

Hunting in Maine in 2013:

A statewide and regional analysis of participation and economic contributions

For:

Maine Office of Tourism &

Maine Department of Inland Fisheries and Wildlife

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This document is the first installment in a three-part series examining the economic contributions of hunting and fishing in Maine and the market potential for increased participation. This first report focuses on hunting in Maine. A second report focuses on fishing. The third report is a market analysis that looks at the preferences and amenities that attract sportsmen to hunting and fishing destinations.

Executive Summary

Recreational hunting is a powerful economic engine for rural communities across the country, bringing in outside dollars that generate additional spending, supporting and creating jobs, and building future investments in open spaces and recreational areas.

The Maine Office of Tourism and the Department of Inland Fisheries and Wildlife (DIF&W) commissioned a study of the state's sporting population to examine statewide and regional hunting activity and the characteristics of hunting trips including the duration, purpose, destination, lodging and amenities associated with resident and visiting hunters. Drawing from license sales records and survey-based information, this report examines the economic contributions associated with hunting in Maine. The study quantifies the total economic contributions to the state economy generated by hunter spending in each of the eight tourism regions and for selected game species.

Table E1. Participation and spending by hunters in Maine, 2013.

Activity	Hunters ^{1*}	Total Annual Expenditures**
Hunting:		
Deer	136,796	\$68,178,813
Upland game birds	81,766	\$47,260,061
Turkey	37,375	\$15,050,248
Migratory waterfowl	21,656	\$17,324,004
Bear	21,153	\$35,376,590
Moose	13,033	\$15,793,765
Small game	50,007	\$32,639,766
Hunting Total	162,075	\$231,623,247

**Column sum is greater than the total number of hunters because hunters may target more than one species. May include hunters who may have participated in a hunt (e.g. moose) but did not hold the species-specific permit.*

***Includes spending only when the primary purpose of a trip was hunting.*

Maine's wildlife draws thousands of resident and non-resident sportsmen to take a trip to hunt every year (Table E1). These hunters spend \$231 million on hunting related activities (Table E1). Collectively, recreational hunting supports more than 3,400 full- and part-time jobs providing more than \$115 million in income (Table E2). The direct spending by sportsmen who hunt and the multiplier effects of that spending in Maine contribute \$191 million to the state's gross state product and a total economic output of \$338.7 million.

Table E2. Total economic contributions of hunting to Maine's economy in 2013

	Employment	Labor Income	Value Added (State GDP)	Total Output
Hunting Total	3,430	\$115,625,414	\$191,649,185	\$338,730,639
<i>Hunting by species</i>				
Deer	1,010	\$34,854,181	\$57,528,437	\$101,419,052
Upland game birds	652	\$22,132,514	\$36,788,549	\$65,856,609
Turkey	230	\$8,003,631	\$13,192,120	\$23,311,818
Migratory waterfowl	253	\$8,550,034	\$14,129,855	\$25,172,112
Bear	565	\$18,028,415	\$29,902,911	\$52,675,653
Moose	225	\$7,120,109	\$12,121,467	\$20,851,393
Small game	496	\$16,936,529	\$27,985,845	\$49,444,001

¹ The estimated numbers of hunters include all residents and nonresidents who purchased a hunting privilege in 2013. The numbers do not include hunters who held a lifetime license that was purchased prior to 2013 if they did not purchase a species-specific permit in 2013.

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Introduction

In January, 2012, the Task Force to Examine the Decline in the Number of Nonresident Hunters (Chapter 51, LD 792, 125th Maine State Legislature), issued a report with several recommendations. This report, in part, addresses the recommendation to survey current and recently lapsed hunters. This study quantifies recreational hunting activity and associated spending in Maine in 2013.² Economic contributions attributable to hunting-related spending are estimated for the state and eight tourism regions (Figure 1). Several sub-categories of recreational hunting based upon game species sought by hunters are also analyzed to determine their individual share of the total economic contribution of hunting.

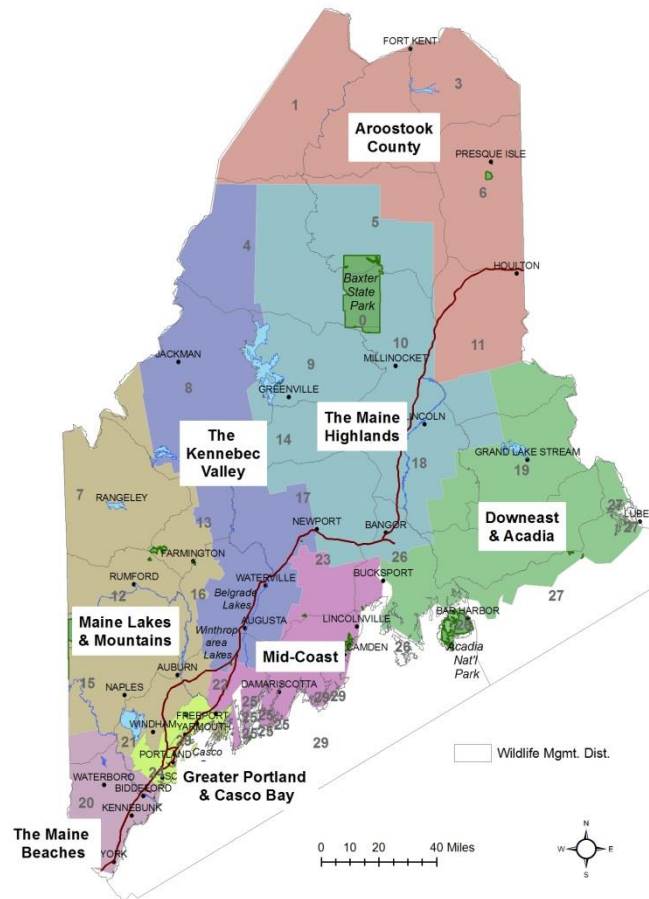


Figure 1. Map of Maine highlighting tourism regions, landmarks, and wildlife management districts.

The goal of the study is to determine the amount of spending by sportsmen and their associated contributions to the state's economy. The results will help inform discussions among Legislators, Agency personnel, and other stakeholders to assist with strategic decision making associated with wildlife resources. The economic contributions associated with recreational hunting can be

² This analysis of hunting in Maine is the first of a three part series examining hunting, fishing, and the market potential for increasing participation of resident and visiting sportsmen.

a powerful economic engine for communities across Maine, generating additional spending, supporting and creating jobs, and building future investments in open spaces and wildlife areas.

Data collection

An online survey was conducted in August of 2014. The target audience for the survey was developed from license sales records provided by Maine’s Department of Inland Fisheries and Wildlife (DIF&W). The sampling frame included all persons who purchased a hunting or combination hunting/fishing license, or special hunting permit between 2009 and 2013 and who provided a valid email address³ (Table 1). Hunters were invited to participate in the survey via email containing a hyperlink to the online questionnaire. The first email invitations were sent on August 7, 2014. Each person in the sample received up to two additional reminders if they did not complete a questionnaire. Emails and reminders were managed through an automated system as part of the online survey software licensed to Southwick Associates.

Subsequent to the initial survey mailing, a high percentage of email addresses included in the sample were determined to be no longer in service or otherwise invalid. Due to the high number of undeliverables — referred to as a bounce rate — the sample was submitted to an email cleaning service for removal of addresses that were not clearly valid. The process resulted in a significant reduction in sample size. The overall survey response rate is 19.0%.

Table 1. Target audience size and response rate

	Nonresidents	Residents	Total
Original email list	24,351	42,858	67,209
Undeliverable addresses	8,740	10,880	19,620
Net mailout	15,611	31,978	47,589
Completed surveys	3,530	5,496	9,026
<i>Complete response rate</i>	<i>22.6%</i>	<i>17.2%</i>	<i>19.0%</i>

The raw survey data were cleaned to eliminate outliers and out-of-range responses. While the data were generally representative of the hunting population, survey respondents were more avid than the average hunter (based on the number of years hunted from 2009 to 2013). To adjust for this, survey data were weighted to represent the population of Maine’s licensed hunters based on demographic and participation information generated from the license records (Table 2). A rake weighting procedure was used adjust for all differences across the characteristics shown in Table 2. With the calculated weights applied to the analysis, the final sample mirrored the population of sportsmen on the relevant demographic measures.

³ Maine DIF&W license sales records include email addresses for approximately 43% of sportsmen and women who purchased a license in the past five years.

Table 2. Population of Maine hunters compared to unweighted survey respondents

Demographic	Residents				Nonresidents			
	Population		Respondents		Population		Respondents	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Gender:								
Male	180,042	80.0%	4,795	87.3%	65,135	95.9%	3,442	97.5%
Female	36,475	16.2%	537	9.8%	2,073	3.1%	66	1.9%
Unknown	8,436	3.8%	163	3.0%	745	1.1%	21	0.6%
<i>Total</i>	224,953	100.0%	5,495	100.0%	67,953	100.0%	3,529	100.0%
Age Group:								
Under 18	19,692	8.8%	169	3.1%	1,629	2.4%	17	0.5%
18 to 24	25,292	11.2%	297	5.4%	3,496	5.1%	41	1.2%
25 to 34	34,974	15.5%	940	17.1%	7,786	11.5%	290	8.2%
35 to 44	35,753	15.9%	941	17.1%	10,163	15.0%	482	13.7%
45 to 54	46,076	20.5%	1,226	22.3%	15,856	23.3%	890	25.2%
55 to 64	41,251	18.3%	1,379	25.1%	15,002	22.1%	963	27.3%
65 and Over	21,913	9.7%	543	9.9%	14,018	20.6%	846	24.0%
<i>Total</i>	224,951	100.0%	5,495	100.0%	67,950	100.0%	3,529	100.0%
Number of years hunted:								
1 year	49,647	22.1%	488	8.9%	33,753	49.7%	1,202	34.1%
2 years	29,635	13.2%	514	9.4%	10,004	14.7%	535	15.2%
3 years	24,412	10.9%	493	9.0%	5,882	8.7%	383	10.9%
4 years	25,857	11.5%	654	12.0%	5,145	7.6%	432	12.2%
5 years	77,742	34.6%	3,270	59.9%	8,692	12.8%	933	26.4%
Unknown**	17,660	7.9%	44	0.8%	4,477	6.6%	44	1.2%
<i>Total</i>	224,953	100.0%	5,463	100.0%	67,953	100.0%	3,529	100.0%
Household income*:								
\$10,000 - \$24,999	4,079	1.8%	61	1.1%	474	0.7%	24	0.7%
\$25,000 - \$49,999	144,253	64.3%	3,023	55.1%	18,471	27.6%	806	23.2%
\$50,000 - \$74,999	69,831	31.1%	2,130	38.8%	26,010	38.9%	1,409	40.6%
\$75,000 - \$99,999	4,588	2.0%	190	3.5%	13,454	20.1%	743	21.4%
\$100,000+	1,594	0.7%	84	1.5%	8,478	12.7%	491	14.1%
<i>Total</i>	224,345	100.0%	5,488	100.0%	66,888	100.0%	3,473	100.0%

*Household income estimated from ESRI Tapestry™ based on mailing address included in the license sales records

** At the time of sample development, permit data was not linked to the license records. Therefore, the number of years could not be determined for some hunters.

Methodology

The questionnaire was structured to gather general hunting information from each respondent plus detailed spending and participation information for individual game species by tourism region. To avoid respondent fatigue from repeating detailed questions for every species pursued by an individual hunter, the survey was designed to ask detailed questions of each respondent

about only one species that they hunted. The questionnaire contained specific questions regarding hunting of:

- Deer
- Upland game birds (ruffed grouse (partridge), woodcock, pheasant)
- Turkey
- Migratory waterfowl (ducks and geese)
- Small game (rabbit, bobcat, coyote, raccoon, red fox, squirrel, crow, other small game)
- Bear
- Moose

Maine's seven tourism regions include:

- Aroostook County
- Downeast and Acadia
- Greater Portland and Casco Bay
- The Kennebec Valley
- Maine's Lakes and Mountains
- Mid-Coast
- The Maine Beaches
- The Maine Highlands (Bangor-Katahdin-Moosehead Lake)

License records were analyzed to: 1) identify the types of activities in which individual hunters took part based on license type purchased, 2) identify the type of game pursued based on license or permit type purchased by the hunter and 3) determine availability of an email address on record with DIF&W. Based on the distribution of the target audience across activity type, game categories, and species pursued, a prioritization structure was developed to ensure adequate sample sizes for hunters of each species to draw reliable spending and participation estimates. This was done by assigning a higher priority to species which draw smaller numbers of hunters. The structure then worked in conjunction with survey questions to dynamically tailor the survey each respondent saw based upon their self-reported activities. In this way, the largest possible sample of hunters was obtained for each species. While the total numbers of hunters are based on actual license sales in 2013, estimates of hunting activity for specific species and related spending are based on self-reported measures by survey respondents.

Three measures (participation, spending, and estimated economic contribution) for each species and tourism region structure the methodological approach.

Participation

The hunting license data for Maine resident and non-resident adult hunters is the source for the overall number of resident and nonresident hunters in 2013. Survey respondents were asked to report their participation or level of activity for every tourism region in which they hunted or made expenditures in 2013, as well as the type of species pursued when hunting.

The species-based prioritization matrix and survey structure adjusted dynamically to tailor questions based upon respondent selections. The targeted species include: deer, upland game

birds, turkey, migratory waterfowl, bear, moose, and small game. The survey was set up to query respondents as to the number of days hunted and trip length per tourism region. .

Spending

Expenditure questions were used to build spending profiles for the average hunter of each target game species (detailed spending profiles are included in Appendix D). In broad terms, the expenditure questions in the survey mirror the categories included in the U.S. Fish and Wildlife Service's *National Survey of Fishing, Hunting and Wildlife-Associated Recreation*. Questions solicited three types of expenses:

- Trip-related expenses, which include primarily consumables such as fuel, food, and lodging.
- Hunting-specific expenses, which includes special purpose items and services such as firearms, ammunition, sights, and calls, scouting expenses, repair of hunting equipment, meat cutting, taxidermy and mounting, etc.
- Hunting-related equipment includes ATVs, campers or camping equipment, vehicles, and property purchased specifically for the purpose of hunting. In the case of special equipment (vehicles, property, etc.), respondents were asked to report the percentage for which the item is used specifically for hunting in Maine.

For each category, respondents were asked to report the tourism region in which expenses were made.

Unsurprisingly, many hunters reported hunting more than one species in 2013. For example, 95% of bear hunters also reported hunting deer at some time during the 2013 hunting season. Some multiple-species hunts may have occurred during the same outing; other hunters necessarily target different species on different hunts (e.g., there is no overlap between deer season and some moose seasons). To account for multiple-species hunting and avoid double-counting of expenditures by hunters who target more than one species, total spending was allocated based on the weighted average distribution of hunting effort across all of the species.

Regional estimates of spending are based on specific information provided respondents. Rather than rely on residence or places where hunting occurred, respondents were asked directly to report where they made expenditures for their different types of spending (e.g., trip-related spending, equipment purchases, etc.). Total spending, by expenditure category and for each individual species, was first estimated at the statewide level. The total statewide estimate was then allocated to each tourism region based on the proportion of each category spending that took place in each region.

Economic contributions

There are three types of economic contributions that hunters provide to Maine's economy: direct, indirect and induced. A **direct contribution** is defined as the economic contribution of the initial purchase made by the consumer (the original retail sale). **Indirect contributions** are the secondary effects generated from direct expenditures, such as the retailer buying additional inventory, and the wholesaler and manufacturers buying additional materials. Indirect contributions affect the industries that supply the first industry and so on down the supply chain. An **induced contribution** results from the salaries and wages paid by the directly and indirectly

affected industries. The employees of these industries spend their income on various goods and services. These expenditures, in turn, create a continual cycle of indirect and induced effects.

The direct, indirect and induced contribution effects sum together to provide the overall economic contribution of the activity under study. As the original retail purchase (direct contribution) goes through round after round of indirect and induced effects, the economic contribution of the original purchase is multiplied, benefiting many industries and individuals.

An IMPLAN input-output model of the Maine economy was created for this analysis. Regional economic contributions are calculated based upon the statewide model and the reported percentage of spending in each region. Thus, regional estimates reflect each region's contribution to the statewide economy.

Four types of economic activity are measured and reported for each activity and target species:

Employment: The number of full- and part-time jobs created or supported as a result of the economic activity.

Labor income: Total payroll, including salaries, wages and benefits paid to employees and business proprietors

State GDP: This represents the total “value added” contribution of economic output made by the industries impacted by hunter spending.

Output: The number reports the value of total economic activity associated with hunter spending.

Throughout this report, the term “economic contributions” is used rather than “economic impact.” Technically, economic impacts refer to the effect of new money being introduced into a market. In this case, the state of Maine is the “market”. Because this study examines expenditures by Maine residents made within Maine, the total economic activity associated with hunter spending cannot be considered as an economic impact. However, nonresident expenditures within the state do represent an economic impact as new money is brought into the state by this user group.

Additional discussion about economic contribution concepts are provided in Appendix C. Details of the economic contribution methodology are presented in Appendix B.

The remainder of this report is structured in sections based around the size of the hunter population, their visits to or in Maine, their spending, and the economic contributions associated with their spending. The analysis also explores their history with hunting in Maine, important factors that influence their hunting activities, and future hunting activities. Tables with results by species and region can be found in Appendix A.

Findings

Hunter participation

Resident and nonresident hunters in Maine are predominantly male. Resident hunters are slightly younger, have lower incomes and more years of experience hunting in Maine than nonresidents. Between 15% and 18% percent of resident hunters indicate they began hunting in the state during each of the decades since 1970 (Figure 2). This is suggestive of steady recruitment among residents over the last forty years.

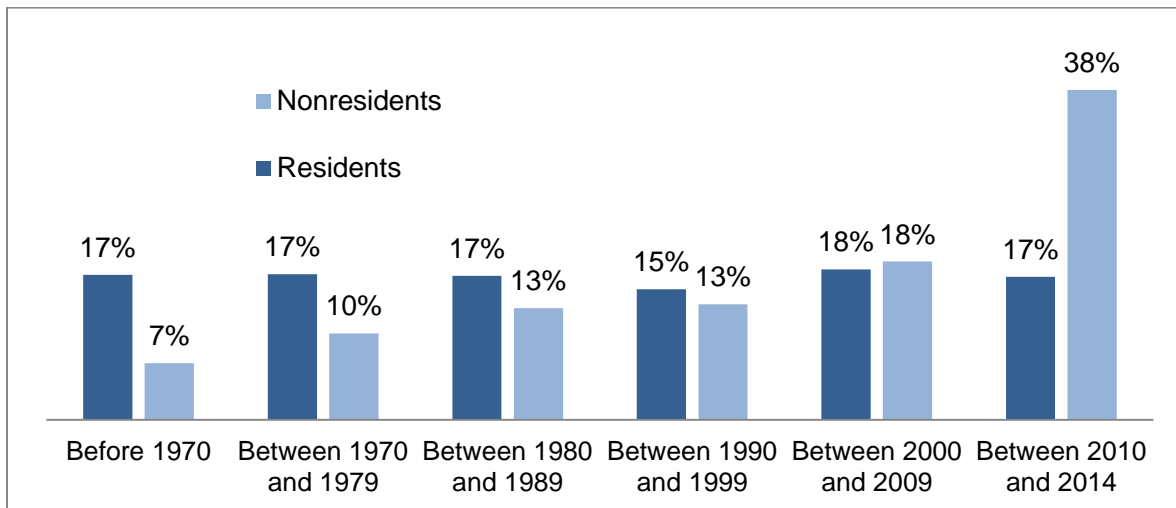


Figure 2. Decade when hunters first began hunting in Maine on a regular basis

Conversely, a substantial proportion of recent nonresident hunters do not have a long history of hunting in Maine. The greatest percentage of nonresident hunters report that they began hunting in Maine within the last five years (Figure 2). Increasingly fewer nonresident hunters began hunting in the state in each of the decades prior to the current period, ranging between 18% and 7%.

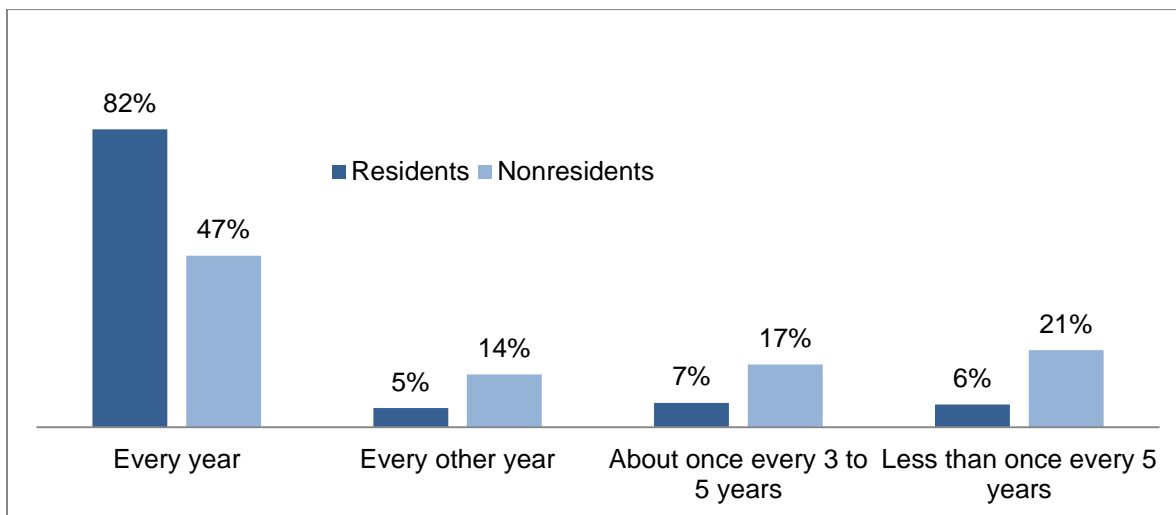


Figure 3. Hunting frequency in Maine

More than 80% of resident hunters hunt in the state every year reflecting a strong level of avidity among this group of hunters (Figure 3). Slightly less 50% of nonresidents hunt every year.

Maine offers a variety of hunting opportunities to residents and visitors throughout the state as hunters are able to pursue a variety of different species of big and small game. Ninety one percent of resident hunters pursue deer and 54% pursue upland game birds (Figure 4). One third or fewer of resident hunters pursue small game, turkey, waterfowl, bear, or moose. Half of nonresident hunters pursue deer and 33% pursue upland game birds

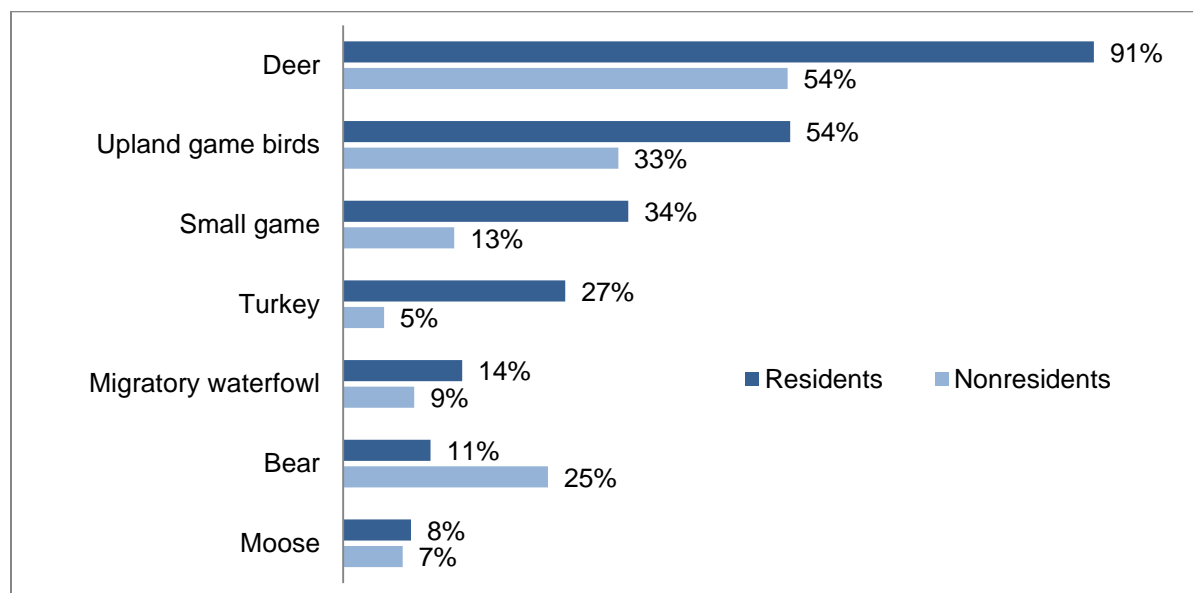


Figure 4. Species type pursued by hunters

Purpose, destination, and duration of hunting trip

A hunting trip can be for one day in which the hunter leaves home and returns the same day, or it can be multi-day trip including an overnight stay away from home. The differences are generally associated with the hunters' place of residence (in-state or out-of-state) and type of game pursued.

Single-day trips. In general, residents are more likely to take a one-day hunting trip compared to nonresident hunters. For example, 85% of resident hunters who pursue deer take one-day hunting trips (Table 3). On the other hand, only 21% of resident hunters who pursued moose took a one-day trip.

Table 3. Hunters who took a one-day trip in 2013 where the primary purpose was to hunt:

	Resident hunters	Nonresident hunters
Deer	85%	8%
Upland game birds	78%	9%
Turkey	93%	15%
Migratory waterfowl	96%	9%
Bear	59%	5%
Moose	21%	0%
Small game	89%	18%

The regional distribution of hunting trips, especially one-day trips, is a function of where resident hunters live and where the significant game populations can be found. Maine's Lakes & Mountains followed by The Maine Highlands regions are the locations where the largest proportion of one-day deer hunting trips occur among resident hunters. The Mid Coast region is the location for the greatest proportion one-day turkey hunting trips. More than half of all one-day moose hunting trips occur in Aroostook County (Table 4).

Table 4. One-day trips taken by hunters in 2013 by species and region as a proportion of statewide total.

	Deer	Upland game birds	Turkey	Migratory waterfowl	Bear	Moose	Small game
Residents							
Aroostook County	9.4%	23.9%	1.9%	13.8%	21.8%	63.1%	16.0%
Downeast & Acadia	7.6%	7.0%	6.2%	12.8%	11.4%	0.0%	5.6%
Greater Portland & Casco Bay	6.0%	1.7%	4.2%	7.4%	2.4%	0.0%	3.0%
The Kennebec Valley	14.0%	16.2%	20.6%	14.5%	9.7%	13.6%	17.2%
Maine's Lakes & Mountains	22.0%	18.3%	13.7%	10.7%	22.3%	4.7%	23.8%
Mid Coast	9.1%	5.5%	30.8%	19.7%	4.0%	5.2%	8.2%
The Maine Beaches	13.9%	3.8%	11.7%	6.3%	5.5%	0.0%	4.0%
The Maine Highlands	17.9%	23.5%	10.9%	14.8%	22.9%	13.4%	22.2%
State total	100%	100%	100%	100%	100%	100%	100%

Table 4 (cont'd). One-day trips taken by hunters in 2013 by species and region as a proportion of statewide total.

	Deer	Upland game birds	Turkey	Migratory waterfowl	Bear	Moose	Small game
Nonresidents							
Aroostook County	23.3%	15.9%	0.0%	17.6%	21.0%	*	7.0%
Downeast & Acadia	5.2%	4.3%	0.0%	25.1%	9.9%	*	1.4%
Greater Portland & Casco Bay	0.0%	0.0%	2.2%	9.4%	0.0%	*	2.1%
The Kennebec Valley	6.8%	5.1%	0.0%	1.0%	1.1%	*	9.1%
Maine's Lakes & Mountains	33.0%	30.3%	3.7%	7.4%	20.9%	*	33.8%
Mid Coast	2.3%	1.7%	6.3%	9.7%	0.0%	*	12.6%
The Maine Beaches	27.6%	28.9%	87.9%	29.7%	12.7%	*	28.3%
The Maine Highlands	1.8%	13.7%	0.0%	0.0%	34.3%	*	5.6%
State total	100%	100%	100%	100%	100%	*	100%

*Sample size too small to report reliable estimates.

Among nonresidents, Maine's Lakes & Mountains and The Maine Beaches regions are the locations where the largest proportion of one-day deer, upland game bird, and small game hunts occur. The Maine Beaches and Downeast & Acadia are the locations for the largest proportion of one-day migratory waterfowl hunts. The Maine Highlands and Aroostook County are the locations where the largest proportion of one-day bear hunts occur for nonresidents.

Multiple-day trips. Many hunters take overnight trips to go hunting over multiple days. In general, nonresidents are more likely to make overnight trips compared to residents (Table 5). Ninety-six percent of nonresident hunters who pursue moose make it an overnight trip. Eighty-seven percent of nonresident hunters who pursue deer take an overnight trip compared to 57% of residents.

Table 5. Hunters who took a multi-day trip in 2013 where the primary purpose was to hunt

	Resident hunters	Nonresident hunters
Deer	57%	87%
Upland game birds	57%	92%
Turkey	19%	86%
Migratory waterfowl	30%	94%
Bear	75%	89%
Moose	89%	96%
Small game	48%	87%

Trip duration is linked with the type of species pursued. For example all moose hunters are more likely to make an overnight trip compared to a one-day trip, while turkey hunters are much more likely to take a one-day hunting trip. Results also suggest that it is not uncommon for hunters to take both one-day and overnight hunting trips during the course of a hunting season.

Overall, nonresidents are more likely to take multiple-day trips than single day trips (Tables 4 and 5). In contrast, residents are only more likely to take multiple day hunting trips when targeting bear or moose (Table 6).

The Maine Highlands region and the Maine's Lakes & Mountains region are the locations with the largest proportion of overnight deer hunting trips among resident hunters. The Mid Coast is the location for the greatest proportion of resident overnight turkey hunting trips. More than half of all overnight moose hunting trips also occur in Aroostook County.

Among nonresidents, Maine's Lakes & Mountains and The Maine Highlands regions are the locations where the largest proportion of overnight deer, upland game bird, and small game hunts occur. Mid Coast followed and Downeast & Acadia are the locations for the largest proportion of overnight migratory waterfowl hunts. The Maine Highlands and Aroostook County are the locations where the largest proportion of overnight bear hunts occur.

Table 6. Overnight trips taken by hunters in 2013 by species and region as a proportion of statewide total.

	Deer	Upland game birds	Turkey	Migratory waterfowl	Bear	Moose	Small game
Residents							
Aroostook County	11.0%	27.4%	2.0%	8.1%	15.9%	58.0%	16.6%
Downeast & Acadia	4.7%	3.9%	5.2%	16.6%	12.1%	0.4%	8.7%
Greater Portland & Casco Bay	2.6%	0.1%	0.0%	1.0%	0.0%	0.0%	0.1%
The Kennebec Valley	19.7%	21.1%	8.0%	8.4%	9.2%	10.3%	21.8%
Maine's Lakes & Mountains	20.0%	20.3%	12.5%	11.5%	26.9%	4.0%	21.8%
Mid Coast	5.4%	0.5%	45.8%	12.9%	3.7%	3.3%	2.8%
The Maine Beaches	7.2%	0.3%	0.6%	2.1%	1.3%	0.0%	2.2%
The Maine Highlands	29.5%	26.5%	25.9%	39.4%	30.8%	24.0%	26.1%
State total	100%	100%	100%	100%	100%	100%	100%
Nonresidents							
Aroostook County	13.8%	21.9%	0.0%	6.3%	31.5%	64.1%	9.1%
Downeast & Acadia	4.4%	8.0%	3.4%	21.3%	10.5%	3.7%	7.5%
Greater Portland & Casco Bay	1.2%	0.4%	2.3%	10.0%	0.8%	0.0%	0.0%
The Kennebec Valley	18.3%	18.4%	22.5%	17.8%	11.8%	21.9%	18.4%
Maine's Lakes & Mountains	25.3%	21.8%	23.3%	6.1%	12.5%	6.8%	22.6%
Mid Coast	10.0%	1.5%	18.8%	33.4%	1.7%	0.0%	2.3%
The Maine Beaches	4.7%	2.8%	21.1%	2.6%	1.0%	0.0%	1.1%
The Maine Highlands	22.2%	25.2%	8.7%	2.5%	30.3%	3.5%	39.0%
State total	100%	100%	100%	100%	100%	100%	100%

For those hunters who do take part in a multi-day hunting trip that involves an overnight away from home, Table 7 shows the types of accommodations utilized by residents and nonresidents. Regardless of the region visited, the primary overnight accommodation for residents is a relative's or associate's lodging. For nonresidents visiting Aroostook County, the most commonly utilized accommodation is a sporting or wilderness camp or lodge. Outside of Aroostook County, the most commonly utilized accommodation is a relative's or associate's lodging.

Table 7. Accommodation type used by overnight hunters, by region and residency

	Aroostook County	Downeast & Acadia	Greater Portland & Casco Bay	The Kennebec Valley	Maine's Lakes & Mountains	Mid Coast	The Maine Beaches	The Maine Highlands
<u>Residents</u>								
Hotel, motel, resort	5.9%	2.4%	8.6%	3.5%	2.5%	1.8%	0.0%	3.3%
Inn or bed and breakfast	5.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Rented lodging**	16.7%	14.3%	0.0%	9.1%	14.7%	6.0%	0.0%	6.0%
Campground or RV part	8.3%	0.4%	0.0%	8.8%	0.8%	4.3%	0.0%	4.8%
Sporting/wilderness camp or lodge	18.1%	4.0%	0.0%	9.4%	1.7%	0.3%	0.0%	13.8%
Other paid accommodation	1.1%	0.0%	0.0%	0.7%	0.8%	0.0%	0.0%	1.3%
Lodging owned by respondent**	16.8%	32.4%	11.4%	27.8%	18.3%	11.1%	22.9%	23.7%
Relative or associate's lodging**	44.0%	43.9%	37.3%	49.4%	58.1%	69.9%	63.1%	54.1%
A free campground or campsite	8.3%	5.9%	14.7%	6.1%	7.1%	2.0%	4.0%	8.6%
Other unpaid accommodation	11.9%	5.4%	28.0%	4.7%	4.8%	4.9%	22.7%	5.4%
Total*	136%	111%	100%	120%	109%	100%	113%	121%
<u>Nonresidents</u>								
Hotel, motel, resort	5.2%	5.3%	15.6%	4.4%	5.0%	5.6%	2.9%	5.7%
Inn or bed and breakfast	0.4%	2.1%	0.0%	1.0%	3.2%	0.7%	0.0%	1.0%
Rented lodging**	18.9%	12.6%	2.1%	16.8%	17.0%	10.1%	2.9%	11.5%
Campground or RV part	1.1%	0.5%	2.1%	0.0%	1.3%	0.9%	0.0%	1.8%
Sporting/wilderness camp or lodge	47.2%	23.4%	5.0%	24.0%	11.0%	5.0%	5.7%	24.8%
Other paid accommodation	2.2%	2.4%	0.0%	0.7%	0.2%	0.7%	0.0%	2.4%
Lodging owned by respondent**	8.5%	24.4%	6.4%	12.8%	21.2%	20.6%	15.7%	11.0%
Relative or associate's lodging**	19.6%	35.2%	56.9%	42.6%	41.4%	49.8%	71.2%	44.4%
A free campground or campsite	1.3%	0.6%	0.0%	2.3%	1.0%	0.5%	0.0%	1.0%
Other unpaid accommodation	2.0%	3.6%	20.1%	1.8%	2.3%	6.4%	2.9%	2.2%
Total*	106%	110%	108%	106%	103%	100%	101%	106%

* Total is larger than 100% since some respondents reported staying at more than one type of lodging.

** Includes cabin, cottage, condo, and vacation home.

Residents typically take one month or less to plan for a hunting trip (Table 8). Nonresidents can take anywhere between one month to one year to plan for a hunting trip. The planning duration is sensitive to the type of game pursued.

Table 8. Advance planning timeframe for overnight hunting trips.

	Deer	Upland game birds	Turkey	Bear	Migratory waterfowl	Moose	Small game
Residents							
Less than a week	38.8%	38.2%	56.2%	20.3%	49.8%	2.1%	47.9%
2 to 4 weeks	33.5%	31.8%	32.3%	26.8%	32.6%	19.1%	31.6%
1 to 6 months	18.7%	21.3%	9.1%	26.9%	10.1%	65.1%	13.2%
6 to 12 months	7.7%	7.8%	2.3%	22.2%	6.7%	12.8%	6.5%
More than a year	1.3%	0.8%	0.0%	3.8%	0.8%	1.0%	0.8%
Total	100%	100%	100%	100%	100%	100%	100%
Nonresidents							
Less than a week	5.3%	4.4%	15.2%	1.9%	3.2%	2.9%	14.7%
2 to 4 weeks	15.2%	8.9%	31.0%	4.7%	10.6%	2.0%	29.9%
1 to 6 months	42.0%	52.5%	37.3%	23.6%	56.1%	68.9%	33.7%
6 to 12 months	35.1%	33.4%	14.7%	56.0%	26.4%	21.6%	20.1%
More than a year	2.5%	0.8%	1.8%	13.8%	3.7%	4.7%	1.5%
Total	100%	100%	100%	100%	100%	100%	100%

Hunter spending

In broad terms, the expenditure questions in the survey mirror the categories included in the U.S. Fish and Wildlife Service's *National Survey of Fishing, Hunting and Wildlife-Associated Recreation*. Trip-related spending includes primarily consumables such as fuel, food, and lodging. Hunting equipment include special-purpose items such as firearms, ammunition, sights, and calls. Auxiliary, special, and other equipment includes purchases for clothing, ATVs, campers or camping equipment, vehicles, and property purchased specifically for the purpose of hunting. In the case of special equipment (vehicles, property, etc.), respondents were asked to report the percentage for which the item is used specifically for hunting purposes.

Hunters, on average, spend \$1,429 per year in Maine on items purchased to take a trip where the primary purpose is hunting (Table 9). Deer hunters collectively spend an average of \$1,114 per year. Nonresident deer hunters spend \$1,113, the majority of which is on travel related expenditures, while resident deer hunters spend \$1,114 per year. Upland game bird hunters, on average, spend \$1,289 per year. Nonresident upland game hunters spend \$1,187; again the majority of their expenses are allocated towards travel. Resident upland game hunters spend \$1,311. In all categories, nonresidents spend more in Maine than residents on trip-related purchases, while residents spend more in the state on equipment and other durable goods.

Bear hunters spend the largest amount annually (\$3,310) on hunting related items. Nonresident bear hunters spend \$2,761 per year; resident bear hunters spend \$3,753 per year. The largest proportions of this spending are balanced between trip and auxiliary spending.

Table 9. Annual spending per hunter by species in 2013

	Resident	Nonresident	All hunters
All hunting			
Trip expenditures	\$463	\$985	\$554
Hunting equipment	\$302	\$262	\$295
Auxiliary, special, and other equipment	\$651	\$243	\$580
Total	\$1,416	\$1,490	\$1,429
Deer			
Trip expenditures	\$403	\$635	\$443
Hunting equipment	\$266	\$171	\$250
Auxiliary, special, and other equipment	\$445	\$307	\$422
Total	\$1,115	\$1,112	\$1,114
Upland game birds			
Trip expenditures	\$447	\$879	\$522
Hunting equipment	\$187	\$144	\$180
Auxiliary, special, and other equipment	\$677	\$164	\$587
Total	\$1,311	\$1,187	\$1,289
Turkey			
Trip expenditures	\$205	\$576	\$228
Hunting equipment	\$194	\$192	\$194
Auxiliary, special, and other equipment	\$543	\$154	\$520
Total	\$943	\$922	\$942
Migratory waterfowl			
Trip expenditures	\$447	\$836	\$513
Hunting equipment	\$470	\$112	\$409
Auxiliary, special, and other equipment	\$1,032	\$58	\$865
Total	\$1,949	\$1,006	\$1,788
Bear			
Trip expenditures	\$1,10	\$1,959	\$1,488
Hunting equipment	\$753	\$588	\$680
Auxiliary, special, and other equipment	\$1,892	\$213	\$1,143
Total	\$3,753	\$2,761	\$3,310
Moose			
Trip expenditures	\$842	\$1,825	\$1,070
Hunting equipment	\$647	\$696	\$658
Auxiliary, special, and other equipment	\$1,102	\$280	\$911
Total	\$2,590	\$2,801	\$2,639
Small game			
Trip expenditures	\$567	\$648	\$577
Hunting equipment	\$371	\$212	\$352
Auxiliary, special, and other equipment	\$587	\$368	\$561
Total	\$1,526	\$1,228	\$1,490

Turkey hunters are estimated to spend the least amount annually on hunting related items, \$942. Nonresident turkey hunters spend \$922 and resident turkey hunters spend \$943 per year.

Table 10 shows total direct retail spending at the statewide level across all hunters and by species hunted for resident and nonresident hunters who traveled for the purpose of recreational hunting. Total spending by all hunters regardless of species pursued is estimated at \$231.6 million per year. Deer hunters spend \$68.2 million per year. Nonresident deer hunters spend \$11.5 million, while resident deer hunters spend \$56.6 million per year. Upland game bird hunters spend \$47.3 million per year. Nonresident upland game bird hunters spend \$7.6 million while resident upland game bird hunters spend \$39.6 million.

Table 10. Total spending among Maine hunters by species in 2013

	Resident	Nonresident	Total
All hunting			
Trip expenditures	\$62,040,213	\$27,716,984	\$89,757,198
Hunting equipment	\$40,498,434	\$7,383,671	\$47,882,105
Auxiliary, special, and other equipment	\$87,135,554	\$6,848,390	\$93,983,945
Total	\$189,674,201	\$41,949,046	\$231,623,247
Deer			
Trip expenditures	\$20,490,802	\$6,580,768	\$27,071,570
Hunting equipment	\$13,534,028	\$1,768,091	\$15,302,119
Auxiliary, special, and other equipment	\$22,617,857	\$3,187,267	\$25,805,124
Total	\$56,642,686	\$11,536,127	\$68,178,813
Upland game birds			
Trip expenditures	\$13,504,270	\$5,642,307	\$19,146,577
Hunting equipment	\$5,667,593	\$925,324	\$6,592,917
Auxiliary, special, and other equipment	\$20,465,144	\$1,055,423	\$21,520,566
Total	\$39,637,007	\$7,623,053	\$47,260,061
Turkey			
Trip expenditures	\$3,088,205	\$549,088	\$3,637,293
Hunting equipment	\$2,920,104	\$182,767	\$3,102,871
Auxiliary, special, and other equipment	\$8,162,921	\$147,162	\$8,310,083
Total	\$14,171,230	\$879,017	\$15,050,248
Migratory waterfowl			
Trip expenditures	\$3,587,243	\$1,386,816	\$4,974,059
Hunting equipment	\$3,778,713	\$186,169	\$3,964,882
Auxiliary, special, and other equipment	\$8,288,708	\$96,354	\$8,385,063
Total	\$15,654,664	\$1,669,340	\$17,324,004
Bear			
Trip expenditures	\$6,557,281	\$9,341,863	\$15,899,144
Hunting equipment	\$4,458,018	\$2,804,298	\$7,262,316
Auxiliary, special, and other equipment	\$11,197,088	\$1,018,042	\$12,215,130
Total	\$22,212,387	\$13,164,203	\$35,376,590
Moose			
Trip expenditures	\$3,866,058	\$2,537,055	\$6,403,114
Hunting equipment	\$2,971,874	\$967,038	\$3,938,912
Auxiliary, special, and other equipment	\$5,062,466	\$389,273	\$5,451,739
Total	\$11,900,399	\$3,893,366	\$15,793,765

Table 10 (cont.). Total spending among Maine hunters by species in 2013

	Resident	Nonresident	Total
Small game			
Trip expenditures	\$10,946,354	\$1,679,086	\$12,625,440
Hunting equipment	\$7,168,103	\$549,984	\$7,718,087
Auxiliary, special, and other equipment	\$11,341,369	\$954,869	\$12,296,238
Total	\$29,455,827	\$3,183,939	\$32,639,766

Respondents were asked to report the tourism region in which their spending occurred (See Figure 1 for location of each region). The survey shows that the direct spending by hunters is realized in each of the eight tourism regions across the state. Spending associated with all aspects of the hunting trip can occur both close to home and close to the destination, regardless of the species. As a result, retail expenditures impact the economy of all tourism regions, even in those areas where relatively little hunting activity is likely to take place such as the Greater Portland & Casco Bay (Table 11). Detailed expenditure tables for both residents and nonresidents cross-tabulated by both species and tourism region are provided in Appendix A.

Table 11. Resident and nonresident total annual spending in 2013, statewide and by tourism region

Region	All hunting	Deer	Upland game birds	Turkey	Migratory waterfowl	Bear	Moose	Small game
Statewide	\$231,623,247	\$68,178,813	\$47,260,061	\$15,050,248	\$17,324,004	\$35,376,590	\$15,793,765	\$32,639,766
Aroostook County	\$42,591,666	\$6,925,047	\$8,959,619	\$191,691	\$1,761,155	\$9,353,419	\$5,085,154	\$5,319,159
Downeast & Acadia	\$21,352,939	\$3,700,820	\$2,986,341	\$1,729,248	\$2,335,720	\$4,465,963	\$1,393,429	\$3,529,816
Greater Portland & Casco Bay	\$13,482,460	\$7,015,489	\$1,973,361	\$1,855,209	\$1,769,323	\$993,126	\$264,760	\$2,069,977
The Kennebec Valley	\$28,888,744	\$10,101,814	\$6,324,584	\$2,651,830	\$1,753,523	\$3,428,691	\$1,329,455	\$5,413,656
Maine's Lakes & Mountains	\$37,435,165	\$11,192,669	\$10,703,742	\$2,927,970	\$2,010,578	\$4,713,719	\$2,127,093	\$3,998,479
Mid Coast	\$23,518,654	\$9,331,386	\$3,787,431	\$2,644,810	\$2,431,108	\$1,481,701	\$2,265,143	\$2,550,442
The Maine Beaches	\$18,836,457	\$7,366,122	\$3,302,430	\$1,471,231	\$1,243,340	\$2,929,653	\$842,905	\$2,423,360
The Maine Highlands	\$45,517,161	\$12,545,466	\$9,222,554	\$1,578,259	\$4,019,257	\$8,010,319	\$2,485,824	\$7,334,877

Economic contributions associated with hunter spending

Tables 12, 13, and 14 show the economic contributions of direct spending by residents, nonresidents and overall, respectively, by species. Detailed economic contribution tables for both residents and nonresidents cross-tabulated by both species and tourism region are provided in Appendix A.

A brief discussion of the results below focuses on Table 14 which shows by all hunters. Interpretations of the economic contributions associated with residents and nonresidents are similar when using their individual tables, Table 12 and Table 13, respectively.

Collectively, spending by sportsmen who hunt in Maine supports more than 3,400 full- and part-time jobs in the state, providing \$115.6 million in labor income (Table 14). Hunters' purchases contribute \$191 million to the gross state product and generate total economic activity of \$338.7 million.

Spending by deer hunters supports 1,010 full- and part-time jobs which provide \$34.8 million in labor income (Table 14). Their purchases contribute \$57.5 million to the gross state product and total economic activity of \$101.4 million. Spending by all upland game bird hunters supports 652 full- and part-time jobs which provide \$22.1 million in labor income. Their purchases contribute \$36.8 million to the gross state product and total economic activity of \$65.8 million. Spending by all bear hunters supports more than 560 full- and part-time jobs which provide \$18.0 million in labor income. Their purchases contribute \$29.9 million to the gross state product and total economic activity of \$52.7 million. Finally, spending by all small game hunters supports more than 490 full- and part-time jobs which provide \$16.9 million in labor income. Their purchases contribute \$28.0 million to the gross state product and total economic activity of \$49.4 million.

Table 12. **Resident** hunter economic contributions in 2013 by species

	Employment	Labor Income	Value Added (State GDP)	Total Output
All hunting				
Direct	1,792	\$56,561,376	\$91,852,234	\$169,023,604
Multiplier	935	\$37,211,143	\$63,035,993	\$105,824,193
Total	2,727	\$93,772,519	\$154,888,228	\$274,847,797
Deer				
Direct	553	\$17,833,295	\$28,614,829	\$52,506,080
Multiplier	290	\$11,605,793	\$19,681,505	\$33,022,106
Total	844	\$29,439,088	\$48,296,333	\$85,528,186
Upland game birds				
Direct	347	\$10,951,521	\$17,849,254	\$33,522,429
Multiplier	181	\$7,260,045	\$12,312,860	\$20,662,550
Total	527	\$18,211,566	\$30,162,114	\$54,184,980
Turkey				
Direct	142	\$4,574,704	\$7,417,031	\$13,558,548
Multiplier	74	\$2,951,760	\$4,995,676	\$8,377,567
Total	216	\$7,526,464	\$12,412,707	\$21,936,115
Migratory waterfowl				
Direct	145	\$4,543,446	\$7,360,697	\$13,687,090
Multiplier	78	\$3,097,427	\$5,238,676	\$8,798,557
Total	223	\$7,640,873	\$12,599,372	\$22,485,647
Bear				
Direct	209	\$6,427,517	\$10,440,818	\$19,263,067
Multiplier	109	\$4,271,827	\$7,201,515	\$12,116,918
Total	318	\$10,699,343	\$17,642,333	\$31,379,985
Moose				
Direct	101	\$2,964,728	\$5,163,953	\$8,986,262
Multiplier	50	\$1,964,182	\$3,331,249	\$5,596,176
Total	151	\$4,928,910	\$8,495,202	\$14,582,438
Small game				
Direct	295	\$9,266,165	\$15,005,652	\$27,500,128
Multiplier	151	\$6,060,110	\$10,274,513	\$17,250,318
Total	447	\$15,326,275	\$25,280,165	\$44,750,446

Table 13. **Nonresident** hunter economic contributions in 2013 by species

	Employment	Labor Income	Value Added (State GDP)	Total Output
All hunting				
Direct	477	\$12,961,530	\$21,838,552	\$38,720,837
Multiplier	226	\$8,891,366	\$14,922,405	\$25,162,005
Total	704	\$21,852,896	\$36,760,957	\$63,882,842
Deer				
Direct	112	\$3,261,342	\$5,593,293	\$9,751,851
Multiplier	54	\$2,153,751	\$3,638,811	\$6,139,015
Total	166	\$5,415,093	\$9,232,104	\$15,890,867
Upland game birds				
Direct	84	\$2,300,008	\$3,904,853	\$7,082,868
Multiplier	41	\$1,620,940	\$2,721,582	\$4,588,761
Total	124	\$3,920,948	\$6,626,435	\$11,671,629
Turkey				
Direct	10	\$288,624	\$459,744	\$837,344
Multiplier	5	\$188,543	\$319,669	\$538,359
Total	14	\$477,167	\$779,413	\$1,375,703
Migratory waterfowl				
Direct	20	\$533,792	\$902,518	\$1,626,880
Multiplier	9	\$375,370	\$627,964	\$1,059,585
Total	30	\$909,162	\$1,530,482	\$2,686,464
Bear				
Direct	168	\$4,297,256	\$7,210,129	\$12,768,309
Multiplier	79	\$3,031,816	\$5,050,449	\$8,527,359
Total	246	\$7,329,072	\$12,260,578	\$21,295,668
Moose				
Direct	51	\$1,307,709	\$2,140,907	\$3,774,336
Multiplier	23	\$883,490	\$1,485,359	\$2,494,619
Total	74	\$2,191,199	\$3,626,265	\$6,268,955
Small game				
Direct	33	\$972,799	\$1,627,108	\$2,879,248
Multiplier	16	\$637,456	\$1,078,571	\$1,814,308
Total	49	\$1,610,255	\$2,705,680	\$4,693,556

Table 14. **All** hunter economic contributions in 2013 by species

	Employment	Labor Income	Value Added (State GDP)	Total Output
All hunting				
Direct	2,269	\$69,522,906	\$113,690,786	\$207,744,441
Multiplier	1,161	\$46,102,509	\$77,958,398	\$130,986,198
Total	3,430	\$115,625,414	\$191,649,185	\$338,730,639
Deer				
Direct	665	\$21,094,637	\$34,208,122	\$62,257,931
Multiplier	345	\$13,759,544	\$23,320,316	\$39,161,121
Total	1,010	\$34,854,181	\$57,528,437	\$101,419,052
Upland game birds				
Direct	430	\$13,251,529	\$21,754,107	\$40,605,297
Multiplier	221	\$8,880,985	\$15,034,442	\$25,251,312
Total	652	\$22,132,514	\$36,788,549	\$65,856,609
Turkey				
Direct	152	\$4,863,328	\$7,876,775	\$14,395,892
Multiplier	79	\$3,140,302	\$5,315,345	\$8,915,926
Total	230	\$8,003,631	\$13,192,120	\$23,311,818
Migratory waterfowl				
Direct	165	\$5,077,238	\$8,263,215	\$15,313,970
Multiplier	88	\$3,472,796	\$5,866,639	\$9,858,142
Total	253	\$8,550,034	\$14,129,855	\$25,172,112
Bear				
Direct	377	\$10,724,773	\$17,650,947	\$32,031,376
Multiplier	188	\$7,303,643	\$12,251,964	\$20,644,277
Total	565	\$18,028,415	\$29,902,911	\$52,675,653
Moose				
Direct	152	\$4,272,437	\$7,304,860	\$12,760,598
Multiplier	73	\$2,847,672	\$4,816,608	\$8,090,795
Total	225	\$7,120,109	\$12,121,467	\$20,851,393
Small game				
Direct	328	\$10,238,964	\$16,632,761	\$30,379,376
Multiplier	167	\$6,697,565	\$11,353,084	\$19,064,625
Total	496	\$16,936,529	\$27,985,845	\$49,444,001

Summary

One of the goals of this study was to help provide insight about jobs, labor income and other economic contributions that result from recreational hunting that occurs in Maine at a statewide and tourism region level. Maine's wildlife draws thousands of resident and non-resident sportsmen to take a trip to hunt every year (Table 15). The longevity within the sport among resident hunters in Maine is roughly a balanced blend of hunters who have been in the field since before 1970 to newer hunters just taking to the field within the last five years. These resident hunters typically go hunting every year and the most popular species pursued are deer and upland game birds.

The majority, 56%, of nonresident hunters first began hunting regularly in Maine in the last decade. They are most likely to go hunting every year or every other year. And, the most popular species among nonresidents are also deer and upland game birds.

Table 15. Participation and spending of hunting in Maine in 2013

Activity	Hunters		Total Annual Spending	
	Resident	Nonresident	Resident	Nonresident
Hunting:				
Deer	121,606	15,190	\$56,642,686	\$11,536,127
Upland game birds	72,359	9,408	\$39,637,007	\$7,623,053
Turkey	35,978	1,397	\$14,171,230	\$879,017
Migratory waterfowl	19,224	2,432	\$15,654,664	\$1,669,340
Bear	14,165	6,988	\$22,212,387	\$13,164,203
Moose	10,996	2,037	\$11,900,399	\$3,893,366
Small game	46,207	3,800	\$29,455,827	\$3,183,939
Hunting Total*	133,925	28,150	\$189,674,201	\$41,949,046

* From 2013 license records.

These hunters spend \$231.6 million on hunting related activities. The spending associated with these activities leads to significant economic contributions to the Maine economy. Included in this spending are expenditures on trip-related items such as meals, fuel, and lodging. Resident hunters are more likely than nonresident hunters to take just a day trip to go hunting, whereas, nonresidents are more likely to take an overnight trip to go hunting. For residents and most nonresident hunters who do take an overnight trip, the most commonly utilized accommodation is a relative's or associate's lodging. Nonresidents in Aroostook County most often stay overnight in a sporting lodge or wilderness camp.

Collectively, recreational hunting supports more than 3,400 (2,727 associated with resident spending and 935 associated with nonresident spending) full- and part-time jobs providing more than \$115.6 million in labor income (Table 16). The direct spending by sportsmen who hunt and multiplier effects of that spending in Maine contribute \$191.6 million (\$154.9 million associated with resident spending and \$36.8 associated with nonresident spending) to the state's gross domestic product and a total economic contribution of \$338.7 million.

Table 16. Total economic effects of hunting on Maine's economy in 2013

	Employment	Labor Income	Value Added (State GDP)	Total Output
<u>Residents</u>				
Hunting Total	2,727	\$93,772,519	\$154,888,228	\$274,847,797
<i>Hunting by species</i>				
Deer	844	\$29,439,088	\$48,296,333	\$85,528,186
Upland game birds	527	\$18,211,566	\$30,162,114	\$54,184,980
Turkey	216	\$7,526,464	\$12,412,707	\$21,936,115
Migratory waterfowl	223	\$7,640,873	\$12,599,372	\$22,485,647
Bear	318	\$10,699,343	\$17,642,333	\$31,379,985
Moose	151	\$4,928,910	\$8,495,202	\$14,582,438
Small game	447	\$15,326,275	\$25,280,165	\$44,750,446
<u>Nonresidents</u>				
Hunting Total	704	\$21,852,896	\$36,760,957	\$63,882,842
<i>Hunting by species</i>				
Deer	166	\$5,415,093	\$9,232,104	\$15,890,867
Upland game birds	124	\$3,920,948	\$6,626,435	\$11,671,629
Turkey	14	\$477,167	\$779,413	\$1,375,703
Migratory waterfowl	30	\$909,162	\$1,530,482	\$2,686,464
Bear	246	\$7,329,072	\$12,260,578	\$21,295,668
Moose	74	\$2,191,199	\$3,626,265	\$6,268,955
Small game	49	\$1,610,255	\$2,705,680	\$4,693,556

The study shows that the economic contributions of sportsmen occur across the eight travel regions within the state. This variation stems, in large part, from the opportunities to hunt within a region's boundary. However, it is important to remember that spending associated with sportsmen's activities occurs both close to home and close to their hunting destination. As a result, economic contributions are felt from hunting activities, regardless of species, all across the state.

Appendices

Appendix A: Hunting by tourism region

Appendix B: Methodology for estimating economic contributions

Appendix C: Explanation of economic contribution

Appendix D: Hunter spending profiles by game type

Appendix A: Hunting by species and by tourism region

Note: The purpose of Appendix A is to incorporate all measures (participation, spending and economic contributions by activity) together from the perspective of the tourism region.

Table A 1. Total annual spending in 2013 by **resident** Hunters by species and region

Region	Aroostook County	Downeast & Acadia	Greater Portland & Casco Bay	The Kennebec Valley	Maine's Lakes & Mountains	Mid Coast	The Maine Beaches	The Maine Highlands
All hunting								
Trip Expenditure	\$15,468,340	\$4,584,380	\$1,770,056	\$9,636,907	\$9,427,272	\$3,893,948	\$2,697,313	\$14,561,998
Hunting equipment	\$7,691,029	\$2,628,320	\$3,197,558	\$5,286,727	\$5,133,009	\$4,444,390	\$4,470,609	\$7,646,792
Auxiliary, special and other equipment	\$9,143,949	\$10,175,458	\$7,117,367	\$8,569,021	\$15,398,678	\$13,314,216	\$9,213,665	\$14,203,201
Total Hunting Expenditure	\$32,303,318	\$17,388,158	\$12,084,980	\$23,492,654	\$29,958,960	\$21,652,554	\$16,381,587	\$36,411,991
Deer								
Trip Expenditure	\$2,291,761	\$1,622,320	\$879,659	\$3,665,044	\$3,535,024	\$1,665,075	\$1,697,006	\$5,134,912
Hunting equipment	\$1,303,009	\$676,485	\$1,575,922	\$2,092,476	\$1,914,698	\$1,347,636	\$2,092,787	\$2,531,015
Auxiliary, special and other equipment	\$1,822,520	\$552,942	\$4,260,465	\$2,093,521	\$2,998,086	\$5,457,553	\$2,665,007	\$2,767,763
Total Hunting Expenditure	\$5,417,290	\$2,851,747	\$6,716,047	\$7,851,041	\$8,447,808	\$8,470,264	\$6,454,800	\$10,433,690
Upland game birds								
Trip Expenditure	\$4,172,438	\$832,185	\$221,591	\$2,077,685	\$2,354,212	\$549,815	\$242,797	\$3,053,547
Hunting equipment	\$970,085	\$364,951	\$526,114	\$866,723	\$851,528	\$387,954	\$642,004	\$1,058,233
Auxiliary, special and other equipment	\$2,224,607	\$923,383	\$856,382	\$2,352,133	\$5,710,806	\$2,694,745	\$1,988,797	\$3,714,290
Total Hunting Expenditure	\$7,367,130	\$2,120,519	\$1,604,087	\$5,296,541	\$8,916,547	\$3,632,514	\$2,873,599	\$7,826,070
Turkey								
Trip Expenditure	\$84,573	\$222,656	\$161,271	\$694,930	\$905,794	\$452,569	\$199,831	\$366,581
Hunting equipment	\$40,960	\$155,287	\$281,751	\$451,139	\$646,816	\$643,565	\$332,072	\$368,515
Auxiliary, special and other equipment	\$31,558	\$1,330,051	\$1,330,682	\$1,411,891	\$1,192,460	\$1,462,488	\$584,659	\$819,132
Total Hunting Expenditure	\$157,091	\$1,707,993	\$1,773,705	\$2,557,959	\$2,745,069	\$2,558,623	\$1,116,561	\$1,554,228

Table A1 (cont.). Total annual spending in 2013 by **resident** hunters by species and region

Region	Aroostook County	Downeast & Acadia	Greater Portland & Casco Bay	The Kennebec Valley	Maine's Lakes & Mountains	Mid Coast	The Maine Beaches	The Maine Highlands
Migratory waterfowl								
Trip Expenditure	\$566,363	\$482,599	\$204,436	\$539,308	\$473,740	\$558,011	\$186,670	\$576,115
Hunting equipment	\$591,814	\$373,638	\$388,487	\$587,202	\$242,076	\$702,617	\$407,567	\$485,312
Auxiliary, special and other equipment	\$392,581	\$944,792	\$941,232	\$530,631	\$1,252,760	\$849,849	\$478,633	\$2,898,231
Total Hunting Expenditure	\$1,550,758	\$1,801,029	\$1,534,155	\$1,657,141	\$1,968,576	\$2,110,477	\$1,072,869	\$3,959,658
Bear								
Trip Expenditure	\$1,605,552	\$584,579	\$171,488	\$1,017,000	\$920,869	\$169,650	\$161,133	\$1,927,010
Hunting equipment	\$906,574	\$454,899	\$297,962	\$471,719	\$640,307	\$289,540	\$333,569	\$1,063,449
Auxiliary, special and other equipment	\$2,310,802	\$2,095,768	\$247,606	\$773,689	\$1,202,557	\$720,364	\$1,977,646	\$1,868,656
Total Hunting Expenditure	\$4,822,928	\$3,135,246	\$717,055	\$2,262,408	\$2,763,733	\$1,179,554	\$2,472,348	\$4,859,116
Moose								
Trip Expenditure	\$2,010,789	\$87,220	\$42,938	\$440,961	\$214,925	\$168,072	\$155,581	\$745,572
Hunting equipment	\$1,190,949	\$91,865	\$92,258	\$305,797	\$256,221	\$252,468	\$337,101	\$445,215
Auxiliary, special and other equipment	\$275,679	\$916,264	\$67,175	\$72,110	\$1,544,883	\$1,776,247	\$241,298	\$168,809
Total Hunting Expenditure	\$3,477,417	\$1,095,349	\$202,371	\$818,869	\$2,016,030	\$2,196,787	\$733,980	\$1,359,597
Small game								
Trip Expenditure	\$2,343,954	\$915,254	\$281,966	\$1,613,363	\$1,830,358	\$770,066	\$464,767	\$2,726,627
Hunting equipment	\$1,336,165	\$380,332	\$378,561	\$770,963	\$864,301	\$1,114,456	\$617,240	\$1,706,086
Auxiliary, special and other equipment	\$1,305,741	\$2,091,852	\$1,280,092	\$2,473,101	\$620,382	\$538,008	\$1,126,150	\$1,906,044
Total Hunting Expenditure	\$4,985,859	\$3,387,438	\$1,940,618	\$4,857,427	\$3,315,041	\$2,422,530	\$2,208,156	\$6,338,757

Table A 2. Total annual spending in 2013 for nonresident hunters by species and region

Region	Aroostook County	Downeast & Acadia	Greater Portland & Casco Bay	The Kennebec Valley	Maine's Lakes & Mountains	Mid Coast	The Maine Beaches	The Maine Highlands
All hunting								
Trip Expenditure	\$7,708,936	\$2,594,046	\$813,076	\$3,566,599	\$4,614,567	\$1,109,114	\$1,212,011	\$6,098,633
Hunting equipment	\$1,709,623	\$779,781	\$291,597	\$794,731	\$1,244,700	\$282,315	\$631,552	\$1,649,373
Auxiliary, special and other equipment	\$869,789	\$590,954	\$292,807	\$1,034,760	\$1,616,938	\$474,670	\$611,307	\$1,357,164
Total Hunting Expenditure	\$10,288,349	\$3,964,781	\$1,397,480	\$5,396,090	\$7,476,206	\$1,866,100	\$2,454,870	\$9,105,170
Deer								
Trip Expenditure	\$975,690	\$353,499	\$144,776	\$1,119,802	\$1,774,083	\$579,486	\$357,777	\$975,690
Hunting equipment	\$208,388	\$88,021	\$56,517	\$316,491	\$520,894	\$114,733	\$214,699	\$208,388
Auxiliary, special and other equipment	\$323,679	\$407,554	\$98,150	\$814,479	\$449,885	\$166,904	\$338,846	\$323,679
Total Hunting Expenditure	\$1,507,758	\$849,073	\$299,442	\$2,250,773	\$2,744,861	\$861,122	\$911,322	\$1,507,758
Upland game birds								
Trip Expenditure	\$1,305,103	\$568,234	\$260,323	\$939,853	\$1,165,614	\$74,545	\$226,761	\$1,101,875
Hunting equipment	\$165,477	\$67,455	\$53,168	\$75,374	\$216,612	\$38,408	\$150,636	\$158,193
Auxiliary, special and other equipment	\$121,908	\$230,133	\$55,783	\$12,816	\$404,969	\$41,964	\$51,434	\$136,415
Total Hunting Expenditure	\$1,592,488	\$865,822	\$369,274	\$1,028,043	\$1,787,195	\$154,917	\$428,831	\$1,396,484
Turkey								
Trip Expenditure	\$26,299	\$17,060	\$48,542	\$75,185	\$170,182	\$39,412	\$151,503	\$20,906
Hunting equipment	\$7,512	\$4,195	\$18,075	\$17,509	\$11,894	\$10,060	\$111,849	\$1,673
Auxiliary, special and other equipment	\$791	\$0	\$14,887	\$1,176	\$825	\$36,715	\$91,318	\$1,450
Total Hunting Expenditure	\$34,601	\$21,254	\$81,504	\$93,870	\$182,900	\$86,188	\$354,670	\$24,030

Table A2 (cont.). Total annual spending in 2013 for nonresident hunters by species and region

Region	Aroostook County	Downeast & Acadia	Greater Portland & Casco Bay	The Kennebec Valley	Maine's Lakes & Mountains	Mid Coast	The Maine Beaches	The Maine Highlands
Migratory waterfowl								
Trip Expenditure	\$195,011	\$469,412	\$185,431	\$65,363	\$24,441	\$248,926	\$145,089	\$53,143
Hunting equipment	\$15,386	\$44,447	\$38,534	\$16,775	\$6,686	\$37,901	\$20,628	\$5,812
Auxiliary, special and other equipment	\$0	\$20,831	\$11,203	\$14,244	\$10,875	\$33,804	\$4,753	\$644
Total Hunting Expenditure	\$210,397	\$534,690	\$235,168	\$96,381	\$42,002	\$320,631	\$170,471	\$59,599
Bear								
Trip Expenditure	\$3,347,649	\$904,305	\$137,527	\$876,384	\$1,283,542	\$138,873	\$245,200	\$2,408,385
Hunting equipment	\$911,126	\$384,289	\$89,145	\$250,960	\$383,935	\$18,301	\$110,532	\$656,011
Auxiliary, special and other equipment	\$271,716	\$42,123	\$49,399	\$38,940	\$282,510	\$144,973	\$101,573	\$86,807
Total Hunting Expenditure	\$4,530,491	\$1,330,716	\$276,071	\$1,166,284	\$1,949,986	\$302,147	\$457,305	\$3,151,203
Moose								
Trip Expenditure	\$1,303,553	\$171,708	\$55,107	\$225,003	\$95,957	\$35,334	\$65,370	\$585,024
Hunting equipment	\$300,217	\$123,426	\$5,356	\$16,881	\$14,905	\$30,538	\$39,161	\$436,554
Auxiliary, special and other equipment	\$3,967	\$2,947	\$1,926	\$268,703	\$203	\$2,484	\$4,394	\$104,649
Total Hunting Expenditure	\$1,607,737	\$298,081	\$62,389	\$510,586	\$111,064	\$68,356	\$108,925	\$1,126,227
Small game								
Trip Expenditure	\$249,174	\$108,885	\$49,073	\$378,540	\$261,474	\$64,373	\$99,651	\$467,915
Hunting equipment	\$22,173	\$33,493	\$36,305	\$102,620	\$117,851	\$55,179	\$55,746	\$126,618
Auxiliary, special and other equipment	\$61,952	\$0	\$43,981	\$75,069	\$304,113	\$8,360	\$59,807	\$401,587
Total Hunting Expenditure	\$333,299	\$142,378	\$129,359	\$556,229	\$683,438	\$127,912	\$215,204	\$996,120

Table A 3. Total annual spending in 2013 for **all** hunters by species and region

Region	Aroostook County	Downeast & Acadia	Greater Portland & Casco Bay	The Kennebec Valley	Maine's Lakes & Mountains	Mid Coast	The Maine Beaches	The Maine Highlands
All hunting								
Trip Expenditure	\$23,177,276	\$7,178,426	\$2,583,132	\$13,203,506	\$14,041,839	\$5,003,062	\$3,909,324	\$20,660,632
Hunting equipment	\$9,400,652	\$3,408,101	\$3,489,154	\$6,081,457	\$6,377,710	\$4,726,705	\$5,102,161	\$9,296,164
Auxiliary, special and other equipment	\$10,013,738	\$10,766,412	\$7,410,174	\$9,603,781	\$17,015,616	\$13,788,886	\$9,824,972	\$15,560,365
Total Hunting Expenditure	\$42,591,666	\$21,352,939	\$13,482,460	\$28,888,744	\$37,435,165	\$23,518,654	\$18,836,457	\$45,517,161
Deer								
Trip Expenditure	\$3,267,452	\$1,975,819	\$1,024,435	\$4,784,847	\$5,309,107	\$2,244,560	\$2,054,783	\$6,410,568
Hunting equipment	\$1,511,397	\$764,506	\$1,632,439	\$2,408,968	\$2,435,592	\$1,462,369	\$2,307,486	\$2,779,364
Auxiliary, special and other equipment	\$2,146,199	\$960,496	\$4,358,615	\$2,908,000	\$3,447,971	\$5,624,457	\$3,003,853	\$3,355,534
Total Hunting Expenditure	\$6,925,047	\$3,700,820	\$7,015,489	\$10,101,814	\$11,192,669	\$9,331,386	\$7,366,122	\$12,545,466
Upland game birds								
Trip Expenditure	\$5,477,541	\$1,400,419	\$481,914	\$3,017,537	\$3,519,826	\$624,360	\$469,558	\$4,155,422
Hunting equipment	\$1,135,562	\$432,406	\$579,282	\$942,097	\$1,068,141	\$426,362	\$792,641	\$1,216,426
Auxiliary, special and other equipment	\$2,346,516	\$1,153,517	\$912,165	\$2,364,949	\$6,115,775	\$2,736,708	\$2,040,231	\$3,850,705
Total Hunting Expenditure	\$8,959,619	\$2,986,341	\$1,973,361	\$6,324,584	\$10,703,742	\$3,787,431	\$3,302,430	\$9,222,554
Turkey								
Trip Expenditure	\$110,872	\$239,715	\$209,813	\$770,115	\$1,075,975	\$491,982	\$351,334	\$387,488
Hunting equipment	\$48,471	\$159,481	\$299,827	\$468,648	\$658,710	\$653,625	\$443,920	\$370,188
Auxiliary, special and other equipment	\$32,348	\$1,330,051	\$1,345,569	\$1,413,067	\$1,193,285	\$1,499,203	\$675,977	\$820,583
Total Hunting Expenditure	\$191,691	\$1,729,248	\$1,855,209	\$2,651,830	\$2,927,970	\$2,644,810	\$1,471,231	\$1,578,259

Table A3 (cont.). Total annual spending in 2013 for all hunters by species and region

Region	Aroostook County	Downeast & Acadia	Greater Portland & Casco Bay	The Kennebec Valley	Maine's Lakes & Mountains	Mid Coast	The Maine Beaches	The Maine Highlands
Migratory waterfowl								
Trip Expenditure	\$761,374	\$952,011	\$389,867	\$604,671	\$498,182	\$806,937	\$331,759	\$629,258
Hunting equipment	\$607,200	\$418,086	\$427,021	\$603,977	\$248,761	\$740,518	\$428,195	\$491,124
Auxiliary, special and other equipment	\$392,581	\$965,623	\$952,435	\$544,874	\$1,263,635	\$883,653	\$483,386	\$2,898,875
Total Hunting Expenditure	\$1,761,155	\$2,335,720	\$1,769,323	\$1,753,523	\$2,010,578	\$2,431,108	\$1,243,340	\$4,019,257
Bear								
Trip Expenditure	\$4,953,200	\$1,488,884	\$309,015	\$1,893,383	\$2,204,411	\$308,523	\$406,333	\$4,335,396
Hunting equipment	\$1,817,700	\$839,188	\$387,106	\$722,679	\$1,024,241	\$307,841	\$444,101	\$1,719,460
Auxiliary, special and other equipment	\$2,582,518	\$2,137,891	\$297,005	\$812,629	\$1,485,067	\$865,337	\$2,079,219	\$1,955,464
Total Hunting Expenditure	\$9,353,419	\$4,465,963	\$993,126	\$3,428,691	\$4,713,719	\$1,481,701	\$2,929,653	\$8,010,319
Moose								
Trip Expenditure	\$3,314,342	\$258,928	\$98,045	\$665,964	\$310,882	\$203,405	\$220,952	\$1,330,596
Hunting equipment	\$1,491,167	\$215,291	\$97,614	\$322,678	\$271,126	\$283,007	\$376,261	\$881,769
Auxiliary, special and other equipment	\$279,646	\$919,211	\$69,101	\$340,813	\$1,545,086	\$1,778,731	\$245,692	\$273,459
Total Hunting Expenditure	\$5,085,154	\$1,393,429	\$264,760	\$1,329,455	\$2,127,093	\$2,265,143	\$842,905	\$2,485,824
Small game								
Trip Expenditure	\$2,593,128	\$1,024,139	\$331,039	\$1,991,902	\$2,091,832	\$834,439	\$564,418	\$3,194,542
Hunting equipment	\$1,358,338	\$413,825	\$414,865	\$873,583	\$982,151	\$1,169,635	\$672,986	\$1,832,704
Auxiliary, special and other equipment	\$1,367,693	\$2,091,852	\$1,324,073	\$2,548,170	\$924,495	\$546,367	\$1,185,957	\$2,307,631
Total Hunting Expenditure	\$5,319,159	\$3,529,816	\$2,069,977	\$5,413,656	\$3,998,479	\$2,550,442	\$2,423,360	\$7,334,877

Table A 4. Total economic contributions in 2013 for **resident** hunters by species and region

Region	Aroostook County	Downeast & Acadia	Greater Portland & Casco Bay	The Kennebec Valley	Maine's Lakes & Mountains	Mid Coast	The Maine Beaches	The Maine Highlands
All hunting								
Employment	464	250	174	338	431	311	235	523
Labor Income	\$15,970,350	\$8,596,484	\$5,974,661	\$11,614,470	\$14,811,330	\$10,704,748	\$8,098,849	\$18,001,626
Value Added (State GDP)	\$26,378,936	\$14,199,195	\$9,868,612	\$19,184,135	\$24,464,530	\$17,681,507	\$13,377,227	\$29,734,085
Total Output	\$46,809,190	\$25,196,346	\$17,511,765	\$34,042,080	\$43,412,093	\$31,375,679	\$23,737,772	\$52,762,872
Deer								
Employment	81	42	100	117	126	126	96	155
Labor Income	\$2,815,546	\$1,482,148	\$3,490,553	\$4,080,447	\$4,390,607	\$4,402,278	\$3,354,774	\$5,422,736
Value Added (State GDP)	\$4,619,047	\$2,431,539	\$5,726,431	\$6,694,183	\$7,203,016	\$7,222,162	\$5,503,679	\$8,896,276
Total Output	\$8,179,890	\$4,306,024	\$10,140,961	\$11,854,758	\$12,755,852	\$12,789,758	\$9,746,489	\$15,754,454
Upland game birds								
Employment	98	28	21	70	119	48	38	104
Labor Income	\$3,384,892	\$974,291	\$737,012	\$2,433,541	\$4,096,785	\$1,668,990	\$1,320,300	\$3,595,756
Value Added (State GDP)	\$5,606,080	\$1,613,627	\$1,220,643	\$4,030,447	\$6,785,121	\$2,764,192	\$2,186,689	\$5,955,314
Total Output	\$10,071,089	\$2,898,814	\$2,192,835	\$7,240,530	\$12,189,187	\$4,965,755	\$3,928,296	\$10,698,473
Turkey								
Employment	2	26	27	39	42	39	17	24
Labor Income	\$83,432	\$907,130	\$942,030	\$1,358,555	\$1,457,930	\$1,358,907	\$593,015	\$825,464
Value Added (State GDP)	\$137,597	\$1,496,047	\$1,553,604	\$2,240,539	\$2,404,431	\$2,241,121	\$978,006	\$1,361,363
Total Output	\$243,166	\$2,643,859	\$2,745,576	\$3,959,550	\$4,249,183	\$3,960,577	\$1,728,362	\$2,405,841
Migratory waterfowl								
Employment	22	26	22	24	28	30	15	56
Labor Income	\$756,908	\$879,063	\$748,804	\$808,833	\$960,841	\$1,030,101	\$523,656	\$1,932,666
Value Added (State GDP)	\$1,248,100	\$1,449,526	\$1,234,737	\$1,333,720	\$1,584,373	\$1,698,579	\$863,480	\$3,186,859
Total Output	\$2,227,438	\$2,586,917	\$2,203,590	\$2,380,243	\$2,827,573	\$3,031,393	\$1,541,021	\$5,687,472

Table A4 (cont.). Total economic contributions in 2013 for **resident** hunters by species and region

Region	Aroostook County	Downeast & Acadia	Greater Portland & Casco Bay	The Kennebec Valley	Maine's Lakes & Mountains	Mid Coast	The Maine Beaches	The Maine Highlands
Bear								
Employment	69	45	10	32	40	17	35	70
Labor Income	\$2,323,125	\$1,510,197	\$345,394	\$1,089,765	\$1,331,245	\$568,172	\$1,190,889	\$2,340,557
Value Added (State GDP)	\$3,830,642	\$2,490,190	\$569,526	\$1,796,932	\$2,195,113	\$936,868	\$1,963,678	\$3,859,384
Total Output	\$6,813,469	\$4,429,240	\$1,013,002	\$3,196,159	\$3,904,393	\$1,666,384	\$3,492,746	\$6,864,592
Moose								
Employment	44	14	3	10	26	28	9	17
Labor Income	\$1,440,278	\$453,672	\$83,818	\$339,159	\$835,000	\$909,866	\$304,000	\$563,118
Value Added (State GDP)	\$2,482,384	\$781,924	\$144,464	\$584,556	\$1,439,160	\$1,568,195	\$523,958	\$970,560
Total Output	\$4,261,137	\$1,342,211	\$247,980	\$1,003,420	\$2,470,390	\$2,691,886	\$899,400	\$1,666,015
Small game								
Employment	76	51	29	74	50	37	33	96
Labor Income	\$2,594,212	\$1,762,531	\$1,009,730	\$2,527,386	\$1,724,862	\$1,260,476	\$1,148,934	\$3,298,143
Value Added (State GDP)	\$4,279,063	\$2,907,235	\$1,665,516	\$4,168,837	\$2,845,100	\$2,079,112	\$1,895,128	\$5,440,174
Total Output	\$7,574,713	\$5,146,329	\$2,948,263	\$7,379,593	\$5,036,340	\$3,680,402	\$3,354,717	\$9,630,088

Table A 5. Total economic contributions in 2013 for **nonresident** hunters by region and species

Region	Aroostook County	Downeast & Acadia	Greater Portland & Casco Bay	The Kennebec Valley	Maine's Lakes & Mountains	Mid Coast	The Maine Beaches	The Maine Highlands
All hunting								
Employment	173	67	23	91	125	31	41	153
Labor Income	\$5,359,602	\$2,065,409.31	\$728,002	\$2,811,034	\$3,894,647	\$972,124	\$1,278,838	\$4,743,239
Value Added (State GDP)	\$9,015,927	\$3,474,433	\$1,224,646	\$4,728,723	\$6,551,579	\$1,635,308	\$2,151,262	\$7,979,079
Total Output	\$15,667,792	\$6,037,837	\$2,128,178	\$8,217,531	\$11,385,271	\$2,841,823	\$3,738,443	\$13,865,968
Deer								
Employment	22	12	4	32	39	12	13	30
Labor Income	\$707,746	\$398,557.50	\$140,559	\$1,056,520	\$1,288,446	\$404,213	\$427,777	\$991,274
Value Added (State GDP)	\$1,206,625	\$679,494	\$239,637	\$1,801,243	\$2,196,651	\$689,137	\$729,311	\$1,690,007
Total Output	\$2,076,917	\$1,169,587	\$412,477	\$3,100,411	\$3,781,011	\$1,186,185	\$1,255,334	\$2,908,944
Upland game birds								
Employment	26	14	6	17	29	3	7	23
Labor Income	\$819,103	\$445,338.82	\$189,938	\$528,778	\$919,251	\$79,682	\$220,571	\$718,287
Value Added (State GDP)	\$1,384,290	\$752,626	\$320,996	\$893,639	\$1,553,542	\$134,664	\$372,767	\$1,213,911
Total Output	\$2,438,253	\$1,325,656	\$565,394	\$1,574,033	\$2,736,368	\$237,193	\$656,582	\$2,138,151
Turkey								
Employment	1	0	1	2	3	1	6	0
Labor Income	\$18,783	\$11,537.76	\$44,244	\$50,957	\$99,286	\$46,786	\$192,529	\$13,045
Value Added (State GDP)	\$30,680	\$18,846	\$72,268	\$83,233	\$162,175	\$76,421	\$314,481	\$21,307
Total Output	\$54,152	\$33,264	\$127,557	\$146,911	\$286,248	\$134,888	\$555,075	\$37,608
Migratory waterfowl								
Employment	4	10	4	2	1	6	3	1
Labor Income	\$114,587	\$291,204.95	\$128,078	\$52,491	\$22,875	\$174,623	\$92,842	\$32,459
Value Added (State GDP)	\$192,896	\$490,214	\$215,607	\$88,364	\$38,508	\$293,960	\$156,291	\$54,642
Total Output	\$338,592	\$860,476	\$378,456	\$155,106	\$67,594	\$515,990	\$274,338	\$95,913

Table A5 (cont.). Total economic contributions in 2013 for **nonresident** hunters by region and species

Region	Aroostook County	Downeast & Acadia	Greater Portland & Casco Bay	The Kennebec Valley	Maine's Lakes & Mountains	Mid Coast	The Maine Beaches	The Maine Highlands
Bear								
Employment	85	25	5	22	36	6	9	59
Labor Income	\$2,522,317	\$740,866.40	\$153,700	\$649,320	\$1,085,640	\$168,218	\$254,601	\$1,754,409
Value Added (State GDP)	\$4,219,506	\$1,239,372	\$257,120	\$1,086,227	\$1,816,134	\$281,407	\$425,915	\$2,934,897
Total Output	\$7,328,953	\$2,152,693	\$446,598	\$1,886,691	\$3,154,483	\$488,782	\$739,780	\$5,097,687
Moose								
Employment	30	6	1	10	2	1	2	21
Labor Income	\$904,840	\$167,760.85	\$35,113	\$287,360	\$62,507	\$38,471	\$61,303	\$633,844
Value Added (State GDP)	\$1,497,440	\$277,631	\$58,109	\$475,558	\$103,445	\$63,667	\$101,452	\$1,048,963
Total Output	\$2,588,719	\$479,959	\$100,457	\$822,128	\$178,831	\$110,064	\$175,387	\$1,813,410
Small game								
Employment	5	2	2	9	11	2	3	15
Labor Income	\$168,564	\$72,006.66	\$65,422	\$281,309	\$345,644	\$64,691	\$108,838	\$503,781
Value Added (State GDP)	\$283,234	\$120,991	\$109,928	\$472,678	\$580,778	\$108,698	\$182,878	\$846,493
Total Output	\$491,328	\$209,884	\$190,693	\$819,957	\$1,007,479	\$188,560	\$317,240	\$1,468,415

Table A 6. Total economic contributions in 2013 for all hunters by species and region

Region	Aroostook County	Downeast & Acadia	Greater Portland & Casco Bay	The Kennebec Valley	Maine's Lakes & Mountains	Mid Coast	The Maine Beaches	The Maine Highlands
All hunting								
Employment	637	316	197	428	556	343	277	676
Labor Income	\$21,329,953	\$10,661,894	\$6,702,663	\$14,425,504	\$18,705,977	\$11,676,872	\$9,377,686	\$22,744,865
Value Added (State GDP)	\$35,394,863	\$17,673,628	\$11,093,258	\$23,912,859	\$31,016,109	\$19,316,815	\$15,528,489	\$37,713,164
Total Output	\$62,476,982	\$31,234,183	\$19,639,943	\$42,259,610	\$54,797,364	\$34,217,502	\$27,476,215	\$66,628,840
Deer								
Employment	102	55	104	149	165	139	109	186
Labor Income	\$3,523,292	\$1,880,705	\$3,631,112	\$5,136,967	\$5,679,053	\$4,806,491	\$3,782,551	\$6,414,010
Value Added (State GDP)	\$5,825,672	\$3,111,034	\$5,966,068	\$8,495,426	\$9,399,667	\$7,911,299	\$6,232,990	\$10,586,283
Total Output	\$10,256,807	\$5,475,611	\$10,553,439	\$14,955,168	\$16,536,863	\$13,975,943	\$11,001,823	\$18,663,398
Upland game birds								
Employment	124	42	27	87	148	51	45	127
Labor Income	\$4,203,995	\$1,419,630	\$926,949	\$2,962,319	\$5,016,036	\$1,748,672	\$1,540,871	\$4,314,043
Value Added (State GDP)	\$6,990,370	\$2,366,253	\$1,541,639	\$4,924,086	\$8,338,663	\$2,898,855	\$2,559,456	\$7,169,225
Total Output	\$12,509,341	\$4,224,470	\$2,758,229	\$8,814,563	\$14,925,555	\$5,202,948	\$4,584,878	\$12,836,624
Turkey								
Employment	3	26	28	41	45	40	23	24
Labor Income	\$102,215	\$918,668	\$986,274	\$1,409,511	\$1,557,216	\$1,405,693	\$785,545	\$838,509
Value Added (State GDP)	\$168,277	\$1,514,893	\$1,625,872	\$2,323,773	\$2,566,606	\$2,317,542	\$1,292,487	\$1,382,670
Total Output	\$297,318	\$2,677,124	\$2,873,134	\$4,106,461	\$4,535,431	\$4,095,464	\$2,283,437	\$2,443,450
Migratory waterfowl								
Employment	26	35	26	25	29	36	18	57
Labor Income	\$871,496	\$1,170,268	\$876,883	\$861,324	\$983,716	\$1,204,724	\$616,498	\$1,965,125
Value Added (State GDP)	\$1,440,996	\$1,939,740	\$1,450,343	\$1,422,084	\$1,622,881	\$1,992,540	\$1,019,770	\$3,241,500

Total Output \$2,566,030 \$3,447,393 \$2,582,046 \$2,535,348 \$2,895,167 \$3,547,384 \$1,815,359 \$5,783,385
 Table A6 (cont.). Total economic contributions in 2013 for **all** hunters by species and region

Region	Aroostook County	Downeast & Acadia	Greater Portland & Casco Bay	The Kennebec Valley	Maine's Lakes & Mountains	Mid Coast	The Maine Beaches	The Maine Highlands
Bear								
Employment	154	70	15	54	76	23	44	129
Labor Income	\$4,845,442	\$2,251,063	\$499,094	\$1,739,085	\$2,416,885	\$736,390	\$1,445,491	\$4,094,966
Value Added (State GDP)	\$8,050,148	\$3,729,562	\$826,646	\$2,883,159	\$4,011,247	\$1,218,275	\$2,389,593	\$6,794,281
Total Output	\$14,142,422	\$6,581,933	\$1,459,600	\$5,082,851	\$7,058,876	\$2,155,167	\$4,232,527	\$11,962,279
Moose								
Employment	75	20	4	20	28	29	11	39
Labor Income	\$2,345,117	\$621,433	\$118,931	\$626,519	\$897,507	\$948,337	\$365,303	\$1,196,962
Value Added (State GDP)	\$3,979,824	\$1,059,555	\$202,573	\$1,060,115	\$1,542,605	\$1,631,862	\$625,410	\$2,019,523
Total Output	\$6,849,856	\$1,822,170	\$348,437	\$1,825,548	\$2,649,221	\$2,801,950	\$1,074,787	\$3,479,424
Small game								
Employment	81	54	31	82	61	39	37	112
Labor Income	\$2,762,775	\$1,834,538	\$1,075,153	\$2,808,695	\$2,070,505	\$1,325,166	\$1,257,772	\$3,801,924
Value Added (State GDP)	\$4,562,298	\$3,028,226	\$1,775,444	\$4,641,515	\$3,425,879	\$2,187,810	\$2,078,006	\$6,286,667
Total Output	\$8,066,041	\$5,356,213	\$3,138,956	\$8,199,550	\$6,043,819	\$3,868,962	\$3,671,957	\$11,098,503

Appendix B: Methodology for estimating economic contributions

The extent of the economic contributions associated with spending for outdoor recreation can be estimated in two ways:

- **Direct effects:** These include the jobs, income and tax revenues that are tied directly to the spending by outdoor recreationists without including multiplier effects.
- **Total effects:** These include the jobs, income and tax revenues that are tied directly to the spending by outdoor recreationists plus the jobs, income and tax revenues that result from the multiplier effects of outdoor recreation spending. The multiplier effect occurs when a direct purchase from a business leads to increased demand for goods and services from other businesses along their supply chain. Also included is economic activity associated with household spending of incomes earned in the affected businesses.

The economic contributions from outdoor recreation, both direct effects and total effects, were estimated with an IMPLAN input-output model for the state and regional economies of Maine, and the county economies for hunting economic contributions. The IMPLAN model was developed by MIG, Inc. originally for use by the U.S. Forest Service. Inherent in each IMPLAN model is the relationship between the economic output of each industry (i.e. sales) and the jobs, income and taxes associated with a given level of output. Through those models, it is possible to determine the jobs, income and taxes supported directly by wildlife-based recreationists with and without the multiplier effects.

Input-output models describe how sales in one industry affect other industries. For example, once a consumer makes a purchase, the retailer buys more merchandise from wholesalers, who buy more from manufacturers, who, in turn, purchase new inputs and supplies. In addition, the salaries and wages paid by these businesses stimulate more benefits. Simply, the first purchase creates numerous rounds of purchasing. Input-output analysis tracks the flow of dollars from the consumer through all of the businesses that are affected, either directly or indirectly.

To apply the IMPLAN model, each specific expenditure for outdoor recreation activities was matched to the appropriate industry sector affected by the initial purchase. The spending was estimated with models of the Maine economy, therefore all of the resulting contributions represent salaries and wages, total economic effects, jobs and tax revenues that occur within the state of Maine. Likewise, models based on specific regions or counties represent the economic effects within the selected region or county. The results do not include any economic activity or indirect contributions that leak out of the state, region, or county of interest. As a result of this leakage, economic contributions at the state level are larger than the sum of corresponding regional or county contributions. This occurs because a portion spending in a particular region (or county) leaks to other regions (or counties) within the state, and this within-state leakage is captured in the Maine model.

Appendix C: Explanation of Economic Contribution

Estimations of **economic benefits** can be calculated through two types of measures: economic contributions and economic values. An **economic contribution** addresses the business and financial activity resulting from the use of a resource. **Economic value**, on the other hand, is a non-business measure that estimates the value people receive from an activity after subtracting for their costs and expenditures. This concept is also known as consumer surplus.

There are three types of economic contribution: direct, indirect and induced. A **direct contribution** is defined as the economic contribution of the initial purchase made by the consumer (the original retail sale). **Indirect contributions** are the secondary effects generated from a direct contribution, such as the retailer buying additional inventory, and the wholesaler and manufacturers buying additional materials. Indirect contributions affect not only the industry being studied, but also the industries that supply the first industry. An **induced contribution** results from the salaries and wages paid by the directly and indirectly effected industries. The employees of these industries spend their income on various goods and services. These expenditures are induced contributions, which, in turn, create a continual cycle of indirect and induced effects.

The direct, indirect and induced contribution effects sum together to provide the overall economic contribution of the activity under study. As the original retail purchase (direct contribution) goes through round after round of indirect and induced effects, the economic contribution of the original purchase is multiplied, benefiting many industries and individuals. Likewise, the reverse is true. If a particular item or industry is removed from the economy, the economic loss is greater than the original lost retail sale. Once the original retail purchase is made, each successive round of spending is smaller than the previous round. When the economic benefits are no longer measurable, the economic examination ends.

This study presents several important measures:

Retail Sales – these include expenditures made by outdoor recreationists for equipment, travel expenses and services related to their outdoor activities over the course of the year. These combined initial retail sales represent the “direct output”.

Total Economic Effect – also known as “total output” or “total multiplier effect,” this measure reports the sum of the direct, indirect and induced contributions resulting from the original retail sale. This figure explains the total activity in the economy generated by a retail sale. Another way to look at this figure is, if the activity in question were to disappear and participants did not spend their money elsewhere, the economy would contract by this amount.

Salaries & Wages – this figure reports the total salaries and wages paid in all sectors of the economy as a result of the activity under study. These are not just the paychecks of those employees directly serving recreationists or manufacturing their goods, it also includes portions of the paychecks of, for example, the truck driver who delivers food to the restaurants serving recreationists and the accountants who manage the books for companies down the supply chain, etc. This figure is based on the direct, indirect and induced effects, and is essentially a portion of the total economic effect figure reported in this study.

Jobs – much like Salaries and Wages, this figure reports the total jobs in all sectors of the economy as a result of the activity under study. These are not just the employees directly serving recreationists or manufacturing their goods, they also include, for example, the truck driver who delivers food to the restaurants serving recreationists and

the accountants who manage the books for companies down the supply chain, etc. This figure is based on direct, indirect and induced effects.

GDP Contribution – this represents the total “value added” contribution of economic output made by the industries involved in the production of outdoor recreation goods and services. For a given industry, value added equals the difference between gross output (sales and other income) and intermediate inputs (goods and services imported or purchased from other industries). It represents the contribution to GDP in a given industry for production related to outdoor recreation.

Appendix D: Hunter spending profiles

Table D 1. Deer hunter spending profile

Type of Spending	Resident Hunters	Nonresident Hunters	All Hunters
Commercial transportation (airline, bus, car rental, train)	\$9.76	\$46.67	\$16.02
Other transportation costs (gas or oil for car, truck, boat, ATV, etc)	\$141.74	\$160.39	\$144.90
Groceries	\$89.77	\$137.53	\$97.86
Restaurants and bars	\$38.17	\$64.31	\$42.59
Lodging (cabin, motel, lodge, rental, campground, etc)	\$24.47	\$113.84	\$39.62
Equipment rental	\$4.86	\$1.41	\$4.28
Fees (highway tolls, land access fees)	\$5.65	\$16.33	\$7.46
Guide fees	\$0.76	\$19.33	\$3.90
Baits, lures, scents, ammunition	\$46.88	\$26.90	\$43.50
Other day-to-day items (heating/cooking fuel, ice, etc)	\$41.22	\$48.16	\$42.39
Hunting gear (guns, gun cleaner, gun case, scopes, bows and arrows, decoys, calls, knives, tree stands, etc)	\$143.70	\$80.20	\$132.94
Scouting expenses prior to the hunt	\$24.24	\$21.56	\$23.78
Maps	\$3.31	\$2.85	\$3.23
Repair of hunting equipment	\$4.40	\$1.42	\$3.89
Taxidermy and mounting	\$10.25	\$15.69	\$11.17
Clothing used only for hunting (blaze orange, camouflage)	\$50.19	\$27.55	\$46.35
Meat cutting	\$21.37	\$9.02	\$19.28
Other	\$8.90	\$12.28	\$9.48
ATV, trailer, accessories (MAINE)	\$69.12	\$16.80	\$60.25
Boat, motor, trailer, accessories (MAINE)	\$31.34	\$0.90	\$26.19
Travel trailer, tent trailer (pop-up), pickup camper, motor home (MAINE)	\$16.05	\$4.42	\$14.08
Vehicle purchased to use for hunting (MAINE)	\$172.07	\$8.01	\$144.27
Recreational property purchase (MAINE)	\$0.00	\$177.14	\$30.01
Recreational property utilities and maintenance (MAINE)	\$32.68	\$53.22	\$36.16
Camping equipment (tent, sleeping bag, stove, compass, etc) (MAINE)	\$11.20	\$2.85	\$9.79
Binoculars, camera (MAINE)	\$18.38	\$4.16	\$15.97
Clothing used for hunting and other outdoor recreation (such as cold weather gear) (MAINE)	\$55.44	\$21.75	\$49.73
Other hunting-related equipment (MAINE)	\$38.86	\$18.23	\$35.37
Total	\$1,114.81	\$1,112.91	\$1,114.49

Table D 2. Upland game bird spending profile

Type of Spending	Resident Hunters	Nonresident Hunters	All Hunters
Commercial transportation (airline, bus, car rental, train)	\$11.78	\$98.93	\$27.04
Other transportation costs (gas or oil for car, truck, boat, ATV, etc)	\$150.59	\$181.06	\$155.93
Groceries	\$87.74	\$104.77	\$90.72
Restaurants and bars	\$40.14	\$70.04	\$45.38
Lodging (cabin, motel, lodge, rental, campground, etc)	\$72.05	\$252.75	\$103.70
Equipment rental	\$0.80	\$14.14	\$3.14
Fees (highway tolls, land access fees)	\$10.20	\$17.30	\$11.45
Guide fees	\$7.37	\$83.48	\$20.70
Baits, lures, scents, ammunition	\$28.96	\$18.73	\$27.17
Other day-to-day items (heating/cooking fuel, ice, etc)	\$37.05	\$37.70	\$37.16
Hunting gear (guns, gun cleaner, gun case, scopes, bows and arrows, decoys, calls, knives, tree stands, etc)	\$124.45	\$70.53	\$115.00
Scouting expenses prior to the hunt	\$7.84	\$5.30	\$7.39
Maps	\$3.48	\$3.84	\$3.55
Repair of hunting equipment	\$2.58	\$0.82	\$2.27
Taxidermy and mounting	\$1.65	\$6.20	\$2.45
Clothing used only for hunting (blaze orange, camouflage)	\$34.13	\$29.77	\$33.37
Meat cutting	\$7.16	\$1.35	\$6.14
Other	\$6.17	\$26.32	\$9.70
ATV, trailer, accessories (MAINE)	\$124.62	\$23.57	\$106.92
Boat, motor, trailer, accessories (MAINE)	\$25.22	\$0.62	\$20.91
Travel trailer, tent trailer (pop-up), pickup camper, motor home (MAINE)	\$117.79	\$0.04	\$97.16
Vehicle purchased to use for hunting (MAINE)	\$166.10	\$3.11	\$137.55
Recreational property purchase (MAINE)	\$124.23	\$72.28	\$115.13
Recreational property utilities and maintenance (MAINE)	\$11.28	\$29.61	\$14.49
Camping equipment (tent, sleeping bag, stove, compass, etc) (MAINE)	\$19.21	\$3.29	\$16.43
Binoculars, camera (MAINE)	\$18.34	\$1.43	\$15.38
Clothing used for hunting and other outdoor recreation (such as cold weather gear) (MAINE)	\$42.10	\$18.14	\$37.90
Other hunting-related equipment (MAINE)	\$28.03	\$12.32	\$25.27
Total	\$1,311.06	\$1,187.43	\$1,289.40

Table D 3. Turkey hunter spending profile

Type of Spending	Resident Hunters	Nonresident Hunters	All Hunters
Commercial transportation (airline, bus, car rental, train)	\$8.96	\$35.50	\$10.54
Other transportation costs (gas or oil for car, truck, boat, ATV, etc)	\$77.47	\$176.00	\$83.35
Groceries	\$31.58	\$111.59	\$36.35
Restaurants and bars	\$22.06	\$108.25	\$27.20
Lodging (cabin, motel, lodge, rental, campground, etc)	\$3.74	\$46.57	\$6.29
Equipment rental	\$0.00	\$0.00	\$0.00
Fees (highway tolls, land access fees)	\$2.68	\$11.66	\$3.22
Guide fees	\$4.61	\$22.40	\$5.67
Baits, lures, scents, ammunition	\$39.77	\$24.10	\$38.84
Other day-to-day items (heating/cooking fuel, ice, etc)	\$14.56	\$39.95	\$16.08
Hunting gear (guns, gun cleaner, gun case, scopes, bows and arrows, decoys, calls, knives, tree stands, etc)	\$110.23	\$101.42	\$109.71
Scouting expenses prior to the hunt	\$18.28	\$33.49	\$19.19
Maps	\$1.86	\$4.04	\$1.99
Repair of hunting equipment	\$2.02	\$3.06	\$2.08
Taxidermy and mounting	\$14.09	\$0.55	\$13.28
Clothing used only for hunting (blaze orange, camouflage)	\$40.95	\$39.62	\$40.87
Meat cutting	\$5.03	\$0.93	\$4.78
Other	\$1.80	\$8.63	\$2.20
ATV, trailer, accessories (MAINE)	\$195.91	\$31.01	\$186.07
Boat, motor, trailer, accessories (MAINE)	\$20.39	\$57.61	\$22.61
Travel trailer, tent trailer (pop-up), pickup camper, motor home (MAINE)	\$24.81	\$0.00	\$23.33
Vehicle purchased to use for hunting (MAINE)	\$62.29	\$0.00	\$58.57
Recreational property purchase (MAINE)	\$0.00	\$0.00	\$0.00
Recreational property utilities and maintenance (MAINE)	\$100.99	\$0.00	\$94.96
Camping equipment (tent, sleeping bag, stove, compass, etc) (MAINE)	\$7.33	\$8.18	\$7.38
Binoculars, camera (MAINE)	\$12.01	\$9.70	\$11.87
Clothing used for hunting and other outdoor recreation (such as cold weather gear) (MAINE)	\$80.48	\$31.66	\$77.56
Other hunting-related equipment (MAINE)	\$38.84	\$16.22	\$37.49
Total	\$942.73	\$922.13	\$941.50

Table D 4. Migratory waterfowl hunter spending profile

Type of Spending	Resident Hunters	Nonresident Hunters	All Hunters
Commercial transportation (airline, bus, car rental, train)	\$5.49	\$117.48	\$24.67
Other transportation costs (gas or oil for car, truck, boat, ATV, etc)	\$144.79	\$144.95	\$144.82
Groceries	\$74.47	\$68.75	\$73.49
Restaurants and bars	\$43.61	\$87.49	\$51.12
Lodging (cabin, motel, lodge, rental, campground, etc)	\$27.35	\$119.55	\$43.14
Equipment rental	\$2.20	\$0.00	\$1.82
Fees (highway tolls, land access fees)	\$4.17	\$7.83	\$4.80
Guide fees	\$9.75	\$210.22	\$44.08
Baits, lures, scents, ammunition	\$93.12	\$54.69	\$86.54
Other day-to-day items (heating/cooking fuel, ice, etc)	\$41.66	\$24.64	\$38.74
Hunting gear (guns, gun cleaner, gun case, scopes, bows and arrows, decoys, calls, knives, tree stands, etc)	\$293.07	\$57.18	\$252.68
Scouting expenses prior to the hunt	\$32.81	\$6.49	\$28.30
Maps	\$3.13	\$1.48	\$2.85
Repair of hunting equipment	\$3.03	\$1.11	\$2.70
Taxidermy and mounting	\$30.40	\$14.58	\$27.69
Clothing used only for hunting (blaze orange, camouflage)	\$87.14	\$26.18	\$76.70
Meat cutting	\$8.78	\$2.44	\$7.69
Other	\$12.09	\$2.72	\$10.49
ATV, trailer, accessories (MAINE)	\$278.35	\$0.00	\$230.69
Boat, motor, trailer, accessories (MAINE)	\$38.84	\$2.94	\$32.69
Travel trailer, tent trailer (pop-up), pickup camper, motor home (MAINE)	\$1.95	\$0.00	\$1.61
Vehicle purchased to use for hunting (MAINE)	\$335.37	\$3.27	\$278.50
Recreational property purchase (MAINE)	\$147.49	\$0.00	\$122.23
Recreational property utilities and maintenance (MAINE)	\$12.07	\$13.49	\$12.32
Camping equipment (tent, sleeping bag, stove, compass, etc) (MAINE)	\$34.89	\$4.77	\$29.73
Binoculars, camera (MAINE)	\$29.83	\$0.40	\$24.79
Clothing used for hunting and other outdoor recreation (such as cold weather gear) (MAINE)	\$80.59	\$16.39	\$69.60
Other hunting-related equipment (MAINE)	\$72.57	\$16.79	\$63.02
Total	\$1,949.02	\$1,005.84	\$1,787.51

Table D 5. Bear hunter spending profile

Type of Spending	Resident Hunters	Nonresident Hunters	All Hunters
Commercial transportation (airline, bus, car rental, train)	\$14.55	\$151.09	\$75.47
Other transportation costs (gas or oil for car, truck, boat, ATV, etc)	\$289.19	\$230.95	\$263.20
Groceries	\$165.00	\$115.81	\$143.05
Restaurants and bars	\$74.10	\$88.26	\$80.42
Lodging (cabin, motel, lodge, rental, campground, etc)	\$155.53	\$368.62	\$250.61
Equipment rental	\$8.65	\$18.23	\$12.92
Fees (highway tolls, land access fees)	\$15.48	\$23.30	\$18.97
Guide fees	\$130.70	\$853.30	\$453.13
Baits, lures, scents, ammunition	\$167.42	\$63.41	\$121.01
Other day-to-day items (heating/cooking fuel, ice, etc)	\$87.35	\$46.11	\$68.95
Hunting gear (guns, gun cleaner, gun case, scopes, bows and arrows, decoys, calls, knives, tree stands, etc)	\$258.15	\$150.55	\$210.14
Scouting expenses prior to the hunt	\$102.76	\$32.78	\$71.54
Maps	\$5.81	\$1.96	\$4.09
Repair of hunting equipment	\$10.45	\$1.61	\$6.51
Taxidermy and mounting	\$202.58	\$222.99	\$211.69
Clothing used only for hunting (blaze orange, camouflage)	\$93.73	\$47.14	\$72.94
Meat cutting	\$46.97	\$32.51	\$40.52
Other	\$32.79	\$98.55	\$62.13
ATV, trailer, accessories (MAINE)	\$622.61	\$30.48	\$358.40
Boat, motor, trailer, accessories (MAINE)	\$52.80	\$0.12	\$29.29
Travel trailer, tent trailer (pop-up), pickup camper, motor home (MAINE)	\$28.81	\$0.48	\$16.17
Vehicle purchased to use for hunting (MAINE)	\$393.37	\$22.70	\$227.97
Recreational property purchase (MAINE)	\$422.43	\$53.71	\$257.90
Recreational property utilities and maintenance (MAINE)	\$34.64	\$31.53	\$33.25
Camping equipment (tent, sleeping bag, stove, compass, etc) (MAINE)	\$48.61	\$9.14	\$31.00
Binoculars, camera (MAINE)	\$42.92	\$7.68	\$27.20
Clothing used for hunting and other outdoor recreation (such as cold weather gear) (MAINE)	\$104.81	\$32.23	\$72.43
Other hunting-related equipment (MAINE)	\$140.94	\$25.44	\$89.40
Total	\$3,753.17	\$2,760.66	\$3,310.31

Table D 6. Moose hunter spending profile

Type of Spending	Resident Hunters	Nonresident Hunters	All Hunters
Commercial transportation (airline, bus, car rental, train)	\$13.65	\$116.11	\$37.45
Other transportation costs (gas or oil for car, truck, boat, ATV, etc)	\$267.80	\$278.30	\$270.24
Groceries	\$180.53	\$127.45	\$168.20
Restaurants and bars	\$50.59	\$91.22	\$60.02
Lodging (cabin, motel, lodge, rental, campground, etc)	\$204.16	\$335.52	\$234.67
Equipment rental	\$6.51	\$1.00	\$5.23
Fees (highway tolls, land access fees)	\$13.05	\$43.24	\$20.06
Guide fees	\$11.95	\$726.98	\$178.03
Baits, lures, scents, ammunition	\$33.14	\$40.81	\$34.92
Other day-to-day items (heating/cooking fuel, ice, etc)	\$60.14	\$64.66	\$61.19
Hunting gear (guns, gun cleaner, gun case, scopes, bows and arrows, decoys, calls, knives, tree stands, etc)	\$135.05	\$64.28	\$118.61
Scouting expenses prior to the hunt	\$78.51	\$115.88	\$87.19
Maps	\$5.80	\$4.71	\$5.55
Repair of hunting equipment	\$5.86	\$0.85	\$4.70
Taxidermy and mounting	\$75.71	\$100.30	\$81.42
Clothing used only for hunting (blaze orange, camouflage)	\$36.19	\$56.22	\$40.84
Meat cutting	\$282.98	\$272.72	\$280.60
Other	\$26.76	\$80.79	\$39.31
ATV, trailer, accessories (MAINE)	\$12.95	\$0.00	\$9.94
Boat, motor, trailer, accessories (MAINE)	\$6.88	\$0.00	\$5.28
Travel trailer, tent trailer (pop-up), pickup camper, motor home (MAINE)	\$15.86	\$0.00	\$12.17
Vehicle purchased to use for hunting (MAINE)	\$262.16	\$193.32	\$246.17
Recreational property purchase (MAINE)	\$671.72	\$0.00	\$515.70
Recreational property utilities and maintenance (MAINE)	\$15.10	\$0.00	\$11.59
Camping equipment (tent, sleeping bag, stove, compass, etc) (MAINE)	\$10.13	\$24.39	\$13.44
Binoculars, camera (MAINE)	\$16.32	\$0.00	\$12.53
Clothing used for hunting and other outdoor recreation (such as cold weather gear) (MAINE)	\$40.26	\$34.42	\$38.91
Other hunting-related equipment (MAINE)	\$50.53	\$27.94	\$45.28
Total	\$2,590.29	\$2,801.12	\$2,639.26

Table D 7. Small game hunter spending profile

Type of Spending	Resident Hunters	Nonresident Hunters	All Hunters
Commercial transportation (airline, bus, car rental, train)	\$11.75	\$20.15	\$12.74
Other transportation costs (gas or oil for car, truck, boat, ATV, etc)	\$212.40	\$175.54	\$208.03
Groceries	\$119.65	\$102.98	\$117.68
Restaurants and bars	\$67.66	\$59.69	\$66.71
Lodging (cabin, motel, lodge, rental, campground, etc)	\$41.04	\$122.45	\$50.68
Equipment rental	\$1.85	\$1.54	\$1.81
Fees (highway tolls, land access fees)	\$8.16	\$20.74	\$9.65
Guide fees	\$0.00	\$47.47	\$5.62
Baits, lures, scents, ammunition	\$53.96	\$39.62	\$52.26
Other day-to-day items (heating/cooking fuel, ice, etc)	\$50.52	\$57.34	\$51.33
Hunting gear (guns, gun cleaner, gun case, scopes, bows and arrows, decoys, calls, knives, tree stands, etc)	\$233.17	\$92.68	\$216.53
Scouting expenses prior to the hunt	\$25.69	\$22.13	\$25.27
Maps	\$3.66	\$4.64	\$3.77
Repair of hunting equipment	\$6.38	\$1.71	\$5.83
Taxidermy and mounting	\$12.37	\$10.25	\$12.12
Clothing used only for hunting (blaze orange, camouflage)	\$61.19	\$50.92	\$59.97
Meat cutting	\$8.42	\$4.06	\$7.91
Other	\$20.41	\$25.69	\$21.04
ATV, trailer, accessories (MAINE)	\$118.23	\$72.44	\$112.80
Boat, motor, trailer, accessories (MAINE)	\$24.68	\$0.52	\$21.82
Travel trailer, tent trailer (pop-up), pickup camper, motor home (MAINE)	\$61.25	\$0.00	\$54.00
Vehicle purchased to use for hunting (MAINE)	\$155.90	\$59.93	\$144.54
Recreational property purchase (MAINE)	\$0.00	\$95.80	\$11.34
Recreational property utilities and maintenance (MAINE)	\$31.97	\$65.99	\$35.99
Camping equipment (tent, sleeping bag, stove, compass, etc) (MAINE)	\$15.76	\$15.11	\$15.69
Binoculars, camera (MAINE)	\$40.36	\$3.07	\$35.95
Clothing used for hunting and other outdoor recreation (such as cold weather gear) (MAINE)	\$67.09	\$32.05	\$62.94
Other hunting-related equipment (MAINE)	\$72.21	\$23.30	\$66.42
Total	\$1,525.73	\$1,227.82	\$1,490.45