costs” of the problems.

- In the past 12 months, 13% of members had problems with elk.
  - Most commonly, the damage was to gardens, landscaping, or crops (78% of those who experienced problems), but vehicle accidents were also common (14%) as well as other damage to vehicles (9%) and damage to fences (4%). Note that these percentages are out of those who had problems; an inset graph shows the problems out of all Tribal members, showing that 10% had damage to gardens, landscaping, or crops, and 2% had a vehicle accident caused by elk.
  - The characteristics associated with having experienced damage from elk include having some college but no degree and being in support of an elk hunting season.

- Problems with tourists were more common than problems with elk directly: 26% of members had problems with tourists viewing elk in the past 12 months.
  - Nearly all the problems involved vehicles: either traffic jams or illegal/obstructive parking. An inset graph is also included showing the percentages out of all Tribal members.
  - The primary characteristic associated with having experienced damage from tourists viewing elk is being younger than 55 years old.

- Combining the two damage questions shows that 34% of members had problems either with elk or with tourists viewing elk.

- Graphs show the monetary damage from elk (a high mean because of a few people with considerable damage—the mean being $1,013—and a median of $200 among those experiencing damage) and from elk tourists (a mean of $177; the median was $0).

- Non-financial costs associated with elk include the loss of food or plants and mental stress. Non-financial costs associated with tourists viewing elk include aggravation/lost time and simply being exposed to bad behavior/carelessness of tourists.
Have you personally had any problems or damage caused by elk where you live in the past 12 months? (Members)

- Yes: 13
- No: 87
- Don't know: 1

Percent (n=501)
Percent of each of the following groups who experienced problems or damage from elk in the past 12 months. (Members)

- Some college or trade school, no degree: 19%
- Would support an elk hunting season: 16%
- 35-54 years old: 15%
- Associate’s or trade school degree or higher: 13%
- Female: 13%
- Overall: 13%
- Male: 12%
- 18-34 years old: 12%
- 55 years old or older: 10%
- High school diploma or less: 9%
- Would oppose an elk hunting season: 6%

An explanation of how to interpret these types of graphs is presented on page 13.
What elk problems or damage did you have? (Asked of those who had problems with or damage from elk.) (Members)

Damage to gardens, landscaping, or crops 78%
Vehicle accident with elk 14%
Other damage to a vehicle 9%
Damage to fences 4%
Other 7%
Have you personally had any problems or damage caused by tourists who were viewing elk where you live in the past 12 months? (Members)

- Yes: 26
- No: 73
- Don't know: 2

Percent (n=501)
An explanation of how to interpret these types of graphs is presented on page 13.
What problems or damage did you have caused by tourists viewing elk? (Asked of those who had problems with or damage from tourists viewing elk.) (Members)

- Traffic slowdowns / traffic jams: 75%
- People parking in the way / illegally / parking in driveway: 36%
- People on property / privacy concerns: 6%
- Bad behavior towards elk: 6%
- People trampling gardens, landscaping, or crops: 6%
- Litter: 2%
- People damaging fences / leaving gates open: 2%

Percentages out of all members.
What would you say was the dollar amount of the damage that was done by elk? (Asked of those who had problems with or damage from elk.) (Members)

- More than 1,000 dollars: 16
- 501-1,000 dollars: 6
- 251-500 dollars: 11
- 101-250 dollars: 10
- 1-50 dollars: 10
- 0 dollars: 18
- Don't know: 29

Mean = 1,013.39
Median = 200
Q88. What would you say was the dollar amount of the damage that was done by tourists viewing elk? (Asked of those who had problems with or damage from tourists viewing elk.)

(Members)

Mean = 177.04
Median = 0
Q87. Were there any non-financial costs that you want to mention from elk? (Asked of those who had problems with or damage from elk.) (Members)

Multiple Responses Allowed

- No / nothing: 66
- Loss of food / plants: 17
- Mental stress: 7
- Other: 6
- Don't know: 4

Percent (n=59)
Q91. Were there any non-financial costs that you want to mention from tourists viewing elk? (Asked of those who had problems with or damage from tourists viewing elk.) (Members)

- No / nothing: 50%
- Aggravation / lost time: 26%
- Bad behavior / carelessness: 8%
- Possibility of injury to / from elk: 6%
- Traffic: 5%
- Litter: 2%
- Other: 4%
- Don't know: 1%

Multiple Responses Allowed

Percent (n=117)
ATTITUDES TOWARD FENCING TO PROTECT AREAS FROM ELK

- Nearly a quarter of members (22%) have fencing to protect gardens, landscaping, and/or crops, including 6% who have electric fencing.
  - The characteristics associated with having fencing include being 18 to 34 years old, having experienced damage from elk or tourists, and being in the higher education bracket.
  - Members are equally divided: 44% would be comfortable with electric fencing, but 44% would be uncomfortable (the remainder are neutral or do not know).
    - The characteristics associated with being comfortable with electric fencing include being in the higher educational bracket, being 35 years or older, and being in support of an elk hunting season.
    - The characteristics associated with being uncomfortable with electric fencing include being in the younger age group, being in opposition to an elk hunting season, being in the lower educational brackets, and being female.

- Members were asked about the responsibility of the cost of fencing to keep out elk among three entities: the homeowner, the Tribal government, and the National Park Service.
  - Generally, they most commonly think the cost should be divided among the three entities. Nonetheless, 32% of members think that the homeowner should not be responsible for any of the costs, and 25% think the Tribal government should not be responsible for any of the costs.
Do you have fencing to protect your gardens, landscaping, or crops? Q107. Does your fencing include electric fencing. (Members)

- Has electric fencing: 6% (n=501)
- Has fencing, but no electric fencing: 22% (n=501)
- Does not have fencing: 74% (n=501)
- Don't know: 4% (n=501)
Percent of each of the following groups who have fencing to protect their gardens, landscaping, or crops. (Members)

- 18-34 years old: 29%
- Experienced damage from elk or tourists: 26%
- Associate's or trade school degree or higher: 25%
- Female: 24%
- 35-54 years old: 24%
- Would support an elk hunting season: 24%
- High school diploma or less: 23%
- Overall: 22%
- Some college or trade school, no degree: 22%
- Would oppose an elk hunting season: 20%
- Did not experience damage from elk or tourists: 20%
- Male: 20%
- 55 years old or older: 17%

An explanation of how to interpret these types of graphs is presented on page 13.
How comfortable or uncomfortable would you be having electric fencing on your property? (Asked of those who do NOT have fencing to protect gardens, landscaping, or crops; shown out of all members.) (Members)

<table>
<thead>
<tr>
<th>Comfort Level</th>
<th>Percentage</th>
<th>Percent (n=501)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very comfortable</td>
<td>44%</td>
<td>23</td>
</tr>
<tr>
<td>Somewhat comfortable</td>
<td>44%</td>
<td>15</td>
</tr>
<tr>
<td>Neither</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Somewhat uncomfortable</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Very uncomfortable</td>
<td></td>
<td>28</td>
</tr>
<tr>
<td>Don't know</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

Already has electric fencing, was not asked question

6
Percent of each of the following groups who are or would be comfortable having electric fencing on their property. (Members)

- Associate’s or trade school degree or higher: 56%
- 35-54 years old: 58%
- Would support an elk hunting season: 48%
- 55 years old or older: 47%
- Male: 47%
- Experienced damage from elk or tourists: 46%
- Overall: 44%
- Did not experience damage from elk or tourists: 43%
- Female: 42%
- Some college or trade school, no degree: 41%
- High school diploma or less: 39%
- Would oppose an elk hunting season: 38%
- 18-34 years old: 36%

An explanation of how to interpret these types of graphs is presented on page 13.
Percent of each of the following groups who would be uncomfortable having electric fencing on their property. (Members)

- 18-34 years old: 57%
- Would oppose an elk hunting season: 54%
- High school diploma or less: 53%
- Some college or trade school, no degree: 49%
- Female: 48%
- Experienced damage from elk or tourists: 44%
- Overall: 44%
- Did not experience damage from elk or tourists: 44%
- Would support an elk hunting season: 42%
- 55 years old or older: 41%
- 35-54 years old: 40%
- Male: 39%
- Associate's or trade school degree or higher: 36%

An explanation of how to interpret these types of graphs is presented on page 13.
How much responsibility should the [entity] have for the cost of fencing to keep elk out of the property? (Members)

If the property of an enrolled member needed fencing to keep elk out, how much responsibility should the following entities have for the cost of the fencing: the homeowner personally, the Tribal government, and the National Park Service.

- All of the cost: Homeowner - 15%, Tribal government - 12%, National Park Service - 18%
- Most of the cost: Homeowner - 11%, Tribal government - 11%, National Park Service - 7%
- Some of the cost: Homeowner - 36%, Tribal government - 46%, National Park Service - 38%
- None of the cost: Homeowner - 28%, Tribal government - 25%, National Park Service - 32%
- Don't know: Homeowner - 8%, Tribal government - 7%, National Park Service - 7%
TRIPS TO THE CHEROKEE AREA

Visitors were asked about their number of trips to the Cherokee area in the past 12 months: their mean was 3.13 trips; their median was 2 trips. While 39% took only a single trip, 54% were repeat visitors within the 12-month timeframe.

- The results regarding a 5-year timeframe are also shown.

How many trips did you make to the Cherokee area in the past 12 months? (Visitors)

- More than 10 trips: 4
- 6-10 trips: 7
- 5 trips: 4
- 4 trips: 8
- 3 trips: 10
- 2 trips: 21
- 1 trip: 39
- Don't know / did not answer: 6

Mean = 3.13
Median = 2

Percent (n=1082)
How many trips did you make to the Cherokee area in the past 5 years? (Visitors)

- More than 50 trips: 3
- 41-50 trips: 2
- 31-40 trips: 2
- 21-30 trips: 7
- 11-20 trips: 16
- 6-10 trips: 20
- 5 trips: 7
- 4 trips: 7
- 3 trips: 10
- 2 trips: 10
- 1 trip: 12
- Don't know / did not answer: 3

Mean = 14.20
Median = 6

46%
VISITING HARRAH’S CASINO

- A sizeable percentage of visitors (43%) had been to Harrah’s Cherokee Casino within the past 12 months, with about a third of those visitors saying that having elk in the area influenced their decision to come to Harrah’s Casino *a great deal or a moderate amount*.
- The characteristics associated with having visited Harrah’s casino include residing in North or South Carolina or Georgia and having spent money on elk viewing on the Qualla Boundary in the past 12 months.

**Have you been to Harrah's Cherokee Casino in the past 12 months? (Visitors)**

![Bar Chart]

- Yes: 43%
- No: 57%

Percent (n=1082)
How much did having elk in the area influence your decision to come to Harrah's Casino in the past 12 months? (Asked of those who visited Harrah's Casino and viewed or tried to view elk in the Cherokee area.) (Visitors)

- A great deal: 14 (30%)
- A moderate amount: 16
- A little: 17
- None at all: 53 (n=276)
Percent of each of the following groups who visited Harrah's Cherokee Casino in the past 12 months. (Visitors)

- Resides in North Carolina: 53%
- Resides in South Carolina: 48%
- Spent money in the Qualla Boundary in the past 12 months: 48%
- Resides in Georgia: 48%
- Resides in Tennessee: 46%
- Education level less than bachelor's degree: 45%
- Median age of 58 or older: 44%
- Female: 43%
- Male: 43%
- Overall: 43%
- Less than median age of 58: 42%
- Education level of bachelor's degree or higher: 37%
- Did not spend money in the Qualla Boundary in the past 12 months: 36%
- Resides in other nearby Southern state: 28%
- Resides in other state or outside of U.S.: 21%

An explanation of how to interpret these types of graphs is presented on page 13.
DEMOGRAPHIC INFORMATION AND INVOLVEMENT IN CONSERVATION, SPORTSMEN’S, AND ENVIRONMENTAL ORGANIZATIONS

- More than 1 in 10 members (11%) contribute to or are a member of a conservation, sportsmen’s, or environmental organization, most commonly the Rocky Mountain Elk Foundation, the National Rifle Association, or a local club. Meanwhile, about a quarter of visitors (24%) contribute to or belong to such an organization, most commonly the National Rifle Association, the Sierra Club, Ducks Unlimited, or a state or local club.

- The following demographic information was gathered from members:
  - Education.
  - Age.
  - Gender.

- The following demographic information was gathered from visitors:
  - Their state of residence; North Carolina, Tennessee, Georgia, and South Carolina all have substantial percentages.
  - Education.
  - Age.
Do you contribute to or are you a member of any conservation, sportsmen’s, or environmental organization? (Members)

- Yes: 11
- No: 85
- Don't know: 5

Percent (n=501)
Which ones? (Asked of those who contribute to or are members of any conservation, sportsmen’s, or environmental organization.) (Members)

- Rocky Mountain Elk Foundation: 26
- State / local conservation club: 23
- National Rifle Association: 20
- State / local sportsmen's club: 17
- National Park Foundation: 3
- Sierra Club: 3
- Great Smoky Mountains Assoc.: 3
- National Wild Turkey Federation: 1
- National Wildlife Federation: 1
- Other: 6
- Don’t know: 1

Multiple Responses Allowed

Percent (n=59)
Do you contribute to or are you a member of any conservation, sportsmen's, or environmental organizations? (Visitors)

Yes: 24
No: 73
Don't know: 3

Percent (n=1079)
Which conservation, sportsmen's, or environmental organizations do you contribute to or are you a member of? (Asked of those who are a member of any conservation, sportsmen's, or environmental organizations.) (Visitors)

<table>
<thead>
<tr>
<th>Organization</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Rifle Association</td>
<td>22</td>
</tr>
<tr>
<td>State / local conservation club</td>
<td>18</td>
</tr>
<tr>
<td>Sierra Club</td>
<td>10</td>
</tr>
<tr>
<td>Ducks Unlimited</td>
<td>8</td>
</tr>
<tr>
<td>State / local sportsmen's club</td>
<td>8</td>
</tr>
<tr>
<td>National Wildlife Federation</td>
<td>6</td>
</tr>
<tr>
<td>Great Smoky Mountains Assoc.</td>
<td>5</td>
</tr>
<tr>
<td>WWF</td>
<td>4</td>
</tr>
<tr>
<td>Trout Unlimited</td>
<td>4</td>
</tr>
<tr>
<td>Nature Conservancy</td>
<td>4</td>
</tr>
<tr>
<td>Friends of the Smokies</td>
<td>4</td>
</tr>
<tr>
<td>National Wild Turkey Federation</td>
<td>4</td>
</tr>
<tr>
<td>TN Wildlife Resources Agency</td>
<td>3</td>
</tr>
<tr>
<td>National Park Foundation</td>
<td>3</td>
</tr>
<tr>
<td>DNR</td>
<td>2</td>
</tr>
<tr>
<td>Greenpeace</td>
<td>1</td>
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<tr>
<td>Environmental Defense Fund</td>
<td>1</td>
</tr>
<tr>
<td>Rocky Mountain Elk Foundation</td>
<td>1</td>
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<tr>
<td>Appalachian Trail Conservancy</td>
<td>1</td>
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<tr>
<td>Arbor Day Foundation</td>
<td>1</td>
</tr>
<tr>
<td>North American Hunting Club</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
</tr>
<tr>
<td>Don't know</td>
<td>6</td>
</tr>
</tbody>
</table>
What is the highest level of education you have completed? (Members)

- Not a high school graduate: 6
- High school graduate or equivalent: 28
- Some college or trade school, no degree: 24
- Associate's or trade school degree: 15
- Bachelor's degree: 16
- Master's degree: 5
- Professional or doctorate degree: 1
- Don't know: 3
- Refused: 2

Percent (n=501)
May I ask your age? (Members)

- 65 years old or older: 19
- 55-64 years old: 13
- 45-54 years old: 14
- 35-44 years old: 18
- 25-34 years old: 17
- 18-24 years old: 12
- Don't know: 4
- Refused: 3

Mean = 46.08
Median = 44
Respondent's gender (not asked; observed by interviewer). (Members)
What U.S. state (or territory) do you live in? (Visitors)

- Alabama: 3.0%
- Alaska: 0.1%
- Arizona: 0.4%
- Arkansas: 0.1%
- California: 0.6%
- Colorado: 0.4%
- Connecticut: 0.1%
- Delaware: 0.2%
- Florida: 3.2%
- Georgia: 14.5%
- Idaho: 0.1%
- Illinois: 1.0%
- Indiana: 1.4%
- Kansas: 0.1%
- Kentucky: 1.5%
- Louisiana: 0.7%
- Maryland: 0.9%
- Massachusetts: 0.2%
- Michigan: 0.4%
- Mississippi: 1.2%
- Missouri: 0.7%
- Nebraska: 0.1%
- New Jersey: 0.2%
- New Mexico: 0.3%
- New York: 0.5%
- North Carolina: 29.4%
- Ohio: 1.9%
- Oklahoma: 0.6%
- Oregon: 0.1%
- Pennsylvania: 1.0%
- Rhode Island: 0.1%
- South Carolina: 11.6%
- Tennessee: 16.4%
- Texas: 1.1%
- Utah: 0.1%
- Virginia: 3.5%
- Washington: 0.2%
- Washington, D.C.: 0.1%
- West Virginia: 0.7%
- Out of the country: 0.3%
- Don't know: 1.1%

Percent (n=1082)
What is the highest level of education you have completed? (Visitors)

- Not a high school graduate: 1%
- High school graduate or equivalent: 20%
- Some college or trade school, no degree: 29%
- Associate’s degree or trade school degree: 20%
- Bachelor’s degree: 18%
- Master’s degree: 9%
- Professional or doctorate degree (e.g., M.D. or Ph.D.): 3%
What is your age? (Visitors)

- 65 years old or older: 25%
- 55-64 years old: 35%
- 45-54 years old: 22%
- 35-44 years old: 12%
- 25-34 years old: 4%
- 18-24 years old: Less than 0.5%
- Don't know: 2%

Mean = 56.40
Median = 58
SURVEY INSTRUMENTS FOR ONLINE OR PAPER SURVEYING

Two survey questionnaires are presented. They can be administered on paper or coded into an online platform. (They could be used for telephone surveying with slight wording adjustments.)

The first is the survey for Tribal members. This is followed by a survey for visitors to the Cherokee area.

MEMBER SURVEY

The Eastern Band of Cherokee Indians (EBCI) is conducting a survey of members to learn more about certain aspects of wildlife management on the Qualla Boundary. The results of this study will be used to help the EBCI manage wildlife and the tourists who view wildlife.

The survey should take only a few minutes of your time. All members who are at least 18 years of age are eligible. Your answers will be kept completely confidential and will not be associated with any identifying information in any way.

If you need technical assistance with the survey, please contact [FILL IN YOUR ORGANIZATION’S NAME] via email at [PUT IN YOUR ORGANIZATION CONTACT].

Thank you for your time and willingness to participate.

We are surveying enrolled members of the Tribe. Are you an enrolled member?

[ ] Yes (CONTINUE SURVEY)
[ ] No (I AM SORRY, THE SURVEY IS FOR MEMBERS ONLY)

Are you 18 years old or older?

[ ] Yes (CONTINUE SURVEY)
[ ] No (I AM SORRY, THE SURVEY IS ONLY FOR THOSE 18 YEARS OLD OR OLDER)

Which of the following would you say best describes the Qualla Boundary?

[ ] It has no wild elk and has no habitat for elk
[ ] It has no wild elk but has habitat that could support elk
[ ] It has wild elk
[ ] Don't know

Now that you have received the question, we can tell you that the Qualla Boundary has wild elk. The National Park Service successfully reintroduced elk to the Great Smoky Mountains in 2001, and there are now self-sustaining, wild herds whose range includes the Qualla Boundary.

Which of the following best describes your feelings about elk on the Qualla Boundary?

[ ] I like having elk on the Qualla Boundary
[ ] I like having elk on the Qualla Boundary but worry about the problems they can cause
[ ] I generally regard elk as a nuisance
[ ] I have no particular feeling about elk
[ ] Don't know
Did you go more than a mile from your home to view wildlife on the Qualla Boundary in the past 12 months? (IF YES: Did you view or try to view elk more than a mile from home on the Qualla Boundary in the past 12 months?)

- [ ] Viewed or tried to view elk
- [ ] Viewed wildlife, but not elk
- [ ] Did not go 1 mile or more to view wildlife
- [ ] Don't know

Did you view wildlife or take an interest in wildlife around home in the past 12 months? (IF YES: Did you view or try to view elk around home in the past 12 months?)

- [ ] Viewed or tried to view elk around home
- [ ] Viewed wildlife, but not elk, around home
- [ ] Did not view wildlife around home
- [ ] Don't know

In which of these activities did you participate on the Qualla Boundary in the past 12 months?

- [ ] Fishing
- [ ] Hiking
- [ ] Camping
- [ ] Cultural recreation, such as fairs or bonfires or museums
- [ ] Tubing in the river
- [ ] Swimming
- [ ] Mountain biking
- [ ] None of these
- [ ] Don't know

The survey now will look at the money you spent in the PAST 12 MONTHS on wildlife viewing, which included elk viewing on the Qualla Boundary.

How much did you spend in the past 12 months on purchasing equipment for wildlife viewing? (THIS INCLUDES binoculars, spotting scopes, cameras, video cameras, special lenses, photographic equipment, printing, bird food/other animal feed, nest boxes, feeders, baths, day packs, carrying cases, special clothing, backpacks, stands/seats.)

$[________]$

And how much of that was spent at stores and establishments specifically on the Qualla Boundary?

$[________]$

How important was elk in spurring those equipment purchases on the Qualla Boundary?

- [ ] Very important
- [ ] Somewhat important
- [ ] A little important
- [ ] Not at all important
- [ ] Don't know

Did you spend anything on transportation, including gas, for viewing elk on the Qualla Boundary in the past 12 months? (Please enter only the amount spent on the Qualla Boundary.)

$[________]$

Did you spend anything on food, drinks, dining, or entertainment on the Qualla Boundary related to viewing elk? (IF YES: How much?)

$[________]$

============================================================================
In your opinion, is the elk population on the Qualla Boundary too high, about right, or too low?

- [ ] Too high
- [ ] About right
- [ ] Too low
- [ ] Don't know

Which government agency would you say has the primary responsibility to manage elk on the Qualla Boundary?

Which government agency would you say has the primary responsibility to manage elk in North Carolina outside of the Qualla Boundary?

The next questions are about problems you may have had with elk as well as problems with tourists viewing elk.

Have you personally had any problems or damage caused by elk where you live in the past 12 months?

- [ ] Yes (GO TO NEXT QUESTION)
- [ ] No (SKIP NEXT QUESTION)
- [ ] Don't know (SKIP NEXT QUESTION)

What elk problems or damage did you have?

- [ ] Damage to gardens, landscaping, or crops
- [ ] Damage to fences
- [ ] Vehicle accident with elk
- [ ] Other damage to a vehicle (not accident)
- [ ] Damage to clothes lines or clothes
- [ ] Other __________________________________________
- [ ] Don't know

Have you personally had any problems or damage caused by tourists who were viewing elk where you live in the past 12 months?

- [ ] Yes (GO TO NEXT QUESTION)
- [ ] No (SKIP NEXT QUESTION)
- [ ] Don't know (SKIP NEXT QUESTION)

What problems or damage did you have caused by tourists viewing elk?

- [ ] Traffic slowdowns / traffic jams
- [ ] People parking in the way / illegally / parking in driveway
- [ ] People trampling gardens, landscaping, or crops
- [ ] People damaging fences / leaving gates open
- [ ] People on property / privacy concerns
- [ ] Other __________________________________________
- [ ] Don't know

IF YOU EXPERIENCED DAMAGE FROM ELK, GO TO THE NEXT QUESTION; IF NOT, SKIP THE NEXT TWO QUESTIONS

What would you say was the dollar amount of the damage that was done by elk?

- [ ] [ ] [ ] [ ] [ ] dollars damage

Were there any non-financial costs that you want to mention from elk?

___________________________________________________________
IF YOU EXPERIENCED DAMAGE FROM TOURISTS VIEWING ELK, GO TO THE NEXT QUESTION; IF NOT, SKIP THE NEXT TWO QUESTIONS
What would you say was the dollar amount of the damage that was done by tourists viewing elk?
$|__|__|,|__|__|__| dollars damage

Were there any non-financial costs that you want to mention from tourists viewing elk?
___________________________________________________________
============================================================================

Once the elk herd is large enough to support a hunting season, you support or oppose a legal, regulated elk hunting season on the Qualla Boundary?
   |__|  Strongly support
   |__|  Moderately support
   |__|  Neither support nor oppose
   |__|  Moderately oppose
   |__|  Strongly oppose
   |__|  Don't know

Would you support or oppose the legal, regulated hunting of elk on the Qualla Boundary if you knew that the herd would be monitored so that there would be no danger to the overall health of the elk population in North Carolina?
   |__|  Strongly support
   |__|  Moderately support
   |__|  Neither support nor oppose
   |__|  Moderately oppose
   |__|  Strongly oppose
   |__|  Don't know

How effective would a hunting season be at reducing the elk herd on the Qualla Boundary, if it was determined that the herd needed to be reduced?
   |__|  Very effective at reducing the elk herd
   |__|  Somewhat effective
   |__|  A little effective
   |__|  Not at all effective at reducing the elk herd
   |__|  Don't know

How likely or unlikely would you be to hunt elk if a legal, season was enacted in North Carolina, assuming that it would not negatively affect the elk herd as a whole?
   |__|  Very likely
   |__|  Somewhat likely
   |__|  A little likely
   |__|  Not at all likely
   |__|  Don't know

============================================================================
If the property of an enrolled member needed fencing to keep elk out, how much responsibility should the following entities have for the cost of the fencing: the homeowner personally, the Tribal government, and the National Park Service.

First, how much of the cost of the fencing to keep elk out should the homeowner have?

- All of the cost
- Most of the cost
- Some of the cost
- None of the cost
- Don't know

How much of the cost of the fencing to keep elk out should the Tribal government have?

- All of the cost
- Most of the cost
- Some of the cost
- None of the cost
- Don't know

And how much of the cost of the fencing to keep elk out should the National Park Service have?

- All of the cost
- Most of the cost
- Some of the cost
- None of the cost
- Don't know

Do you have fencing to protect your gardens, landscaping, or crops? Does it include electric fencing?

- Have electric fencing
- Have fencing, but not electric fencing
- Do not have fencing
- Don't know

How comfortable or uncomfortable would you be having ELECTRIC fencing on your property? (Or indicate that you currently have it.)

- Currently have electric fencing
- Very comfortable
- Somewhat comfortable
- Neither
- Somewhat uncomfortable
- Very uncomfortable
- Don't know

Do you contribute to or are you a member of any conservation, sportsmen’s, or environmental organization?

- Yes (GO TO NEXT QUESTION)
- No (SKIP NEXT QUESTION)
- Don't know (SKIP NEXT QUESTION)

Which conservation, sportsmen’s, or environmental organizations do you contribute to or are you a member of?
Earlier the survey asked about problems that occur because of elk. With that in mind, which of the following best describes your feelings about elk on the Qualla Boundary?

- [ ] I like having elk on the Qualla Boundary
- [ ] I like having elk on the Qualla Boundary but worry about the problems they can cause
- [ ] I generally regard elk as a nuisance
- [ ] I have no particular feeling about elk
- [ ] Don't know

What is the highest level of education you have completed?

- [ ] Not a high school graduate
- [ ] High school graduate or equivalent
- [ ] Some college or trade school, no degree
- [ ] Associate's or trade school degree
- [ ] Bachelor's degree
- [ ] Master's degree
- [ ] Professional or doctorate degree (e.g., M.D., Ph.D.)
- [ ] Don't know
- [ ] Refused

What is your age?

- [ ] [__] [__] [__] years old

Are you...?

- [ ] Male
- [ ] Female
- [ ] Prefer not to say

That’s the end of the survey. Thank you for your time and cooperation.

VISITOR SURVEY

The Eastern Band of Cherokee Indians (EBCI) is conducting a survey of visitors to the area in and around Cherokee, North Carolina, to learn more about certain aspects of wildlife management in the region. The results of this study will be used to help the EBCI manage and improve local tourism and visitation to the region.

The survey should take only a few minutes of your time. All visitors to the region who are at least 18 years of age are eligible. Your answers will be kept completely confidential and will not be associated with any identifying information in any way.

If you need technical assistance with the survey, please contact [FILL IN YOUR ORGANIZATION’S NAME] via email at [PUT IN YOUR ORGANIZATION CONTACT].

Thank you for your time and willingness to participate. Your responses will help the Eastern Band of Cherokee Indians maintain the best possible experiences for visitors and tourists.

Are you 18 years old or older?

- [ ] Yes (CONTINUE SURVEY)
- [ ] No (I AM SORRY, THE SURVEY IS ONLY FOR THOSE 18 YEARS OLD OR OLDER)
The Eastern Band of Cherokee Indians live in an area centered around Cherokee, North Carolina, called the Qualla Boundary. It is not a reservation but is land purchased by the tribe in the 1800s that has served as their home since then. It is adjacent to the Great Smoky Mountains National Park, but it is not part of the Park itself.

In this survey, the “Cherokee area” refers to the Tribal land in which the Eastern Band of Cherokee Indians live, which includes the town of Cherokee.

How many trips did you make to the Cherokee area in the past 12 months?

|__|__|__| trip(s)

And how many trips did you make to the Cherokee area in the past 5 years?

|__|__|__| trip(s)

STOP IF YOU HAVE NOT TAKEN ANY TRIPS TO THE CHEROKEE AREA IN THE PAST 5 YEARS
(I AM SORRY, THE SURVEY IS ONLY FOR THOSE WHO HAVE TAKEN AT LEAST ONE TRIP TO THE CHEROKEE AREA IN THE PAST 5 YEARS)

Which of the following would you say best describes North Carolina?

|__| The state has no wild elk and has no habitat for elk
|__| The state has no wild elk but has habitat that could support elk
|__| The state has wild elk
|__| Don't know

Now that you have received the question, we can tell you that North Carolina has wild elk. The National Park Service successfully reintroduced elk to the Great Smoky Mountains in 2001, and there are now self-sustaining, wild herds whose range includes the Cherokee area.

Which of the following best describes your feelings about elk in North Carolina?

|__| I like having elk in North Carolina
|__| I like having elk in North Carolina but worry about the problems they can cause
|__| I generally regard elk as a nuisance
|__| I have no particular feeling about elk
|__| Don't know

Did you travel to the Cherokee area to view WILDLIFE in the past 12 months?
(If yes: Did you view or try to view ELK in the Cherokee area in the past 12 months?)

|__| Viewed or tried to view elk in the Cherokee area
|__| Viewed wildlife, but not elk, in the Cherokee area
|__| Did not go to the Cherokee area to view wildlife
|__| Don't know

In which of these activities did you participate in the Cherokee area in the past 12 months?

|__| Fishing
|__| Hiking
|__| Camping
|__| Cultural recreation, such as fairs or bonfires or museums
|__| Tubing in the river
|__| Swimming
|__| Mountain biking
|__| None of these (Skip to next section)
|__| Don't know (Skip to next section)
Attitudes Toward and the Economic Impact of Elk on the Qualla Boundary

IF WENT FISHING IN THE CHEROKEE AREA
How much did having elk in the area influence your decision to come to the Cherokee area to go fishing?

[ ] A great deal
[ ] A moderate amount
[ ] A little
[ ] None at all
[ ] Don't know

IF WENT HIKING IN THE CHEROKEE AREA
How much did having elk in the area influence your decision to come to the Cherokee area to go hiking?

[ ] A great deal
[ ] A moderate amount
[ ] A little
[ ] None at all
[ ] Don't know

IF WENT CAMPING IN THE CHEROKEE AREA
How much did having elk in the area influence your decision to come to the Cherokee area to go camping?

[ ] A great deal
[ ] A moderate amount
[ ] A little
[ ] None at all
[ ] Don't know

IF PARTICIPATED IN CULTURAL RECREATION IN THE CHEROKEE AREA
How much did having elk in the area influence your decision to come to the Cherokee area to participate in cultural recreation?

[ ] A great deal
[ ] A moderate amount
[ ] A little
[ ] None at all
[ ] Don't know

IF WENT RIVER TUBING IN THE CHEROKEE AREA
How much did having elk in the area influence your decision to come to the Cherokee area to go river tubing?

[ ] A great deal
[ ] A moderate amount
[ ] A little
[ ] None at all
[ ] Don't know

IF WENT SWIMMING IN THE CHEROKEE AREA
How much did having elk in the area influence your decision to come to the Cherokee area to go swimming?

[ ] A great deal
[ ] A moderate amount
[ ] A little
[ ] None at all
[ ] Don't know

IF WENT MOUNTAIN BIKING IN THE CHEROKEE AREA
How much did having elk in the area influence your decision to come to the Cherokee area to go mountain biking?

[ ] A great deal
[ ] A moderate amount
[ ] A little
[ ] None at all
[ ] Don't know

============================================================================
The survey now will look at the money you spent in the PAST 12 MONTHS on wildlife viewing, which included elk viewing, in the Cherokee area.

How much did you spend in the past 12 months on purchasing equipment for wildlife viewing? (THIS INCLUDES binoculars, spotting scopes, cameras, video cameras, special lenses, photographic equipment, printing, bird food/other animal feed, nest boxes, feeders, baths, day packs, carrying cases, special clothing, backpacks, stands/seats.)

$\_\_\_\_\_\_\_\_\_\_

And how much of that was spent at stores and establishments specifically in the Cherokee area?

$\_\_\_\_\_\_\_\_\_\_

How important was elk in spurring those equipment purchases in the Cherokee area?

| | Very important
| | Somewhat important
| | A little important
| | Not at all important
| | Don't know

Did you spend anything on transportation, including gas, for viewing elk in the Cherokee area in the past 12 months? (Please enter only the amount spent in the Cherokee area.)

$\_\_\_\_\_\_\_\_\_\_

Did you spend anything on food, drinks, dining, or entertainment in the Cherokee area related to viewing elk? (IF YES: How much?)

$\_\_\_\_\_\_\_\_\_\_

As part of that elk viewing excursion to the Cherokee area, did you visit Harrah’s Cherokee Casino?

| | Yes
| | No
| | Don't know
Once the elk herd is large enough to support a hunting season, would you support or oppose a legal, regulated elk hunting season in North Carolina?

|   | Strongly support
|   | Moderately support
|   | Neither support nor oppose
|   | Moderately oppose
|   | Strongly oppose
|   | Don't know

Would you support or oppose the legal, regulated hunting of elk in North Carolina if you knew that the herd would be monitored so that there would be no danger to the overall health of the elk population in North Carolina?

|   | Strongly support
|   | Moderately support
|   | Neither support nor oppose
|   | Moderately oppose
|   | Strongly oppose
|   | Don't know

How likely or unlikely would you be to travel to the Cherokee area to hunt elk if a legal, regulated season was enacted there, assuming that it would not negatively affect the elk herd as a whole?

|   | Very likely
|   | Somewhat likely
|   | A little likely
|   | Not at all likely
|   | Don't know

About how much would you be willing to pay for a PERMIT to take a bull elk in a hunt?

This would be just for the PERMIT, not any other costs associated with the hunt.

$|||,|||

Those previous two questions were just to gauge interest. Right now, there is no hunting allowed by those who are not Tribal members on Tribal land.

Do you contribute to or are you a member of any conservation, sportsmen’s, or environmental organization?

|   | Yes (GO TO NEXT QUESTION)
|   | No (SKIP NEXT QUESTION)
|   | Don't know (SKIP NEXT QUESTION)

Which conservation, sportsmen’s, or environmental organizations do you contribute to or are you a member of?
In what state do you live?  

In what city or town do you live?  

What is the highest level of education you have completed?  
- [ ] Not a high school graduate  
- [ ] High school graduate or equivalent  
- [ ] Some college or trade school, no degree  
- [ ] Associate's or trade school degree  
- [ ] Bachelor's degree  
- [ ] Master's degree  
- [ ] Professional or doctorate degree (e.g., M.D., Ph.D.)  
- [ ] Don't know  
- [ ] Refused  

What is your age?  
- [ ]______ years old  

Are you...?  
- [ ] Male  
- [ ] Female  
- [ ] Prefer not to say  

That’s the end of the survey. Thank you for your time and cooperation.
ABOUT RESPONSIVE MANAGEMENT

Responsive Management is an internationally recognized survey research firm specializing in natural resource and outdoor recreation issues. Our mission is to help natural resource and outdoor recreation agencies, businesses, and organizations better understand and work with their constituents, customers, and the public. Focusing only on natural resource and outdoor recreation issues, Responsive Management has conducted telephone, mail, and online surveys, as well as multi-modal surveys, on-site intercepts, focus groups, public meetings, personal interviews, needs assessments, program evaluations, marketing and communication plans, and other forms of human dimensions research measuring how people relate to the natural world for more than 30 years. Utilizing our in-house, full-service survey facilities with 75 professional interviewers, we have conducted studies in all 50 states and 15 countries worldwide, totaling more than 1,000 human dimensions projects only on natural resource and outdoor recreation issues.

Responsive Management has conducted research for every state fish and wildlife agency and every federal natural resource agency, including the U.S. Fish and Wildlife Service, the National Park Service, the U.S. Forest Service, Bureau of Land Management, U.S. Coast Guard, and the National Marine Fisheries Service. Additionally, we have also provided research for all the major conservation NGOs including the Archery Trade Association, the American Sportfishing Association, the Association of Fish and Wildlife Agencies, Dallas Safari Club, Ducks Unlimited, Environmental Defense Fund, the Izaak Walton League of America, the National Rifle Association, the National Shooting Sports Foundation, the National Wildlife Federation, the Recreational Boating and Fishing Foundation, the Rocky Mountain Elk Foundation, Safari Club International, the Sierra Club, Trout Unlimited, and the Wildlife Management Institute.

Other nonprofit and NGO clients include the American Museum of Natural History, the BoatUS Foundation, the National Association of Conservation Law Enforcement Chiefs, the National Association of State Boating Law Administrators, and the Ocean Conservancy. As well, Responsive Management conducts market research and product testing for numerous outdoor recreation manufacturers and industry leaders, such as Winchester Ammunition, Vista Outdoor (whose brands include Federal Premium, CamelBak, Bushnell, Primos, and more), Trijicon, Yamaha, and others.

Responsive Management also provides data collection for the nation’s top universities, including Auburn University, Clemson University, Colorado State University, Duke University, George Mason University, Michigan State University, Mississippi State University, North Carolina State University, Oregon State University, Penn State University, Rutgers University, Stanford University, Texas Tech, University of California-Davis, University of Florida, University of Montana, University of New Hampshire, University of Southern California, Virginia Tech, West Virginia University, Yale University, and many more.

Our research has been upheld in U.S. Courts, used in peer-reviewed journals, and presented at major wildlife and natural resource conferences around the world. Responsive Management’s research has also been featured in many of the nation’s top media, including Newsweek, The Wall Street Journal, The New York Times, CNN, National Public Radio, and on the front pages of The Washington Post and USA Today.

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