



*2006 National Survey of Fishing,  
Hunting, and Wildlife-Associated Recreation  
Errata Sheet for National Report*

# Summary

The 2006 Survey found that 87.5 million U.S. residents 16 years old and older participated in wildlife-related recreation. During that year, 30.0 million people fished, 12.5 million hunted, and 71.1 million participated in at least one type of wildlife-watching activity such as observing, feeding, or photographing fish and other wildlife in the United States.

The focus of the National Survey is to estimate participation and expenditures of persons 16 years old and older in a single year. These estimates are based on data collected in the detailed phase of the 2006 Survey. They are comparable to estimates from the 1991, 1996, and 2001 Surveys but not with earlier ones because of changes in methodology. A complete explanation of the change is provided in Appendix C.

While the focus of the Survey is to estimate wildlife-related recreationists 16 years old and older and their associated expenditures in a single year, information collected in the survey screen can be used to estimate the number of anglers and hunters who were active over a five-year window of time. Because many do not participate every year, the following estimates may be more representative of the number of individuals considered to be anglers and hunters in the United States: 44.4 million individuals fished and 18.6 million hunted in the United States over the five-year period from 2002 to 2006.

The survey screen also provides some information about 6-to-15-year-olds' participation. Assuming their proportion of participation was the same in 2006 as in 2005, the following estimates were calculated: of the 6-to-15-year-olds in the United States, 1.6 million hunted, 8.3 million fished, and 12 million wildlife watched in 2006. More information about this age group

is provided in Appendix B. For the rest of this report, all information pertains to participants 16 years old and older.

There was a considerable overlap in activities among anglers, hunters, and wildlife watchers. In 2006, 68 percent of all hunters also fished and 29 percent of all anglers also hunted. In addition, 52 percent of anglers and 57 percent of hunters wildlife watched, while 25 percent of all wildlife watchers reported hunting and/or fishing during the year.

Wildlife recreationists' avidity also is reflected in the \$122.3 billion they spent in 2006 on their activities, which equated to 1 percent of the Gross Domestic Product. Of the total amount

spent, \$37.4 billion was trip-related, \$64.1 billion was spent on equipment, and \$20.7 billion was spent on other items such as licenses and land leasing and ownership.

Sportspersons spent a total of \$76.7 billion in 2006—\$42.0 billion on fishing, \$22.9 billion on hunting, and \$11.7 billion on items used for both hunting and fishing. Wildlife watchers spent \$45.7 billion on their activities around the home and on trips away from home.

## Fishing and Hunting

In 2006, 33.9 million U.S. residents 16 years old and older went fishing and/or

### Total Wildlife-Related Recreation

Participants . . . . .	87.5 million
Expenditures . . . . .	\$122.3 billion

### Sportspersons

Total participants* . . . . .	33.9 million
Anglers . . . . .	30.0 million
Hunters . . . . .	12.5 million

Total days . . . . .	737 million
Fishing . . . . .	517 million
Hunting . . . . .	220 million

Total expenditures . . . . .	\$76.7 billion
Fishing . . . . .	42.0 billion
Hunting . . . . .	22.9 billion
Unspecified . . . . .	11.7 billion

### Wildlife Watchers

Total participants** . . . . .	71.1 million
Around the home . . . . .	67.8 million
Away from home . . . . .	23.0 million

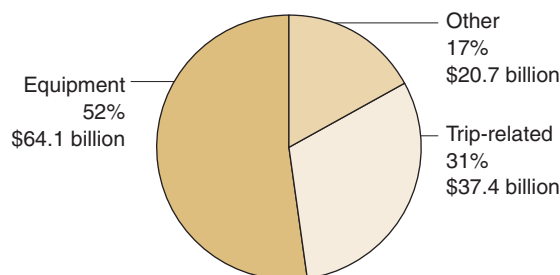
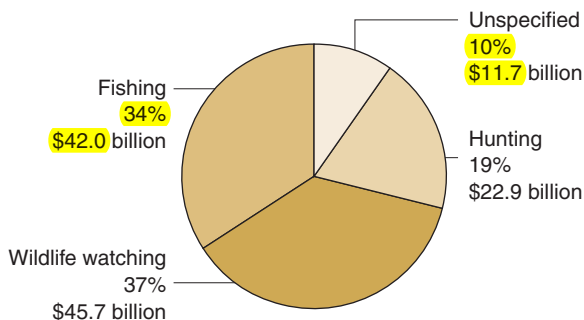
Total expenditures . . . . .	\$45.7 billion
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\* 8.5 million both fished and hunted.

\*\* 19.7 million both wildlife watched around the home and away from home.

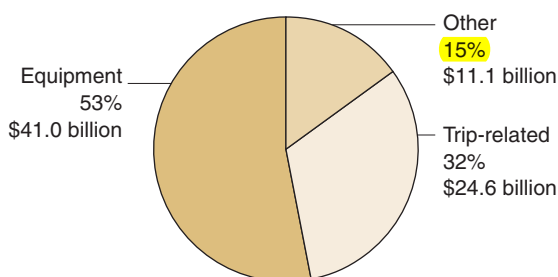
## Expenditures for Wildlife-Related Recreation

(Total expenditures: \$122.3 billion)



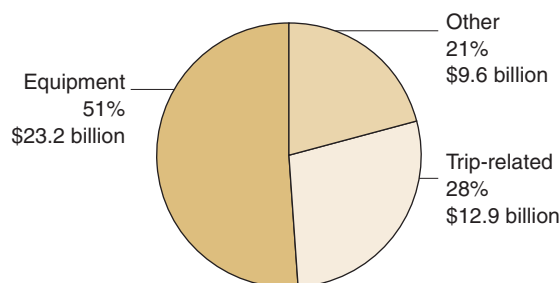
### Expenditures by Sportspersons

(Total expenditures: \$76.7 billion)



### Expenditures by Wildlife-Watching Participants

(Total expenditures: \$45.7 billion)



hunting. This includes 30.0 million who fished and 12.5 million who hunted—8.5 million both fished and hunted.

In 2006, expenditures by sportspersons totaled \$76.7 billion. Trip-related expenditures, including food, lodging, and transportation, were \$24.6 billion—32 percent of all fishing and hunting expenditures. Total equipment expenditures amounted to \$41.0 billion, 53 percent of the total. Other expenditures—magazines, membership dues, contributions, land leasing and ownership, and licenses, stamps, tags, and permits—accounted for \$11.1 billion, or 15 percent of all sportspersons' expenditures.

### Wildlife-Watching Recreation

Observing, feeding, or photographing wildlife was enjoyed by 71.1 million people 16 years old and older in 2006. Among this group, 23.0 million people took trips away from home for the primary purpose of enjoying wildlife, while 67.8 million stayed within a

mile of home to participate in wildlife-watching activities.

In 2006, wildlife watchers spent \$45.7 billion. Trip-related expenses, including food, lodging, and transportation, totaled \$12.9 billion, 28 percent of all expenditures. A total of \$23.2 billion was spent on equipment, 51 percent of all wildlife-watching expenses. The remaining \$9.6 billion, 21 percent of the total, was spent on magazines, membership dues, and contributions made to conservation or wildlife-related organizations, plantings, and land leasing and ownership for the purpose of wildlife watching.

### 2001 and 2006 Comparison

Six percent more people 16 years of age and older participated in wildlife-related recreation in 2006 than in 2001. Although 5.2 million more people participated, there were declines in some activities.

The number of sportspersons fell from 37.8 million in 2001 to 33.9 million in

2006. Their expenditures decreased from \$79.7 billion (in 2006 dollars) in 2001 to \$76.7 billion in 2006.

In 2006, 30.0 million U.S. residents 16 years of age and older fished compared to 34.1 million who fished in 2001, a drop of 12 percent. The 4 percent drop in the number of hunters, 13.0 million in 2001 to 12.5 million in 2006, is not statistically significant.

Although fishing participation declined from 2001 to 2006, overall expenditures for fishing held steady. No expenditure category had a statistically significant change.

Hunting participation and overall hunting expenditures stayed about the same from 2001 to 2006. No expenditure category had a statistically significant change.

The increase in wildlife-related recreation participation from 2001 to 2006 was due to wildlife watching (observing, feeding, and photographing wildlife). During this period, the number of people wildlife watching

increased by 8 percent. Although their overall expenditures showed little change, they did spend 38 percent more on trips and 18 percent more on bird food and wildlife-watching equipment (such as binoculars, cameras, bird

feeders). Total expenditures over the five-year period showed little change because wildlife watchers spent 14 percent less on equipment in 2006 than in 2001.

### 2001–2006 Wildlife-Associated Recreation Comparison of Participants

(Numbers in thousands)

	2001		2006	
	Number	Percent	Number	Percent
<b>Total wildlife-related recreationists</b> . . . . .	<b>82,302</b>	<b>100</b>	<b>87,465</b>	<b>100</b>
<b>Total sportspersons</b> . . . . .	<b>37,805</b>	<b>46</b>	<b>33,916</b>	<b>39</b>
Anglers . . . . .	34,071	41	29,952	34
Hunters . . . . .	13,034	16	12,510	14
<b>Total wildlife-watching participants</b> . . . . .	<b>66,105</b>	<b>80</b>	<b>71,132</b>	<b>81</b>
Around the home . . . . .	62,928	76	67,756	77
Away from home . . . . .	21,823	27	22,977	26

### 2001–2006 Wildlife-Associated Recreation Comparison of Expenditures

(Numbers in billions of 2006 dollars)

	2001		2006	
	Number	Percent	Number	Percent
<b>Total wildlife-related recreation expenditures</b> . . . . .	<b>123.4</b>	<b>100</b>	<b>122.3</b>	<b>100</b>
<b>Total fishing and hunting expenditures</b> . . . . .	<b>79.7</b>	<b>100</b>	<b>76.7</b>	<b>100</b>
<b>Angling expenditures, total</b> . . . . .	<b>40.6</b>	<b>100</b>	<b>42.0</b>	<b>100</b>
Trip-related . . . . .	16.7	41	17.9	43
Equipment, total . . . . .	19.3	48	18.8	45
Fishing equipment . . . . .	5.3	13	5.3	13
Auxiliary equipment . . . . .	0.8	2	0.8	2
Special equipment . . . . .	13.2	33	12.6	30
Other . . . . .	4.6	11	5.4	13
<b>Hunting expenditures, total</b> . . . . .	<b>23.5</b>	<b>100</b>	<b>22.9</b>	<b>100</b>
Trip-related . . . . .	6.0	26	6.7	29
Equipment, total . . . . .	11.8	50	10.7	47
Hunting equipment . . . . .	5.2	22	5.4	24
Auxiliary equipment . . . . .	1.4	6	1.3	6
Special equipment . . . . .	5.2	22	4.0	17
Other . . . . .	5.7	24	5.5	24
<b>Wildlife-watching expenditures, total</b> . . . . .	<b>43.7</b>	<b>100</b>	<b>45.7</b>	<b>100</b>
Trip-related . . . . .	9.3	21	12.9	28
Equipment, total . . . . .	26.8	61	23.2	51
Wildlife-watching equipment . . . . .	8.4	19	9.9	22
Auxiliary equipment . . . . .	0.8	2	1.0	2
Special equipment . . . . .	17.6	40	12.3	27
Other . . . . .	7.7	17	9.6	21

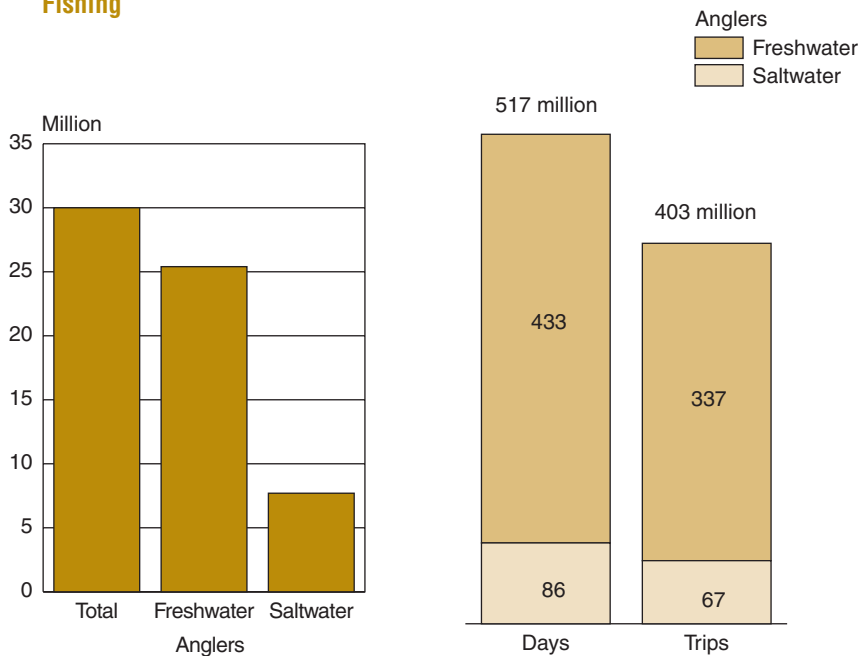
# Fishing Highlights

In 2006, 30.0 million U.S. residents 16 years old and older enjoyed a variety of fishing opportunities throughout the United States. Anglers fished 517 million days and took 403 million fishing trips. They had **\$42.0 billion**

in fishing-related expenses during the year. Freshwater anglers numbered 25.4 million. They fished 433 million days and took 337 million trips to freshwater in 2006. Freshwater anglers spent \$26.3 billion on freshwater

fishing trips and equipment. Saltwater fishing attracted 7.7 million anglers who enjoyed 67 million trips on 86 million days. They spent \$8.9 billion on their saltwater trips and equipment.

## Fishing



Note: Detail does not add to total because of multiple responses and nonresponse.

## Total Fishing

**Anglers . . . . . 30.0 million**  
 Freshwater . . . . . 25.4 million  
 Saltwater . . . . . 7.7 million

**Days . . . . . 516.8 million**  
 Freshwater . . . . . 433.3 million  
 Saltwater . . . . . 85.7 million

**Trips . . . . . 403.5 million**  
 Freshwater . . . . . 336.5 million  
 Saltwater . . . . . 67.0 million

**Expenditures . . . \$42.0 billion**  
 Freshwater . . . . . 26.3 billion  
 Saltwater . . . . . 8.9 billion  
 Nonspecific . . . . . 6.8 billion

Note: Detail does not add to total because of multiple responses and nonresponse.

Source: Tables 1, 12, 13, and 16.

## Fishing Expenditures

Anglers spent \$42.0 billion in 2006 including \$17.9 billion on travel-related items—43 percent of all fishing expenditures. Food and lodging accounted for \$6.3 billion, 35 percent of all trip-related costs. Spending on transportation totaled \$5.0 billion, 28 percent of trip-related expenditures. Other trip expenditures, such as land use fees, guide fees, equipment rental, boating expenses, and bait, cost anglers \$6.6 billion—37 percent of all trip expenses.

Fishing equipment expenditures totaled \$18.8 billion in 2006, 45 percent of all fishing expenditures. Anglers spent \$5.3 billion on fishing equipment, such as rods, reels, tackle boxes, depth finders, and artificial lures and flies. This amounted to 28 percent of all equipment expenditures. Auxiliary equipment expenditures, which includes camping equipment, binoculars, and special fishing clothing, totaled \$779 million—4 percent of equipment costs. Expenditures for special equipment, such as boats, vans, and cabins, were \$12.6 billion—67 percent of all equipment expenditures.

Anglers also spent a considerable amount on other fishing-related items, such as land leasing and ownership, membership dues, contributions, licenses, stamps, and permits. Land leasing and ownership spending totaled \$4.6 billion, which is 11 percent of all expenditures. Expenditures on magazines, books, membership dues, contributions, licenses, stamps, tags, and permits were \$776 million.

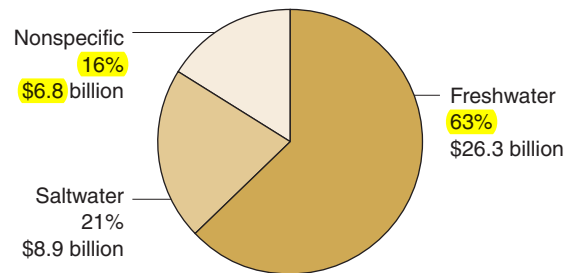
### Total Fishing Expenditures

<b>Total fishing expenditures</b> . . . . .	<b>\$42.0 billion</b>
<b>Total trip-related</b> . . . . .	<b>\$17.9 billion</b>
Food and lodging . . . . .	6.3 billion
Transportation . . . . .	5.0 billion
Other trip costs . . . . .	6.6 billion
<b>Total equipment expenditures</b> . . . . .	<b>\$18.8 billion</b>
Fishing equipment . . . . .	5.3 billion
Auxiliary equipment . . . . .	0.8 billion
Special equipment . . . . .	12.6 billion
<b>Total other fishing expenditures</b> . . . . .	<b>\$5.4 billion</b>
Magazines, books . . . . .	0.1 billion
Membership dues and contributions . . . . .	0.2 billion
Land leasing and ownership . . . . .	4.6 billion
Licenses, stamps, tags, and permits . . . . .	0.5 billion

Source: Table 12.

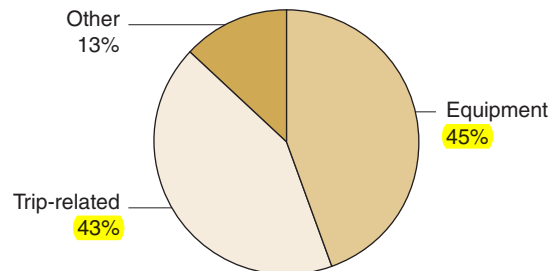
### Fishing Expenditures by Type of Fishing

(Total expenditures: \$42.0 billion)



### Percent of Total Fishing Expenditures

(Total expenditures: \$42.0 billion)



## 1996–2006 Comparison of Fishing Activity

In 2006, participation for all types of fishing was down significantly from both 1996 and 2001. The majority of the downturn occurred over the five-year period from 2001 to 2006. As a result, the percent changes from 1996 to 2006 and 2001 to 2006 are similar. The total number of anglers fell 15 percent from 1996 to 2006 and 12 percent from 2001 to 2006. Over the ten years from 1996 to 2006 and the five years between 2001 and 2006, fishing in the Great Lakes experienced the greatest downturn at 30 percent and 23 percent, respectively. Fishing in freshwater other than the Great Lakes fared the best with a decline of only 13

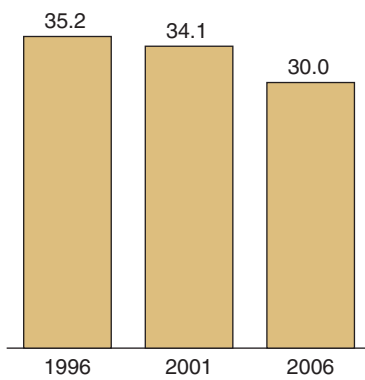
percent between 1996 and 2006 and a decline of only 10 percent between 2001 to 2006. The decline in saltwater fishing was between these two with an 18 percent decline from 1996 to 2006 and a 15 percent decline from 2001 to 2006.

The trend in fishing days was similar to that of total participants. For all types of fishing, there was a decline of 7 percent in the number of fishing days from 2001 to 2006. As with anglers, the decline in days from 2001 to 2006 was sharpest for Great Lakes fishing at 22 percent, which was followed by saltwater fishing at 6 percent. The decline among freshwater other than Great Lakes fishing was the least at 5 percent. Overall, the decline in days

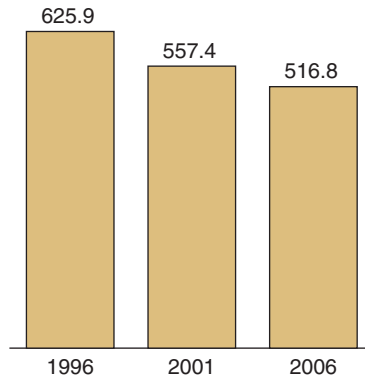
from 2001 to 2006 was not as large as the decline in the number of anglers. This indicates that the average number of days fishing by anglers increased over the period.

The trend in fishing expenditures is different from that of total participants. Fishing-related expenditures declined significantly from 1996 to 2006 but remained roughly the same from 2001 to 2006. Total fishing expenditures fell 13 percent from 1996 to 2006 and increased 4 percent from 2001 to 2006, but this is not a statistically significant change. None of the changes from 2001 to 2006 were significant.

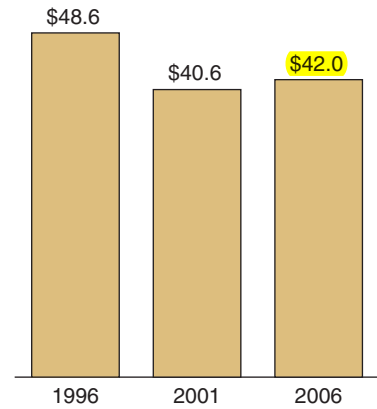
**Number of Anglers**  
(Millions)



**Days of Fishing**  
(Millions)



**Fishing Expenditures**  
(Billions of 2006 dollars)





### 1996–2006 Fishing Participants, Days, and Expenditures

(U.S. population 16 years old and older. Numbers in thousands)

	1996		2006		1996–2006 percent change
	Number	Percent	Number	Percent	
<b>Anglers, total</b> . . . . .	<b>35,246</b>	<b>100</b>	<b>29,952</b>	<b>100</b>	<b>-15</b>
All freshwater. . . . .	29,734	87	25,431	85	-14
Freshwater, except Great Lakes . .	28,921	85	25,035	84	-13
Great Lakes . . . . .	2,039	7	1,420	5	-30
Saltwater. . . . .	9,438	25	7,717	26	-18
<b>Days, total</b> . . . . .	<b>625,893</b>	<b>100</b>	<b>516,781</b>	<b>100</b>	<b>-17</b>
All freshwater. . . . .	515,115	82	433,337	84	-16
Freshwater, except Great Lakes . .	485,474	78	419,942	81	-13
Great Lakes . . . . .	20,095	3	18,016	3	-10*
Saltwater. . . . .	103,034	16	85,663	17	-17
<b>Fishing, total (2006 dollars)</b> . . . . .	<b>\$48,565,444</b>	<b>100</b>	<b>\$42,011,124</b>	<b>100</b>	<b>-13</b>
Trip-related. . . . .	19,763,326	41	17,878,560	43	-10*
Equipment . . . . .	24,636,355	51	18,757,370	45	-24
Fishing equipment. . . . .	6,821,115	14	5,332,401	13	-22
Auxiliary equipment . . . . .	1,332,134	3	778,740	2	-42
Special equipment. . . . .	16,483,106	34	12,646,229	30	-23*
Other. . . . .	4,165,763	9	5,375,195	13	29*

\* Not different from zero at the 5 percent level of significance.

### 2001–2006 Fishing Participants, Days, and Expenditures

(U.S. population 16 years old and older. Numbers in thousands)

	2001		2006		2001–2006 percent change
	Number	Percent	Number	Percent	
<b>Anglers, total</b> . . . . .	<b>34,071</b>	<b>100</b>	<b>29,952</b>	<b>100</b>	<b>-12</b>
All freshwater. . . . .	28,439	83	25,431	85	-11
Freshwater, except Great Lakes . .	27,913	82	25,035	84	-10
Great Lakes . . . . .	1,847	5	1,420	5	-23
Saltwater . . . . .	9,051	27	7,717	26	-15
<b>Days, total</b> . . . . .	<b>557,394</b>	<b>100</b>	<b>516,781</b>	<b>100</b>	<b>-7</b>
All freshwater. . . . .	466,984	84	433,337	84	-7
Freshwater, except Great Lakes . .	443,247	80	419,942	81	-5*
Great Lakes . . . . .	23,138	4	18,016	3	-22*
Saltwater . . . . .	90,838	16	85,663	17	-6*
<b>Fishing, total (2006 dollars)</b> . . . . .	<b>\$40,560,198</b>	<b>100</b>	<b>\$42,011,124</b>	<b>100</b>	<b>4*</b>
Trip-related. . . . .	16,682,925	41	17,878,560	43	7*
Equipment . . . . .	19,309,578	48	18,757,370	45	-3*
Fishing equipment. . . . .	5,256,228	13	5,332,401	13	1*
Auxiliary equipment . . . . .	820,770	2	778,740	2	-5*
Special equipment. . . . .	13,232,580	33	12,646,229	30	-4*
Other . . . . .	4,567,694	11	5,375,195	13	18*

\* Not different from zero at the 5 percent level of significance.



## 1996–2006 Comparison of Hunting Activity

The overall number of hunters in the United States declined from 1996 to 2006, but the latest results for 2006 indicate that the sharp downturn experienced in the 1990s may be abating. The downturn from 1996 to 2001 was 7 percent, a statistically significant change. The downturn from 2001 to 2006 was 4 percent and is not significant.

All types of hunting had significant declines in participation from 1996 to 2006; however, only some types had significant declines from 2001 to 2006. Big game hunting has remained relatively stable over time. The decline of 2 percent from 2001 to 2006, is not significant. However, some types of hunting have not remained stable.

From 2001 to 2006, the decline of 12 percent for small game hunting and 22 percent for migratory bird hunting are both significant.

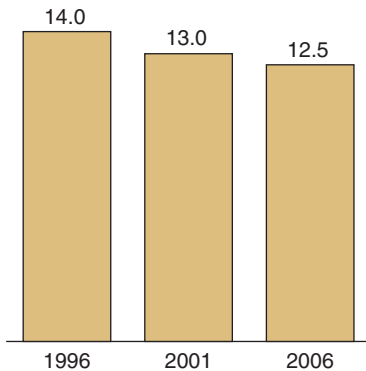
Among the different types of hunting, the trend in hunting days was similar to that of total participants. There was a 14 percent decline in the number of hunting days for all types of hunting from 1996 to 2006 and a decline of 4 percent from 2001 to 2006. The decline from 2001 to 2006 is not significant. Big game hunting days actually went up 7 percent from 2001 to 2006. Over the same period, small game hunting days declined 13 percent and migratory bird hunting declined 33 percent.

The trend in hunting expenditures is similar to that of total participants.

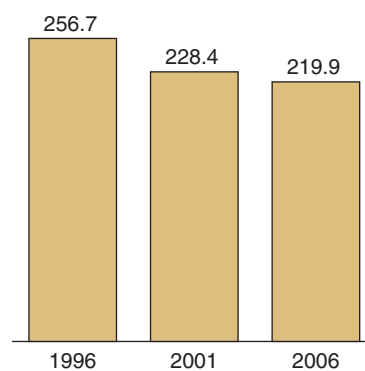
While the number of hunters declined 10 percent from 1996 to 2006, hunting-related expenditures declined 14 percent. Additionally, from 2001 to 2006 the number of hunters declined 4 percent (not significant), and hunting-related expenditures declined 2 percent (not significant).

No expenditure categories experienced notable changes from 2001 to 2006. The stability of hunting expenditures across the board from 2001 to 2006 is noteworthy.

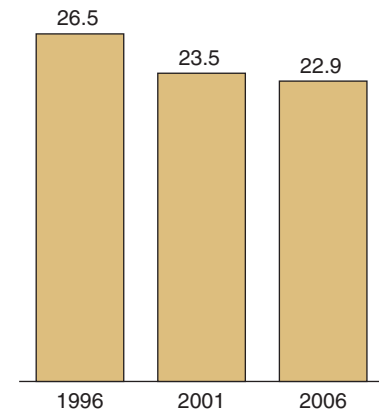
**Number of Hunters**  
(Millions)



**Days of Hunting**  
(Millions)



**Hunting Expenditures**  
(Billions of 2006 dollars)



### 1996–2006 Hunting Participants, Days, and Expenditures

(U.S. population 16 years old and older. Numbers in thousands)

	1996		2006		1996–2006 percent change
	Number	Percent	Number	Percent	
<b>Hunters, total</b> . . . . .	<b>13,975</b>	<b>100</b>	<b>12,510</b>	<b>100</b>	<b>-10</b>
Big game . . . . .	11,288	81	10,682	85	-5*
Small game . . . . .	6,945	50	4,797	38	-31
Migratory bird . . . . .	3,073	22	2,293	18	-25
Other animal . . . . .	1,521	11	1,128	9	-26
<b>Days, total</b> . . . . .	<b>256,676</b>	<b>100</b>	<b>219,925</b>	<b>100</b>	<b>-14</b>
Big game . . . . .	153,784	60	164,061	75	7*
Small game . . . . .	75,117	29	52,395	24	-30
Migratory bird . . . . .	26,501	10	19,770	9	-25
Other animal . . . . .	24,522	10	15,205	7	-38
<b>Hunting, total (2006 dollars)</b> . . . . .	<b>\$26,486,173</b>	<b>100</b>	<b>\$22,893,156</b>	<b>100</b>	<b>-14*</b>
Trip-related . . . . .	6,624,069	25	6,678,614	29	1*
Equipment . . . . .	14,484,381	55	10,731,501	47	-26
Hunting equipment . . . . .	7,091,539	27	5,366,357	23	-24
Auxiliary equipment . . . . .	1,584,433	6	1,330,216	6	-16*
Special equipment . . . . .	5,808,408	22	4,034,928	18	-31*
Other . . . . .	5,377,723	20	5,483,041	24	2*

\* Not different from zero at the 5 percent level of significance.

### 2001–2006 Hunting Participants, Days, and Expenditures

(U.S. population 16 years old and older. Numbers in thousands)

	2001		2006		2001–2006 percent change
	Number	Percent	Number	Percent	
<b>Hunters, total</b> . . . . .	<b>13,034</b>	<b>100</b>	<b>12,510</b>	<b>100</b>	<b>-4*</b>
Big game . . . . .	10,911	84	10,682	85	-2*
Small game . . . . .	5,434	42	4,797	38	-12
Migratory bird . . . . .	2,956	23	2,293	18	-22
Other animal . . . . .	1,047	8	1,128	9	8*
<b>Days, total</b> . . . . .	<b>228,368</b>	<b>100</b>	<b>219,925</b>	<b>100</b>	<b>-4*</b>
Big game . . . . .	153,191	67	164,061	75	7*
Small game . . . . .	60,142	26	52,395	24	-13*
Migratory bird . . . . .	29,310	13	19,770	9	-33
Other animal . . . . .	19,207	8	15,205	7	-21*
<b>Hunting, total (2006 dollars)</b> . . . . .	<b>\$23,461,530</b>	<b>100</b>	<b>\$22,893,156</b>	<b>100</b>	<b>-2*</b>
Trip-related . . . . .	5,978,797	25	6,678,614	29	12*
Equipment . . . . .	11,794,490	50	10,731,501	47	-9*
Hunting equipment . . . . .	5,192,593	22	5,366,357	23	3*
Auxiliary equipment . . . . .	1,369,198	6	1,330,216	6	-3*
Special equipment . . . . .	5,232,699	22	4,034,928	18	-23*
Other . . . . .	5,688,242	24	5,483,041	24	-4*

\* Not different from zero at the 5 percent level of significance.

## 1996–2006 Comparison of Wildlife-Watching Participation

The number of all wildlife watchers increased 5 percent from 1996 to 2001 and 8 percent from 2001 to 2006, with 62.9 million participants in 1996, 66.1 million in 2001, and 71.1 million in 2006. Comparing the results from the last three Surveys finds differing trends for the two categories of wildlife watching: around the home and away from home.

Around-the-home wildlife watching, the most popular type of wildlife watching, led the overall upward trend with a 12 percent increase from 1996 to 2006. The upward trend from 1996 to 2006 was seen in all five types of around-the-home wildlife watching: feeding, observing, photographing, maintaining plantings or natural areas, and visiting public areas. The number of around-the-home feeders increased 3 percent (not a statistically significant change), from 54.1 million in 1996 to 55.5 million in 2006. The number of observers increased 1 percent (although this is not significant at the 5 percent level) from 44.1 million in 1996 to 44.5 million in 2006. The number of photographers increased 17 percent, from 16.0 million in 1996 to 18.8 million in 2006.

The number of people who maintained plantings or natural areas for the benefit of wildlife increased 8 percent (not a statistically significant difference) from 1996 to 2006, 13.4 million to 14.5 million. Finally, the number of visitors to public areas within a mile of home increased 21 percent, from 11.0 million to 13.3 million.

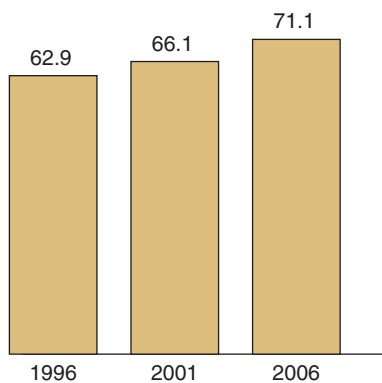
Unlike around-the-home wildlife watching, away-from-home wildlife watching did not increase from 1996 to 2006. There was a 3 percent drop, which is not statistically significant. From 1996 to 2001, participation decreased 8 percent, from 23.7 million to 21.8 million. From 2001 to 2006, the direction of the change in participation reversed, increasing 5 percent—from 21.8 million to 23.0 million—although not enough to match the level of participation in 1996. There are three categories of away-from-home wildlife watching: observing, photographing, and feeding. From 1996 to 2006, the number of observers decreased 6 percent (not a statistically significant difference), from 22.9 million to 21.5 million. The number of photographers decreased 3 percent (not a statistically significant change), from 12.0 million to 11.7 million. Lastly, the number of feeders decreased a whopping

29 percent, from 10.0 million to 7.1 million.

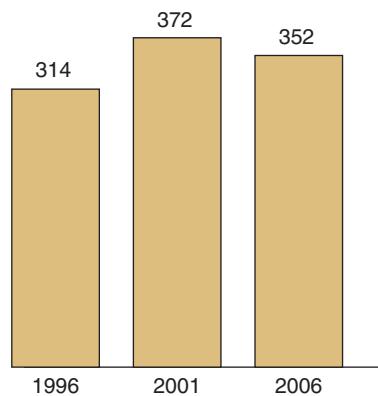
Days afield by away-from-home wildlife watchers increased 12 percent (not a statistically significant change) from 1996 to 2006, largely due to the efforts of photographers. Days afield in 2001 were even higher than in 1996 or 2006, 372 million compared to 314 million or 352 million, respectively (although the differences are not statistically significant).

Expenditures for wildlife watching increased 21 percent from 1996 to 2006. Interestingly, the reason for the increase from 2001 to 2006 was the rise in trip-related expenditures (a 38 percent increase while equipment had a 14 percent decrease), whereas the reason for the increase from 1996 to 2001 was equipment expenditures (a 41 percent increase while trip-related expenditures underwent a 20 percent decrease).

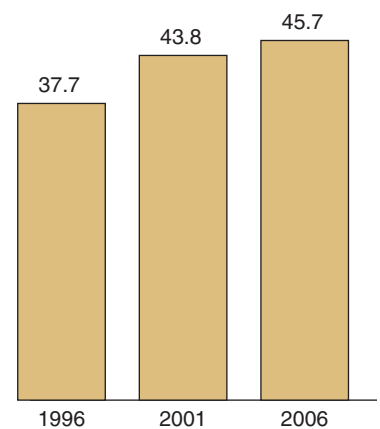
**Number of Wildlife Watchers**  
(In millions)



**Days of Away-From-Home Wildlife Watching**  
(In millions)



**Wildlife-Watching Expenditures**  
(Billions of 2006 dollars)



## 2001–2006 Wildlife-Watching Participants, Days, and Expenditures

(U.S. population 16 years old and older. Numbers in thousands)

	2001		2006		2001–2006 percent change
	Number	Percent	Number	Percent	
<b>Wildlife-watching participants, total. .</b>	<b>66,105</b>	<b>100</b>	<b>71,132</b>	<b>100</b>	<b>8</b>
Around the home . . . . .	62,928	95	67,756	95	8
Observers. . . . .	42,111	64	44,467	63	6
Photographers . . . . .	13,937	21	18,763	26	35
Feeders. . . . .	53,988	82	55,512	78	3*
Visitors of public parks or areas . .	10,981	17	13,271	19	21
Maintainers of plantings or natural areas . . . . .	13,072	20	14,508	20	11
Away from home . . . . .	21,823	33	22,977	32	5*
Observers. . . . .	20,080	30	21,546	30	7*
Photographers . . . . .	9,427	14	11,708	16	24
Feeders. . . . .	7,077	11	7,084	10	(Z)*
Days, away from home. . . . .	372,006	100	352,070	100	-5*
Observing . . . . .	295,345	79	291,027	83	-1*
Photographing . . . . .	76,324	21	103,872	30	36*
Feeding . . . . .	103,307	28	77,329	22	-25*
<b>Wildlife-watching expenditures, total (2006 dollars) . . . . .</b>	<b>\$43,792,516</b>	<b>100</b>	<b>\$45,654,960</b>	<b>100</b>	<b>4*</b>
Trip-related. . . . .	\$9,305,180	21	\$12,875,152	28	38
Equipment, total . . . . .	\$26,835,136	61	\$23,174,053	51	-14
Wildlife-watching equipment . . . .	\$8,383,534	19	\$9,869,727	22	18
Auxiliary equipment . . . . .	\$817,266	2	\$1,033,060	2	26*
Special equipment . . . . .	\$17,634,336	40	\$12,271,266	27	-30*
Other. . . . .	\$7,652,201	17	\$9,605,755	21	26*

\* Not different from zero at the 5 percent level of significance.

(Z) Less than 0.5 percent.

**Table 11. Summary of Expenditures for Fishing and Hunting: 2006**

(Population 16 years old and older)

Expenditure item	Expenditures		Spenders		
	Amount (thousands of dollars)	Average per sportsperson (dollars)	Number (thousands)	Percent of sportspersons	Average per spender (dollars)
<b>Total, all items</b> . . . . .	<b>76,650,027</b>	<b>2,260</b>	<b>32,567</b>	<b>96</b>	<b>2,354</b>
<b>TRIP-RELATED EXPENDITURES</b>					
<b>Total trip-related</b> . . . . .	<b>24,557,174</b>	<b>724</b>	<b>30,201</b>	<b>89</b>	<b>813</b>
<b>Food and lodging, total</b> . . . . .	<b>9,093,769</b>	<b>268</b>	<b>26,381</b>	<b>78</b>	<b>345</b>
Food . . . . .	6,504,319	192	26,242	77	248
Lodging . . . . .	2,589,450	76	6,465	19	401
<b>Transportation, total</b> . . . . .	<b>7,658,755</b>	<b>226</b>	<b>26,611</b>	<b>78</b>	<b>288</b>
Public . . . . .	738,243	22	1,509	4	489
Private . . . . .	6,920,512	204	26,239	77	264
<b>Other trip costs<sup>1</sup></b> . . . . .	<b>7,804,650</b>	<b>230</b>	<b>23,416</b>	<b>69</b>	<b>333</b>
<b>EQUIPMENT EXPENDITURES</b>					
Fishing equipment . . . . .	5,365,933	158	19,337	57	277
Hunting equipment . . . . .	5,716,758	169	10,107	30	566
Auxiliary equipment <sup>2</sup> . . . . .	2,969,992	88	9,749	29	305
Special equipment <sup>3</sup> . . . . .	26,910,442	793	3,203	9	8,402
<b>OTHER EXPENDITURES</b>					
Books, magazines . . . . .	304,181	9	6,759	20	45
Membership dues and contributions . . . . .	593,242	17	4,481	13	132
Land leasing and ownership . . . . .	8,986,342	265	2,226	7	4,038
<b>Licenses, stamps, tags, and permits</b> . . . . .	<b>1,245,963</b>	<b>37</b>	<b>22,607</b>	<b>67</b>	<b>55</b>

<sup>1</sup> Other trip costs include guide fees, pack trip or package fees, public and private land use fees, equipment rental, boating costs (which include launching, mooring, storage, maintenance, insurance, pumpout fees, and fuel), bait, ice, and heating and cooking fuel.

<sup>2</sup> Auxiliary equipment includes camping equipment, binoculars, special fishing and hunting clothing, etc.

<sup>3</sup> Special equipment includes boats, campers, cabins, trail bikes, etc.

Note: Detail does not add to total because of multiple responses. Detail in subsequent tables may not add to totals shown here because of nonresponse to individual questions.

**Table 12. Expenditures for Fishing: 2006**

(Population 16 years old and older)

Expenditure item	Expenditures		Spenders		
	Amount (thousands of dollars)	Average per angler (dollars)	Number (thousands)	Percent of anglers	Average per spender (dollars)
<b>Total, all items</b> .....	<b>42,011,124</b>	<b>1,403</b>	<b>28,307</b>	<b>95</b>	<b>1,484</b>
<b>TRIP-RELATED EXPENDITURES</b>					
<b>Total trip-related</b> .....	<b>17,878,560</b>	<b>597</b>	<b>26,318</b>	<b>88</b>	<b>679</b>
<b>Food and lodging, total</b> .....	<b>6,302,524</b>	<b>210</b>	<b>22,572</b>	<b>75</b>	<b>279</b>
Food .....	4,327,090	144	22,415	75	193
Lodging .....	1,975,434	66	5,304	18	372
<b>Transportation, total</b> .....	<b>4,961,830</b>	<b>166</b>	<b>22,361</b>	<b>75</b>	<b>222</b>
Public .....	523,856	17	1,163	4	451
Private .....	4,437,974	148	21,979	73	202
<b>Other trip costs, total</b> .....	<b>6,614,205</b>	<b>221</b>	<b>22,275</b>	<b>74</b>	<b>297</b>
Guide fees, pack trip or package fees .....	832,476	28	2,307	8	361
Public land use fees .....	176,803	6	3,339	11	53
Private land use fees .....	143,543	5	1,041	3	138
Equipment rental .....	377,334	13	1,645	5	229
Boating costs <sup>1</sup> .....	3,408,623	114	7,405	25	460
Bait .....	1,183,332	40	18,224	61	65
Ice .....	378,190	13	11,168	37	34
Heating and cooking fuel .....	113,904	4	3,195	11	36
<b>EQUIPMENT EXPENDITURES</b>					
<b>Fishing equipment, total</b> .....	<b>5,332,401</b>	<b>178</b>	<b>19,082</b>	<b>64</b>	<b>279</b>
Rods, reels, poles, and rodmaking components .....	2,288,572	76	10,666	36	215
Lines and leaders .....	543,186	18	11,886	40	46
Artificial lures, flies, baits, and dressing for flies or lines .....	906,951	30	13,624	45	67
Hooks, sinkers, swivels, and other items attached to a line, except lures and baits .....	387,836	13	13,885	46	28
Tackle boxes .....	127,197	4	3,819	13	33
Creels, stringers, fish bags, landing nets, and gaff hooks .....	107,108	4	3,154	11	34
Minnow traps, seines, and bait containers .....	61,267	2	2,481	8	25
Depth finders, fish finders, and other electronic fishing devices .....	514,423	17	1,140	4	451
Ice fishing equipment .....	105,335	4	663	2	159
Other fishing equipment .....	290,524	10	3,069	10	95
<b>Auxiliary equipment, total</b> .....	<b>778,740</b>	<b>26</b>	<b>3,837</b>	<b>13</b>	<b>203</b>
Camping equipment .....	404,240	13	1,756	6	230
Binoculars, field glasses, telescopes, etc. ....	42,639	1	414	1	103
Special fishing clothing, rubber boots, waders, and foul weather gear .....	239,687	8	1,971	7	122
Processing and taxidermy costs .....	42,183	1	188	1	225
Other .....	49,992	2	392	1	128
<b>Special equipment<sup>2</sup></b> .....	<b>12,646,229</b>	<b>422</b>	<b>1,818</b>	<b>6</b>	<b>6,957</b>
<b>OTHER EXPENDITURES</b>					
Magazines, books .....	115,019	4	2,944	10	39
Membership dues and contributions .....	157,728	5	1,423	5	111
Land leasing and ownership .....	4,598,988	154	768	3	5,987
<b>Licenses, stamps, tags, and permits, total</b> .....	<b>503,460</b>	<b>17</b>	<b>16,259</b>	<b>54</b>	<b>31</b>
Licenses .....	460,266	15	15,650	52	29
Stamps, tags, and permits .....	43,194	1	3,011	10	14

<sup>1</sup> Boating costs include launching, mooring, storage, maintenance, insurance, pumpout fees, and fuel.

<sup>2</sup> Special equipment includes boats, campers, cabins, trail bikes, etc.

Note: Detail does not add to total because of multiple responses. Detail in tables 13 to 16 may not add to totals shown here because of multiple responses and nonresponse.

**Table 52. Expenditures for Wildlife-Related Recreation by State Where Spending Took Place: 2006**

(Population 16 years old and older. Expenditures in thousands of dollars)

State where spending took place	Total, wildlife-associated expenditures				Fishing and hunting expenditures			
	Total	Trip-related	Equipment	Other	Total	Trip-related	Equipment	Other
<b>United States, total . . . .</b>	<b>122,304,987</b>	<b>37,432,326</b>	<b>64,137,178</b>	<b>20,735,483</b>	<b>76,650,027</b>	<b>24,557,174</b>	<b>40,963,125</b>	<b>11,129,728</b>
Alabama . . . . .	2,188,366	808,343	1,149,125	230,899	1,738,363	656,678	890,573	191,111
Alaska . . . . .	1,255,021	922,526	270,541	61,954	673,969	410,924	233,737	29,308
<b>Arizona . . . . .</b>	<b>2,060,295</b>	<b>714,360</b>	<b>1,151,984</b>	<b>193,951</b>	<b>1,221,988</b>	<b>338,103</b>	<b>862,688</b>	<b>21,197</b>
Arkansas . . . . .	2,093,535	569,231	1,089,988	434,316	1,486,462	454,352	775,713	256,397
California . . . . .	7,975,145	3,431,669	4,055,460	488,016	3,795,562	1,434,117	2,123,820	237,625
Colorado . . . . .	2,972,516	1,126,076	1,722,970	123,470	1,584,779	588,649	905,502	90,628
Connecticut . . . . .	873,137	189,759	596,284	87,095	363,187	136,733	201,185	25,269
<b>Delaware . . . . .</b>	<b>298,979</b>	<b>75,302</b>	<b>203,737</b>	<b>19,940</b>	<b>168,146</b>	<b>62,174</b>	<b>93,523</b>	<b>12,449</b>
Florida . . . . .	8,115,284	3,017,044	4,189,608	908,633	5,033,788	2,129,102	2,459,456	445,231
Georgia . . . . .	3,542,304	754,626	2,139,230	648,448	1,926,988	607,904	893,170	425,913
Hawaii . . . . .	373,778	268,563	98,427	6,787	163,363	83,464	77,922	1,977
Idaho . . . . .	921,985	467,679	385,120	69,186	656,601	274,211	322,363	60,027
Illinois . . . . .	2,393,450	616,175	1,461,258	316,017	1,259,594	410,199	680,337	169,058
Indiana . . . . .	2,200,587	451,791	1,501,804	246,992	1,266,667	308,177	830,209	128,282
Iowa . . . . .	1,033,723	305,785	595,413	132,525	715,716	251,373	396,223	68,120
Kansas . . . . .	838,316	301,936	478,352	58,028	682,131	249,158	388,057	44,916
Kentucky . . . . .	1,870,689	437,134	1,226,197	207,358	1,328,630	321,021	852,162	155,446
Louisiana . . . . .	2,023,585	604,540	989,792	429,252	1,711,155	542,718	801,384	367,053
Maine . . . . .	1,499,097	355,461	951,465	192,172	633,454	176,998	358,414	98,041
<b>Maryland . . . . .</b>	<b>1,575,094</b>	<b>425,438</b>	<b>1,042,077</b>	<b>107,580</b>	<b>938,880</b>	<b>354,981</b>	<b>516,067</b>	<b>67,832</b>
Massachusetts . . . . .	1,614,739	482,766	930,257	201,716	859,776	333,987	436,249	89,539
Michigan . . . . .	5,134,320	1,185,544	2,783,944	1,164,833	3,511,799	846,356	2,003,686	661,757
Minnesota . . . . .	4,298,979	1,297,727	2,182,729	818,522	3,600,090	1,026,234	1,811,891	761,964
Mississippi . . . . .	1,071,563	323,568	491,271	256,724	895,717	254,981	404,718	236,018
Missouri . . . . .	3,376,385	912,363	1,685,842	778,180	2,507,310	692,431	1,275,031	539,848
Montana . . . . .	1,129,300	585,233	471,741	72,326	752,849	282,608	417,110	53,131
Nebraska . . . . .	639,982	129,760	412,621	97,601	498,071	107,019	304,273	86,780
Nevada . . . . .	916,183	259,899	529,124	127,159	553,954	100,964	419,308	33,682
New Hampshire . . . . .	559,942	222,382	224,050	113,510	286,023	106,246	148,584	31,193
New Jersey . . . . .	1,663,140	690,158	804,007	168,975	1,125,691	543,858	538,907	42,926
New Mexico . . . . .	822,115	429,743	282,632	109,741	524,941	221,465	200,679	102,797
New York . . . . .	3,526,906	1,481,998	1,553,726	491,181	1,959,277	786,275	918,420	254,582
North Carolina . . . . .	2,711,328	1,029,862	1,449,506	231,959	1,794,425	782,956	860,848	150,621
North Dakota . . . . .	269,150	116,473	137,318	15,359	246,238	111,521	120,339	14,377
Ohio . . . . .	3,157,972	914,655	1,859,639	383,678	1,970,269	707,402	1,121,338	141,529
Oklahoma . . . . .	1,424,671	571,611	768,708	84,352	1,096,011	436,744	591,140	68,127
Oregon . . . . .	1,995,580	637,590	1,213,970	144,020	1,219,166	375,165	771,151	72,850
Pennsylvania . . . . .	5,402,046	897,758	3,912,745	591,543	3,959,365	572,767	2,983,892	402,705
Rhode Island . . . . .	381,086	180,041	126,323	74,722	166,840	82,634	77,439	6,767
South Carolina . . . . .	2,455,112	843,694	1,324,978	286,441	1,904,335	647,890	1,043,543	212,902
South Dakota . . . . .	549,769	305,618	166,547	77,604	366,466	175,688	119,571	71,207
Tennessee . . . . .	2,329,427	727,111	1,314,601	287,716	1,337,066	399,871	881,063	56,132
<b>Texas . . . . .</b>	<b>9,167,954</b>	<b>2,862,119</b>	<b>4,695,522</b>	<b>1,610,312</b>	<b>6,228,935</b>	<b>2,437,922</b>	<b>2,915,351</b>	<b>875,662</b>
Utah . . . . .	1,288,534	577,456	658,473	52,605	724,091	255,433	431,781	36,877
Vermont . . . . .	383,376	119,682	206,143	57,551	260,504	61,463	175,682	23,358
Virginia . . . . .	2,353,483	768,146	1,412,796	172,540	1,393,293	520,125	785,935	87,233
Washington . . . . .	3,055,034	870,765	1,599,076	585,192	1,552,723	429,113	1,004,370	119,240
<b>West Virginia . . . . .</b>	<b>904,973</b>	<b>369,037</b>	<b>435,423</b>	<b>100,513</b>	<b>663,372</b>	<b>232,902</b>	<b>358,355</b>	<b>72,115</b>
Wisconsin . . . . .	3,918,727	1,282,746	1,433,705	1,202,276	3,174,037	1,022,580	1,148,520	1,002,937
Wyoming . . . . .	1,078,978	473,584	231,797	373,598	684,109	173,595	167,057	343,457

See footnotes at end of table.



**Table 52. Expenditures for Wildlife-Related Recreation by State Where Spending Took Place: 2006—Continued**

(Population 16 years old and older. Expenditures in thousands of dollars)

State where spending took place	Wildlife-watching expenditures			
	Total	Trip-related	Equipment	Other
<b>United States, total . . . .</b>	<b>45,654,960</b>	<b>12,875,152</b>	<b>23,174,053</b>	<b>9,605,755</b>
Alabama . . . . .	450,004	151,665	258,551	39,788
Alaska . . . . .	581,051	511,602	36,803	32,646
<b>Arizona . . . . .</b>	<b>838,307</b>	<b>376,256</b>	<b>289,296</b>	<b>172,754</b>
Arkansas . . . . .	607,073	114,879	314,275	177,919
California . . . . .	4,179,583	1,997,551	1,931,640	250,391
Colorado . . . . .	1,387,737	537,427	817,468	32,842
Connecticut . . . . .	509,950	53,025	395,098	61,826
<b>Delaware . . . . .</b>	<b>130,832</b>	<b>13,128</b>	<b>110,214</b>	<b>7,490</b>
Florida . . . . .	3,081,496	887,942	1,730,152	463,402
Georgia . . . . .	1,615,316	146,722	1,246,059	222,534
Hawaii . . . . .	210,414	185,100	20,505	4,810
Idaho . . . . .	265,383	193,468	62,756	9,159
Illinois . . . . .	1,133,856	205,976	780,921	146,959
Indiana . . . . .	933,920	143,615	671,595	118,710
Iowa . . . . .	318,006	54,411	199,190	64,405
Kansas . . . . .	156,185	52,778	90,294	13,113
Kentucky . . . . .	542,059	116,113	374,034	51,912
Louisiana . . . . .	312,430	61,822	188,409	62,199
Maine . . . . .	865,643	178,462	593,051	94,130
<b>Maryland . . . . .</b>	<b>636,214</b>	<b>70,457</b>	<b>526,010</b>	<b>39,748</b>
Massachusetts . . . . .	754,963	148,779	494,008	112,177
Michigan . . . . .	1,622,521	339,188	780,258	503,076
Minnesota . . . . .	698,889	271,493	370,838	56,558
Mississippi . . . . .	175,846	68,587	86,553	20,706
Missouri . . . . .	869,075	219,932	410,810	238,332
Montana . . . . .	376,451	302,625	54,631	19,195
Nebraska . . . . .	141,910	22,741	108,348	10,821
Nevada . . . . .	362,229	158,935	109,816	93,478
New Hampshire . . . . .	273,920	116,136	75,466	82,318
New Jersey . . . . .	537,449	146,300	265,100	126,049
New Mexico . . . . .	297,174	208,278	81,952	6,944
New York . . . . .	1,567,629	695,724	635,306	236,599
North Carolina . . . . .	916,903	246,906	588,658	81,338
North Dakota . . . . .	22,913	4,952	16,979	981
Ohio . . . . .	1,187,703	207,253	738,301	242,149
Oklahoma . . . . .	328,660	134,868	177,568	16,225
Oregon . . . . .	776,414	262,425	442,818	71,170
Pennsylvania . . . . .	1,442,681	324,990	928,853	188,838
Rhode Island . . . . .	214,247	97,407	48,884	67,955
South Carolina . . . . .	550,777	195,804	281,434	73,539
South Dakota . . . . .	183,304	129,930	46,977	6,397
Tennessee . . . . .	992,362	327,240	433,538	231,585
<b>Texas . . . . .</b>	<b>2,939,018</b>	<b>424,197</b>	<b>1,780,171</b>	<b>734,650</b>
Utah . . . . .	564,443	322,023	226,692	15,728
Vermont . . . . .	122,872	58,219	30,461	34,192
Virginia . . . . .	960,190	248,021	626,861	85,307
Washington . . . . .	1,502,311	441,652	594,706	465,953
<b>West Virginia . . . . .</b>	<b>241,601</b>	<b>136,136</b>	<b>77,068</b>	<b>28,397</b>
Wisconsin . . . . .	744,689	260,166	285,185	199,339
Wyoming . . . . .	394,869	299,988	64,740	30,140

Note: U.S. totals include responses from participants residing in the District of Columbia, as described in Appendix D.

**Table 53. Expenditures for Wildlife-Related Recreation in the United States by State Residents Both Inside and Outside Their Resident State: 2006**

(Population 16 years old and older. Expenditures in thousands of dollars)

Participant's state of residence	Total, wildlife-associated expenditures				Fishing and hunting expenditures			
	Total	Trip-related	Equipment	Other	Total	Trip-related	Equipment	Other
<b>United States, total . . . .</b>	<b>122,304,987</b>	<b>37,432,326</b>	<b>64,137,178</b>	<b>20,735,483</b>	<b>76,650,027</b>	<b>24,557,174</b>	<b>40,963,125</b>	<b>11,129,728</b>
Alabama . . . . .	2,255,226	772,709	1,235,088	247,428	1,761,377	574,577	978,331	208,468
Alaska . . . . .	540,041	189,194	283,616	67,231	378,136	123,618	234,027	20,492
Arizona . . . . .	1,540,698	641,998	688,826	209,873	751,401	340,002	386,602	24,797
Arkansas . . . . .	1,859,935	489,260	1,017,376	353,300	1,409,243	419,162	708,673	281,409
California . . . . .	8,579,974	3,936,108	4,043,232	600,633	4,205,307	1,709,474	2,159,640	336,193
Colorado . . . . .	3,060,175	732,853	2,237,327	89,996	1,906,666	428,910	1,419,958	57,798
Connecticut . . . . .	1,322,903	470,021	709,848	143,034	593,185	229,313	289,015	74,856
<b>Delaware . . . . .</b>	<b>348,875</b>	<b>79,278</b>	<b>245,131</b>	<b>24,466</b>	<b>230,913</b>	<b>66,788</b>	<b>147,619</b>	<b>16,506</b>
Florida . . . . .	8,112,073	2,269,467	5,088,990	753,616	4,873,738	1,813,946	2,793,699	266,093
Georgia . . . . .	3,299,332	938,235	1,810,276	550,821	1,770,640	648,315	785,999	336,326
Hawaii . . . . .	204,819	88,963	105,457	10,399	150,183	58,958	86,009	5,216
Idaho . . . . .	712,613	291,841	394,010	26,763	574,757	204,490	347,687	22,580
Illinois . . . . .	3,215,834	1,243,245	1,545,352	427,237	1,849,948	811,769	758,090	280,089
Indiana . . . . .	2,503,372	632,387	1,511,393	359,593	1,386,090	397,631	854,455	134,005
Iowa . . . . .	1,163,782	412,287	611,904	139,591	766,110	307,745	382,914	75,451
Kansas . . . . .	968,297	342,207	526,232	99,857	732,552	250,370	397,050	85,132
Kentucky . . . . .	2,214,149	568,398	1,398,295	247,456	1,511,349	404,563	896,015	210,771
Louisiana . . . . .	2,023,533	681,610	982,745	359,178	1,602,652	563,293	742,381	296,979
Maine . . . . .	1,294,577	210,134	939,026	145,417	509,721	104,794	330,541	74,387
<b>Maryland . . . . .</b>	<b>1,774,605</b>	<b>461,259</b>	<b>1,077,278</b>	<b>236,068</b>	<b>1,047,831</b>	<b>357,994</b>	<b>498,646</b>	<b>191,191</b>
Massachusetts . . . . .	2,104,733	750,211	1,071,689	282,833	1,219,207	500,231	559,117	159,859
Michigan . . . . .	5,217,263	1,257,235	2,717,390	1,242,638	3,426,954	734,358	1,937,535	755,061
<b>Minnesota . . . . .</b>	<b>4,234,352</b>	<b>1,461,945</b>	<b>2,199,914</b>	<b>572,493</b>	<b>3,347,027</b>	<b>1,003,011</b>	<b>1,827,919</b>	<b>516,097</b>
Mississippi . . . . .	1,066,440	305,415	518,683	242,343	862,477	227,648	414,384	220,445
Missouri . . . . .	3,295,807	1,046,714	1,638,191	610,903	2,319,214	681,454	1,263,739	374,021
Montana . . . . .	706,261	197,835	456,323	52,103	575,137	140,374	401,804	32,959
Nebraska . . . . .	650,718	185,410	357,208	108,100	481,102	129,617	254,246	97,239
Nevada . . . . .	1,211,480	269,099	701,029	241,352	747,551	161,046	437,208	149,296
New Hampshire . . . . .	423,652	137,114	195,939	90,600	240,420	75,850	140,439	24,131
New Jersey . . . . .	2,228,739	804,376	848,027	576,336	1,579,731	609,125	598,493	372,113
New Mexico . . . . .	620,544	250,443	313,245	56,856	442,930	168,583	224,982	49,366
New York . . . . .	3,573,499	1,716,521	1,416,605	440,373	1,980,373	829,483	924,444	226,446
North Carolina . . . . .	2,978,628	968,663	1,853,454	156,511	1,968,476	643,695	1,237,884	86,897
North Dakota . . . . .	242,194	90,275	129,784	22,136	214,095	81,985	111,012	21,099
Ohio . . . . .	3,283,714	1,232,008	1,682,263	369,442	2,048,073	866,372	1,055,519	126,182
Oklahoma . . . . .	1,555,383	733,541	737,371	84,470	1,066,297	441,877	556,996	67,424
Oregon . . . . .	1,780,370	548,422	1,067,345	164,603	1,092,075	371,058	644,947	76,070
<b>Pennsylvania . . . . .</b>	<b>5,820,210</b>	<b>1,320,252</b>	<b>3,900,497</b>	<b>599,461</b>	<b>4,111,971</b>	<b>732,446</b>	<b>2,973,474</b>	<b>406,051</b>
Rhode Island . . . . .	317,522	104,760	135,065	77,697	145,186	60,360	77,258	7,567
South Carolina . . . . .	1,979,808	678,069	1,030,559	271,180	1,577,952	510,605	865,819	201,527
South Dakota . . . . .	372,940	118,874	185,715	68,352	274,717	72,105	140,709	61,903
Tennessee . . . . .	2,131,393	721,629	1,027,766	381,998	1,315,528	479,122	690,289	146,116
<b>Texas . . . . .</b>	<b>9,392,329</b>	<b>3,328,265</b>	<b>4,528,521</b>	<b>1,535,543</b>	<b>5,931,052</b>	<b>2,405,596</b>	<b>2,724,050</b>	<b>801,406</b>
Utah . . . . .	1,029,777	400,054	527,986	101,737	837,788	283,653	457,760	96,375
Vermont . . . . .	243,048	81,443	112,006	49,598	151,374	55,755	73,812	21,808
<b>Virginia . . . . .</b>	<b>2,086,183</b>	<b>726,811</b>	<b>1,194,427</b>	<b>164,945</b>	<b>1,340,347</b>	<b>571,819</b>	<b>685,043</b>	<b>83,485</b>
Washington . . . . .	3,207,376	792,578	1,794,271	620,527	1,772,537	477,898	1,162,017	132,622
West Virginia . . . . .	904,338	339,516	415,640	149,183	717,308	256,041	341,988	119,280
Wisconsin . . . . .	3,342,135	1,034,065	1,289,386	1,018,684	2,697,864	845,439	1,011,982	840,443
Wyoming . . . . .	705,660	142,014	253,757	309,889	567,607	87,542	185,844	294,221

See footnotes at end of table.

**Table 53. Expenditures for Wildlife-Related Recreation in the United States by State Residents Both Inside and Outside Their Resident State: 2006—Continued**

(Population 16 years old and older. Expenditures in thousands of dollars)

Participant's state of residence	Wildlife-watching expenditures			
	Total	Trip-related	Equipment	Other
<b>United States, total . . . .</b>	<b>45,654,960</b>	<b>12,875,152</b>	<b>23,174,053</b>	<b>9,605,755</b>
Alabama . . . . .	493,849	198,132	256,757	*38,960
Alaska . . . . .	161,904	65,576	49,589	46,739
Arizona . . . . .	789,297	301,997	302,224	185,076
Arkansas . . . . .	450,692	70,098	308,703	*71,891
California . . . . .	4,374,667	2,226,634	1,883,592	264,441
Colorado . . . . .	1,153,510	303,943	817,369	32,198
Connecticut . . . . .	729,718	240,708	420,832	68,177
<b>Delaware . . . . .</b>	<b>117,962</b>	<b>12,490</b>	<b>97,511</b>	<b>7,960</b>
Florida . . . . .	3,238,334	455,521	2,295,291	487,522
Georgia . . . . .	1,528,691	289,920	1,024,277	214,495
Hawaii . . . . .	54,636	30,005	19,448	5,183
Idaho . . . . .	137,856	87,351	46,323	*4,183
Illinois . . . . .	1,365,886	431,477	787,262	147,148
Indiana . . . . .	1,117,282	234,756	656,938	225,588
Iowa . . . . .	397,672	104,542	228,990	64,140
Kansas . . . . .	235,745	91,838	129,182	14,725
Kentucky . . . . .	702,800	163,835	502,280	36,685
Louisiana . . . . .	420,881	118,317	240,365	62,199
Maine . . . . .	784,855	105,340	608,486	71,030
<b>Maryland . . . . .</b>	<b>726,774</b>	<b>103,265</b>	<b>578,632</b>	<b>44,877</b>
Massachusetts . . . . .	885,526	249,979	512,572	122,975
Michigan . . . . .	1,790,310	522,877	779,856	487,577
<b>Minnesota . . . . .</b>	<b>887,325</b>	<b>458,934</b>	<b>371,995</b>	<b>56,396</b>
Mississippi . . . . .	203,964	77,767	104,299	*21,898
Missouri . . . . .	976,593	365,259	374,452	236,882
Montana . . . . .	131,125	57,461	54,520	19,144
Nebraska . . . . .	169,616	55,793	102,961	10,861
Nevada . . . . .	463,929	108,053	263,821	92,056
New Hampshire . . . . .	183,232	61,263	55,500	66,469
New Jersey . . . . .	649,008	195,252	249,533	204,222
New Mexico . . . . .	177,613	81,860	88,263	7,490
New York . . . . .	1,593,127	887,039	492,160	213,928
North Carolina . . . . .	1,010,152	324,968	615,570	69,614
North Dakota . . . . .	28,099	8,290	18,772	*1,037
Ohio . . . . .	1,235,640	365,635	626,744	243,261
Oklahoma . . . . .	489,086	291,664	180,375	17,047
Oregon . . . . .	688,295	177,364	422,399	88,532
<b>Pennsylvania . . . . .</b>	<b>1,708,239</b>	<b>587,806</b>	<b>927,023</b>	<b>193,410</b>
Rhode Island . . . . .	172,336	44,400	57,806	70,130
South Carolina . . . . .	401,857	167,464	164,740	69,653
South Dakota . . . . .	98,224	46,769	45,006	6,449
Tennessee . . . . .	815,865	242,507	337,477	235,882
<b>Texas . . . . .</b>	<b>3,461,277</b>	<b>922,669</b>	<b>1,804,471</b>	<b>734,137</b>
Utah . . . . .	191,989	116,401	70,227	5,361
Vermont . . . . .	91,674	25,689	38,195	27,790
<b>Virginia . . . . .</b>	<b>745,837</b>	<b>154,992</b>	<b>509,385</b>	<b>81,460</b>
Washington . . . . .	1,434,839	314,680	632,254	487,905
West Virginia . . . . .	187,030	83,475	73,652	*29,903
Wisconsin . . . . .	644,271	188,626	277,404	178,241
Wyoming . . . . .	138,052	54,472	67,913	15,668

\* Estimate based on a sample size of 10–29.

Note: U.S. totals include responses from participants residing in the District of Columbia, as described in Appendix D.

**Table 59. Expenditures for Hunting by State Where Spending Took Place: 2006**

(Population 16 years old and older. Expenditures in thousands of dollars)

State where spending took place	Total expenditures	Trip-related expenditures				Expenditures for equipment				Expenditures for other items <sup>1</sup>
		Total trip-related	Food and lodging	Transportation	Other trip costs	Total equipment	Hunting equipment	Auxiliary equipment	Special equipment	
<b>United States, total . . . .</b>	<b>22,893,156</b>	<b>6,678,614</b>	<b>2,791,245</b>	<b>2,696,924</b>	<b>1,190,445</b>	<b>10,731,501</b>	<b>5,366,357</b>	<b>1,330,216</b>	<b>4,034,928</b>	<b>5,483,041</b>
Alabama . . . . .	678,024	239,398	82,577	84,777	72,045	315,894	151,297	40,510	*124,087	122,731
Alaska . . . . .	125,112	48,905	9,745	29,166	9,994	67,897	24,831	19,083	...	8,310
<b>Arizona . . . . .</b>	<b>322,739</b>	<b>92,363</b>	<b>33,599</b>	<b>39,386</b>	<b>19,377</b>	<b>219,641</b>	<b>61,155</b>	<b>17,977</b>	...	<b>10,735</b>
Arkansas . . . . .	788,575	182,192	81,047	73,257	27,889	375,236	191,180	55,862	*128,194	231,147
California . . . . .	813,239	230,873	88,210	104,256	38,407	428,493	152,902	38,964	...	153,873
Colorado . . . . .	444,061	288,325	97,329	76,786	114,210	91,574	71,900	19,674	...	64,162
Connecticut . . . . .	68,530	5,991	*1,782	3,558	*651	50,160	20,660	*4,162	...	12,379
<b>Delaware . . . . .</b>	<b>41,381</b>	<b>13,638</b>	<b>5,477</b>	<b>4,832</b>	<b>*3,329</b>	<b>24,802</b>	<b>16,019</b>	<b>6,487</b>	...	<b>2,941</b>
Florida . . . . .	377,394	155,116	43,013	59,561	52,543	173,749	125,342	28,308	...	48,528
Georgia . . . . .	677,762	237,162	96,620	84,652	55,890	209,233	121,722	30,372	...	231,367
Hawaii . . . . .	21,098	10,736	5,410	4,469	*858	9,780	8,837	*943	...	583
Idaho . . . . .	259,718	100,218	37,974	40,986	21,259	121,708	54,161	*11,431	...	37,792
Illinois . . . . .	381,937	130,466	47,128	47,761	35,578	129,180	77,291	39,188	...	122,290
Indiana . . . . .	223,023	65,553	26,628	31,871	7,054	103,456	85,542	17,914	...	54,015
Iowa . . . . .	288,324	110,756	43,895	49,582	*17,279	131,184	99,548	23,535	...	46,384
Kansas . . . . .	248,674	121,162	52,847	58,116	10,199	95,175	78,056	15,970	...	32,337
Kentucky . . . . .	423,439	83,591	38,019	41,503	4,069	208,270	143,802	29,785	...	131,578
Louisiana . . . . .	525,505	205,355	83,297	73,628	48,429	206,072	114,697	23,285	...	114,078
Maine . . . . .	241,301	58,997	29,704	25,774	3,519	110,898	33,779	15,174	...	71,406
<b>Maryland . . . . .</b>	<b>210,087</b>	<b>62,343</b>	<b>22,873</b>	<b>23,895</b>	<b>15,575</b>	<b>113,376</b>	<b>66,578</b>	<b>30,478</b>	...	<b>34,367</b>
Massachusetts . . . . .	70,824	36,675	10,616	19,263	6,796	24,374	19,870	*4,504	...	9,775
Michigan . . . . .	915,884	262,326	134,017	105,588	22,720	371,574	210,202	61,477	...	281,985
Minnesota . . . . .	494,149	166,577	78,295	73,749	14,533	219,505	179,406	36,001	...	108,066
Mississippi . . . . .	519,808	149,362	67,646	53,649	28,068	152,654	90,355	18,348	...	217,792
Missouri . . . . .	1,146,240	234,468	90,216	108,385	35,866	499,132	283,748	57,023	...	412,641
Montana . . . . .	310,540	132,808	48,044	50,289	34,475	144,951	62,657	16,417	*65,878	32,782
Nebraska . . . . .	231,032	46,027	17,685	25,416	2,926	137,627	75,814	23,727	...	47,378
Nevada . . . . .	129,080	39,574	18,022	16,193	5,360	76,412	17,082	12,631	...	13,094
New Hampshire . . . . .	74,467	17,665	8,860	8,460	*344	48,294	37,199	2,776	...	8,509
New Jersey . . . . .	146,001	72,680	34,083	19,133	*19,463	62,897	55,390	*6,862	...	10,424
New Mexico . . . . .	164,308	93,052	28,346	25,440	39,266	61,766	29,057	11,090	...	9,490
New York . . . . .	715,707	201,631	98,197	74,828	28,606	338,592	230,525	42,510	...	175,485
North Carolina . . . . .	430,562	89,979	46,603	40,173	*3,203	314,578	202,839	17,825	...	26,006
North Dakota . . . . .	129,114	72,445	28,270	31,908	*12,266	45,473	24,228	8,561	...	11,196
Ohio . . . . .	841,556	148,609	73,341	66,995	*8,273	599,743	210,082	41,726	...	93,204
Oklahoma . . . . .	476,657	135,335	52,990	69,314	13,031	307,048	111,501	22,468	*173,078	34,274
Oregon . . . . .	373,613	116,690	51,610	58,089	6,991	226,632	105,293	16,531	*104,808	30,290
Pennsylvania . . . . .	1,609,045	274,158	125,470	123,397	25,290	1,037,875	390,810	96,587	...	297,013
Rhode Island . . . . .	10,186	3,734	1,455	1,731	*547	5,839	5,113	*726	...	613
South Carolina . . . . .	278,640	121,953	50,471	38,137	33,345	112,304	94,138	7,767	...	44,382
South Dakota . . . . .	185,258	117,063	53,224	41,388	22,451	31,517	24,683	5,679	...	36,678
Tennessee . . . . .	488,420	109,447	52,240	45,299	11,908	350,346	109,606	21,663	...	28,627
Texas . . . . .	2,222,298	873,928	337,965	335,890	200,073	785,297	445,492	125,975	...	563,073
Utah . . . . .	273,782	71,575	25,915	37,255	8,405	180,329	92,425	30,042	*57,862	21,879
Vermont . . . . .	189,707	20,928	10,993	8,954	*981	151,053	17,658	2,587	...	17,726
Virginia . . . . .	480,802	124,862	60,585	56,592	7,686	297,143	167,914	25,158	...	58,797
Washington . . . . .	313,134	74,233	33,083	36,528	4,622	188,739	66,625	44,120	...	50,163
West Virginia . . . . .	284,511	79,376	40,194	38,070	*1,113	160,014	99,231	15,621	...	45,121
Wisconsin . . . . .	1,312,128	275,268	147,349	104,350	23,569	316,756	170,466	53,572	...	720,103
Wyoming . . . . .	137,265	62,991	31,901	22,090	9,000	45,632	22,802	9,655	...	28,642

\* Estimate based on a sample size of 10–29. ... Sample size too small to report data reliably.

<sup>1</sup> Includes expenditures for magazine subscriptions, membership dues and contributions, land leasing and ownership, and licenses, stamps, tags, and permits.

Note: U.S. totals include responses from participants residing in the District of Columbia, as described in Appendix D.

**Table 64. Expenditures for Fishing by State Where Spending Took Place: 2006**

(Population 16 years old and older. Expenditures in thousands of dollars)

State where spending took place	Total expenditures	Trip-related expenditures				Expenditures for equipment				Expenditures for other items <sup>1</sup>
		Total trip-related	Food and lodging	Transportation	Other trip costs	Total equipment	Fishing equipment	Auxiliary equipment	Special equipment	
<b>United States, total . . .</b>	<b>42,011,124</b>	<b>1,787,560</b>	<b>6,302,524</b>	<b>4,961,830</b>	<b>6,614,205</b>	<b>18,757,370</b>	<b>5,332,401</b>	<b>778,740</b>	<b>12,646,229</b>	<b>5,375,195</b>
Alabama . . . . .	699,532	417,279	126,363	101,414	189,502	221,832	139,540	*11,462	*70,830	60,421
Alaska . . . . .	516,749	362,019	132,056	99,945	130,018	135,237	39,504	7,063	*88,671	19,492
Arizona . . . . .	802,405	245,741	80,144	67,026	98,570	547,205	33,529	6,164	*507,512	9,460
Arkansas . . . . .	420,571	272,160	106,389	84,709	81,062	127,228	66,454	*8,058	*52,717	21,183
California . . . . .	2,420,503	1,203,244	410,279	291,465	501,500	1,140,587	326,982	90,940	*722,665	76,672
Colorado . . . . .	542,937	300,324	125,067	111,885	63,373	224,118	52,838	10,974	*160,306	18,494
Connecticut . . . . .	243,552	130,742	37,910	30,819	62,013	102,988	49,268	12,677	*41,044	9,821
Delaware . . . . .	96,775	48,536	17,785	12,477	18,274	39,246	14,181	6,568	*18,497	8,994
Florida . . . . .	4,308,583	1,973,985	680,147	419,711	874,127	1,944,798	523,433	37,035	1,384,330	389,800
Georgia . . . . .	1,020,411	370,743	152,886	100,416	117,441	459,927	134,972	24,435	*300,519	189,741
Hawaii . . . . .	110,516	72,728	24,600	18,480	29,648	36,849	27,297	6,850	...	939
Idaho . . . . .	282,972	173,993	75,877	58,256	39,860	90,425	38,885	*5,943	...	18,554
Illinois . . . . .	774,319	279,732	94,413	92,326	92,994	455,317	136,349	25,255	*293,714	39,269
Indiana . . . . .	627,167	242,624	67,201	67,546	107,877	316,108	110,784	17,648	*187,676	68,435
Iowa . . . . .	322,648	140,617	46,271	40,607	53,740	163,104	59,311	13,215	*90,578	18,927
Kansas . . . . .	242,444	127,996	40,561	54,627	32,808	108,983	44,817	6,371	*57,794	5,465
Kentucky . . . . .	855,417	237,430	96,607	67,266	73,557	596,587	125,828	*9,659	...	21,400
Louisiana . . . . .	1,006,136	337,363	96,927	87,043	153,393	424,564	122,194	*7,633	*294,738	244,208
Maine . . . . .	257,124	118,002	51,735	39,653	26,613	115,792	27,679	3,653	*84,460	23,330
Maryland . . . . .	568,211	292,638	88,459	59,475	144,703	253,571	97,600	6,691	*149,280	22,003
Massachusetts . . . . .	769,631	297,312	85,723	56,248	155,341	397,049	98,524	14,957	283,568	75,269
Michigan . . . . .	1,671,114	584,030	210,052	180,363	193,615	720,637	190,066	*13,532	*517,039	366,446
Minnesota . . . . .	2,725,366	859,657	350,889	299,240	209,528	1,220,074	218,400	26,485	975,188	645,635
Mississippi . . . . .	240,332	105,618	38,357	33,464	33,798	120,138	50,651	*4,797	...	14,576
Missouri . . . . .	1,093,206	457,963	187,138	135,593	135,232	517,239	134,910	18,514	*363,815	118,003
Montana . . . . .	226,349	149,800	58,092	61,516	30,192	59,938	23,765	*3,186	*32,987	16,610
Nebraska . . . . .	181,280	60,992	24,365	22,042	14,584	83,777	32,130	4,978	*46,669	36,511
Nevada . . . . .	144,634	61,390	26,342	23,476	11,572	65,190	26,863	2,708	...	18,054
New Hampshire . . . . .	172,413	88,581	35,674	28,613	24,293	62,892	21,588	6,559	*34,744	20,940
New Jersey . . . . .	752,273	471,178	88,650	74,589	307,939	253,729	128,299	14,311	*111,118	27,366
New Mexico . . . . .	301,101	128,413	51,059	48,588	28,766	80,729	29,216	7,293	*44,220	91,958
New York . . . . .	925,701	584,644	197,876	143,792	242,976	269,704	180,746	18,774	*70,185	71,354
North Carolina . . . . .	1,124,274	692,977	281,279	169,492	242,206	311,489	166,816	28,474	*116,198	119,809
North Dakota . . . . .	93,729	39,076	14,367	18,762	5,948	52,346	15,745	*1,007	...	2,306
Ohio . . . . .	1,062,036	558,793	198,886	125,429	234,478	461,692	147,939	21,790	*291,963	41,552
Oklahoma . . . . .	501,786	301,408	108,505	106,687	86,216	169,020	87,604	5,849	*75,566	31,358
Oregon . . . . .	496,941	258,474	102,998	98,698	56,779	199,319	101,008	19,364	*78,947	39,149
Pennsylvania . . . . .	1,291,211	298,610	113,989	107,453	77,168	896,076	153,021	37,226	*705,829	96,526
Rhode Island . . . . .	153,694	78,900	20,276	9,561	49,063	68,950	18,458	7,346	*43,146	5,845
South Carolina . . . . .	1,404,133	525,937	194,829	115,546	215,562	725,624	176,118	*28,664	*520,842	152,572
South Dakota . . . . .	131,089	58,624	25,821	21,408	11,395	38,564	20,215	*1,698	...	33,900
Tennessee . . . . .	599,683	290,424	101,063	90,676	98,685	280,692	90,631	11,076	*178,985	28,568
Texas . . . . .	3,237,212	1,563,994	448,390	480,681	634,924	1,363,877	496,454	47,487	...	309,341
Utah . . . . .	371,087	183,859	65,081	63,356	55,421	174,560	54,025	15,828	*104,708	12,667
Vermont . . . . .	63,749	40,535	17,916	9,858	12,762	18,907	8,023	*1,591	...	4,306
Virginia . . . . .	733,777	395,264	122,771	72,448	200,045	318,616	95,681	14,978	*207,957	19,897
Washington . . . . .	904,796	354,880	117,878	120,130	116,873	485,945	139,299	35,378	311,267	63,971
West Virginia . . . . .	333,454	153,525	63,284	57,739	32,503	154,149	38,504	21,775	...	25,780
Wisconsin . . . . .	1,647,035	747,312	351,744	225,688	169,879	623,420	152,350	8,795	462,275	276,303
Wyoming . . . . .	521,479	110,604	44,488	50,939	15,178	97,185	17,480	*3,037	*76,668	313,690

\* Estimate based on a sample size of 10–29. ... Sample size too small to report data reliably.

<sup>1</sup> Includes expenditures for magazine subscriptions, membership dues and contributions, land leasing and ownership, and licenses, stamps, tags, and permits.

Note: U.S. totals include responses from participants residing in the District of Columbia, as described in Appendix D.

*Standard Errors of Estimated Numbers.* The approximate standard error,  $S_x$ , of an estimated number shown in this report can be obtained using the following formulas. Formula (1) is used to calculate the standard errors of levels of sportspersons, anglers, and wildlife watchers.

$$s_x = \sqrt{ax^2 + bx} \quad (1)$$

Here,  $x$  is the size of the estimate and  $a$  and  $b$  are the parameters in the tables associated with the particular characteristic.

Formula (2) is used for standard errors of aggregates, i.e., trips, days, and expenditures.

$$s_x = \sqrt{ax^2 + bx + \frac{cx^2}{y}} \quad (2)$$

Here,  $x$  is again the size of the estimate;  $y$  is the base of the estimate; and  $a$ ,  $b$ , and  $c$  are the parameters in the tables associated with the particular characteristic.

### Illustration of the Computation of the Standard Error of an Estimated Number

Table 1 in this report shows that 33,916,000 persons 16 years old and older either fished or hunted in the United States in 2006. Using formula (1) with the parameters  $a = -0.000027$  and  $b = 6,125$  from table D-7, the approximate standard error of the estimated number of 33,916,000 sportspersons 16 years old and older is

$$s_x = \sqrt{-0.000027 \times 33,916,000^2 + 6,125 \times 33,916,000} = 420,330$$

The 95-percent confidence interval for the **estimated** number of sportspersons 16 years old and older is from 33,092,000 to 34,740,000, i.e.,  $33,916,000 \pm 1.96 \times 420,330$ . Therefore, a conclusion that the average estimate derived from all possible samples lies within a range computed in this way would be correct for roughly 95 percent of all possible samples.

Table 1 shows that 12,510,000 hunters 16 years old and older engaged in 219,925,000 days of participation in 2006. Using formula (2) with the parameters  $a = -0.000235$ ,  $b = -85,241$ , and  $c = 22,698$  from table D-9, the approximate standard error on 219,925,000 estimated days on an estimated base of 12,510,000 hunters is

$$s_x = \sqrt{-0.000235 \times 219,925,000^2 - 85,241 \times 219,925,000 + \frac{22,698 \times 219,925,000^2}{12,510,000}} = 7,592,000$$

The 95-percent confidence interval on the estimate of 219,925,000 days is from 205,044,000 to 234,806,000, i.e.,  $219,925,000 \pm 1.96 \times 7,592,000$ . Again, a conclusion that the average estimate derived from all possible samples lies within a range computed in this way would be correct for roughly 95 percent of all possible samples.

*Standard Errors of Estimated Percentages.* The reliability of an estimated percentage, computed using sample data for both numerator and denominator, depends on the size of the percentage and its base. Estimated percentages are relatively more reliable than the corresponding estimates of the numerators of the percentages, particularly if the percentages are 50 percent or more. When the numerator and the denominator of the percentage are in different categories, use the parameter in the tables indicated by the numerator.

The approximate standard error,  $s_{x,p}$ , can be obtained by use of the formula

$$s_{x,p} = \sqrt{\frac{bp(100-p)}{x}} \quad (3)$$

Here,  $x$  is the total number of sportspersons, hunters, etc., which is the base of the percentage;  $p$  is the percentage ( $0 \leq p \leq 100$ ); and  $b$  is the parameter in the tables associated with the characteristic in the numerator of the percentage.

### Illustration of the Computation of the Standard Error of an Estimated Percentage

Table 1 shows that of the 12,510,000 hunters 16 years old and older, 18.3 percent hunted migratory birds. From table D-7, the appropriate  $b$  parameter is 5,756. Using formula (3), the approximate standard error on the estimate of 18.3 percent is



Table D-1. **Approximate Standard Errors and 95-Percent Confidence Intervals for Selected Fishing Estimates: 2006**

Anglers, days, and expenditures	Estimate	Standard error	Lower 95 percent	Upper 95 percent
<b>ANGLERS (thousands)</b>				
<b>Total</b> .....	<b>29,952</b>	<b>399</b>	<b>29,169</b>	<b>30,735</b>
Freshwater .....	25,431	372	24,702	26,160
Freshwater, except Great Lakes .....	25,035	370	24,311	25,759
Great Lakes .....	1,420	93	1,238	1,602
Saltwater .....	7,717	214	7,298	8,136
<b>DAYS OF FISHING (thousands)</b>				
<b>Total</b> .....	<b>516,781</b>	<b>15,828</b>	<b>485,758</b>	<b>547,804</b>
Freshwater .....	433,337	14,153	405,597	461,077
Freshwater, except Great Lakes .....	419,942	13,797	392,900	446,984
Great Lakes .....	18,016	2,222	13,661	22,371
Saltwater .....	85,663	4,641	76,566	94,760
<b>Average Days Per Angler</b>				
<b>Total</b> .....	<b>17.3</b>	<b>0.4</b>	<b>16.5</b>	<b>18.0</b>
Freshwater .....	17.0	0.4	16.2	17.9
Freshwater, except Great Lakes .....	16.8	0.4	16.0	17.6
Great Lakes .....	12.7	1.1	10.4	14.9
Saltwater .....	11.1	0.4	10.2	12.0
<b>FISHING EXPENDITURES (thousands of dollars)</b>				
<b>Total<sup>1</sup></b> .....	<b>42,011,124</b>	<b>1,257,135</b>	<b>39,547,139</b>	<b>44,475,109</b>
Freshwater .....	26,348,217	858,427	24,665,699	28,030,735
Freshwater, except Great Lakes .....	24,581,671	808,752	22,996,516	26,166,826
Great Lakes .....	1,507,656	193,877	1,127,657	1,887,655
Saltwater .....	8,879,948	514,207	7,872,103	9,887,793
<b>Average Expenditures Per Angler (dollars)</b>				
<b>Total<sup>1</sup></b> .....	<b>1,403</b>	<b>32</b>	<b>1,340</b>	<b>1,466</b>
Freshwater .....	1,036	26	986	1,086
Freshwater, except Great Lakes .....	982	24	934	1,030
Great Lakes .....	1,062	101	864	1,260
Saltwater .....	1,151	50	1,053	1,248

<sup>1</sup> The total expenditures line includes "other" expenditures, such as membership dues, contributions, and licenses, while the type of fishing expenditure lines include trip-related and equipment expenditures only.



Table D-2. **Approximate Standard Errors and 95-Percent Confidence Intervals for Selected Hunting Estimates: 2006**

Hunters, days, and expenditures	Estimate	Standard error	Lower 95 percent	Upper 95 percent
<b>HUNTERS (thousands)</b>				
<b>Total</b> .....	<b>12,510</b>	<b>261</b>	<b>11,999</b>	<b>13,021</b>
Big game .....	10,682	242	10,207	11,157
Small game .....	4,797	164	4,475	5,119
Migratory bird .....	2,293	114	2,069	2,517
Other animals .....	1,128	80	970	1,286
<b>DAYS OF HUNTING (thousands)</b>				
<b>Total</b> .....	<b>219,925</b>	<b>7,592</b>	<b>205,045</b>	<b>234,805</b>
Big game .....	164,061	6,073	152,158	175,964
Small game .....	52,395	2,807	46,894	57,896
Migratory bird .....	19,770	1,446	16,935	22,605
Other animals .....	15,205	1,817	11,644	18,766
<b>Average Days Per Hunter</b>				
<b>Total</b> .....	<b>17.6</b>	<b>0.4</b>	<b>16.7</b>	<b>18.4</b>
Big game .....	15.4	0.4	14.6	16.2
Small game .....	10.9	0.4	10.1	11.7
Migratory bird .....	8.6	0.5	7.7	9.5
Other animals .....	13.5	1.2	11.2	15.8
<b>HUNTING EXPENDITURES (thousands of dollars)</b>				
<b>Total<sup>1</sup></b> .....	<b>22,893,156</b>	<b>1,097,899</b>	<b>20,741,273</b>	<b>25,045,039</b>
Big game .....	11,754,122	601,296	10,575,582	12,932,662
Small game .....	2,365,778	166,802	2,038,845	2,692,711
Migratory bird .....	1,349,148	128,833	1,096,636	1,601,660
Other animals .....	207,856	29,591	149,857	265,855
<b>Average Expenditures Per Hunter (dollars)</b>				
<b>Total<sup>1</sup></b> .....	<b>1,830</b>	<b>67</b>	<b>1,699</b>	<b>1,961</b>
Big game .....	1,100	43	1,017	1,184
Small game .....	493	26	442	544
Migratory bird .....	588	41	507	669
Other animals .....	184	19	146	222

<sup>1</sup>The total expenditures line includes "other" expenditures, such as membership dues, contributions, and licenses, while the type of hunting expenditure lines include trip-related and equipment expenditures only.

**Table D-3. Approximate Standard Errors and 95-Percent Confidence Intervals for Selected Fishing and Hunting Expenditure Estimates: 2006**

(Thousands of dollars)

Expenditures	Estimate	Standard error	Lower 95 percent	Upper 95 percent
<b>FISHING AND HUNTING EXPENDITURES</b>				
<b>Total</b>	<b>76,650,027</b>	<b>2,166,932</b>	<b>72,402,840</b>	<b>80,897,214</b>
Trip-related	24,557,174	714,964	23,155,846	25,958,502
Food and lodging	9,093,769	279,376	8,546,191	9,641,347
Transportation	7,658,755	233,992	7,200,130	8,117,380
Other trip costs	7,804,650	252,636	7,309,484	8,299,816
Equipment				
Fishing	5,365,933	188,904	4,995,681	5,736,185
Hunting	5,716,758	273,637	5,180,429	6,253,087
Auxiliary	2,969,992	143,901	2,687,945	3,252,039
Special	26,910,442	2,260,113	22,480,620	31,340,264
Other				
Books, magazine subscriptions	304,181	16,416	272,006	336,356
Membership dues and contributions	593,242	41,212	512,467	674,017
Land leasing and ownership	8,986,342	902,640	7,217,168	10,755,516
Licenses, stamps, tags, and permits	1,245,963	39,478	1,168,586	1,323,340
<b>Fishing Expenditures</b>				
<b>Total</b>	<b>42,011,124</b>	<b>1,257,135</b>	<b>39,547,139</b>	<b>44,475,109</b>
Trip-related	17,878,560	552,205	16,796,238	18,960,882
Food and lodging	6,302,524	206,999	5,896,805	6,708,243
Transportation	4,961,830	163,180	4,641,996	5,281,664
Other trip costs	6,614,205	218,667	6,185,617	7,042,793
Equipment				
Fishing	5,332,401	188,871	4,962,214	5,702,588
Auxiliary	778,740	58,892	663,312	894,168
Special	12,646,229	1,404,577	9,893,258	15,399,200
Other				
Books, magazine subscriptions	115,019	9,174	97,038	133,000
Membership dues and contributions	157,728	19,181	120,133	195,323
Land leasing and ownership	4,598,988	783,665	3,063,004	6,134,972
Licenses, stamps, tags, and permits	503,460	16,857	470,420	536,500
<b>Hunting Expenditures</b>				
<b>Total</b>	<b>22,893,156</b>	<b>1,097,899</b>	<b>20,741,273</b>	<b>25,045,039</b>
Trip-related	6,678,614	329,123	6,033,533	7,323,695
Food and lodging	2,791,245	140,998	2,514,888	3,067,602
Transportation	2,696,924	133,733	2,434,807	2,959,041
Other trip costs	1,190,445	88,756	1,016,483	1,364,407
Equipment				
Hunting	5,366,357	277,519	4,822,419	5,910,295
Auxiliary	1,330,216	90,892	1,152,068	1,508,364
Special	4,034,928	749,373	2,566,157	5,503,699
Other				
Books, magazine subscriptions	83,524	6,323	71,132	95,916
Membership dues and contributions	269,660	26,130	218,444	320,876
Land leasing and ownership	4,387,354	468,754	3,468,597	5,306,111
Licenses, stamps, tags, and permits	742,503	34,036	675,793	809,213