

Chapter 6 A Comparison of the Current Study with the 1998 Study

A similar trail user study was done for the Allegheny Trail Alliance in 1998 (An Economic Impact Study for the Allegheny Trail Alliance, Pennsylvania Economy League and Stephen Farber, January 1999). That study also used trail counts and a spending survey to estimate the economic impacts to trail related communities. However, there are two major differences between that study and the current one that make them somewhat incomparable. First, in the current study we have the advantage of an entire trail season's count of trail use. The 1998 study could utilize trail count data only after counters were installed midway or late in the season. Second, there was a problem in interpreting missing data from the spending questions. It was unclear what was implied when a respondent did not place any spending values in the survey: were these missing data or true \$0 expenditures? The current study has remedied that problem. These are two fundamental differences that make any comparisons very problematic.

The 1998 trail counter analysis concluded there were an estimated 356,278 visits made to the Boston to Garrett trailheads, plus Montour. Montour accounted for 51,870 of these visits, implying **304,408 visits** to the Boston-Garrett trail section. The current study could not estimate Montour trail use, as that section did not have functioning trail counters. The current study estimates a total of **347,053 visits** to the Boston-Garrett section. Given the difficulties in obtaining accurate estimates of trail use, and the fact that the 1998 counts were obtained by extrapolating counts from only a portion of the trail season to the entire season, it is more reasonable to interpret these estimates as confirming the ballpark usage rate than as implying a 14% increase in use.

The 1998 study had difficulty interpreting a non-response to the spending questions. Given this difficulty, two estimates of per person spending were made; a Low estimate based on the assumption that a non-response meant \$0 spending, and a High estimate based on the assumption that a non-response was missing data and was not included in the average estimates. The range of spending in trail related communities was from **\$12.01 to \$15.23 per person per visit**, using these two assumptions. These estimates include lodging expenditures, which accounted for roughly 16% of this spending.

The current study resolved the missing data ambiguity by first asking respondents whether their group had any trail related spending; and, if YES, asked them to provide a value. There were almost no cases where a group answered YES, but did not provide a value. So we feel quite confident that we are measuring true \$0 expenditures. The current study found that we could be 95% confident that the average spending for small items in trail related communities in 2002 was between \$8.11 and \$9.56 per person per visit, with a point estimate of \$8.84. These values do not include lodging. The average lodging expenditure over the entire 2002 sample was \$1 per person per visit, with a 95% confidence interval of \$0.80 to \$1.21. So the sum of small item and lodging spending is an average of \$9.84 per person per visit, with a 95% confidence interval of **\$8.91 to \$10.77 per person per visit**. These 2002 estimates are lower than the 1998 estimates.

We are much more certain of the validity of the 2002 estimates for the entire trail season, since we did survey over the entire trail season, including the initial 3 months when spending is lower (see Figure 3-8.3 of this report). The 1998 study surveyed only

July through October, the high spending months. There may also be some real reduction in spending due to the poor economic conditions prevailing throughout 2002.

The effects of a poor economy may be reflected in the bike and equipment spending of trail users. The 1998 study estimated that trail users of all types made average expenditures of **\$302 to \$373 per person over the prior two years**; these low and high estimates based on the same missing data assumptions described above. The current study estimates that this spending ranged from **\$218 to \$252 per person over the prior two years**, with an average of \$235, using the statistical 95% confidence interval. This expenditure is also lower than the 1998 bike and equipment spending.

The 1998 study estimated that the total spending for small items and lodging in trail related communities ranged from **\$5.4 to \$14.1 million** during that season. This large range is attributable to the Low and High estimates that had to be made because of the missing data ambiguity. The current study estimated an average total spending for small items in trail related communities of \$3.2 million, with a 95% confidence interval of \$2.6 to \$3.8 million. Lodging expenditures were estimated to be \$0.5 million, with a range of \$0.3 to \$0.7 million. The 2002 spending estimates comparable to the 1998 spending, which included lodging, is then \$3.7 million with a range of **\$2.9 to \$4.5 million**. These estimates are well below the 1998 range. This dramatic difference reflects four things: accurate accounting for missing data in the 2002 study; the 2002 study analyzed the entire trail season; the 2002 total spending estimates could not include Montour; possible adverse economic conditions of 2002 on spending.

If we use the Montour estimated usage from the 1998 study, 51,870 visits, and the 2002 estimates of trail related spending, \$2.87 per person per visit, we would estimate that Montour total spending was \$148,866 during the 2002 season. Adding this to the 2002 spending estimates given above still leaves the 2002 estimates below the 1998 estimates.

Bike and equipment spending that is allocable to trail use was estimated in the 1998 study to range from **\$8.9 to \$12.2 million per year**. The current study estimate this allocated spending to be \$3.6 million per year, with a 95% confidence interval range from **\$2.9 to \$4.2 million per year**. This estimate is also considerably below the 1998 estimates and may reflect the missing data ambiguities of the 1998 study, the truncated trail season studies in 1998, and the poor economic conditions prevailing in 2002. The difference also reflects the exclusion of Montour from the 2002 study, although that could hardly explain the huge difference in estimates.