The economic importance of Alaska’s Wildlife in 2011

The Economic Importance of Alaska’s Wildlife

In 2011, Alaska’s wildlife was a significant contributor to the state’s economy. Wildlife-related activities, such as hunting, viewing, and wildlife-related tourism, provided economic benefits to Alaskans and visitors alike. The economic value of wildlife was estimated to be in the billions of dollars, with significant contributions to the state’s economic output, employment, and governmental revenue. The study measured the economic impacts of wildlife-related activities on Alaskans and tourists, highlighting the importance of wildlife conservation and management. This report aims to provide solid information for making informed decisions about wildlife management, ensuring the sustainability of wildlife resources for future generations.
## Participation in Hunting and Wildlife Viewing Activities

Almost 1 million households—residents and visitors—took at least one trip in 2011 to hunt or view wildlife in Alaska. Of those, more than 110,000 households, 86 percent of them Alaska residents, went hunting. More than 868,000 households, 77 percent of them visitors, went wildlife viewing.

About 37 percent of all resident households took at least one hunting trip, and they averaged 11 trips during the year. About 2 percent of the visitor households hunted, with most taking only one trip.

About 77 percent of all resident households took at least one trip to view wildlife, and they averaged 30 trips during the year. About 86 percent of visitors participated in wildlife viewing and averaged 1.4 trips per household.

Hunters most commonly targeted moose, caribou, black bear, and brown bear. Wildlife viewers, especially visitors, also wanted to see those species. Seabirds, birds of prey, and marine mammals were also popular.

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**Spending on Hunting and Wildlife Viewing**

Residents and visitors spent $3.4 billion in Alaska on hunting and viewing activities in 2011, supporting the economic activity described on pages 4 and 5. Resident households spent about $2 billion of that, spread equally between hunting and viewing. Visitor households spent about $150 million on hunting and $1.2 billion on wildlife viewing.

### Spending by Residents and Visitors

<table>
<thead>
<tr>
<th>Category</th>
<th>Residents</th>
<th>Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wildlife Viewing</td>
<td>$1.027</td>
<td>$1.159</td>
</tr>
<tr>
<td>Hunting</td>
<td>$1.065</td>
<td>$150</td>
</tr>
</tbody>
</table>

### Hunting-Related Spending, by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Residents</th>
<th>Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trip-Package Spending</td>
<td>27%</td>
<td>24%</td>
</tr>
<tr>
<td>Guide, Outfitter, Charter, and Transporter Fees</td>
<td>9%</td>
<td>7%</td>
</tr>
<tr>
<td>Transportation Fees or Tickets</td>
<td>10%</td>
<td>19%</td>
</tr>
<tr>
<td>Licenses, Tags, and Fees</td>
<td>13%</td>
<td>11%</td>
</tr>
<tr>
<td>Gear and Equipment Purchases</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Fuel for Vehicles</td>
<td>7%</td>
<td>3%</td>
</tr>
<tr>
<td>Groceries, Food, Liquor Purchased at Stores</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Meals Purchased at Restaurants and Bars</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Souvenirs and Gifts</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Equipment Rental</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

**Production by Residents and Visitors**

- Residents: 868,000 households, 77 percent of them Alaska residents, went hunting. More than 110,000 households, 86 percent of them Alaska residents, went hunting.
- Visitors: 868,000 households, 77 percent of them Alaska residents, went hunting. More than 110,000 households, 86 percent of them Alaska residents, went hunting.

Almost 1 million households—residents and visitors—took at least one trip in 2011 to hunt or view wildlife in Alaska. Of those, more than 110,000 households, 86 percent of them Alaska residents, went hunting. More than 868,000 households, 77 percent of them visitors, went wildlife viewing.

About 37 percent of all resident households took at least one hunting trip, and they averaged 11 trips during the year. About 2 percent of the visitor households hunted, with most taking only one trip.

About 77 percent of all resident households took at least one trip to view wildlife, and they averaged 30 trips during the year. About 86 percent of visitors participated in wildlife viewing and averaged 1.4 trips per household.

Hunters most commonly targeted moose, caribou, black bear, and brown bear. Wildlife viewers, especially visitors, also wanted to see those species. Seabirds, birds of prey, and marine mammals were also popular.

### Species Sought by Hunters

#### Residents

- Moose: 25%
- Caribou: 16%
- Black Bear: 12%
- Brown (Grizzly) Bear: 11%
- Upland Birds: 7%
- Deer: 6%
- Coyote: 5%
- Wolf: 5%
- Wolverine: 2%
- Shear: 2%
- Lynx: 2%
- Elk: 1%
- Bison: 1%
- Deer: 0%

#### Visitors

- Moose: 27%
- Caribou: 9%
- Black Bear: 7%
- Brown (Grizzly) Bear: 6%
- Upland Birds: 6%
- Deer: 4%
- Coyote: 3%
- Wolf: 2%
- Wolverine: 2%
- Shear: 2%
- Lynx: 2%
- Elk: 1%
- Bison: 1%
- Deer: 0%

### Species Sought by Viewers

#### Residents

- Moose: 33%
- Caribou: 14%
- Black Bear: 12%
- Brown (Grizzly) Bear: 11%
- Upland Birds: 11%
- Deer: 7%
- Coyote: 5%
- Wolf: 5%
- Wolverine: 3%
- Shear: 3%
- Lynx: 2%
- Elk: 2%
- Bison: 2%
- Deer: 1%

#### Visitors

- Moose: 44%
- Caribou: 16%
- Black Bear: 16%
- Brown (Grizzly) Bear: 11%
- Upland Birds: 6%
- Deer: 4%
- Coyote: 3%
- Wolf: 2%
- Wolverine: 2%
- Shear: 2%
- Lynx: 2%
- Elk: 1%
- Bison: 1%
- Deer: 0%
Economic Activity Supported by Spending on Hunting and Wildlife Viewing

Spending on wildlife, whether by individuals, businesses, organizations, or government agencies, supports in-state economic activity and can be measured four ways:

1. **Economic output** – the total economic activity generated by spending on wildlife-related activities. This is equivalent to wildlife’s share of Alaska’s Gross Domestic Product (GDP).

2. **Jobs** – the total number of full-time and part-time jobs supported by spending on wildlife-related activities.

3. **Labor income (earnings)** – salaries, wages, employee benefits, and proprietors’ profits stimulated by spending on wildlife-related activities.

4. **Governmental revenue** – the total personal and business tax revenues earned by local, state, and federal governments that are generated by spending on wildlife-related activities.

Spending on hunting and wildlife viewing in 2011 supported about 8 percent of Alaska’s total economic output, 6 percent of its total employment, and 5 percent of the earnings of all workers. It supported about $343 million in revenue for local and state governments.

Economic activity associated with hunting and wildlife viewing occurred primarily in the service sector (guides, lodging, etc.), followed by the trade sector (shops selling groceries, binoculars, etc.) and transportation (gas stations, car dealers, etc.). Manufacturing, construction, and government also experienced hunting- and viewing-related economic activity.

Residents and visitors, like hunters and wildlife viewers, all have distinct spending patterns that affect the patterns of economic activity in Alaska differently. Residents, who took more hunting and wildlife viewing trips than visitors, spent less per trip than visitors and directed a greater proportion of that spending to goods, such as gear and equipment. Visitors, who took more viewing than hunting trips, tended to spend more on services provided by Alaskans. Consequently, visitor spending had a big impact on Alaska’s economy since a dollar spent in the labor-intensive service sector typically generates more in-state jobs and labor income than a dollar spent in the trade sector, which often involves the sale of goods produced outside the state.

### Economic Activity in Alaska Supported by Spending on Hunting and Wildlife Viewing

<table>
<thead>
<tr>
<th></th>
<th>Hunting</th>
<th>Viewing</th>
<th>Total</th>
<th>Percent of State</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output (millions)</td>
<td>$1,326</td>
<td>$2,750</td>
<td>$4,077</td>
<td>8</td>
</tr>
<tr>
<td>Jobs</td>
<td>8,400</td>
<td>18,620</td>
<td>27,220</td>
<td>6</td>
</tr>
<tr>
<td>Labor Income (millions)</td>
<td>$415</td>
<td>$978</td>
<td>$1,394</td>
<td>5</td>
</tr>
<tr>
<td>Government Revenue (millions)</td>
<td>$112</td>
<td>$231</td>
<td>$343</td>
<td>-</td>
</tr>
</tbody>
</table>

Dollars are rounded to the nearest million, and jobs are rounded to the nearest ten.


### Average Spending per Trip and per Household

<table>
<thead>
<tr>
<th></th>
<th>Residents</th>
<th>Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Hunting</td>
<td>Viewing</td>
</tr>
<tr>
<td>Trip-Package Expenditures (per trip)</td>
<td>$52</td>
<td>$137</td>
</tr>
<tr>
<td>Guide, Outfitter, Charter, and Transporter Fees (per trip)</td>
<td>$108</td>
<td>N/A</td>
</tr>
<tr>
<td>Other Trip Expenditures (per trip)</td>
<td>$184</td>
<td>$819</td>
</tr>
<tr>
<td>Licenses and Fees (per household)</td>
<td>$81</td>
<td>$28</td>
</tr>
<tr>
<td>Gear and Equipment (per household)</td>
<td>$2,686</td>
<td>$383</td>
</tr>
</tbody>
</table>

N/A means spending is included in other categories.

### How Spending on Hunting and Wildlife Viewing Generates Economic Activity and Jobs

Spending on hunting and viewing totaled $3.4 billion in 2011 but generated $4.1 billion in economic activity in the state, over 27,000 jobs, and $1.4 billion in labor income. How does that work?

Two moose hunters leave their homes in Fairbanks and head to the local sporting goods store where they buy hunting licenses, ammunition, new hunting boot insoles, a spotting scope, and some game bags. They grab sandwiches and sodas at the local grocery store and fill their trucks and 4-wheelers tanks with gas. Early the next morning, they put their 4-wheelers in their truck beds and drive to their secret spot to begin their search for moose.

A couple visiting from Ohio decide to go brown bear viewing on a remote river near Juneau. After securing seats on a float plane, they buy a pack lunch from the hotel and new rain hats and a waterproof camera bag from a local sporting goods store. After a great day viewing bears, they leave a generous tip with their pilot guide.

The money the hunters and wildlife viewers spend goes to work almost immediately. It goes to pay the wages of the sporting goods store sales clerk, for example, who in turn spends some of those wages at a local restaurant and some more to pay his utility bill. The pilot pays her rent and buys a new parka for the upcoming ski season.

Spending by the clerk and the pilot helps support still other jobs as the money our hunters and wildlife viewers spent ripples outward in many directions through the local economy, even to sectors not directly related to hunting or viewing. The cycle continues until all the initial hunting and viewing spending eventually leaks out of the economy.
One measure of the economic value of wildlife is the amount of money, or the market price, a person pays for a hunting or viewing trip. While we know that a person who buys the trip is willing to pay at least the market price, his or her willingness to pay could be greater. That amount added to the market price constitutes the total value of the trip for that person. For some survey respondents, the amount spent on a hunting or wildlife viewing trip in 2011 adequately measured the trip’s full value. Many people, however, were actually willing to pay more than the market price. In fact, most respondents said the trip’s value exceeded what they spent on it. The additional amount a person would have been willing to pay, above what he or she actually paid, represents a net benefit to the person. The charts on the right illustrate that resident households receive a fairly large net benefit when hunting or viewing in Alaska. That is, residents report being willing to pay, on average, 34 percent more than they actually paid for a hunting trip and 25 percent more for a viewing trip; so that the net benefit was 26 percent and 20 percent of the total value for hunting and viewing trips respectively. Visitors, who already paid quite a bit more than residents to hunt or view in the state (including the cost of traveling from out-of-state), report being willing to pay 7 percent more than they actually spent for a hunting trip and 14 percent more for a viewing trip. Visitor households, on average, realized a per-trip net economic benefit of $765 for hunting trips and $858 for viewing trips. Resident households, on average, enjoyed somewhat smaller per-trip net economic benefits: $438 for hunting trips and $268 for viewing trips. These values, multiplied by the number of trips taken in 2011, yield the total net economic benefit, shown in the table below. Accounting for the number of hunting and viewing trips taken per household in 2011 yields the average net benefit households received from hunting and wildlife viewing trips in 2011, also shown in the table below.
gather, process, and analyze the data. As with any
task conducted by phone, over the Internet, and by mail.

Nearly 98 percent of Alaskans who participated in
task their quality of life is either "extremely important" or

The full report

the economic contributions of wildlife to the quality of life in Alaska. The importance of wildlife to Alaskans' quality of life was assessed in several appendices. The full report contains additional information and data sources.
A MESSAGE FROM THE DIRECTOR

We have long known that wildlife is important to Alaskans and to people who visit our state. But quantifying wildlife’s economic importance in our vast state—including direct and indirect spending, jobs, and associated economic activity—is not a trivial task. We contracted with ECONorthwest to provide these data and are pleased to see the summary findings presented in this publication.

The Division of Wildlife Conservation is proud to do its part in ensuring that wildlife populations remain healthy and strong for present and future generations. We are proud that our work helps sustain the wildlife populations on which hunters and viewers depend. In 2011, they spent over $3.4 billion in Alaska to hunt and view wildlife here plus additional dollars out-of-state on gear and other goods supporting those activities. Visitors reported that wildlife is indeed one of the main reasons they visited Alaska, and residents articulated how wildlife contributes to their quality of life and reasons for living here.

By improving the quality of life, wildlife also attracts talented workers. The increase in workforce and in households’ spending attracts businesses to the state and creates jobs and income for other workers. Through its contribution to Alaskans’ quality of life, wildlife shapes the industrial composition of Alaska’s economy and the geographical pattern of development.

We hope you find this report a useful addition to understanding the many ways wildlife contributes to the economy and enriches our lives. On behalf of the department, I want to express my deep appreciation to everyone who completed the survey and took the time to tell us about their hunting and viewing experiences in Alaska.

Doug Vincent-Lang, Director, Division of Wildlife Conservation

ACKNOWLEDGMENTS

The research team gratefully thanks each of the many Alaskans and others who patiently provided information to assist this research. We particularly appreciate the patience, knowledge, and insights provided by staff of the Alaska Department of Fish and Game, Division of Wildlife Conservation, especially Maria Gladziszewski, Assistant Director, Division of Wildlife Conservation, who served as Project Manager. Other staff who contributed to the project include Scott Brainerd, Mark Burch, Bruce Dale, Kristen Romanoff, and Anne Sutton.

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