



Bikeways to Prosperity

Assessing the Economic Impact of Bicycle Facilities

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Since 1987, the North Carolina Department of Transportation (DOT) and local governments have invested \$6.7 million in public funds to construct an extensive network of bicycle facilities that consists of 55 miles of wide paved shoulders and multiuse pathways on the northern Outer Banks. North Carolina DOT commissioned the Institute for Transportation Research and Education (ITRE) at North Carolina State University to determine if the benefits gained from the bicycle facilities would justify investment in additional facilities throughout the state.

Problem

ITRE conducted a case study of bicycle tourism in the area. Measuring the benefits of this tourism was a challenge, because tourists visit the northern Outer Banks for a variety of reasons. Researchers needed a method to distinguish the tourists who bicycle as an incidental part of a vacation from those for whom bicycling is a major part of the attraction.

Solution

Two methods were considered for understanding the benefits—a benefit-cost analysis (BCA) and an economic impact analysis (EIA).

A BCA compares the value of the benefits with the cost of the investment and requires converting both the costs and the benefits into dollar amounts. Some bene-

fits of bicycle facilities, however—such as reduced traffic congestion, increased safety, healthy activity, and improved air quality—are not easily quantified.

An EIA examines the economic benefits from tourists who visit for a specific tourist attraction or event. The benefits largely result from tourist spending on food, lodging, and entertainment—which are easier to quantify. The researchers therefore chose the EIA approach.

Three key pieces of information were gathered through surveys and through bicycle traffic counts:

- ◆ The average amount of money that tourists spend during a visit to the northern Outer Banks,
- ◆ The total annual number of tourists, and
- ◆ The proportion of tourists for whom bicycling was an important reason for the visit.

Bicycle Use and Characteristics

During a three-day period starting July 30, 2003, researchers developed a profile of area bicyclists by surveying 173 who were riding on the facilities—143 visitors and 30 residents. In addition, 392 tourists completed self-administered surveys at three area visitor centers over three months, starting in July 2003, to determine the percentage of respondents who engaged in bicycling on vacation.

Survey responses revealed spending patterns, trip information, attitudes and perceptions about bicycling and the facilities, investment priorities, and general demographics. Pneumatic tube counters calibrated for bicycle detection tallied users at 11 locations on a variety of bicycle facilities during a one-week period.

Economic Impact Analysis

Information from the Outer Banks Chamber of Commerce led researchers to estimate that 4 million tourists visit the study area annually. The visitor center surveys showed that 17 percent of these tourists do some bicycling on their trip. This translates to approximately 680,000 annual visitors who bicycle.



Survey station set up along a wide paved shoulder section of a bicycle facility.

