

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Economic Values of National Park System Visitation: VSP Core Questions and Analysis of Economic Impacts and Benefits

Discipline: Social Science
Type of Project: Research
Funding Agency: National Park Service
Other Partners/Cooperators: University of Idaho
Effective Dates: 8/10/2010 - 12/31/2011
Funding Amount: \$99,987

Investigators and Agency Representative:

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Project Abstract: Estimating economic benefits and impacts are common tasks for economists; however when these studies are presented to the public, confusion abounds as to the differences between economic impacts and economic benefits. These are different types of analysis useful for answering different questions and there are times when one or the other may be the more appropriate method. Economic impact analysis is a measure of the economic activity that is generated in a region from a given industry, event, or resource (such as a national park). An economic benefit is a measure of how much satisfaction is generated in a region from a given industry, event, or resource above what a person must pay to enjoy it. Economic impact analysis measures how dollars come into and cycle through a regional economy, thereby creating income and jobs to the region. Therefore, what people must spend to enjoy a national park increases its economic impact. Economic benefit analysis is a measure of economic values and is measured by what people would be willing to pay minus what they must pay for it. Therefore, if someone is willing to pay \$50 to travel to and enjoy a national park and they must pay \$50 (including all expenses such as travel, food, lodging, entrance fees, etc.) to enjoy the park, then they get no economic benefit from their visit; what they had to give up somewhere else in their budget was worth exactly the same to them as the value they received from their visit. However, since they ended up spending money in the local economy, they do generate an economic impact from their spending and there are people in the local economy are dependent on these expenditures for their income.

It is proposed that economic benefits and impacts be calculated and presented simultaneously for the national parks through an expansion of the visitor services project (VSP) and these results be presented together with the proper context so that the park managers and the general public can have a more accurate presentation of the role of national parks in their local economy. Because these different types of analysis answer different questions, the relationships between them can be nuanced and complicated; leading to confusion on all sides. This expansion of the VSP will help serve to clear up this confusion and present a clearer picture of the economic relationships between the national parks and the economy. For example, consider a hypothetical scenario where the National Park Service implements a policy to expand a hiking trail in the City of Rocks National Park of Southern Idaho. We will assume the trails are almost exclusively used by locals, there is no fee to use the trail and the expansion of the trail is expected to increase usage by 50%. In this case the economic impact of this expansion to Southern Idaho will be very small. Locals will derive a lot of enjoyment out of using the trails, but little new revenue will be generated in the region. The little that may be generated will come from people substituting hiking and the increased spending on gas, sporting goods, and trail books for purchases of other consumer goods which have a lower economic multiplier associated with them. It could, however, also be the case that what people would have done with their time and money would have had a greater local economic impact on the local economy. In this case the expansion of the hiking trails could have a negative economic impact.

What the expansion of the hiking trails really adds to the local economy is consumer surplus and net welfare. What this means is that if people are substituting more hiking for things like movies, the amount that they would be willing to pay for a beautiful hike in the wilds is far greater than the amount that they have to pay. This is consumer surplus. On the other hand the cost of an evening at the movies is approaching the limit to what a person is willing

to pay for that evening. Therefore, the consumer surplus is close to zero. The expansion of the hiking trails, then, increases the consumer surplus in the region and therefore increases the net social welfare. This type of analysis, however, is in the domain of benefit-cost analysis, not economic activity analysis. A project can have a very small economic impact (or even a negative economic impact) but have a very positive social benefit. Economic activity analysis, like contribution analysis and impact analysis, are only interested in how dollars are generated and kept within a specific region, not with measures of net social welfare. In order to better estimate both the economic impacts and the economic benefits of the national parks, minor revisions and additions to the visitor surveys may be necessary to account for visitor time and budget constraints as well as visitors substitution activities for visiting national parks. This will allow additional analysis, such as travel cost analysis to estimate economic benefits and substitution compensated economic impact analysis, which will then allow for a greater economic picture of the national park system.

The Principal Investigator, with the substantial involvement of the NPS Key Official, shall perform the following tasks. Substantial involvement of the NPS Key Official shall include consultation on the design and implementation of the approach taken and review of research products.

Task 1: In consultation with researchers at the University of Montana, develop modifications to the VSP core question set to include variables appropriate for estimating both the economic impacts and the economic benefits of the national parks. These revisions and additions are necessary to account for visitor time and budget constraints as well as visitors substitution activities for visiting national parks. This will allow additional analysis, such as travel cost analysis to estimate economic benefits and substitution compensated economic impact analysis, which will then allow for a greater economic picture of the national park system.

Task 2: Using these questions, and in concert with the work at the University of Montana, the economic benefits and impacts will be calculated and presented simultaneously for the national parks. These results will be presented together with the proper context so that the park managers and the general public can have a more accurate presentation of the role of national parks in their local economy.

Outcomes with Completion Dates: December 31, 2011

- The draft Task 1 report shall be delivered to the NPS Key Official no later than May 31, 2011.
- The draft Task 2 report shall be delivered to the NPS Key Official no later than June 30, 2011.

Keywords: NPS-Visitor Services Program, Economic Valuation, Economic Impacts, Economic Benefits, University of Idaho