

Hunting: Economic Expenditures

When the price of oil started to plummet in 1986, no part of the state's economy was left unscathed. With the advent of a new administration and recognition of greatly reduced oil revenues, economic diversity became the rallying cry. Governor Cowper called for Alaskans to roll up their sleeves and go to work, using their perspiration and imagination to find new sources to fuel Alaska's economic fire.

Many have turned to other natural resource dependent industries like timber, mining, and tourism. Mining—like oil—is a nonrenewable resource. While timber harvesting is a renewable use of the resource, this use can have adverse effects on other resources. On the other hand, much has been said of the tourism industry and the contribution it can make to the state's economy. Few people in the state are likely to oppose developing the tourism industry in general—an industry that is clean, renewable, and can produce a good return on investments. To say that tourism in Alaska is dependent on native wildlife and scenery is an understatement. The Division of Tourism, Department of Commerce and Economic Development, has conducted surveys of tourists and found that wildlife and scenic attraction are the two most important reasons people cite for visiting the state. Because of this increased interest in tourism and its dependency on wildlife, ADF&G has begun the difficult and important task of trying to determine the economic benefits of wildlife not only to tourists, but, more importantly, to Alaskans.

In 1984, in cooperation with the Division of Habitat and with the help of the U.S. Forest Service and the Commercial Fisheries

Entry Commission, the Division of Game started to sample moose and goat hunters in southeast Alaska. In 1985, they expanded the survey to include deer hunters.

There were two major questions we wanted to answer:

1. What economic expenditures are related to hunting?
2. What economic benefit is generated by sport hunting?




You might ask, "Aren't they the same thing?" Well, sometimes yes. Broadly defined, expenditures are a benefit to Alaskans when nonresidents bring cash into the state, but no one would suggest that we should make hunting as expensive for Alaskans as possible.

Wildlife *economic expenditures* answers the question, "What is the economic activity generated in the economy by the use of wildlife resources?" *Economic benefit* of wildlife is the answer to the question, "What is the net social benefit from the use of wildlife?" As you can see, these are not entirely separate concepts but can answer different questions. Economic expenditures are not necessarily a social benefit; where expenditures might



Bob Wood

Estimated Economic Expenditures (\$) per Day and per Trip
(for Goat, Moose, and Deer Hunters in Southeast Alaska, 1985)

Community	Goat 		Moose 		Deer 	
	Avg. Per Day	Avg. Per Trip	Avg. Per Day	Avg. Per Trip	Avg. Per Day	Avg. Per Trip
Juneau/Douglas	279	721	189	678	253	492
Ketchikan	206	630	166	767	148	389
Petersburg	244	450	237	728	148	363
Sitka	216	614	405	980	201	325
Non-residents	807	2504	589	2351	358	1486
Region-wide	354	1006	196	677	120	263

and Benefits in Southeast Alaska

by Michael Thomas

benefit one group, they are a cost to another group. It all depends on one's point of view.

How much value do you place on a hunting experience? Not an easy question to answer. Considering economic benefit, one



can easily see such a general idea as value of wildlife to a hunter could be very hard to define at best. Economists have tried to understand benefits by first defining the category of wildlife use and then, secondly, the type of economic benefit.

Use of wildlife can be initially broken into two separate categories, consumptive and nonconsumptive. Consumptive use of wildlife generally includes all activities that result in the removal of the animal, such as hunting or trapping. Non-

consumptive use of wildlife is the rather broad category of uses that do not result in the removal of wildlife, such as animal viewing and photography.

Within each of these two major uses of wildlife, economists have identified several types of economic benefits. The first and most commonly considered are utilization benefits. These are the benefits associated with the actual use of wildlife, in the case of hunting, the value of the meat and the enjoyment of the hunt. For the nonconsumptive user this could be the pleasure he or she gains from a first viewing of a bald eagle or brown bear sow and cub.

In addition to utilization benefits of wildlife, there are options benefits—knowing that animals will be there to either hunt or view at some future date. Existence benefits—just knowing that there is a place for free roaming wildlife—have considerable worth to many people, especially outside the state. If one considers the national recognition that Alaska has as one of the last truly wild places in North America, and adds up the existence benefit of every citizen from the other 49 states, this value could, conceivably, be very high. For example, if every citizen felt that on the average it was worth \$.50 per year to him or her to know that there were wild pristine places in Alaska where wildlife was allowed to roam free from the influence of man, that potential existence benefit to society would be over \$100 million per year. For the purposes of our survey, however, we considered looking at only the utilization benefits associated with the consumptive nature of hunting. Other benefits were far beyond the scope of our expertise and resources. They would

include, but not be limited to, cultural, scientific, and bequest, or willingness to pay for providing wildlife for future generations.

Economic benefits are nice, but how much REAL money is spent by hunters in southeast Alaska? These are economic expenditures and are important to know because they help economists track where money is spent in the economy. This helps decision makers assess the impact of a management decision that changes hunting patterns. As an example, if a resource decision will reduce the number of goat hunters, it is useful to know what sectors of the economy will be affected by the decision—both adversely and beneficially.

When we analyzed our surveys, we found some rather startling statistics. From our economic expenditure questions we found that hunters in southeast Alaska spend large sums of money while sport hunting. (See Table 1.) In 1985, mountain goat hunters spent in excess of \$600,000 in the Southeast economy, over \$350 per day of hunting. Moose hunters spent over \$800,000 in total or nearly \$200 per day of hunting. Deer hunters, while spending the lower sum of \$120 per day, spent over \$4.5 million in the Southeast economy. Collectively, these three species generated nearly \$6 million in expenditures in 1985. With increased participation over the years, this amount is certainly higher today.

Additionally, new income was generated to the state whenever nonresidents spent money in Southeast while hunting. It was estimated that collectively nonresident hunting for moose, goat, and deer generated roughly \$300,000 in new revenue for southeast Alaskans in 1985. Of this amount, over half was from goat hunting. Alaskan business should have seen the majority of this income in the form of increased demand for food and lodging, air charters, and general supplies.

What do these figures mean? Economic expenditures help decision makers arrive at more informed decisions by showing them where money flows in the economy. We can see that a fairly tidy sum of nearly \$300,000 is brought into the state each year by nonresident people who hunt deer, moose, and goat in southeast Alaska. Over \$5.5 million is spent by resident hunters annually while hunting these three species. While these surveys did not measure indirect or induced benefits of hunting expenditures, one might expect this amount to be an additional \$3.5 million annually. This figure was derived by using commonly used multipliers provided by the Alaska Department of Labor.

When one considers brown and black bear hunting, and the related guiding fees, along with trapping, these dollar figures could easily jump by 50 percent. When one then looks at all the major game hunting across the entire state, the expenditure amounts could jump again by a factor of 10.

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Hunting

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John Schoen

Our survey considered only hunting, or consumptive use, of wildlife. Wildlife viewing and other forms of nonconsumptive use of wildlife, because of their complexity, have been completely ignored at this time. Many economists feel that viewing wildlife could actually lead to more expenditures than hunting.

Economic expenditures is only what is actually spent on the activity, not the net social value placed on it. We have not completed evaluation of net social benefits for southeast Alaska goat, moose and deer hunters, but should have a rough estimate by spring 1988.

Ideally, policy and decision makers will consider the economic benefits resulting from the use of wildlife when they make decisions that affect this resource. Unfortunately, resource economics is not advanced enough at present to give us all the answers on economic benefits, yet many more tools exist today than ever before, providing managers a better estimate of the economic benefits resulting from the use of wildlife.

If hunting is so expensive, why do people do it? That has been the basic question posed by "hunting widows" for years. Of course that question is not one ADF&G can address. The department, however, is very interested in expenditure patterns and, even more importantly, net social benefits created by wildlife use, of which a part can be expressed in dollars and cents. Obviously, people think hunting is worth at least the money they spend out of their pocket.

As economists get closer to understanding the full economic benefits of wildlife, our political leaders will have the challenge of helping the people of Alaska, and the rest of the nation, enjoy these benefits to their utmost. In the future, decision makers

will have the addition of economic criteria to aid them in managing our natural resources. These additional economic criteria should help society find the resource use patterns that allow for the greatest net social benefit.

While our surveys have answered only simple questions concerning money spent by hunters in southeast Alaska and may help look at one small part of wildlife economic benefits, this is the first piece in an enormous jigsaw puzzle. Already both state and federal agencies are preparing to work with some of the foremost economists in the country to look at the more difficult questions, such as existence economic benefits and non-consumptive use.

One day we may fully understand economic benefits of wildlife. Until then, next time you or a friend go hunting, don't worry about how much you spend, but be aware that you are contributing to the local economy. The value you gain from your hunting trip is real and probably greater than you think.

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Alaskan Animals

(Continued from page 23.)

Answers to Alaskan Animals word search puzzle found on page 23.

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