

Department of Economics

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Economic Impact of Rocky Knob Trails

The Rocky Knob Trials Survey was conducted during 2011 and 2012. Three hundred ninety nine respondents answered the survey and 302 provided near complete responses. Fifty-eight percent responded to the online survey and 42% were recruited on-site during. One-hundred twenty out of 302 respondents traveled from out of town to visit Rocky Knob. The primary purpose of 62% of these trips to Boone was biking, 13% were on vacation and 13% were visiting friends and/or family. Seventy-percent said that mountain biking was "very important" in their decision to visit Boone, 19% said that it was "somewhat important."

These out-of-town respondents took an average of 2.31 trips to Rocky Knob Park over the past 12 months (most of these were before the trails were completed). Their average one-way distance to Rocky Knob is 222 miles. Sixty-six percent rate the quality of Rocky Knob as "excellent." They plan to take 9 trips during a typical year with completed trails. Eighty-eight percent say it is "very likely" that they will return to Boone to mountain bike and 9% say that it is "somewhat likely."

The average size of the traveling party is 3. Each out of town respondent spent an average of \$73 at restaurants, \$60 on groceries, \$35 on recreation and entertainment, \$15 at a bike shop, \$29 in other shopping and \$8 in other spending. One-half of the vehicle expenses is \$37. Total average per trip spending, excluding lodging, is \$256 for out-of-town visitors. Fifty-five percent of the out-of-town respondents stayed overnight in Watauga County. The average number of nights stayed is 2. Thirty-four percent stayed in a hotel, 28% stayed with friends and/or relatives, 24% camped, 16% rented a cabin, 11% own a home and 3% stayed somewhere else (multiple answers were possible with this question so the responses sum to greater than one). Average per-trip spending for lodging is \$68 (with top-coding of two outliers). The average expenditure per respondent trip is \$276 including lodging.

Trail traffic counts were conducted during the fourth week of August 2011, the fourth week of October 2011, the fourth week of January 2012, the second week of May 2012 and the first week of September 2012. Traffic counts for these are 230, 432, 120, 317 and 919, respectively. In order to develop estimates for the missing months we assume that traffic is equal in 2011 and 2012 and that traffic is equal to average of the most recent months. For February, March and April our estimate of traffic is 218.5, for June and July our estimate is 618 and for November and

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¹ Due to equipment failure more recent visitation estimates are not available.

December our estimate is 276. Assuming that traffic during missing weeks is equal to traffic during the recorded week of that month, annual traffic for both 2011 and 2012 is estimated at 17,846.

During 2011 and 2012 the average number of annual trips to Rocky Knob reported by survey respondents was 15.75. Rocky Knob trails were not completed in 2011 and 2012 (2.6 miles of trail opened on May 2011 and an additional 1.2 miles open by July 1, 2011). We asked respondents how many trips they would take during a typical year after completion of 6 miles of trail and after completion of 8 miles of trial. The average number of annual trips to Rocky Knob during a typical year with 6 and 8 miles of trial reported by survey respondents is 23.7 and 60.28.

We use these estimates to obtain a range of traffic in future years. Our estimate for annual Rocky Knob traffic with completed trails is 26,854 to 68,302 [e.g., 26,854 = 17,846 x $(1 + \{23.7-15.75)/15.75)$]. This is a range of 74 to 187 cars per day.²

Given these trip counts and the previous estimate that 40% of respondents are from out of town, we estimate that annual out of town cars range from 10,670 to 27,140. Biking was the primary purpose of 63.4% of out of town visitors so we scale down the estimate of out of town visitors to represent only those who make a trip to Boone because of Rocky Knob Park.

Given that out of town visitors spend an average of \$276 per trip, the annual estimated economic impact of Rocky Knob trails ranges from \$1.87 million to \$4.75 million. This is a conservative estimate since we do not attach an economic impact multiplier to the spending and we assume that spending is for the party and not the individual.

A follow-up survey of 143 respondents who stated that they would be willing to participate was conducted in November 2013 in an attempt to validate these estimates of current visitation. Scaling the economic impact estimates by two-thirds provides a more conservative estimate of the annual economic impact of Rocky Knob trails. This estimate ranges from \$1.25 million to \$3.17 million.

Contact:

Melissa Weddell
Department of Health, Leisure and Exercise Science
Appalachian State University
Boone, NC 28608
828-262-6303
weddellmj@appstate.edu

John Whitehead Department of Economics Appalachian State University Boone, NC 28608 828-773-5049 whiteheadjc@appstate.edu

² Trail counters were installed in June 2014 and another on-site survey was begun.