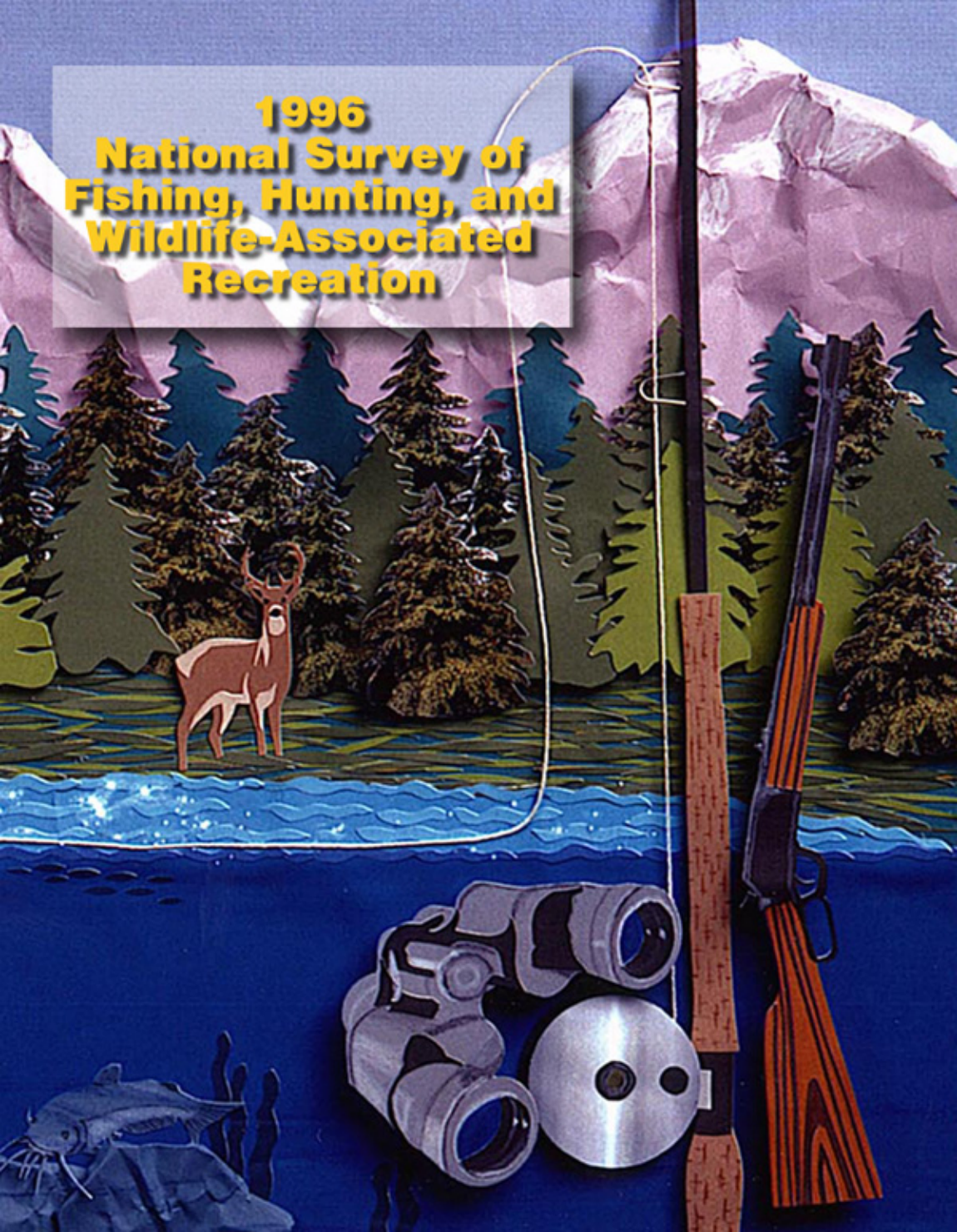
1996 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation



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National Survey of Fishing, Hunting, and Wildlife-Associated Recreation

Issued November 1997

U.S. Department of the Interior
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As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure their development in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

The mission of the Department's Fish and Wildlife Service is to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of the American people. The Service is responsible for national programs of vital importance to our natural resources, including administration of the Federal Aid in Sport Fish Restoration and the Federal Aid of Wildlife Restoration Programs. These two grant programs provide financial assistance to the States for projects to enhance and protect fish and wildlife resources and to assure their availability to the public for recreational purposes. Funds from the administrative portion of these programs are used to pay for the National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

Economics and Statistics Administration

Lee Price, Acting Under Secretary for Economic Affairs

BUREAU OF THE CENSUS

Martha Farnesworth Riche, Director

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Foreword

Ours is a country with a rich tradition of enjoying nature. Whether casting a fly or snapping a shutter, Americans find wildlife-associated recreation a source of lifelong enjoyment and renewal.

The results of the 1996 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation reflect this national passion for wild things and wild places. Seventy-seven million Americans 16 years or older, or 40 percent of the adult population, enjoyed some form of wildlife-related recreation during 1996. In doing so, they pumped $100 billion into the national economy, supporting hundreds of thousands of jobs.

The mission of the U.S. Fish and Wildlife Service is to conserve and enhance our nation's fish and wildlife and its habitat. The Service works in partnership with state wildlife agencies, conservation organizations, sportsmen's groups, local governments, corporations, and individual citizens to perform this mission.

For conservation efforts to be effective, however, natural resource managers need detailed information on how people use fish and wildlife resources. The 1996 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation is the most comprehensive survey of its kind. It is an important tool for natural resource professionals in planning and managing these resources for the enjoyment and benefit of all Americans.

The 1996 Survey was requested by the States through the International Association of Fish and Wildlife Agencies. It is the ninth in a series of surveys on resource use by anglers, hunters, and those who enjoy observing wildlife. The Survey has been sponsored by the Service since 1955. It is financed by hunters, anglers, and boaters through excise taxes on sporting arms, ammunition, fishing equipment, and motorboat fuels as authorized under the Federal Aid in Sport Fish and Wildlife Restoration Acts.

We can all be gratified that wildlife-related recreation and the conservation ethic that flows from it remain strong in America.

Jamie Rappaport Clark, Director
Fish and Wildlife Service
U.S. Department of the Interior

Survey Background and Method

The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (Survey) has been conducted since 1955 and is one of the oldest and most comprehensive continuing recreation surveys. The purpose of the Survey is to gather information on the number of anglers, hunters, and wildlife-watching participants (formerly known as primary nonconsumptive wildlife-related participants) in the United States. Information also is collected on how often these recreationists participate and how much they spend on their activities.

The planning process for the 1996 Survey began in 1994 when the International Association of Fish and Wildlife Agencies (IAFWA) passed a resolution asking the Fish and Wildlife Service to conduct the ninth National Survey of wildlife-related recreation. Funding for the Survey came from the administrative portion of the Federal Aid in Sport Fish and Wildlife Restoration Programs.

Consultations with State and Federal agencies and nongovernmental organizations such as the Wildlife Management Institute, American Sportfishing Association, B.A.S.S., Inc., Wild Bird Feeding Institute, and American Fisheries Society started in early 1994 to ascertain survey content. Other sportsmen's organizations and conservation groups, industry representatives, and researchers also provided valuable advice on questionnaire development, data collection, and reporting.

Four regional technical committees were set up under the auspices of the IAFWA to ensure that State fish and wildlife agencies had an opportunity to participate in all phases of survey planning and design. The committees were made up of agency representatives.

The Survey was conducted in two phases by the U.S. Bureau of Census for the Fish and Wildlife Service. The first phase was the screen which began in April 1996. During the screening phase, the Bureau of Census interviewed a sample of 80,000 households nationwide, primarily by telephone, to determine who in the household had fished, hunted, or engaged in wildlife-watching activities in 1995, and who had engaged or planned to engage in those activities in 1996. In most cases, one adult household member provided information for all household members. It is important to note that the screen primarily covered 1995 activities while the next, more in-depth phase covered 1996 activities. For more information on the 1995 data, refer to Appendix C.

The second phase of the Survey consisted of detailed interviews conducted about every four months. The first interview wave began in April 1996, the second in September 1996, and the last in January 1997. Interviews were conducted with samples of likely anglers, hunters, and wildlife-watching participants who were identified in the initial screening phase. These interviews were conducted

primarily by telephone, with in-person interviews for those respondents who could not be reached by telephone. Respondents in the second survey phase were limited to those at least 16 years old. Each respondent provided information pertaining only to his or her activities and expenditures. Sample sizes were designed to provide statistically reliable results at the State level for fishing, hunting, and wildlife-watching activities. Altogether, interviews were completed for 22,578 anglers and hunters and 11,759 wildlife watchers. More detailed information on sampling procedures and response rates is found in Appendix D.

Comparability with Previous Surveys

The 1996 Survey questions and methodology were similar to those used in the 1991 Survey. Therefore, the 1996 estimates are comparable to the 1991 estimates. The 1996 Survey was the first to use computer-assisted interviews which improved the efficiency and timeliness of data collection.

The methodology of the 1996 and 1991 Surveys did differ significantly from the 1985 and 1980 Surveys, so their estimates are not directly comparable to those earlier surveys. The changes in methodology included reducing the recall period over which respondents had to remember their activities and expenditures. Previous Surveys used a 12-month recall period which resulted in greater reporting bias. Research on recall bias found that the amount of activity and expenditures reported in 12-month recall Surveys was over-estimated in comparison with the amount reported in shorter recall periods.

The trends information presented in this report takes the differences of the earlier surveys into account in comparing their estimates with those of the 1996 and 1991 Surveys. See the Summary Section and Appendix B.

Highlights

Introduction

The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation reports results from interviews with U.S. residents about their fishing, hunting, and other fish- and wildlife-related recreation. This report focuses on 1996 participation and expenditures of U.S. residents 16 years of age and older.

The numbers reported can be compared with those in the 1991 Survey reports. The methodology used in 1996 was similar to that used in 1991. These results should not be directly compared with the results from Surveys earlier than 1991 because of changes in methodology. These changes in methodology were made in 1991 and 1996 to improve accuracy in the information provided. Trend information from 1955 to 1985 is presented in Appendix B.

The report also provides information on participation in wildlife-related recreation in 1995, particularly of persons 6 to 15 years of age. The 1995 information is provided in Appendix C. Additional information about the scope and coverage of the Survey can be found in the Survey Background and Method section of this report. The remainder of this section defines important terms used in the Survey.

Wildlife-Associated Recreation

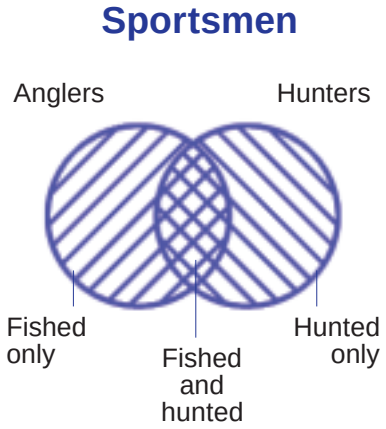
Wildlife-associated recreation includes fishing, hunting, and wildlife-watching activities. These categories are not mutually exclusive because many individuals enjoyed fish and wildlife in several ways in 1996. Wildlife-associated recreation is reported in two major categories: (1) fishing and hunting, and (2) wildlife watching (formerly referred to as nonconsumptive wildlife-related recreation). Wildlife-watching includes observing, photographing, and feeding fish and wildlife.

Fishing and Hunting

This Survey reports information about residents of the United States who fished or hunted in 1996, regardless of whether they were licensed. The fishing and hunting sections of this report are organized to report three groups: (1) sportsmen, (2) anglers, and (3) hunters.

Sportsmen

Sportsmen are persons who fished or hunted. Individuals who fished or hunted commercially in 1996 are reported as sportsmen only if they fished or hunted for recreation. The sportsmen group is composed of the three subgroups in the diagram below: (1) those who



fished and hunted, (2) those who only fished, and (3) those who only hunted. The total number of sportsmen is equal to the sum of people who only fished, only hunted, and both hunted and fished. It is not the sum of all anglers and all hunters, because those people who both fished and hunted are included in both the angler and hunter population and would be incorrectly counted twice.

Anglers

Anglers are sportsmen who only fished plus those who fished and hunted. The angler group includes not only licensed hook and line anglers, but also those who have no license and those who use special methods such as fishing with spears. Three types of fishing are reported: (1) freshwater, excluding the Great Lakes, (2) Great Lakes, and (3) saltwater. Since many anglers enjoyed more than one type of fishing, the total number of anglers is less than the sum of the three types of fishing.

Hunters

Hunters are sportsmen who only hunted plus those who hunted and fished. The hunter group includes not only licensed hunters using common hunting practices, but also those who have no license and those who engaged in hunting with a bow and arrow, muzzleloader, other primitive firearms, or a pistol or handgun. Four types of hunting are reported: (1) big game, (2) small game, (3) migratory bird, and (4) other animals. Since many hunters enjoyed more than one type of hunting, the sum of hunters for big game, small game, migratory bird, and other animals exceeds the total number of hunters.

Wildlife-Watching Activities

(formerly Nonconsumptive Wildlife-Related Recreation)

Since 1980, the National Survey of Fishing, Hunting, and Wildlife-Associated Recreation has included information on wildlife-watching activities in addition to fishing and hunting. However, the 1991 and 1996 Surveys, unlike the 1980 and 1985 Surveys, collected data only for those activities where the primary purpose was wildlife watching (observing, photographing, or feeding wildlife). Secondary wildlife-watching activities, such as incidentally observing wildlife while pleasure driving, are not included.

Many people, including sportsmen, enjoyed wildlife-related recreation other than fishing or hunting. We refer to these nonharvesting activities, such as observing, feeding, or photographing fish and other wildlife, as wildlife-watching activities. Two types of wildlife-watching activity are reported: (1) nonresidential and (2) residential. Because some people participate in more than one type of wildlife-watching activity, the sum of participants in each type will be greater than the total number of wildlife-watching participants. Only those engaged in activities whose primary purpose was wildlife watching are included in the Survey. The two types of wildlife-watching activities are defined below.

Nonresidential

This group included persons who took trips or outings of at least 1 mile for the primary purpose of observing, feeding, or photographing fish and wildlife. Trips to fish or hunt or scout and trips to zoos, circuses, aquariums, and museums were not considered wildlife-watching activities.

Residential

This group included those whose activities are within 1 mile of home and involve one or more of the following: (1) closely observing or trying to identify birds or other wildlife; (2) photographing wildlife; (3) feeding birds or other wildlife on a regular basis; (4) maintaining natural areas of at least one-quarter acre where benefit to wildlife is the primary concern; (5) maintaining plantings (shrubs, agricultural crops, etc.) where benefit to wildlife is the primary concern; or (6) visiting public parks within 1 mile of home for the primary purpose of observing, feeding, or photographing wildlife.

Summary

The Survey revealed that 77 million U.S. residents 16 years old and older participated in wildlife-related recreation activities in 1996. During that year, 35.2 million people fished, 14.0 million hunted, and 62.9 million enjoyed at least one type of wildlife-watching recreation activity including observing, feeding, or photographing fish and other wildlife, in the United States.

The information for participation and expenditures of persons 16 years old and older is based on estimates from the detailed phase of the 1996 Survey. This information is comparable with estimates from the 1991 Survey, but not with earlier ones because of changes in methodology. A complete explanation is provided in Appendix B.

Persons 6 to 15 years old were not included in the second phase (detailed) interviews of 1996 participants. However, an estimate of their participation was calculated using data from the 1991 and 1996 screening surveys. Both screening sources had nearly identical proportions of 6- to 15- year-old participants (9 percent for hunting; 22 percent for fishing; and 16 percent for wildlife-watching activity). Based on these percentages, there were 1.4 million hunters, 10.5 million anglers, and 12.0 million wildlife-watching participants 6 to 15 years old in 1996. More information on 6- to 15-year-olds is provided in Appendix C. For the rest of this report all information pertains to participants 16 years old and older, unless otherwise indicated.

Among anglers, hunters, and wildlife-watching participants, there was a considerable overlap in activities. In 1996, 68 percent of the hunters also fished, and 27 percent of the anglers hunted. In addition, 65 percent of the anglers and 68 percent of the hunters participated in wildlife-watching activities, while 41 percent of all wildlife-watching participants reported hunting and/or fishing during the year.

Expenditures associated with wildlife-related recreation totaled $101 billion in 1996.

Total Wildlife-Associated Recreation	
Participants	77 million
Expenditures	$101 billion
Sportsmen	
Total participants	**39.7 million**
Anglers	35.2 million
Hunters	14.0 million
Total days	**883 million**
Anglers	626 million
Hunters	257 million
Total expenditures	**$72 billion**
Fishing	$38 billion
Hunting	$21 billion
Unspecified	$14 billion
Wildlife Watching	
Total participants	**62.9 million**
Residential	60.8 million
Nonresidential	23.7 million
Total expenditures	**$29 billion**

Trip-related costs were $30.0 billion, while $60.4 billion was spent on equipment and $10.8 billion was spent on other items.

Anglers spent a total of $37.8 billion, hunters $20.6 billion, and wildlife-watching participants $29.2 billion.

Fishing and Hunting

In 1996, 40 million U.S. residents 16 years old and older went fishing and/or hunting. This includes 35.2 million who fished and 14 million who hunted. The overage is accounted for by those who both fished and hunted, 9.5 million.

In 1996, expenditures by sportsmen totaled $71.9 billion. Trip-related expenditures, including those for food, lodging, and transportation, were $20.5 billion, 29 percent of all fishing and hunting expenditures. Total equipment expenditures amounted to $43.7 billion, 61 percent of the total. Other expenditures such as those for magazines, membership dues, contributions, land leasing and ownership, and licenses, stamps, tags, and permits accounted for $7.7 billion, or 11 pecent of all sportsmen's expenditures.

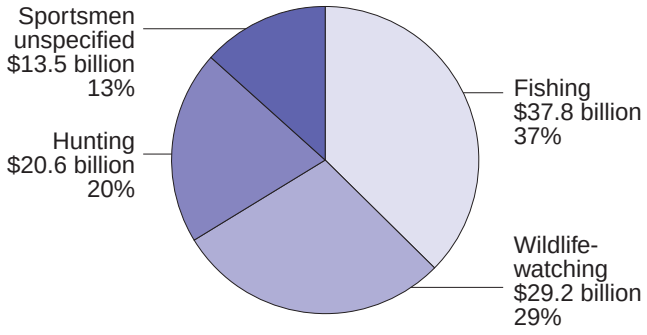
Wildlife-Watching Recreation

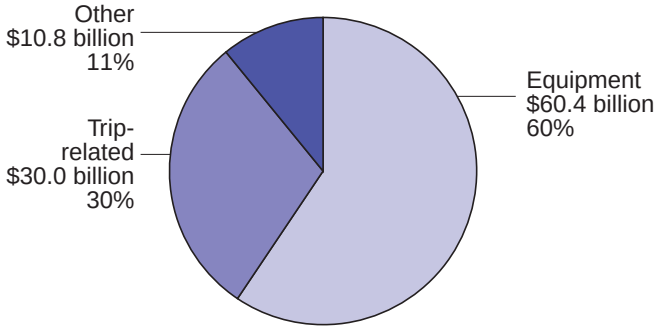
Observing, feeding, or photographing wildlife was enjoyed by 62.9 million people 16 years old and older in 1996. Among this group, 23.7 million people took trips for the primary purpose of enjoying wildlife, while 60.8 million stayed within a mile of their homes to participate in wildlife-watching activities.

In 1996, wildlife-watching participants spent $29.2 billion. Trip-related expenses, including food, lodging, and transportation, totaled $9.4 billion, 32 percent of the total expenditures. A total of $16.7 billion was spent on equipment, 57 percent of all wildlife-watching expenses. The remaining $3.1 billion, 11 percent of the total, was spent on magazines, membership dues, and contributions made to conservation or wildlife-related organizations.

Expenditures for Wildlife-Related Recreation

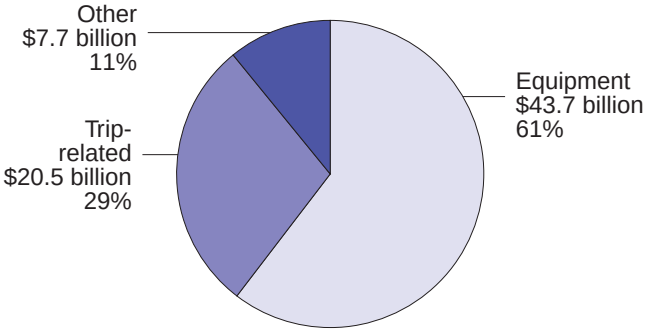
(Total expenditures $101.2 billion)





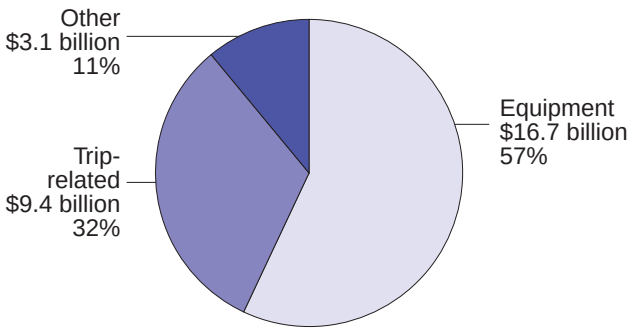
Expenditures by Sportsmen

(Total expenditures $71.9 billion)



Expenditures by Wildlife-Watching Participants

(Total expenditures $29.2 billion)



1991 and 1996 Comparison

A comparison of estimates from the 1991 and 1996 Surveys show that millions of Americans continue to enjoy wildlife-related recreation. While participation in fishing and hunting remained the same, expenditures increased significantly over that 5-year period. In 1991, there were 35.6 million anglers and 14.1 million hunters. In 1996, there were 35.2 million anglers and 14.0 million hunters. In 1996, anglers spent 37 percent more and hunters spent 45 percent more than they did in 1991 for their trips and equipment.

Although participation in wildlife watching (observing, feeding, and photographing wildlife) decreased by 17 percent, from 76.1 million in 1991 to 62.9 million in 1996, expenditures for trips and equipment increased by 21 percent.

1955 to 1996 Findings

The U.S. Fish and Wildlife Service has conducted these National Surveys at approximate 5-year intervals since 1955 (see Appendix B). A 41-year trend can be traced for the number of anglers and hunters that participated in a given year. The number of wildlife-watching participants can be traced over 16 years because wildlife watching has been part of the Survey only since 1980.

Trends show that the number of anglers increased at over twice the rate of the U.S. population growth from 1955 to 1966. The U.S. population increased by 62 percent while the fishing population increased by 138 percent during that period.

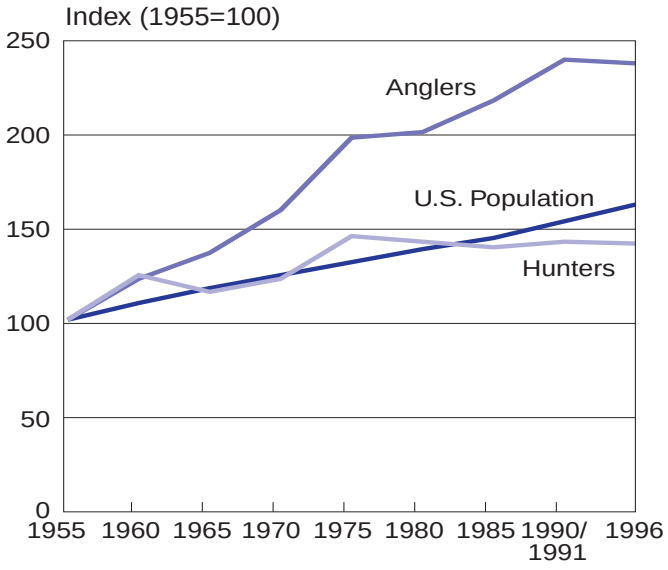
The number of hunters also increased over the 41-year period, but not at a rate equal to the overall population growth. The number of hunters increased 41 percent from 1955 to 1996.

The number of wildlife-watching participants who took trips away from home for the primary purpose of observing, feeding, or photographing wildlife decreased 12 percent from 1980 to 1996. The number of people who fed wildlife around their home decreased by 21 percent.

This trend information is based on published findings from the 1955 to the 1996 Survey reports and unpublished screening data from the 1985 to 1991 Surveys. As explained in Appendix B, the estimates from the published reports of the 1985 and 1991 Surveys are not directly comparable due to methodological changes.

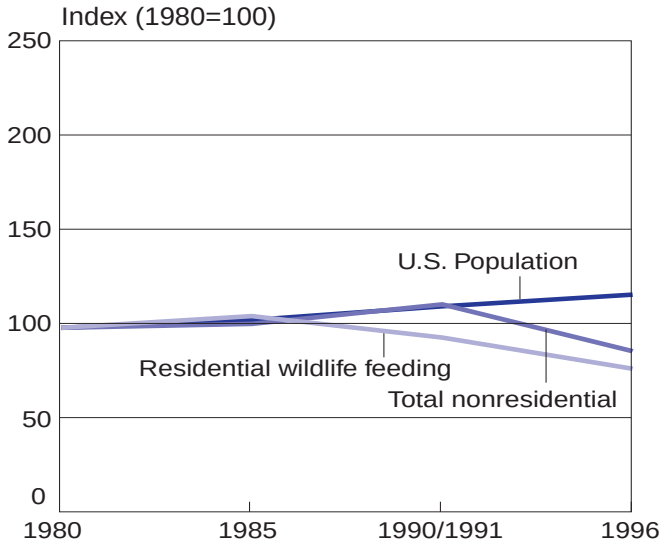
Hunters and Anglers: 1955-1996

(Indices are used to simplify comparisons between the wildlife-related recreation activities)

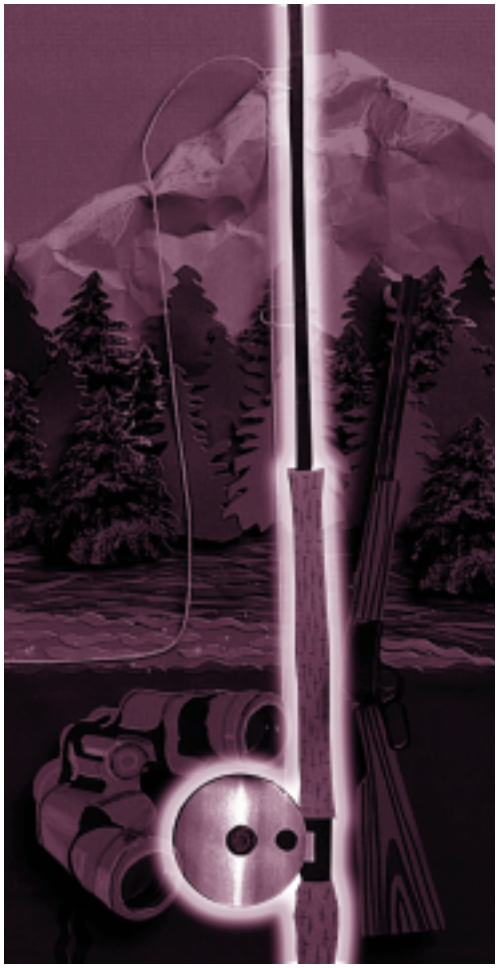


Wildlife-Watching Participants: 1980-1996

(Indices are used to simplify comparisons between the wildlife-related recreation activities)



Fishing



Fishing Highlights

In 1996, 35.2 million U.S. residents 16 years old and older enjoyed a variety of fishing opportunities throughout the United States. Anglers fished 626 million days and took 507 million fishing trips. They spent almost $38 billion on fishing-related expenses during the year. Among the 29.7 million freshwater angers, including those who fished in the Great Lakes, 515 million days were spent and 420 million trips were taken freshwater fishing. Freshwater anglers spent $24.5 billion on freshwater fishing trips and equipment.

Saltwater fishing attracted 9.4 million anglers who enjoyed 87 million trips on 103 million days. They spent $8.1 billion on their trips and equipment.

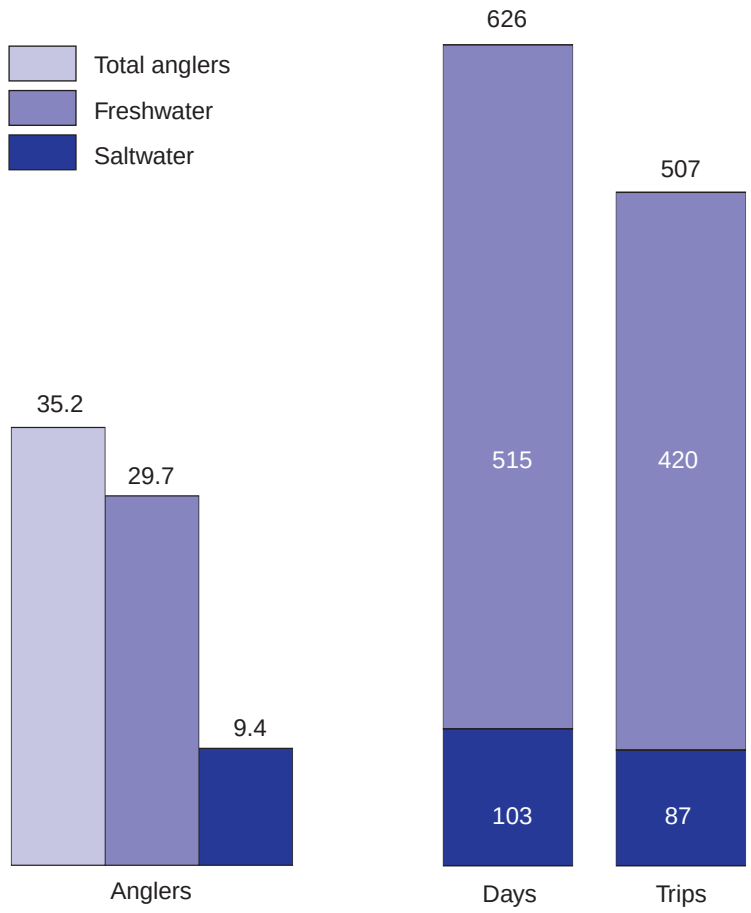
Total Fishing	
Anglers	**35.2 million**
Freshwater	29.7 million
Saltwater	9.4 million
Days	**626 million**
Freshwater	515 million
Saltwater	103 million
Trips	**507 million**
Freshwater	420 million
Saltwater	87 million
Expenditures	**$37.8 billion**
Freshwater	24.5 billion
Saltwater	8.1 billion
Unspecified	5.2 billion

Source: Tables 1, 12, 13, and 16

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

Total Fishing

(In millions)



Scale enlarged to show detail.

Detail does not add to total because of multiple responses.

Fishing Expenditures

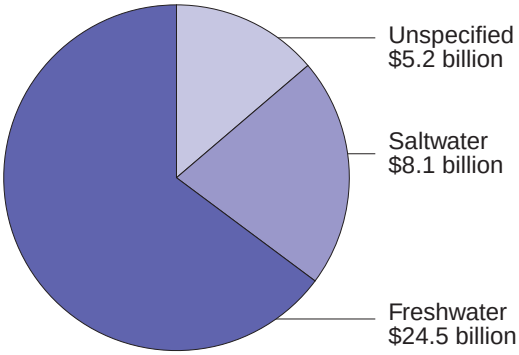
Anglers spent $37.8 billion in 1996 including $15.4 billion spent on travel-related costs, 41 percent of all fishing expenditures. Six billion dollars, 39 percent of all trip-related costs, was spent on food and lodging, and $3.7 billion, 24 percent of trip-related expenditures, was spent on transportation. Other trip expenditures such as land use fees, guide fees, equipment rental, boating expenses, and bait cost anglers $5.7 billion, 37 percent of all trip expenses.

Fishing equipment expenditures totaled $19.2 billion in 1996, 51 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, such as camping equipment, binoculars, and special fishing clothing, amounted to $1.0 billion, 5 percent of equipment costs. Special equipment such as boats, vans, and trail bikes cost anglers $12.8 billion, 67 percent of all equipment costs.

Anglers also spent a considerable amount on land leasing and ownership, $2.3 billion or 6 percent of all expenditures. They spent $902 million on magazines, books, membership dues and contributions, licenses, stamps, tags, and permits.

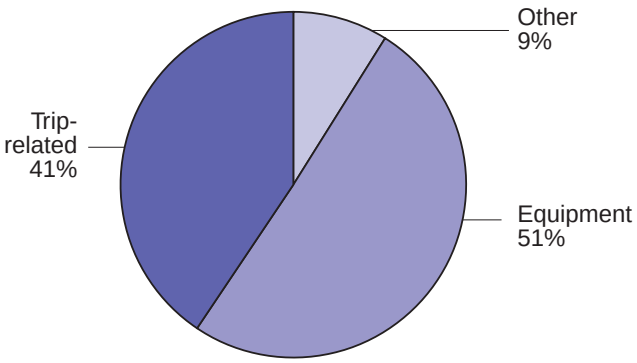
Expenditures

(Total expenditures $37.8 billion)



Percent of Total Fishing Expenditures

(Total expenditures $37.8 billion)



Total Fishing Expenditures	
Total fishing expenditures	**$37.8 billion**
Total trip-related	**$15.4 billion**
Food and lodging	6.0 billion
Transportation	3.7 billion
Other trip costs	5.7 billion
Total equipment expenditures	**$19.2 billion**
Fishing equipment	5.3 billion
Auxiliary equipment	1.0 billion
Special equipment	12.8 billion
Total other fishing expenditures	**3.2 million**
Magazines, books	0.2 billion
Membership dues and contribution	0.2 billion
Land leasing and ownership	2.3 billion
Licenses, stamps, tags, and permits	0.6 billion

Source: Table 12

Freshwater Fishing Highlights

Freshwater fishing was the most popular type of fishing. In 1996, 29.7 million Americans fished 515 million days and took 420 million trips. Their expenditures for trips and equipment totaled $24.2 billion for the year. Excluding those who fished the Great Lakes, freshwater anglers numbered 29.0 million, 82 percent of all anglers. Freshwater anglers who did not fish the Great Lakes took 403 million trips on 485 million days and spent $22.4 billion on trips and equipment for an average of $776 per angler.

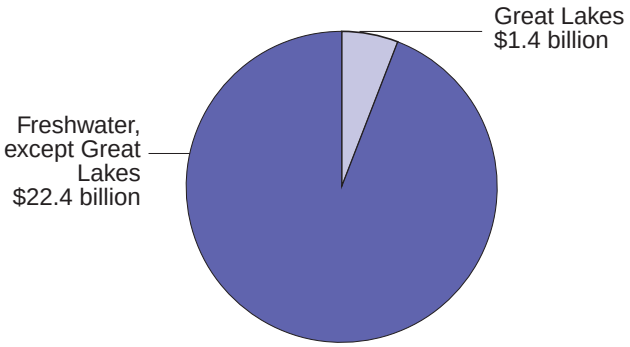
The 2.0 million anglers who fished the Great Lakes enjoyed 20 million days and 17 million trips fishing. Their trip and equipment expenditures, $1.4 billion, were 7 percent of the total freshwater trip and equipment expenditures. Great Lakes anglers averaged $689 for the year.

Freshwater Fishing Expenditures

Trip and equipment expenditures for freshwater fishing (excluding the Great Lakes) totaled $22.4 billion in 1996. Total trip-related expenditures came to $10.0 billion. Food and lodging amounted to $4.1 billion, 41 percent of all trip-related costs. Transportation costs were $2.8 billion, 28 percent of all freshwater trip costs. Other trip-related expenses for anglers fishing freshwater other than the Great Lakes included guide fees, equipment rental, and bait at a cost of $3.2 billion.

Over $12.4 billion was spent on equipment for freshwater fishing, excluding the Great Lakes. Non-Great Lakes freshwater anglers purchased $3.5 billion of fishing equipment such as rods and reels, tackle boxes, depth finders, and artificial lures and flies. Expenditures for auxiliary equipment including

Freshwater Trip and Equipment Expenditures

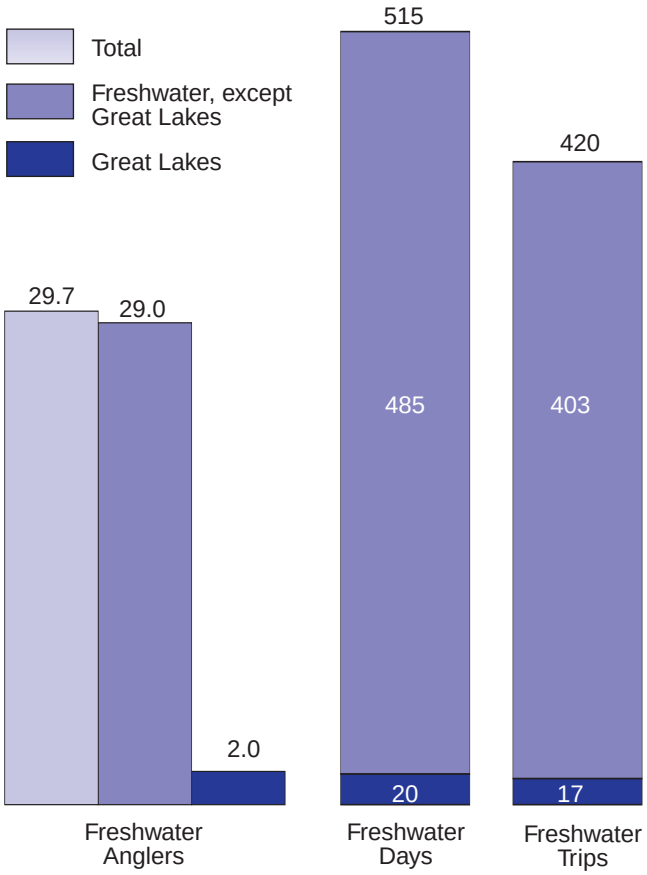


Freshwater Fishing	
Anglers	**29.7 million**
Freshwater, except Great Lakes	29.0 million
Great Lakes	2.0 million
Days	**515 million**
Freshwater, except Great Lakes	485 million
Great Lakes	20 million
Trips	**420 million**
Freshwater, except Great Lakes	403 million
Great Lakes	17 million
Trip and equipment expenditures	**$24.2 billion**
Freshwater, except Great Lakes	22.4 billion
Great Lakes	1.4 billion

Detail does not add to total because of multiple responses and nonresponse.
Source: Tables 1, 13, 14, and 15

Freshwater Fishing

(In millions)



Detail does not add to total because of multiple responses.

camping equipment and binoculars totaled $692 million for the year. Expenditures for special equipment such as boats, vans, and trail bikes accounted for $8.2 billion.

Great Lakes anglers spent $1.4 billion on trips and equipment in 1996. Trip-related expenses totaled $719 million. Of these expenditures, almost $295 million was spent on food and lodging, 41 percent of trip costs; $141 million was spent on transportation, 20 percent of trip costs; and $283 million was spent on other items such as guide fees, equipment rental, and bait, 39 percent of trip costs.

Great Lakes anglers spent $686 million on equipment. They bought $180 million worth of fishing equipment (rods, reels, etc.). They spent $35 million on auxiliary equipment (camping equipment, binoculars, etc.) and $471 million on the purchase of special equipment (boats, vans, etc.).

Saltwater Fishing Highlights

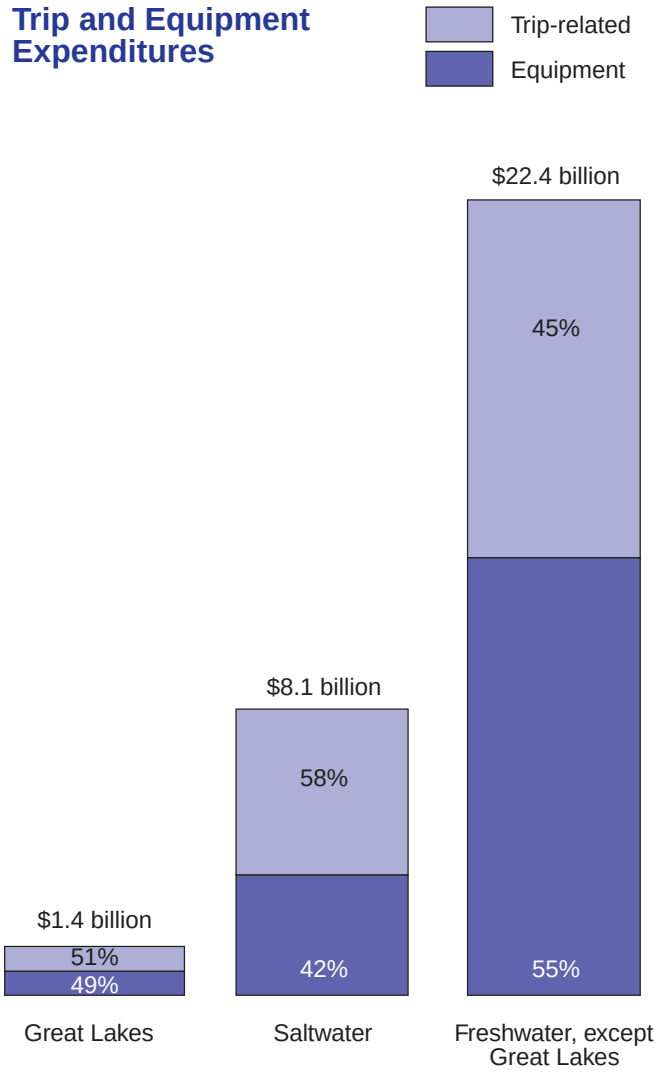
In 1996, 9.4 million anglers enjoyed saltwater fishing on 87 million trips totaling 103 million days. Overall, they spent $8.1 billion during the year on trips and equipment. Of their expenditures, trip-related costs garnered the largest portion, $4.6 billion. Food and lodging cost $1.6 billion, 34 percent of trip expenditures; transportation costs totaled $824 million, or 18 percent of trip costs; and other trip costs such as equipment rental, bait, and guide fees were $2.2 billion.

Saltwater anglers spent $3.4 billion on equipment. They spent $1.1 billion on fishing equipment (rods, reels, etc.), $138 million on auxiliary equipment (camping equipment, binoculars, etc.), and $2.2 billion on special equipment (boats, vans, etc.)

Saltwater Fishing	
Anglers	9.4 million
Days	103 million
Trips	87 million
Trips and equipment expenditures	$8.1 billion

Source: Tables 1 and 16

Trip and Equipment Expenditures



Comparative Fishing Highlights

In 1996, anglers spent an average of 18 days fishing and took an average of 14 fishing trips. Freshwater, non-Great Lakes anglers averaged 17 days fishing and 14 trips. While Great Lakes anglers averaged 10 days fishing and 8 trips, saltwater anglers fished an average of 11 days and took an average of 9 trips.

Overall, anglers spent an average of $1,072 on fishing-related expenses in 1996. They averaged $436 per angler on trip-related expenses, a daily average of $25.

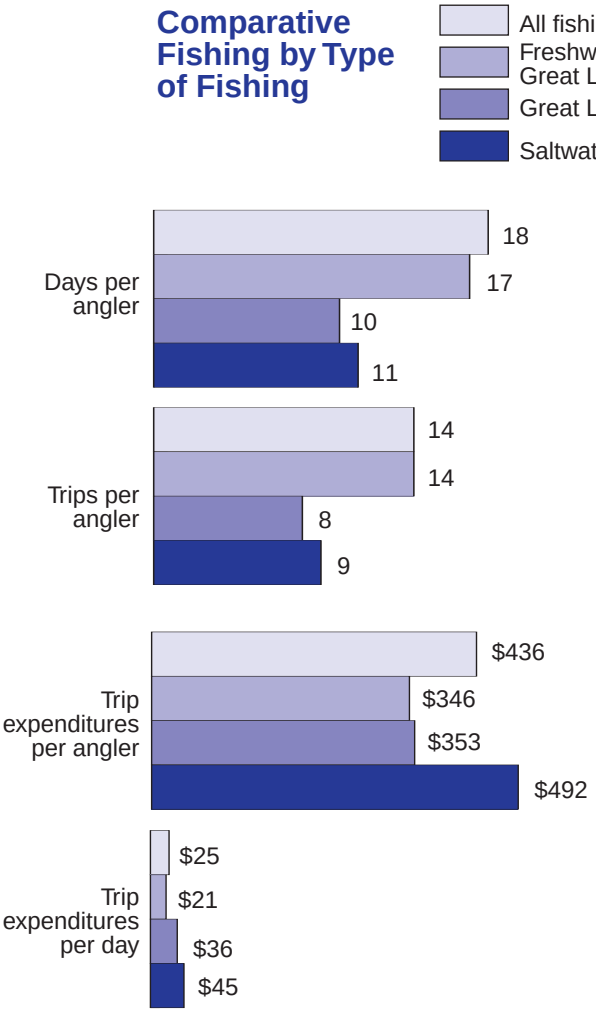
Freshwater anglers, excluding the Great Lakes, averaged $346 per participant in 1996 for trip-related expenses, $21 per day. Great Lakes anglers spent an average of $353 on trip-related expenses, $36 per day. Saltwater anglers averaged $492 on their trip expenditures and spent an average of $45 per day.

Fishing for Selected Fish

Of the 29.0 million anglers who fished freshwater sources other than the Great Lakes, 12.7 million spent 191 million days fishing for black bass. Panfish were sought by 8.0 million anglers on 103 million days. Catfish and bullheads drew 7.4 million anglers on 91 million days. About 6.4 million anglers fished for crappie on 91 million days. Trout fishing attracted 9.0 million anglers on 94 million days in 1996, and 4.8 million anglers fished for white bass and striped bass on 62 million days. Freshwater anglers also commonly fished for walleye, sauger, salmon, and steelhead.

In 1996, 2.0 million anglers fished the Great Lakes. Walleye and sauger attracted 724 thousand anglers on nearly 6 million days. Perch were fished for on more than 5 million days by 624

Comparative Fishing by Type of Fishing



Selected Fish by Type of Fishing

(In millions)

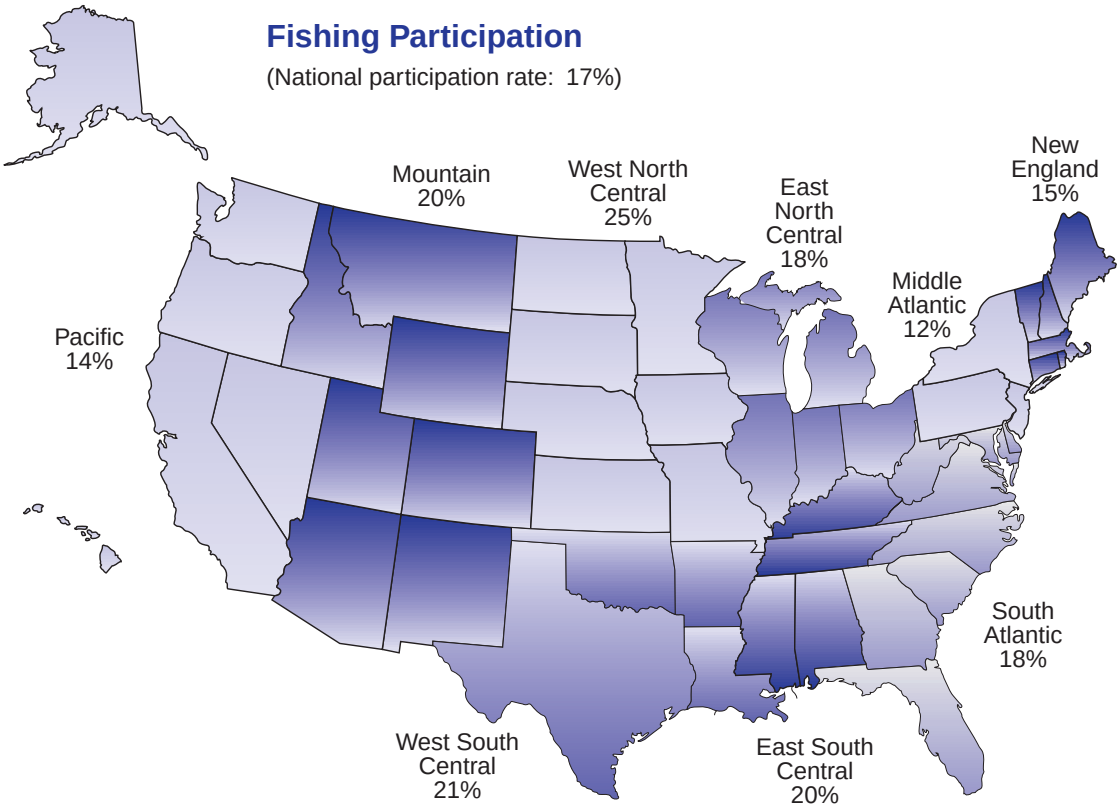
Type of Fishing	Anglers	Days
Freshwater, except Great Lakes		
Black bass	12.7	191
Trout	9.0	94
Panfish	8.0	103
Catfish/bullhead	7.4	91
Crappie	6.4	91
White bass, striped bass, and striped bass hybrids	4.8	62
Great Lakes		
Walleye/sauger	0.7	6
Perch	0.6	5
Salmon	0.6	4
Black bass	0.5	5
Lake trout	0.3	2
Steelhead	0.3	3
Saltwater		
Flatfish (flounder, halibut)	2.6	29
Bluefish	1.5	13
Striped bass	1.4	15
Seatrout	1.2	14
Mackerel	0.7	5
Salmon	0.6	4

thousand Great Lakes anglers. Salmon drew 587 thousand anglers for almost 4 million days of fishing. Black bass and lake trout attracted 492 and 349 thousand anglers respectively.

Among the 9.4 million saltwater anglers, 2.6 million fished for flatfish, including flounder and halibut, on 29 million days. Bluefish were a favorite of 1.5 million anglers on 13 million days. Seatrout was sought by 1.2 million anglers on 14 million days, and 683 thousand anglers fished for mackerel on 5 million days. Striped bass were sought by 1.4 million anglers on 15 million days. Four million days were spent fishing for salmon by 637 thousand anglers

Participation by Geographic Division

In 1996, 201 million people 16 years old and older lived in the United States. More than 1 out of every 6 U.S. residents went fishing. While the national participation rate was 17 percent, the regional rates ranged from 12 percent in the Middle Atlantic Division to 25 percent in the West North Central Division. The West North Central, East North Central, East South Central, West South Central, South Atlantic, and Mountain Divisions all reported participation rates above the national rate. The West South Central Division had a participation rate of 21 percent. The East South Central and Mountain Divisions had participation rates of 20 percent. The East North Central and South Atlantic Divisions both recorded participation rates of 18 percent. The New England Division recorded a participation rate of 15 percent. The Pacific Division had a participation rate of 14 percent.



Fishing in State of Residence and in Other States

A majority of the 35.2 million anglers who fished in 1996 did so within their home state. Approximately 32.2 million participants, 91 percent of all anglers, fished in their state of residence. More than 9.0 million, 26 percent, fished out-of-state. Percentages do not add to 100 because those sportsmen who fished both in-state and out-of-state were included in both categories.

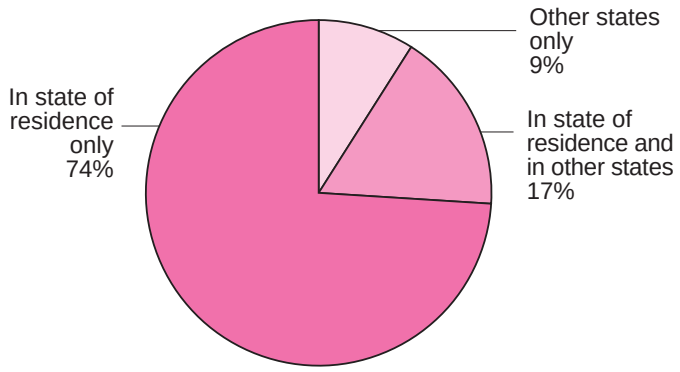
Most of the 29.0 million freshwater anglers (excluding the Great Lakes) fished within their resident state, 26.6 million or 92 percent. Six million, 21 percent, of these freshwater anglers, fished out-of-state.

Eighty-two percent of Great Lakes anglers enjoyed fishing within their home state. Nearly 1.7 million anglers fished the Great Lakes within their state of residence. Comparatively, 479 thousand or 23 percent of Great Lakes anglers fished out-of-state.

Thirty-one percent of saltwater anglers fished out-of-state. Almost 7.2 million saltwater anglers, 76 percent, also reported fishing within the borders of their home state. Those saltwater anglers fishing out-of-state numbered 2.9 million.

Percent of All Fishing, in State of Residence and Other States

(Total: 35.2 million participants)



Fishing in State of Residence and in Other States

(In millions)

	In-State	Out-of-State
Total Anglers	**32.2**	**9.0**
Freshwater, except Great Lakes	26.6	6.0
Great Lakes	1.7	0.5
Saltwater	7.2	2.9

Source: Table 2

Types of Freshwater Fished, Excluding Great Lakes

Freshwater anglers fished in a variety of waters. Most non-Great Lakes freshwater anglers, 24.8 million (86 percent), fished in flatwater including ponds, lakes, or reservoirs on 361 million days. Rivers and streams were utilized by 13.4 million freshwater anglers (46 percent) on 145 million days.

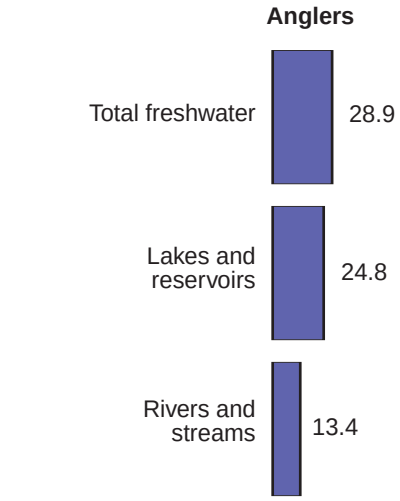
Great Lakes Anglers

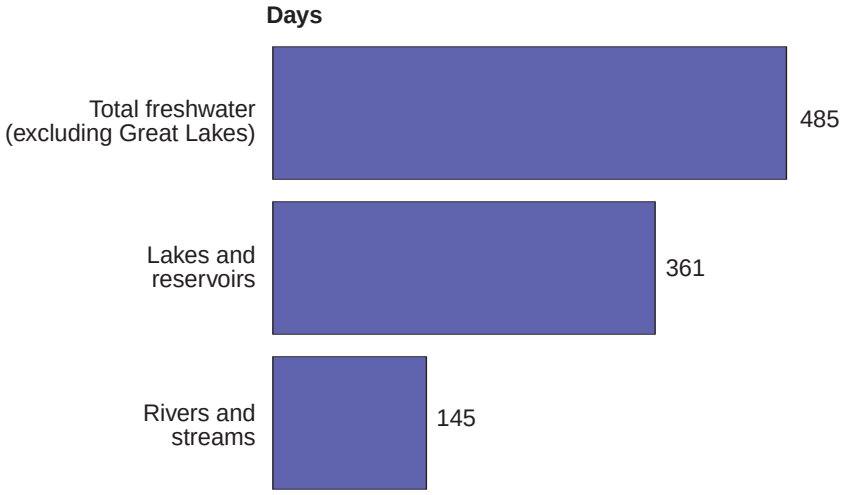
Great Lakes fishing includes not only the Great Lakes, but also their tributaries, bodies of water that connect the Great Lakes, and the St. Lawrence River south of the bridge at Cornwall. The most popular of the lakes among anglers was Lake Erie. Thirty-seven percent of all the Great Lakes anglers fished Lake Erie on an average of 9 days during 1996. Lake Michigan was a close second in popularity. Thirty-five percent enjoyed fishing in Lake Michigan waters with an average of 6 days per angler recorded. Lake Huron was fished by 14 percent of all Great Lakes anglers. Anglers fished Lake Huron an average of 7 days in 1996.

The tributaries to the lakes attracted 10 percent of all Great Lakes anglers. They averaged 12 days of fishing on these waters in 1996. While Lake St. Clair was fished by only 4 percent of all Great Lakes anglers, these participants fished an average of 14 days per year, more than any other Great Lake or their connecting waters.

Types of Freshwater Fished, Excluding Great Lakes

(In millions)





Great Lakes Fishing

	Anglers (thousands)	Percentage of all Great Lakes anglers
Total, all Great Lakes	**2,039**	**100**
Lake Erie	746	37
Lake Michigan	715	35
Lake Huron	279	14
Lake Ontario	260	13
Tributaries to the Great Lakes	205	10
Lake Superior	140	7
St. Lawrence River	95	5
Lake St. Clair	91	4

Source: Table 26

Sex and Age of Anglers

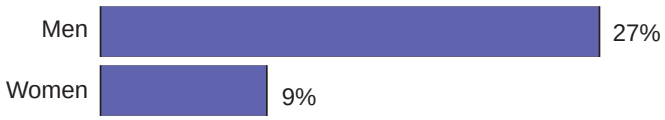
While fishing was enjoyed by more men than women in 1996, a substantial number of women fished as well. In 1996, 27 percent of American males fished, while 9 percent of American females fished. Of the 35.2 million anglers who fished in the U.S., 73 percent (25.7 million) were male and 27 percent (9.5 million) were female.

Almost 10 million anglers, 27 percent of all anglers, were 35 to 44 years old, which is 22 percent of the U.S. population in that age group. They were followed by 7.2 million anglers 25 to 34 years old who comprised 20 percent of all anglers and had a participation rate of 21 percent. Next came the 45- to 54-year-old age group, 7.0 million participants who accounted for 20 percent of all anglers. That age group had a participation rate of 20 percent. The 3.5 million 55- to 64-year-olds who fished, comprised 10 percent of all anglers and had a participation rate of 15 percent. Anglers 18 to 24 years old numbered 3.3 million, 9 percent of total anglers, and recorded a 16 percent participation rate. The 3.1 million anglers 65 years old and older made up 9 percent of the angler population, and had a participation rate of 9 percent. The 16- and 17-year-olds added 1.4 million individuals to the angler population. They made up only 4 percent for the total angler population, but had a 20 percent participation rate.

Size of Residence of Anglers

In 1996, 70 percent of U.S. residents who fished lived inside a Metropolitan Statistical Area (MSA) with most anglers coming from large MSA's. People living in MSA's with populations of 1,000,000 or more had a participation rate of 14 percent. Thirty-eight percent of all anglers came from these large urban areas. Within MSA's with populations of 250,000 to 999,999, 18 percent of the total population enjoyed fishing, representing 20 percent of the angler population. In

Percent of U.S. Population 16 Years Old and Older Who Fished, by Sex

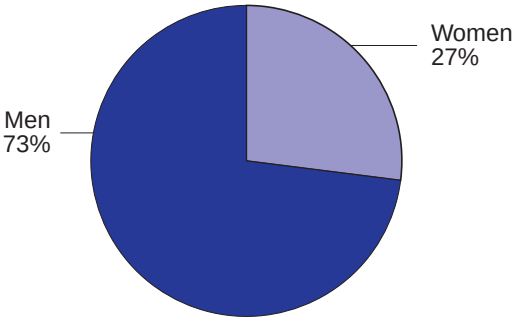


Anglers, by Sex and Age

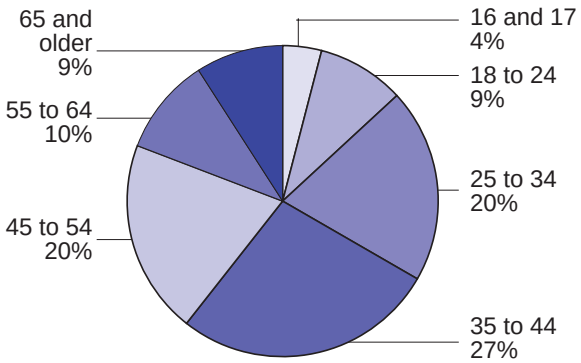
Total, both sexes	**35.2 million**
Male	25.7 million
Female	9.5 million
Total, all ages	**35.2 million**
16 and 17	1.4
18 to 24	3.3
25 to 34	7.2
35 to 44	9.7
45 to 54	7.0
55 to 64	3.5
65 and older	3.1

Source: Table 9

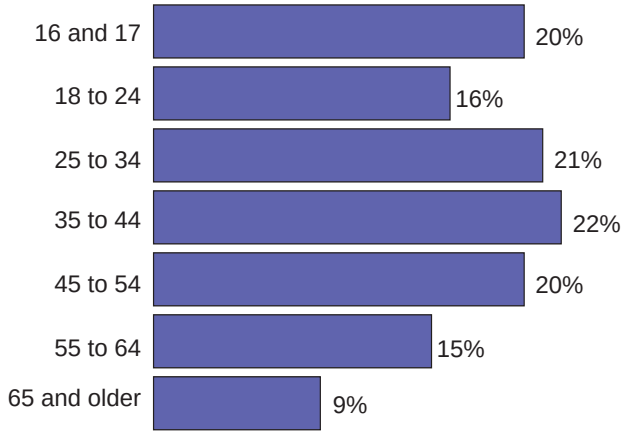
Percent of Anglers 16 Years Old and Older, by Sex



Percent of Anglers, by Age



Percent of U.S. Population Who Fished, by Age



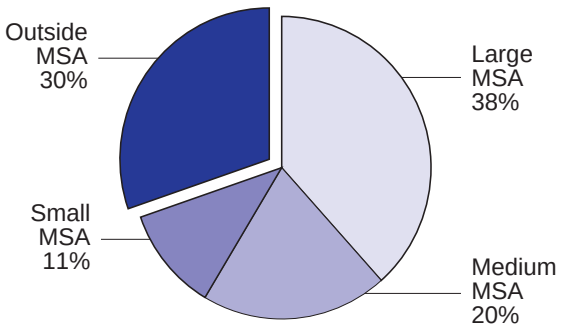
addition, MSA's with populations of 50,000 to 249,999 had a participation rate of 21 percent; they made up 11 percent of all anglers. In areas outside of MSA's, 25 percent of the population fished in 1996. These participants made up 30 percent of all anglers.

Income of Anglers

Anglers at all income levels enjoyed fishing in 1996. Participation rates ranged from 9 percent for all individuals with household incomes of $10,000 or less to 23 percent for those who reported annual household incomes of $40,000 to $49,999 and $50,000 to $74,999. Those living in households with incomes of $10,000 or less comprised 4 percent of all anglers; those with $50,000 to $74,999 incomes made up 21 percent of all anglers; and those with household incomes of $40,000 to $49,999 comprised 12 percent of all anglers. Twenty-one percent of the individuals with household earnings of $75,000 to $99,999 represented 9 percent of all anglers. Persons with household earnings of $25,000 to $29,999 had a participation rate of 21 percent and comprised 8 percent of the angler population. Another 8 percent of the angler population had household earnings of $100,000 or more, and a 20 percent participation rate. Anglers with household incomes of $10,000 to $19,999 had a participation rate of 13 percent and made up 7 percent of all anglers. Nineteen percent of persons in households with incomes of $30,000 to $34,999 represented 7 percent of all anglers, as did persons in households with incomes of $35,000 to $39,999. However, persons with household incomes of $35,000 to $39,999 had a participation rate of 22 percent, while those within the $30,000 to $34,999 income group had a participation rate of 19 percent. Finally 16 percent of all persons in households earning $20,000 to $24,999 fished and made up 6 percent of the total angler population in 1996. Twelve percent of anglers did not report their income.

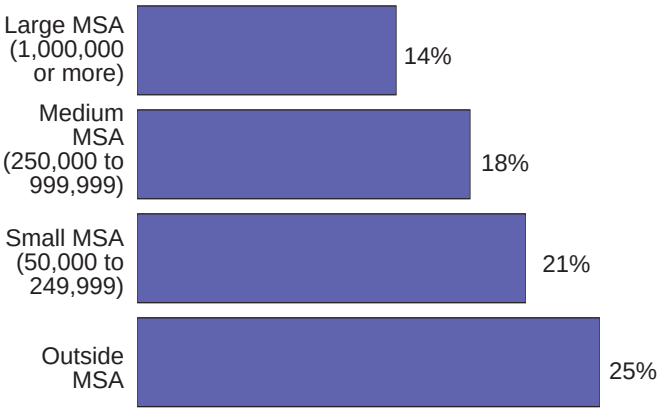
Percent of Anglers 16 Years Old and Older, by Residence

(Angler population: 35.2 million)

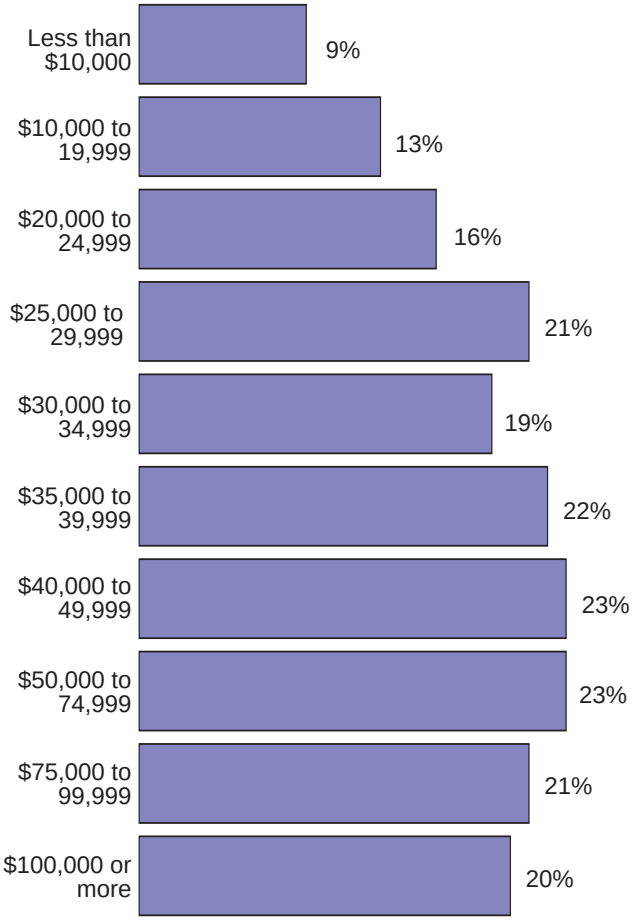


Percent of U.S. Population 16 Years Old and Older Who Fished, by Residence

(17% of total U.S. population fished)



Percent of U.S. Population 16 Years Old and Older Who Fished, by Income



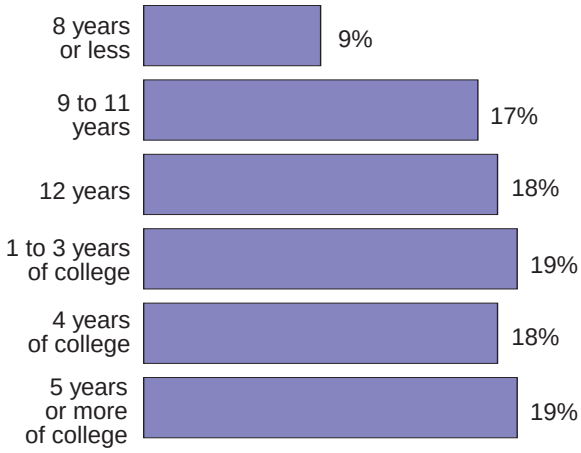
Education and Race of Anglers

People from a variety of educational backgrounds fished in 1996. The lowest participation rate, 9 percent, was found among those with 8 years of education or less. They made up 3 percent of all anglers. The highest participation rate, 19 percent, was found among those individuals with 1 to 3 years of college, and those who had 5 years or more of college.

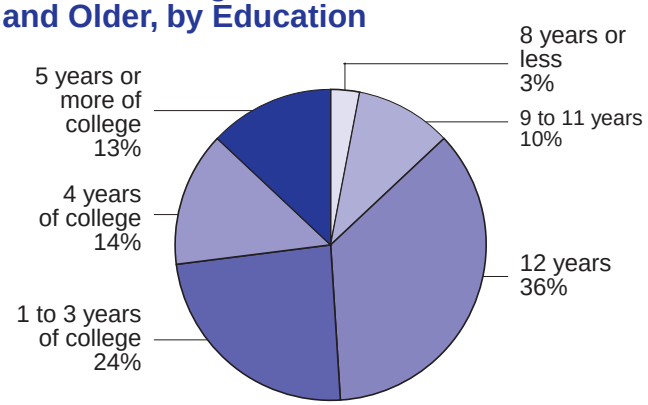
Those persons with 1 to 3 years of college made up 24 percent of all anglers, while those with 5 years or more made up 13 percent of all anglers. Those persons who had 4 years of college had a participation rate of 18 percent, which represented 14 percent of all anglers, while individuals with 12 years of education made up 36 percent of all anglers. They, too, had a participation rate of 18 percent. Finally, those with 9 to 11 years of education had a participation rate of 17 percent, which represented 10 percent of all anglers.

Participation rates among people of different races varied. Nineteen percent of the White population fished, compared with 10 percent of the Black population and 11 percent of other races. Among anglers, 90 percent of the total were White, 5 percent were Black, and 5 percent were other races.

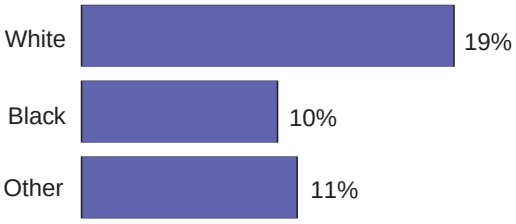
Percent of U.S. Population 16 Years Old and Older Who Fished, by Education



Percent of Anglers 16 Years Old and Older, by Education



Percent of U.S. Population 16 Years Old and Older Who Fished, by Race



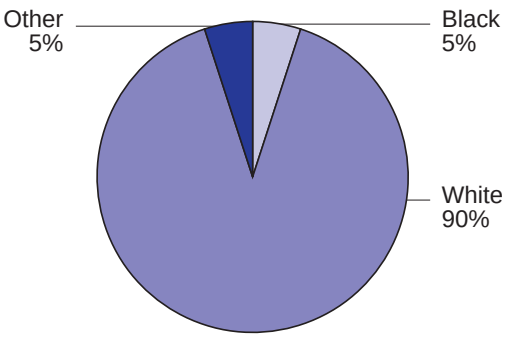
Angler, by Education and Race

(In millions)

Total anglers	**35.2**
Education	
0-8	1.1
9-11	3.6
12 years	12.6
1-3 years college	8.6
4 years	5.0
5 years or more college	4.5
Race	
White	31.8
Black	1.8
Other	1.7

Source: Table 9

Percent of Anglers 16 Years Old and Older, by Race



1991-1996 Comparison of Fishing Activity

The number of people fishing in the United States is roughly the same for the last two National Survey years, but their number of fishing days and expenditures for fishing have increased substantially. The number of fishing days increased 22 percent and the fishing expenditures increased 37 percent.

The number of anglers in freshwater and saltwater did not change (at the 95 percent confidence level), although the number of Great Lakes anglers decreased 20 percent. The amount of activity of the anglers increased, with freshwater days up 17 percent and saltwater days up more than twice the freshwater rate, 38 percent.

Fishing expenditures increased for both the trip-related and equipment categories. Trip-related expenditures went up 13 percent and the equipment expenditures increased 78 percent. The purchase of special equipment such as boats and campers more than doubled, increasing 123 percent. Expenditures for fishing equipment, such as rods and reels, increased 23 percent.

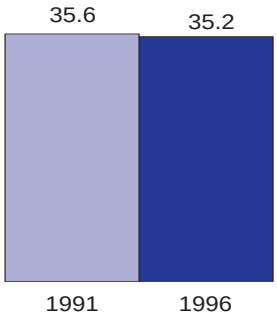
Participants, days and expenditures (Numbers in millions)	1991 Number	1991 Percent	1996 Number	1996 Percent	Percent change
Anglers, Total	**35.6**	**100**	**35.2**	**100**	**-1***
All freshwater	31.0	87	29.7	84	-4*
Freshwater, except Great Lakes	30.2	85	28.9	82	-4*
Great Lakes	2.6	7	2.0	6	-20
Saltwater	8.9	25	9.4	27	6*
Days, Total	**511**	**100**	**626**	**100**	**22**
All freshwater	440	86	515	82	17
Freshwater, except Great Lakes	431	84	485	78	13
Great Lakes	25	5	20	3	-21*
Saltwater	75	15	103	17	38
Fishing Expenditures, Total**	**$27,589**	**100**	**$37,673**	**100**	**37**
Trip-related	13,625	49	15,257	40	12
Equipment	10,770	39	19,174	51	78
Fishing equipment	4,301	16	5,309	14	23
Auxiliary equipment	712	3	1,037	3	46
Special equipment	5,756	21	12,828	34	123
Other	3,194	12	3,235	9	1*

* Not different from zero at the 95 percent confidence level. This means that for 95 percent of all possible samples, the estimate for one survey year is not different from the estimate for the other survey year.

** 1991 expenditure estimates have been adjusted for inflation to be comparable to 1996 expenditure totals. Excludes expenditures for heating and cooking fuel because 1991 Survey did not collect this information.

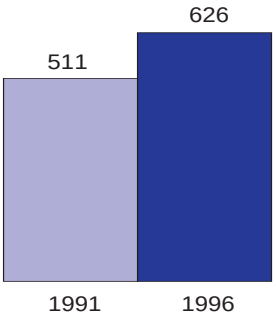
Number of Anglers*

(Millions)



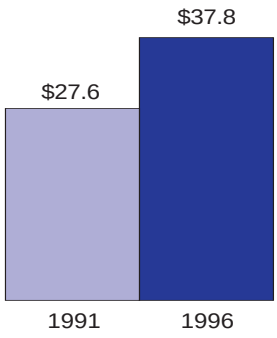
Days of Fishing

(Millions)



Fishing Expenditures

(Billions)



*The difference is not significant at the 0.05 level.

Hunting

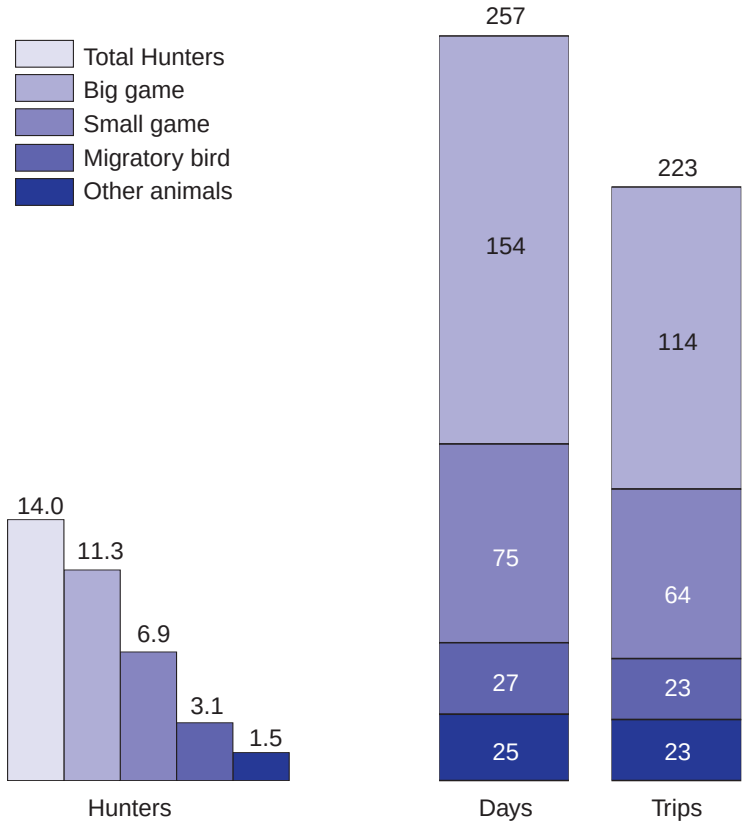
Hunting Highlights

In 1996, 14 million people, 16 years old and older, enjoyed hunting a variety of game animals within the United States. They hunted 257 million days and took 223 million trips. Their expenditures totaled $20.6 billion.

In 1996, 11.3 million hunters pursued big game such as deer and elk on 154 million days. They spent $9.7 billion on trips and equipment during the year. A total of 6.9 million people hunted small game including squirrels and rabbits. They hunted small game on 75 million days and spent $2.5 billion on their hunting trips and equipment. Migratory bird hunters numbered 3.1 million. They spent 27 million days hunting birds such as waterfowl and dove. Their trip and equipment expenditures totaled $1.3 billion. Other animals, such as raccoons and groundhogs, were sought by 1.5 million hunters on 25 million days. These hunters spent $433 million on trips and equipment for the year.

Total Hunting

(In millions)



Scale enlarged to show detail.

Detail of days does not add to total because of multiple responses.

Hunting Expenditures

Of the $ 20.6 billion spent by hunters in 1996, 25 percent, $5.2 billion, was spent on trip-related expenses. Food and lodging totaled $2.5 billion, 49 percent of all trip-related expenses. Transportation cost hunters $1.8 billion, 35 percent of their trip-related expenditures.

Other trip-related expenses such as guide fees, land use fees, and equipment rental were $864 million or 17 percent of all trip-related expenses.

Total hunting equipment expenditures were $11.3 billion in 1996, 55 percent of all hunting expenses. Hunting equipment, such as guns and rifles, telescopic sights, and ammunition, cost hunters $5.5 billion, 49 percent of all equipment costs. Expenditures for auxiliary equipment, including camping equipment, binoculars, and special hunting clothing, accounted for $1.2 billion or 11 percent of all equipment expenses. Special equipment, such as campers or trail bikes, amounted to $4.5 billion or 40 percent of all equipment expenditures.

Hunters spent $355 million on magazines, books, membership dues and contributions, 2 percent of total expenses. Land leasing and ownership expenditures totaled $3.2 billion, 15 percent of the total.

Total Hunting

Hunters	**14.0 million**
Big game	11.3 million
Small game	6.9 million
Migratory bird	3.1 million
Other animals	1.5 million
Days	**257 million**
Big game	154 million
Small game	75 million
Migratory bird	27 million
Other animals	25 million
Trips	**223 million**
Big game	114 million
Small game	64 million
Migratory bird	23 million
Other animals	23 million
Expenditures	**$20.6 billion**
Big game	9.7 billion
Small game	2.5 billion
Migratory bird	1.3 billion
Other animals	0.4 billion
Unspecified	6.7 billion

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

Source: Tables 1 and 17-21

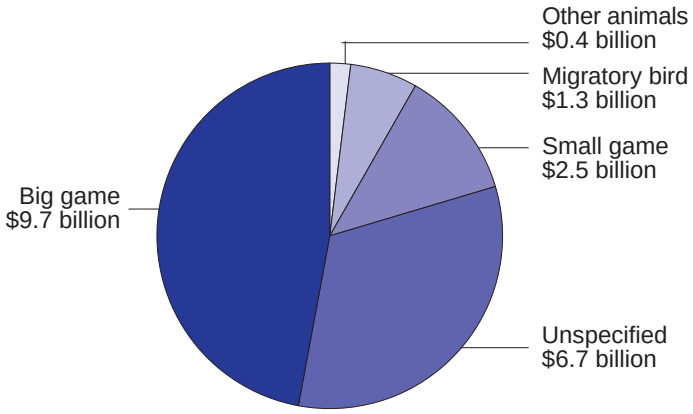
Total Hunting Expenditures

Total hunting expenditures	**$20.6 billion**
Total trip-related	**$ 5.2 billion**
Food and lodging	2.5 billion
Transportation	1.8 billion
Other trip costs	0.9 billion
Total equipment expenditures	**$11.3 billion**
Hunting equipment	5.5 billion
Auxiliary equipment	1.2 billion
Special equipment	4.5 billion
Total other hunting expenditures	**$4.1 billion**
Magazines, books	0.1 billion
Membership dues and contributions	0.2 billion
Land leasing and ownership	3.2 billion
Licenses, stamps, tags, and permits	0.7 billion

Source: Table 17

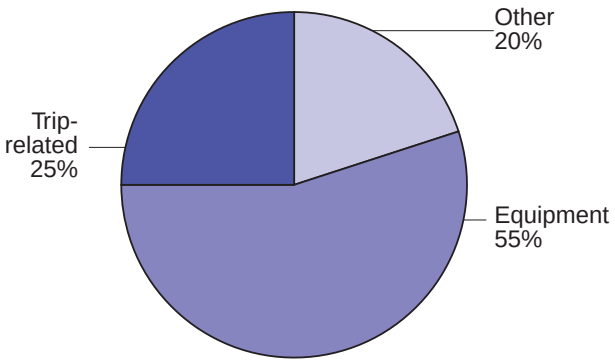
Expenditures

(Total expenditures $20.6 billion)



Percent of Total Hunting Expenditures

(Total expenditures $20.6 billion)



Big Game Hunting

In 1996, 11.3 million hunters devoted 154 million days to hunting big game including deer, elk, bear, and wild turkey. They took 114 million trips. Each hunter spent an average of 14 days hunting big game in 1996.

Trip and equipment expenditures for big game hunters amounted to $9.7 billion. Trip-related expenses totaled $3.2 billion. Of that amount, food and lodging totaled $1.6 billion or 49 percent of the trip-related costs. Transportation costs were $1.0 billion for big game hunters, 32 percent of trip-associated costs. Other trip-related expenses amounted to $585 million, or 18 percent of trip costs.

Big game hunters spent $6.5 billion on equipment. Hunting equipment (guns, ammunition, etc.) accounted for $2.6 billion. Purchases of auxiliary equipment (camping equipment, binoculars, etc.) totaled $847 million. And special equipment (vans, trail bikes, etc.) cost big game hunters $3.1 billion.

Small Game Hunting

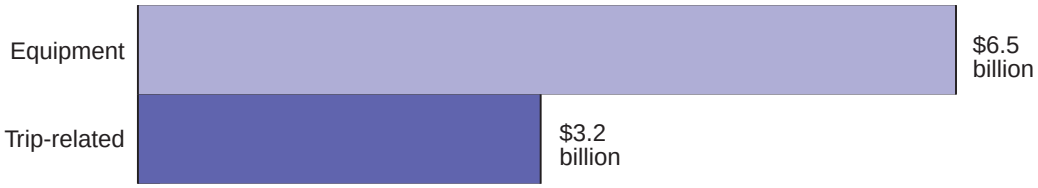
On a total of 75 million days in 1996, 6.9 million hunters pursued small game such as rabbits, squirrel, pheasants, quail, and grouse. They took 64 million trips. Small game sportsmen averaged 11 days in the field hunting.

Small game hunters spent $2.5 billion on trips and equipment in 1996. Of the $1.2 billion spent on trip-related costs, $595 million, or 50 percent of all small game trip-related costs, were spent on food and lodging. Transportation costs accounted for $450 million or 38 percent of small game trip expenses. Other trip-related expenditures contributed $147 million or 12 percent to the total spent on small game hunting trips.

Small game equipment expenditures totaled $1.3 billion. Specifically, purchases of hunting equipment (guns, ammunition, etc.) accounted for $965 million spent by small game hunters during the year. Auxiliary equipment (camping equipment, binoculars, etc.) cost $62 million, and special equipment (vans, trail bikes, etc.) cost small game hunters $262 million for the year.

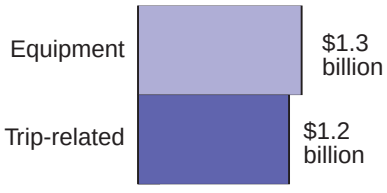
Big Game Hunting Trip and Equipment Exenditures

(Total expenditures $9.7 billion)



Small Game Hunting Trip and Equipment Exenditures

(Total expenditures $2.5 billion)



Big Game

Hunters	11.3 million
Days	154 million
Trips	114 million
Trip and equipment expenditures	$9.7 billion

Source: Tables 1 and 18

Small Game

Hunters	6.9 million
Days	75 million
Trips	64 million
Trip and equipment expenditures	$2.5 billion

Source: Tables 1 and 19

Migratory Bird Hunting

In 1996, 3.1 million migratory bird hunters devoted 27 million days on 23 million trips for hunting birds such as doves, ducks, and geese. Migratory bird hunters spent an average of 9 days hunting for the year.

The $1.3 billion spent by migratory bird hunters in 1996 was spent on hunting trips and equipment. Of the items contributing to this sum, $576 million was spent on trip-related expenses. A further breakdown reveals food and lodging cost migratory bird hunters $263 million, or 46 percent of trip-related expenses; transportation accounted for $196 million, or 34 percent of all trip costs. Other trip expenses amounted to $116 million making up 20 percent of the total trip-related expenditures for migratory bird hunters.

Migratory bird hunters purchased $720 million worth of equipment in 1996. They spent $503 million on hunting equipment (guns, ammunition, etc.). Another $82 million was spent by migratory bird hunters on auxiliary equipment (camping equipment, binoculars, etc.), and $135 million was spent on special equipment (vans, trail bikes, etc.).

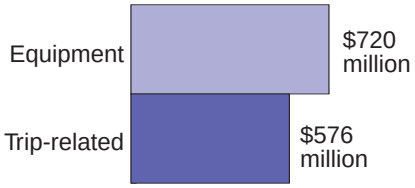
Hunting Other Animals

During 1996, 1.5 million hunters reported spending 25 million days on 23 million trips pursuing other animals such as groundhogs, raccoons, foxes, and coyotes. They averaged 16 days of hunting in 1996. Overall, they spent $433 million in 1996 on trips and equipment. Trip-related costs totaled $211 million. Of that, food and lodging cost $86 million or 41 percent of trip-related costs; transportation was $110 million, 52 percent percent of trip-related expenses; and other trip expenses were $14 million, 7 percent of trip-related costs.

Equipment expenditures for hunting other animals totaled $222 million in 1996. Hunters pursuing other animals spent $117 million on hunting equipment (guns, ammunition, etc.), and $10 million on auxiliary equipment (camping equipment, binoculars, etc.).

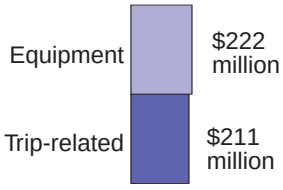
Migratory Bird Hunting Trip and Equipment Expenditures

(Total expenditures $1.3 million)



Trip and Equipment Expenditures for Hunting Other Animals

(Total expenditures $433 million)



Migratory Bird

Hunters	3.1 million
Days	27 million
Trips	23 million
Trip and equipment expenditures	$1.3 billion

Source: Tables 1 and 20

Other Animals

Hunters	1.5 million
Days	25 million
Trips	23 million
Trip and equipment expenditures	$433 million

Source: Tables 1 and 21

Comparative Hunting Highlights

In 1996, big game hunters averaged 14 days of hunting and 10 trips per hunter. Small game hunters spent an average of 11 days hunting in the field on an average of 9 trips. In comparison, migratory bird hunters spent an average of 9 days and 7 trips hunting. Those participants hunting other animals averaged 16 days and 15 trips pursuing their game.

On average, big game hunters spent more money on trips and equipment than other hunters in 1996. They averaged $860 per hunter for the year. Small game hunters spent an average of $357 per hunter during 1996.

Migratory bird hunters averaged $422, and those hunting other animals spent $284 per hunter for the year.

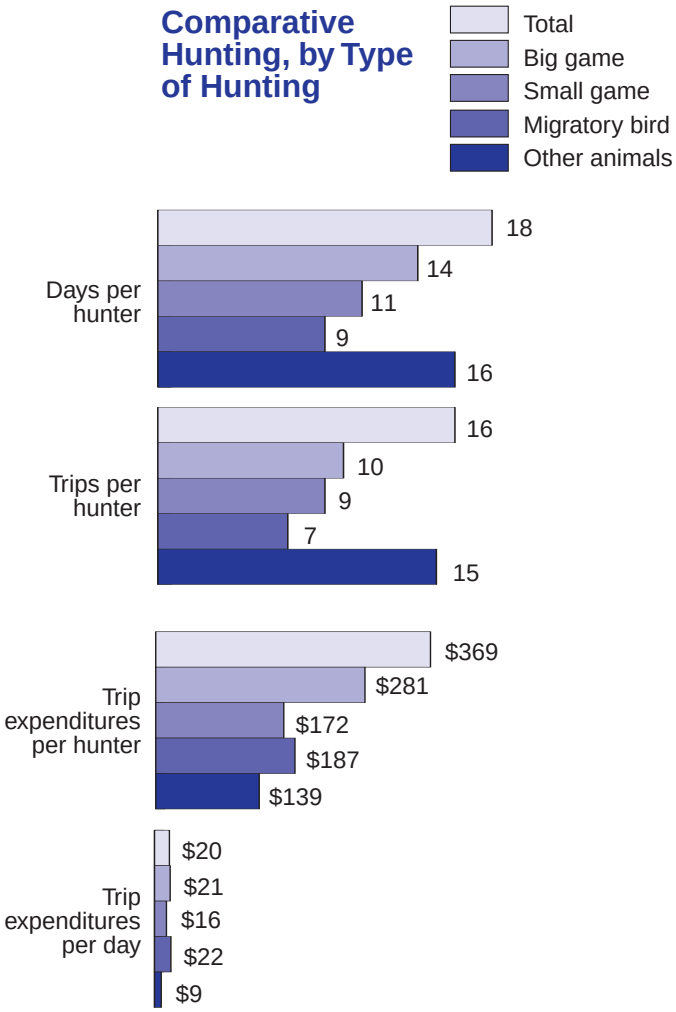
In 1996, trip expenditures for all hunting averaged $369 per hunter for the year, a daily average of $20. The average for trip expenditures per hunter varied by type of hunting. Expenditures for big game hunting trips averaged $281 per hunter for lodging, food, transportation and other trip-related expenses for the year ($21 per day). Small game hunters spent $172 on average for their annual hunting trip expenses ($16 per day). Persons taking trips for migratory bird hunting spent an average of $187 ($22 per day) while trip expenditures for hunting other animals averaged $139 per hunter for the year ($9 per day).

Hunting for Selected Game

For big game hunters, deer was the most popular draw among 10.7 million hunters on 131 million days. The 959 thousand hunters who hunted elk went out on 7 million days. While bear attracted 405 thousand hunters on 3 million days, wild turkey drew 2.2 million hunters on 19 million days. In addition, 513 thousand hunters spent 5.5 million days hunting other big game animals.

In 1996, approximately 3.1 million small game hunters hunted rabbits and hares on 29

Comparative Hunting, by Type of Hunting



Hunting for Selected Game

(In millions)

Type of hunting	Hunters	Days
Big game	**11.3**	**154**
Deer	10.7	131
Wild turkey	2.2	19
Elk	1.0	7
Bear	0.4	3
Small game	**6.9**	**75**
Squirrels	3.2	25
Rabbits and hares	3.1	29
Pheasant	2.3	17
Quail	1.5	11
Grouse/prairie chicken	1.2	10
Migratory bird	**3.1**	**27**
Doves	1.6	8
Ducks	1.6	14
Geese	0.9	8
Other animals	**1.5**	**25**

Source: Table 7

million days. Quail was flushed by 1.5 million hunters on 11 million days, while grouse and prairie chicken were favorites of 1.2 million hunters on 10 million days. Squirrels were hunted by 3.2 million participants on 25 million days. Pheasants attracted 2.3 million hunters on 17 million days. In addition, 447 thousand hunters spent 4.3 million days hunting other small game animals.

Among those hunting migratory birds, 8 million days were spent by 1.6 million participants dove hunting. Ducks were hunted by 1.6 million enthusiasts on 14 million days. On 8 million days, 915 thousand hunters hunted geese in 1996. An additional 291 thousand sportsmen hunted other migratory bird species on 2 million days.

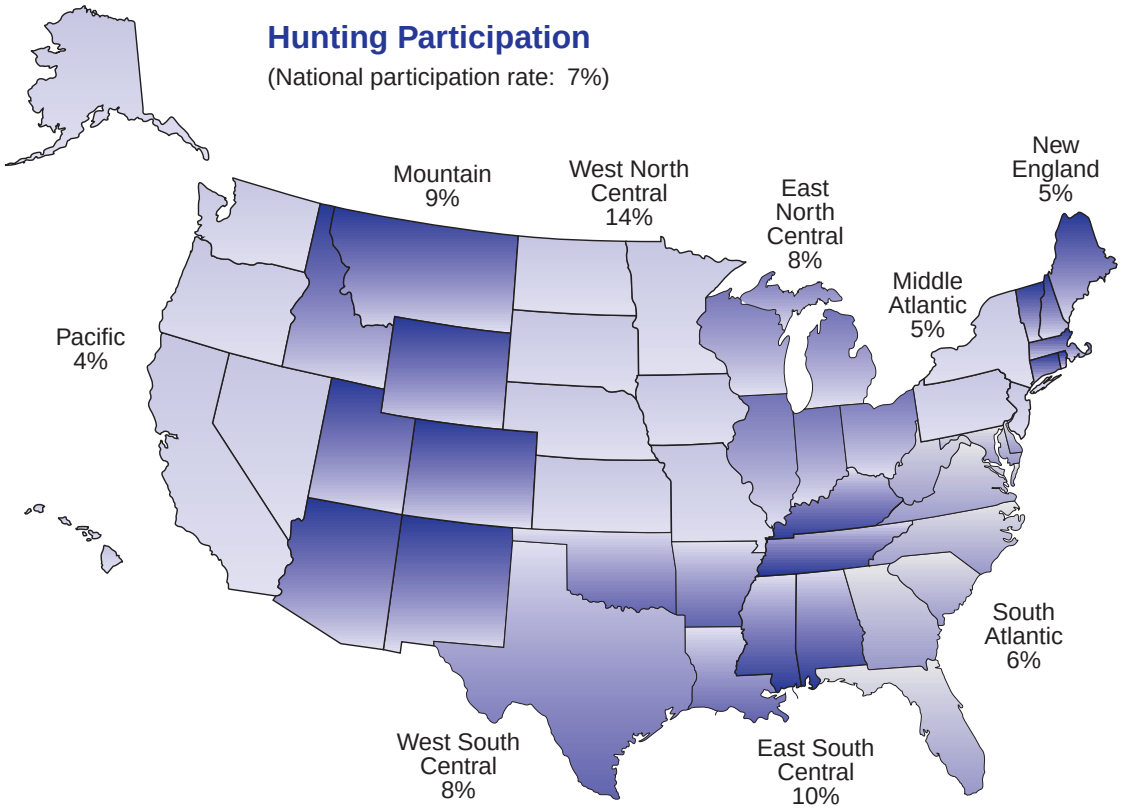
Participation by Geographic Division

In 1996, 201 million people 16 years old and older lived in the United States. The national hunting participation rate was 7 percent.

Regionally, participation rates ranged from 4 percent in the Pacific Census Division to 14 percent in the West North Central Division. The East North Central, East South Central, West South Central, and Mountain Divisions all had participation rates above the national rate of 7 percent. The East North Central and West South Central Divisions both had a participation rate of 8 percent. The East South Central Division's participation rate was 10 percent and the Mountain Division recorded a rate of 9 percent. The Middle Atlantic and New England Divisions recorded participation rates of 5 percent, while the South Atlantic Division disclosed a participation rate of 6 percent.

Hunting in State of Residence and in Other States

An overwhelming majority of participants hunted within their state of residence, 13.3 million or 95 percent of all hunters. Only 2.0 million, 14 percent, hunted in another state. Percentages do not add to 100 because those sportsmen who hunted both in-state and out-of-state were included in both categories.



In 1996, 10.8 million big game hunters, 95 percent of all big game hunters, hunted within their state of residence, while only 12 percent, 1.4 million people, traveled to another state to hunt big game. Likewise, 95 percent of all small game hunters, 6.6 million hunters, pursued game in their resident state. Eleven percent, 737 thousand, ventured across state lines to hunt small game. Ninety-four percent of all migratory bird hunters, 2.9 million participants, hunted within their resident state. Eleven percent or 323 thousand of these sportsmen hunted out-of-state. Among sportsmen who hunted other animals, 95 percent, 1.5 million, hunted in-state and 9 percent, 140 thousand participants, hunted out-of-state.

Hunting on Public and Private Lands

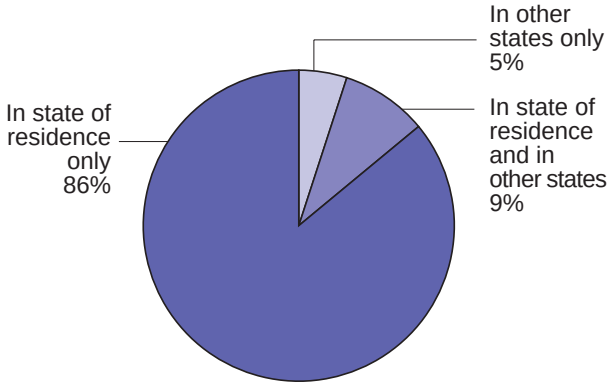
In 1996, 14 million hunters 16 years old and older hunted on public land, private land, or both. Some hunters, 2.3 million, 17 percent, used publicly owned lands exclusively. Those hunters who hunted only on private land numbered 7.2 million, 51 percent. Slightly over 4 million hunters, 30 percent, hunted on both public and private lands. Over 6.5 million, 47 percent, hunted on publicly owned lands compared to 11.4 million, 81 percent, who hunted on privately owned land.

In 1996, 6.5 million hunters used public lands on 77 million days, 30 percent of all hunting days. Forty-four percent of big game hunters spent 43 million days on public lands. Among the 6.9 million small game hunters, 38 percent used public land on 20 million days. Approximately 1.1 million migratory bird hunters, 36 percent of all migratory bird hunters, spent 7.8 million days on public lands. Of the participants who hunted other animals in 1996, 394 thousand, 26 percent pursued their game on public lands on 6 million days.

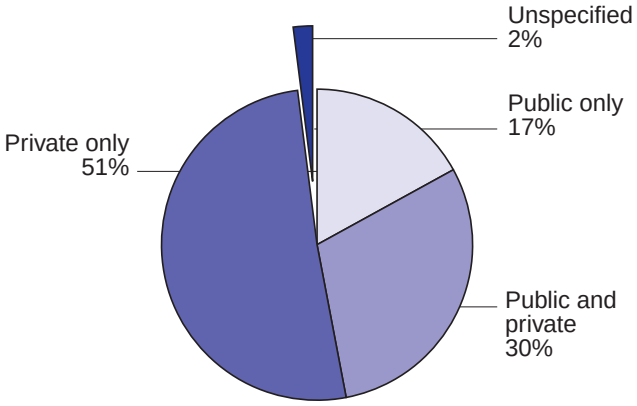
In contrast, 11.4 million hunters spent 198 million days, 77 percent of all hunting days, pursuing their sport on private lands in 1996. Seventy-seven percent of big game hunters, 82 percent of small game hunters, 77 percent of migratory bird hunters, and 86 percent of hunters pursuing other animals spent time hunting on private lands.

Percent of All Hunting, in State of Residence and Other States

(Total: 14.0 million participants)



People Hunting on Public and Private Lands



Hunting in State of Residence and in Other States

(In millions)

	In-state	Out-of-state
All hunters	**13.3**	**2.0**
Big game	10.8	1.4
Small game	6.6	0.7
Migratory bird	2.9	0.3
Other animals	1.5	0.1

Source: Table 6

Days spent hunting on private land also varied by type of hunting. In 1996, big game hunters spent 69 percent (106 million days) of their total hunting days on private lands; small game hunters spent 73 percent (55 million days) of their hunting days on private lands; and migratory bird hunters spent 67 percent (18 million days) of their hunting days on private lands. Persons hunting other animals spent 81 percent (20 million days) of their hunting days on private lands.

Sex and Age of Hunters

Of the U.S. population 16 years old and older, 13 percent of the males and 1 percent of the females enjoyed hunting in 1996. Of the 14 million participants who hunted in 1996, 91 percent (12.8 million) were male and 9 percent (1.2 million) were female.

Hunter participation was seen in all age groups around the country. The proportion of hunters by age group ranged from 5 percent among hunters 16 and 17 years old to 27 percent for those hunters 35 to 44 years old. Nine percent of the age group 16 and 17 years old hunted in 1996. They numbered 672 thousand hunters. The participation rate for 35- to 44-year olds also was 9 percent, but they numbered 3.8 million hunters. Eight percent of all persons 25 to 34 years old hunted. They numbered 2.8 million hunters, 20 percent of all hunters. Another 20 percent of hunters, 2.9 million people, were 45 to 54 years old. Their participation rate was 8 percent. Hunters 55 to 64 years old numbered 1.5 million and represented 6 percent of the general population 55 to 64 years old and 11 percent of all hunters. In the 18- to 24-year-old group, 1.4 million hunters made up 10 percent of all hunters. That age group had a participation rate of 7 percent. Finally, 967 thousand people 65 years old and older made up 7 percent of all hunters. This age group had a participation rate of 3 percent for hunting in 1996.

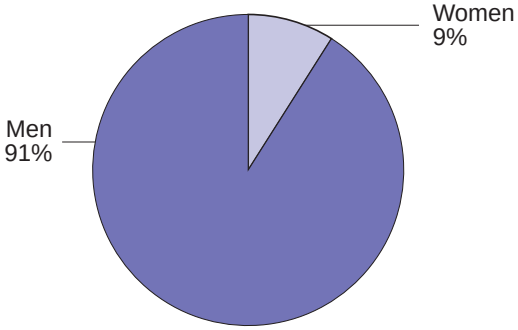
Percent of U.S. Population 16 Years Old and Older Who Hunted, by Sex

Hunters, by Sex and Age

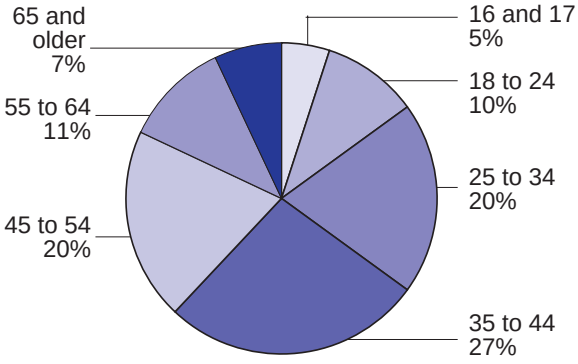
Total, both sexes	**14.0 million**
Male	12.8 million
Female	1.2 million
Total, all ages	
16 and 17	0.7 million
18 to 24	1.4 million
25 to 34	2.8 million
35 to 44	3.8 million
45 to 54	2.9 million
55 to 64	1.5 million
65 and older	1.0 million

Source: Table 10

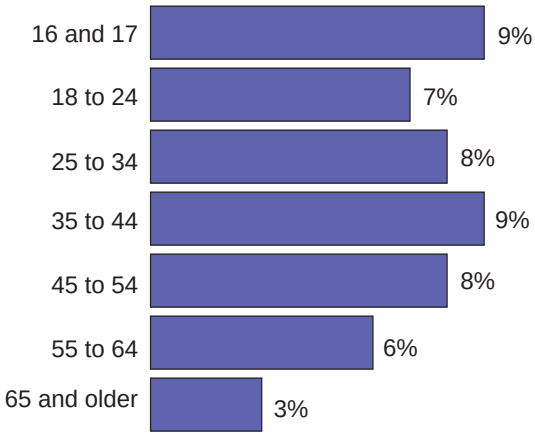
Percent of Hunters 16 Years Old and Older, by Sex



Percent of Hunters, by Age



Percent of U.S. Population Who Hunted, by Age



Size of Residence of Hunters

While most hunters were from areas outside heavily populated Metropolitan Statistical Areas (MSA), a substantial number of people living in large MSA's also enjoyed hunting. Twenty-four percent of all hunters were from MSA's with populations of 1,000,000 or more. Three percent of the total residents of these large MSA's hunted. For MSA's with populations of 250,000 to 999,999, 7 percent of the population hunted; they comprised 19 percent of all hunters. Nine percent of all residents of MSA's with populations of 50,000 to 249,999 hunted in 1996. Thirteen percent of all hunters resided in these areas.

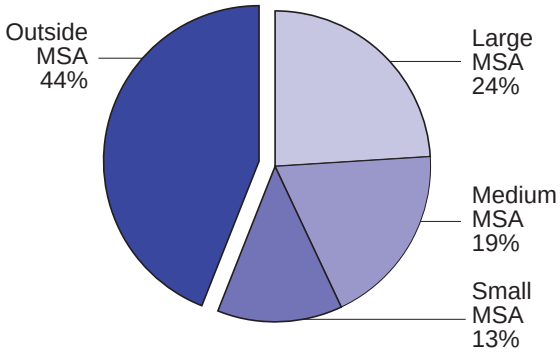
Although 21 percent of the U.S. population 16 years of age and older resided in areas outside MSA's in 1996, 44 percent of all hunters lived outside MSA's. Fifteen percent of all people living outside MSA's hunted in 1996 in contrast with 5 percent of all people living inside MSA's who hunted.

Income of Hunters

Participation rates among hunters with different annual household incomes varied from 3 percent of persons living in households earning less than $10,000 a year (3 percent of all hunters came from these households) to 10 percent of those persons living in households reporting incomes of $40,000 to $49,999 (13 percent of all hunters came from these households). Five percent of the persons in households reporting incomes of $10,000 to $19,999 comprised 7 percent of all hunters. Six percent of the nation's population with household incomes of $20,000 to $24,999 a year enjoyed hunting. They made up 6 percent of all hunters. Eight percent of all people in households earning $25,999 to $29,999 hunted. They constituted 7 percent of all hunters. In households reporting incomes of $30,000 to $34,999, 9 percent was the participation

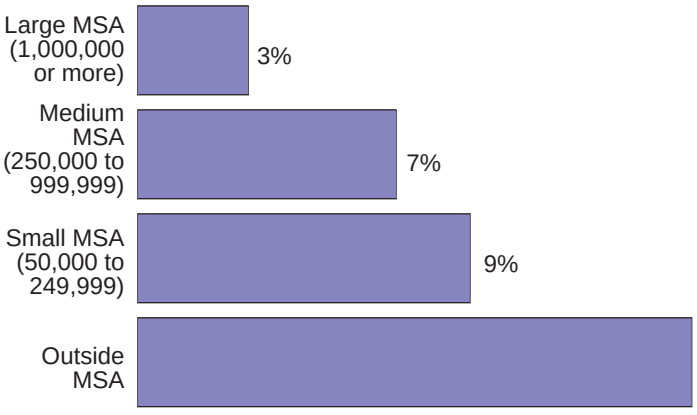
Percent of Hunters 16 Years Old and Older, by Residence

(Hunter population: 14.0 million)

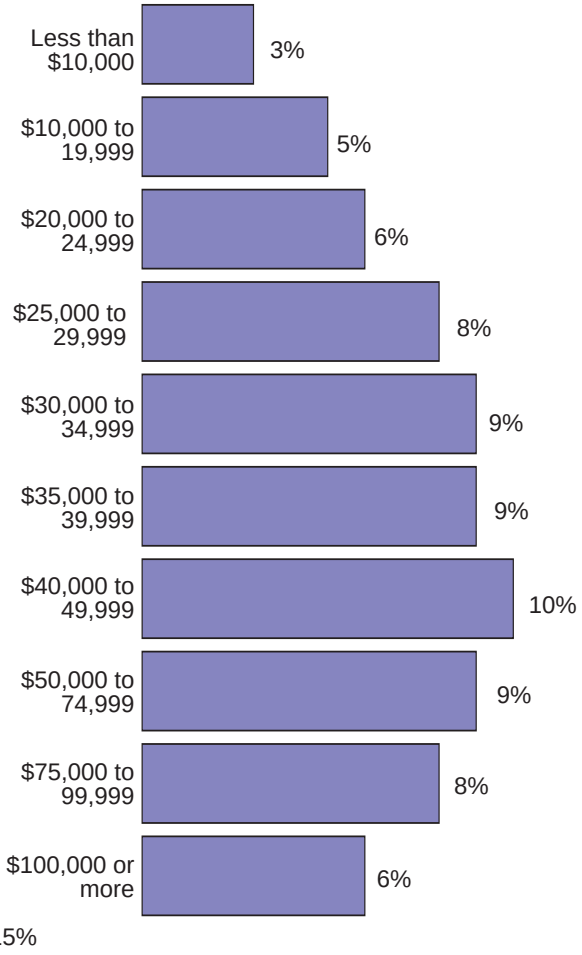


Percent of U.S. Population 16 Years Old and Older Who Hunted, by Residence

(7% of total U.S. population hunted)



Percent of U.S. Population 16 Years Old and Older Who Hunted, by Income



rate. Residents of these households represented 8 percent of all hunters. Nine percent of the persons in households reporting incomes of $35,000 to $39,999 totaled 7 percent of all hunters. Nine percent of those in households earning $50,000 to $74,999 represented 22 percent of all hunters. In households with incomes of $75,000 to $99,999, 8 percent of the residents hunted. Persons in that income bracket made up 8 percent of all hunters. Finally, 6 percent of those in households earning $100,000 or more per year enjoyed hunting and contributed 6 percent to the hunter population. Thirteen percent of the sample did not report their income.

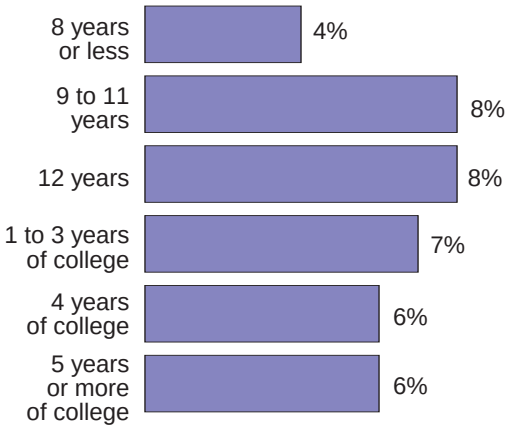
Education and Race of Hunters

People from a variety of educational backgrounds went hunting in 1996. Participation rates ranged from 8 percent among those individuals with 9 to 12 years of school to 4 percent among individuals with 8 years or less of education. Those with 8 years or less of education represented 3 percent of all hunters. Those with 9 to 11 years of education represented 12 percent of all hunters and those with 12 years of education made up 41 percent of all hunters. Hunters with 1 to 3 years of college made up 22 percent of the hunter total, showing a 7 percent participation rate.

Twelve percent of all hunters had 4 years of college. Six percent of all people in the U.S. with 4 years of college hunted in 1996. Those with 5 years or more of college represented 10 percent of all hunters, and of that group, 6 percent participated.

While 7 percent of the U.S. population went hunting in 1996, participation among races varied. Eight percent of the nation's White population hunted, 2 percent of the Black population hunted, and 3 percent of the other races hunted. Of the 14 million hunters, 95 percent were White, 2 percent were Black, and 3 percent were of other races.

Percent of U.S. Population 16 Years Old and Older Who Hunted, by Education

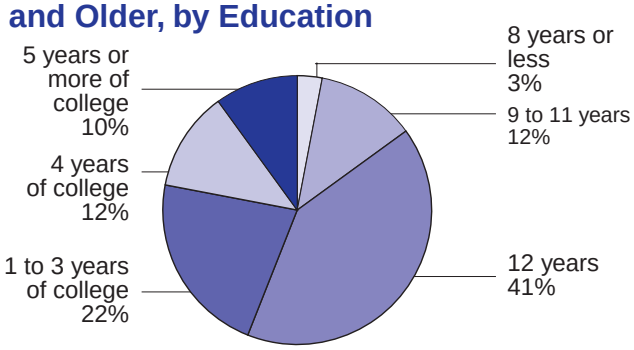


Hunters, by Education and Race

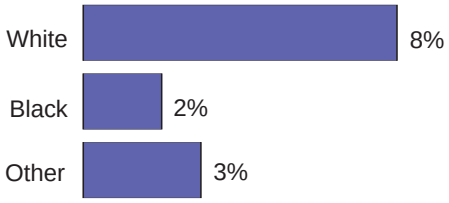
Total hunters	14.0 million
Education	
0 to 8 years	0.5 million
9 to 11 years	1.6 million
12 years	5.8 million
1 to 3 years of college	3.1 million
4 years of college	1.7 million
5 years or more of college	1.3 million
Race	
White	13.2 million
Black	0.3 million
Other	0.4 million

Source: Table 10

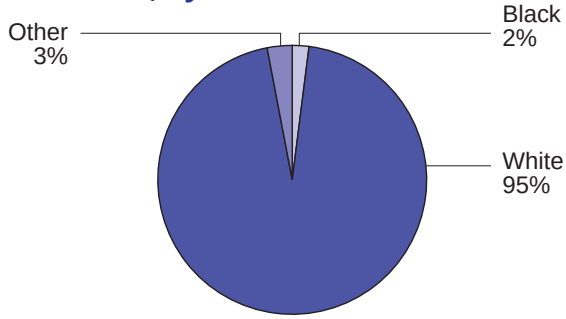
Percent of Hunters 16 Years Old and Older, by Education



Percent of U.S. Population 16 Years Old and Older Who Hunted, by Race



Percent of Hunters 16 Years Old and Older, by Race



1991-1996 Comparison of Hunting Activity

The number of people hunting in the United States and their days pursuing their sport are roughly the same for the last two National Survey years, but their expenditures for hunting have increased 45 percent. A robust 1996 economy after several years of an economic downturn can at least partly explain the expenditure increase.

The number of hunters did not change (at the 95 percent confidence level) for any type of hunting except small game hunters, who decreased in number by 9 percent. The level of activity of the hunters as measured by days in the field significantly changed for big game, which increased 20 percent, and migratory birds, which increased 19 percent.

Hunting expenditures increased for both the trip-related and equipment categories. Trip-related expenditures went up 30 percent and equipment expenditures increased 90 percent. The purchase of special equipment such as boats and campers more than tripled, increasing 215 percent. Expenditures for hunting equipment such as firearms and ammunition increased 46 percent.

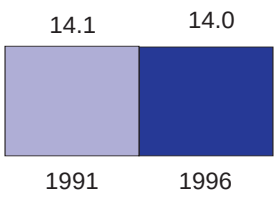
Participants, days and expenditures (Numbers in millions)	1991 Number	1991 Percent	1996 Number	1996 Percent	Percent change
Hunters, Total	**14.1**	**100**	**14.0**	**100**	**-1***
Big game	10.7	76	11.3	81	5*
Small game	7.6	54	6.9	50	-9
Migratory bird	3.0	21	3.1	22	2*
Other animal	1.4	10	1.5	11	8*
Days, Total	**236**	**100**	**257**	**100**	**9***
Big game	128	54	154	60	20
Small game	77	33	75	29	-3*
Migratory bird	22	9	27	10	19
Other animal	19	8	25	10	27*
Hunting Expenditures, Total**	**$14,187**	**100**	**$20,329**	**100**	**43**
Trip-related	3,957	28	4,871	24	23
Equipment	5,944	42	11,273	55	90
Hunting equipment	3,776	27	5,519	27	46
Auxiliary equipment	731	5	1,233	6	69
Special equipment	1,437	10	4,521	22	215
Other	4,286	30	4,178	21	-3*

* Not different from zero at the 95 percent confidence level. This means that for 95 percent of all possible samples, the estimate for the number of dollars for one survey year is not different from the estimate for the other survey year.

** 1991 expenditure estimates have been adjusted for inflation to be comparable to 1996 expenditure estimates. Excludes expenditures for boating costs and heating and cooking fuel because the 1991 Survey did not collect this information.

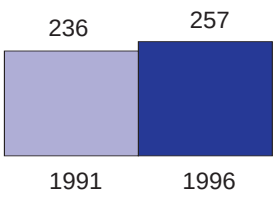
Number of Hunters*

(Millions)



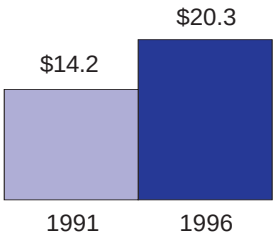
Days of Hunting*

(Millions)



Hunting Expenditures

(Billions)



* The difference is not significant at the 0.05 level.

Wildlife Watching

Wildlife-Watching Highlights

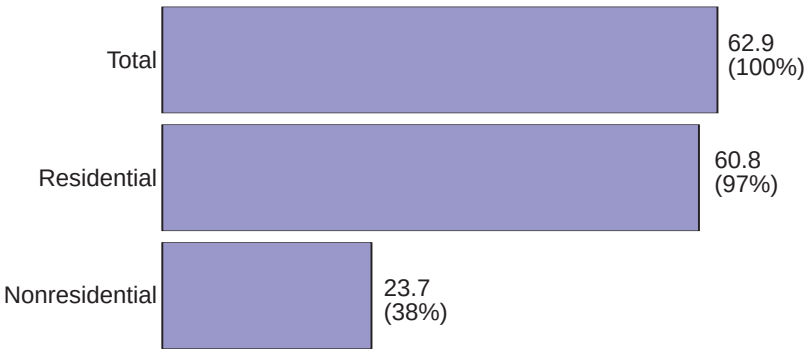
Wildlife-watching (formerly called nonconsumptive) activities including observing, feeding, and photographing wildlife continue to be popular in the United States. These activities are categorized here as being either residential—within a mile of one's home—or nonresidential, at least 1 mile from home.

The 1996 Survey collected information only on primary wildlife-watching activities, those activities whose main objective was to observe, feed, or photograph wildlife. Secondary or incidental participation such as observing wildlife while pleasure driving was not included in the Survey.

In 1996, 62.9 million U.S. residents, 31 percent of the U.S. population 16 years old and older, enjoyed a variety of wildlife-watching activities. People who took a primary interest in wildlife around their homes numbered 60.8 million, while those who took trips away from their homes for the primary purpose of participating in wildlife-watching recreation numbered 23.7 million people.

Wildlife-Watching Participants

(In millions)



Wildlife-Watching Participants, by Activity

(In millions)

Total wildlife-watching participants	**62.9**
Nonresidential	**23.7**
Observed wildlife	22.9
Photographed wildlife	12.0
Fed wildlife	10.0
Residential	**60.8**
Fed wildlife	54.1
Observed wildlife	44.1
Photographed wildlife	16.0
Maintained plantings or natural areas	13.4
Visited public parks or areas	11.0

Detail does not add to total because of multiple responses.

Source: Table 35

Wildlife-Watching Expenditures

In 1996, 84 percent of all primary wildlife-watching participants 16 years old and older spent $29.2 billion, an average of $554 per spender. These expenditures represented 29 percent of the total amount spent for all wildlife-related recreation.

In 1996, wildlife-watching participants spent $9.4 billion on trips to pursue their activities. Food and lodging accounted for $5.4 billion, transportation expenses were $2.9 billion, and other trip costs, such as land use fees and equipment rental, were $1.1 billion for the year.

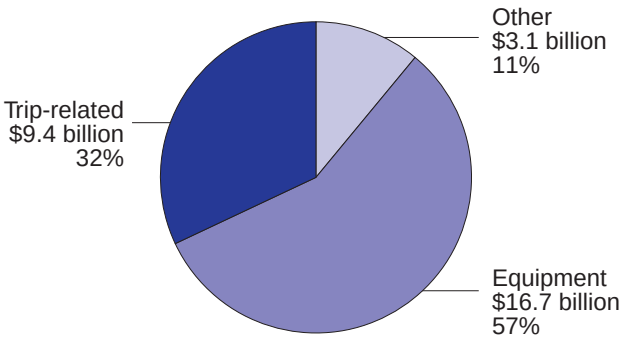
These recreationists purchased $16.7 billion worth of equipment. They spent $8.2 billion on wildlife-watching equipment including binoculars, film, bird food, and special clothing.

Auxiliary equipment expenditures for items such as tents and backpacking equipment amounted to $858 million for the year. Participants spent $7.6 billion on special equipment including off-road vehicles, trail bikes, and boats.

For the year, wildlife-watching participants also spent $395 million on magazines and books; $862 million on membership dues and contributions; $1.3 billion on land leasing and ownership; and $537 million on plantings.

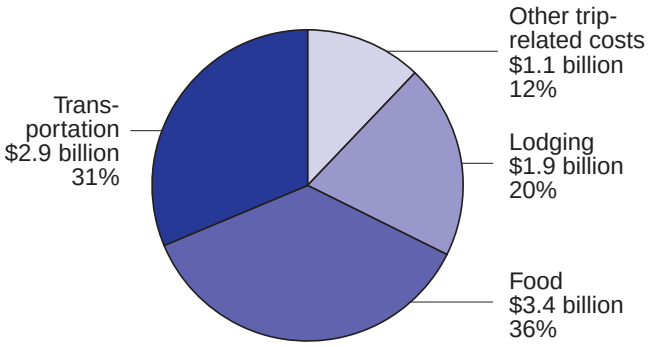
Wildlife-Watching Expenditures

(Total expenditures $29.2 billion)



Trip-Related Expenditures

(Total expenditures $9.4 billion)



Wildlife-Watching Expenditures	
Total wildlife-watching expenditures	**$29.2 billion**
Total trip-related	**$9.4 billion**
Food and lodging	5.4
Transportation	2.9
Other trip costs	1.1
Total equipment expenditures	**$16.7 billion**
Wildlife-watching equipment	8.2
Auxiliary equipment	0.9
Special equipment	7.6
Total other expenditures	**$3.1 billion**
Magazines, books	0.4
Membership dues and contributions	0.9
Land leasing and ownership	1.3
Plantings	0.5

Source: Table 40

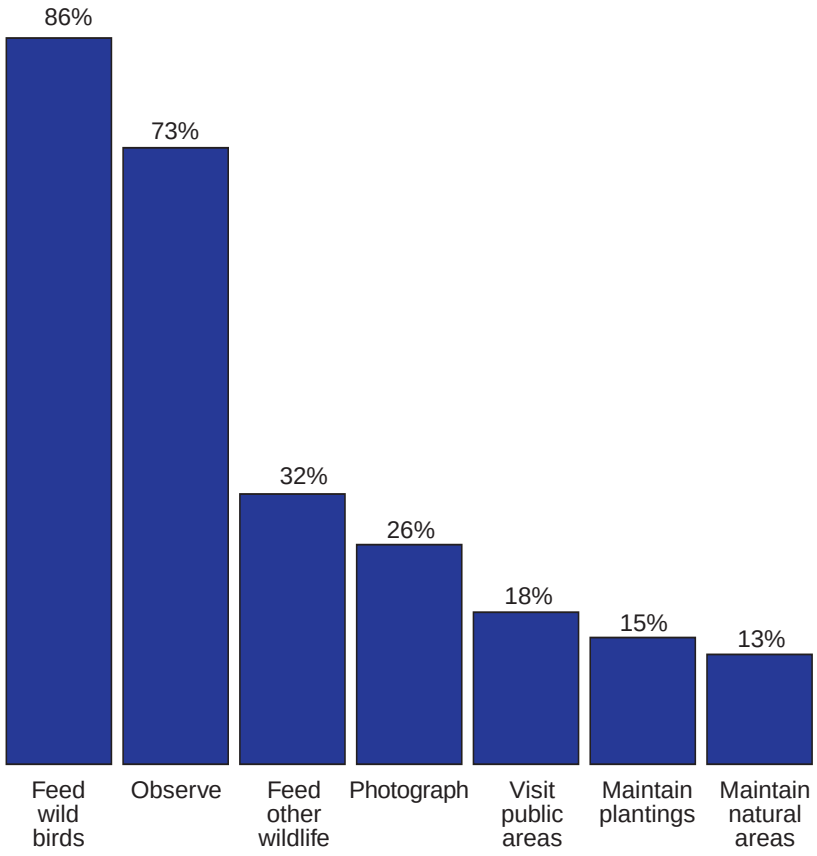
Residential Activities Highlights

Residential participants 16 years old and older numbered 60.8 million in 1996, 97 percent of all wildlife-watching recreationists. The most popular residential wildlife-watching activity, feeding birds and other wildlife, was enjoyed by 54.1 million people, 89 percent of all residential wildlife-watching participants. Over 44 million people observed wildlife in 1996, constituting 73 percent of the residential participants.

Photographing wildlife was enjoyed by over 16 million people, or 26 percent of all residential participants. Eleven million people, 18 percent of all residential participants, visited public areas including parks within one mile of their homes. Approximately 9.2 million participants, 15 percent of all residential participants, maintained plantings for the primary purpose of benefiting wildlife. Finally, 7.9 million people, 13 percent of the residential participants, maintained natural areas for the primary purpose of benefiting wildlife.

Percent of Total Residential Participation, by Activity

(Total: 60.8 million participants)



Residential Participants

(In millions)

Total participants	**60.8**
Feed wild birds	52.2
Observe wildlife	44.1
Feed other wildlife	19.6
Photograph wildlife	16.0
Visit public areas	11.0
Maintain plantings	9.2
Maintain natural areas	7.9

Detail does not add to total because of multiple responses.

Source: Table 37

Wildlife Observed, Fed, or Photographed by Residential Participants

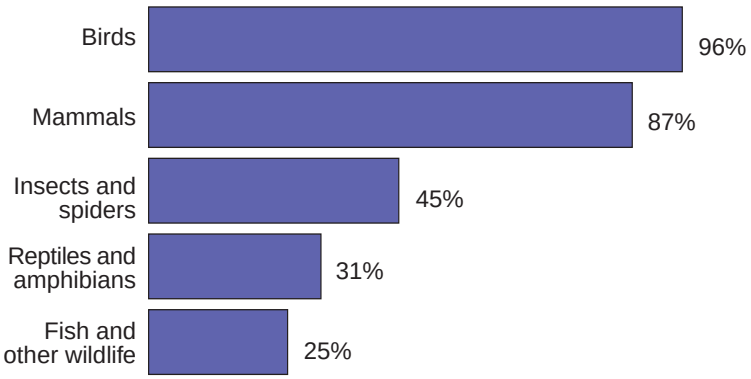
Of the 44.1 million participants who reported observing wildlife around their homes, a large majority, 42.2 million, observed birds. Observing mammals was popular among 38.5 million participants. Insects and spiders attracted the attention of 19.8 million people; 13.6 million observed amphibians or reptiles; and 11.1 million people reported observing fish or other wildlife.

Of the 54.1 million residential wildlife feeders in 1996, 96 percent fed birds. Over 52 million people fed birds an average of eight months in 1996. Approximately 19.6 million participants fed other wildlife for 7 months, on average, during the year.

More than 16 million residential participants photographed wildlife. Twenty-nine percent of these photographers spent 2 to 3 days taking pictures of wildlife during the year. Eight percent (1.2 million) of the participants spent 21 or more days photographing wildlife. Sixteen percent (2.5 million) of the participants spent 1 day photographing wildlife; 18 percent (2.9 million) 4 to 5 days; 18 percent (2.8 million) 6 to 10 days; and 11 percent (1.7 million) 11 to 20 days.

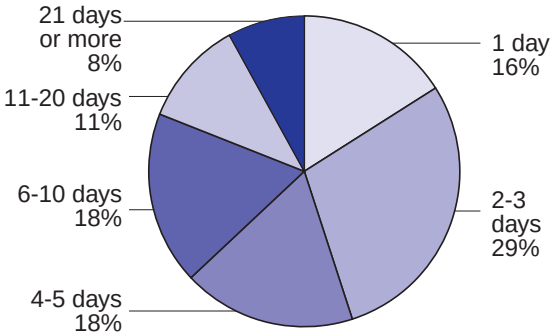
Percent of Residential Wildlife Observers, by Type of Wildlife Observed

(Total wildlife observers 44.1 million)



Days Spent Photographing Wildlife

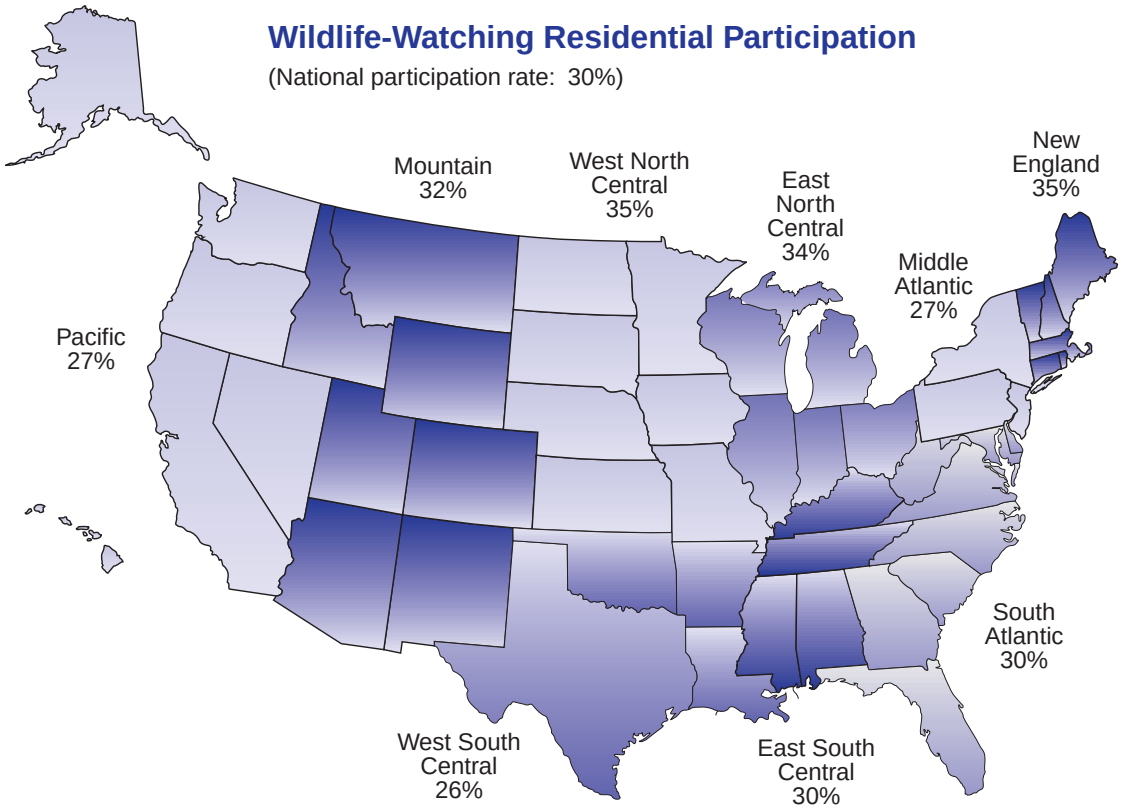
(Total participants: 16 million)



Residential Participation by Geographic Division

In 1996, 201 million people 16 years old and older lived in the United States. Of those individuals, 30 percent observed, fed, or photographed wildlife around their homes. The participation rates of these residential participants varied from region to region.

Residential wildlife-watching participation rates ranged from 26 percent for residents in the West South Central Division to 35 percent for those in the West North Central and New England Divisions. The New England, East North Central, West North Central, and Mountain Divisions all had participation rates above the national participation rate of 30 percent. The East North Central Division's participation rate was 34 percent. The Mountain Division followed with a participation rate of 32 percent. The participation rates for both the South Atlantic and East South Central Divisions were 30 percent. The Middle Atlantic and Pacific Divisions both had participation rates of 27 percent.



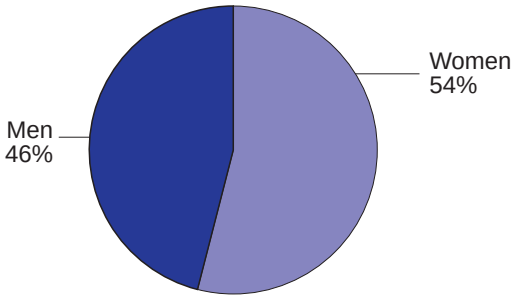
Sex and Age of Residential Participants

Residential wildlife-watching activities were enjoyed by males and females in similar proportions. In 1996, 29 percent of American males 16 years old and older enjoyed residential activities, as did 31 percent of American females of the same age group. Of the 60.8 million residential wildlife-watching participants, 46 percent (28.1 million) were male and 54 percent (32.7 million) were female.

Of the 60.8 million residential participants in 1996, 25 percent or 15.3 million were 35 to 44 years old, and 20 percent or 12.3 million were 45 to 54 years old. The participation rate for residential wildlife-watching recreation for both the 35- to 44-year-old age group as well as for the 45- to 54-year-olds was 34 percent. Participants 65 years old and older numbered 11.4 million with a 32 percent participation rate. They represented 19 percent of all residential participants. Participants 25 to 34 years old numbered 9.2 million and represented 15 percent of all residential participants. Their participation rate was 26 percent. There were 8.3 million participants in the 55- to 64-year-old age category, accounting for 14 percent of all residential recreationists and having a participation rate of 36 percent. The 18- to 24-year-old participants numbered 3.0 million, or 5 percent of the residential participants. Their participation rate was 15 percent in 1996. Finally, the 16- and 17-year-old participants totaled 1.2 million with a participation rate of 18 percent, accounting for 2 percent of the residential wildlife-watching participants.

Percent of U.S. Population 16 Years Old and Older Who Participated, by Sex

Percent of Residential Participants 16 Years Old and Older, by Sex



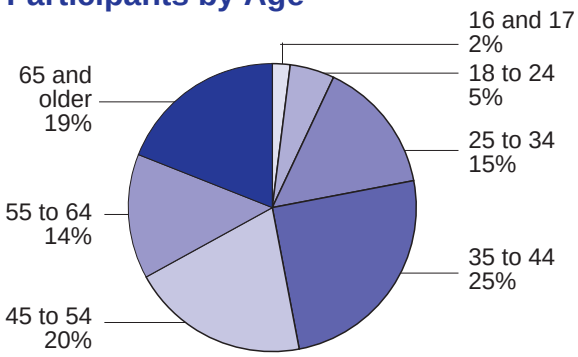
Residential Participants, by Sex and Age

(In millions)

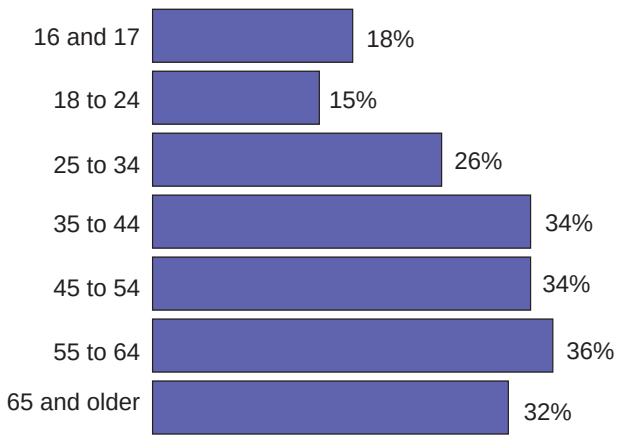
Total, both sexes	**60.8**
Male	28.1
Female	32.7
Total, all ages	**60.8**
16 and 17	1.2
18 to 24	3.0
25 to 34	9.2
35 to 44	15.3
45 to 54	12.3
55 to 64	8.3
65 and older	11.4

Source: Table 42

Percent of Residential Participants by Age



Percent of U.S. Population Who Participated, by Age



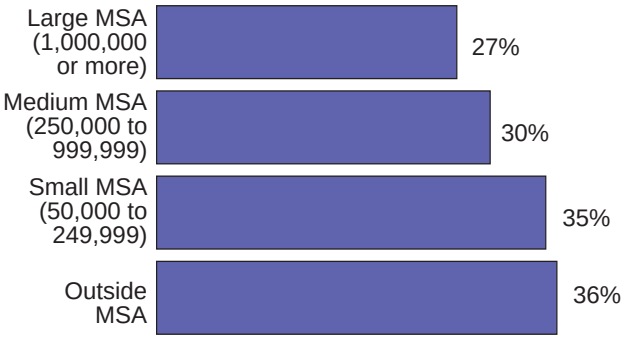
Size of Residence of Residential Participants

In 1996, 30 percent of all U.S. residents 16 years old and older participated in wildlife-watching recreation around their homes. Seventy-five percent of these residential wildlife participants lived in metropolitan areas of various sizes. Participation rates varied by population size of metropolitan areas. People living in Metropolitan Statistical Areas (MSA's) with populations of 1,000,000 or more had a participation rate of 27 percent. These recreationists comprised 44 percent of the total residential participants. In MSA's of 250,000 to 999,999 the participation rate was 30 percent, reflecting 20 percent of all residential recreationists. Eleven percent of the residential wildlife-watching participants were from MSA's with populations of 50,000 to 249,999. The population of these areas had a participation rate of 35 percent.

The highest participation rate for residential wildlife-watching participants was among persons residing outside of MSA's. While 21 percent of the total U.S. population lived outside these areas in 1996, they represented 25 percent of all residential wildlife-watching participants. Thirty-six percent of that population group participated in wildlife-watching activities around their homes in 1996.

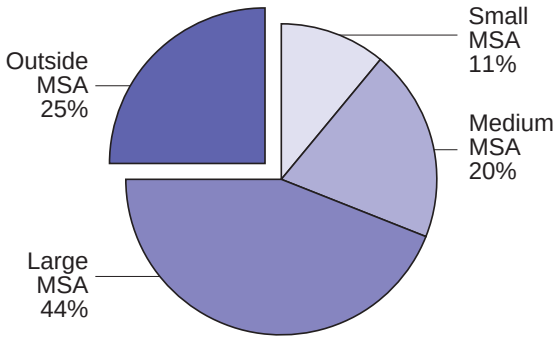
Percent of U.S. Population 16 Years Old and Older Who Participated, by Residence

(30% of total U.S. population participated)



Percent of Residential Participants 16 Years Old and Older, by Residence

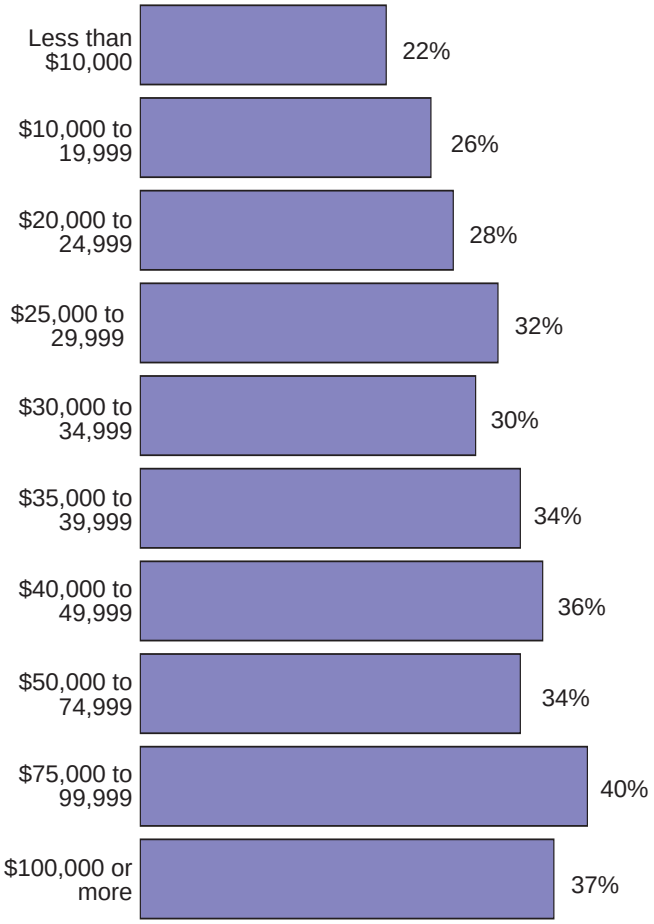
(Total residential participants 60.8 million)



Income of Residential Participants

Residential wildlife-watching activities were enjoyed by people of all income levels. Participation rates ranged from 22 percent among U.S. residents living in households earning less than $10,000 per year to 40 percent among participants living in households earning $75,000 to $99,999 annually. These groups represented 5 percent and 10 percent of all residential wildlife-watching participants, respectively. Participants in households earning $10,000 to $19,999 a year had a participation rate of 26 percent and constituted 8 percent of all residential recreationists. The participation rate among recreationists with annual household incomes of $20,000 to $24,999 was 28 percent, making up 6 percent of all residential participants. People with annual household incomes of $25,000 to $29,999 participated at a rate of 32 percent and made up 6 percent of all residential participants. Those people with annual household incomes of $30,000 to $34,999, representing 6 percent of the residential participants, had a participation rate of 30 percent. Those whose annual incomes totaled $35,000 to $39,999 showed a participation rate of 34 percent while representing 6 percent of all residential participants. Persons from households with incomes of $40,000 to $49,999 chalked up a participation rate of 36 percent and represented 11 percent of all residential participants. Among the 18 percent of residential participants who reported annual household incomes of $50,000 to $74,999, the participation rate was 34 percent. Finally, those individuals with annual household incomes of $100,000 or more reported a participation rate of 37 percent, representing 8 percent of the of all residential recreationists. Fourteen percent of the residential wildlife-watching sample did not report their income.

Percent of U.S. Population 16 Years Old and Older Who Participated, by Income

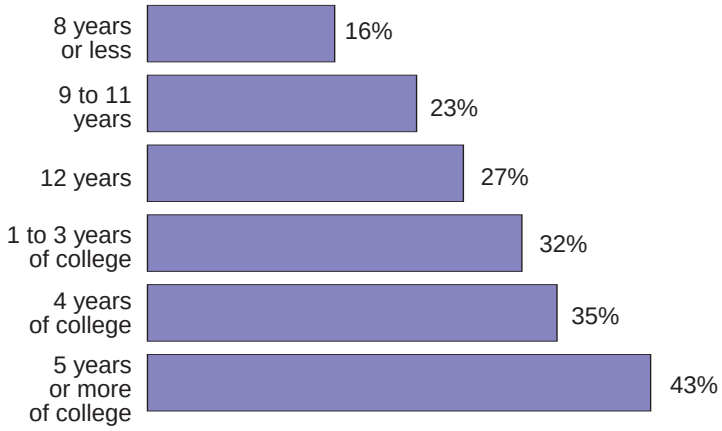


Education and Race of Residential Participants

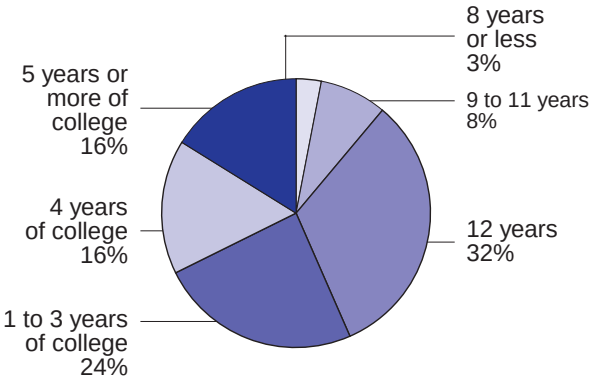
Among residential participants, a wide range of educational backgrounds was recorded. The highest rate of participation was found among recreationists with 5 years or more of college, 43 percent. They made up 16 percent of all residential wildlife-watching participants. The lowest participation rate, 16 percent, was among people with 8 years of education or less, 3 percent of all residential participants. The participation rate among those with 9 to 11 years of education was 23 percent. They constituted 8 percent of all residential participants. Residential recreationists with 12 years of education, 32 percent of all residential participants, had a participation rate of 27 percent. Participants with 1 to 3 years of college had a participation rate of 32 percent, while those with 4 years of college had a participation rate of 35 percent in 1996. Those groups represented 24 percent and 16 percent of all residential wildlife-watching participants, respectively.

A wide variety of participation rates was found among the different races. For the U.S.

Percent of U.S. Population 16 Years Old and Older Who Participated, by Education



Percent of Residential Participants 16 Years Old and Older, by Education



population, 34 percent of the White population engaged in residential wildlife-watching activities, 10 percent of the Black population enjoyed such activities, and 15 percent of individuals of other races participated. Of the total number of residential participants, 93 percent were White, 3 percent were Black, and 4 percent were all other races.

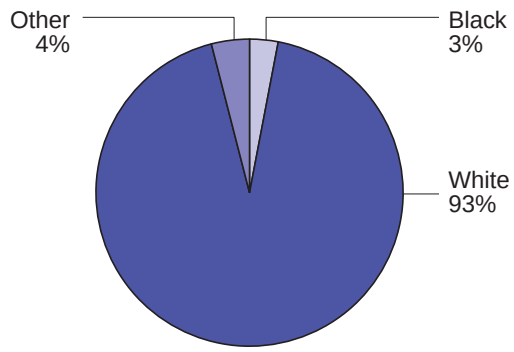
Residential Participants, by Education and Race

(In millions)

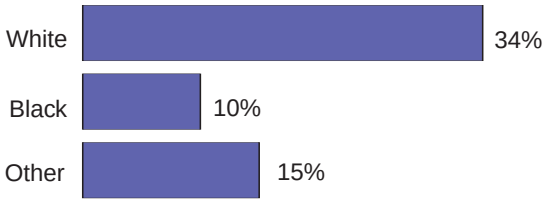
Total participants	**60.8**
Education	
0 to 8 years	2.0
9 to 11 years	4.9
12 years	19.3
1 to 3 years of college	14.7
4 years of college	9.8
5 years or more of college	9.9
Race	
White	56.6
Black	1.9
Other	2.2

Source: Table 42

Percent of Residential Participants 16 Years Old and Older, by Race



Percent of U.S. Population 16 Years Old and Older Who Participated, by Race

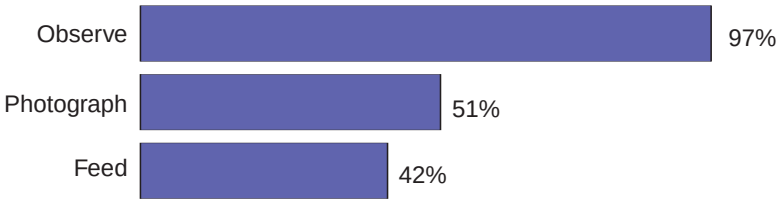


Nonresidential Activities Highlights

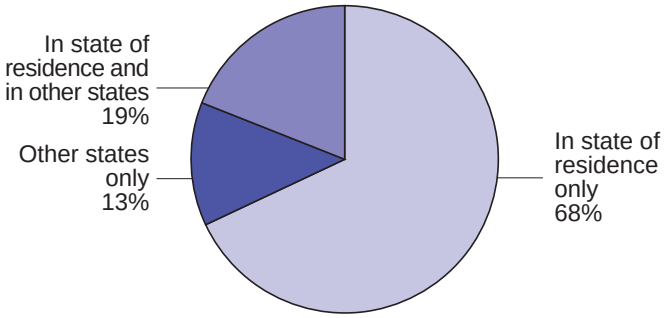
In 1996, almost 24 million people 16 years old and older took trips away from home for the primary purpose of observing, feeding, or photographing wildlife. They constituted 38 percent of all wildlife-watching participants. The most popular nonresidential activity was observing wildlife. Almost 23 million participants, 97 percent of all nonresidential participants, observed wildlife on an average of 12 days during the year. Photographing wildlife was enjoyed by 12.0 million people, 51 percent of all nonresidential participants, with an average of 7 days per participant. Nearly 10 million people fed wildlife on an average of 9 days while away from home. This constituted 42 percent of all nonresidential recreationists.

Eighty-seven percent of all nonresidential participants took trips within their state of residence. Sixty-eight percent of the nonresidential participants took trips only in their state of residence, 19 percent took trips both in their state of residence and to another state, and 13 percent took trips only to other states. Altogether, 32 percent of nonresidential participants took at least some of their trips to other states.

Percent of Nonresidential Participants, by Activity



Percent of Nonresidential Participants in State of Residence and Other States



Nonresidential

(In millions)

Total participants	**23.7**
Observers	22.9
Photographers	12.0
Feeders	10.0
Total days	**314**
Observing	279
Photographing	79
Feeding	90

Detail does not add to total because of multiple responses.

Source: Table 36

Wildlife Observed, Fed, or Photographed by Nonresidential Participants

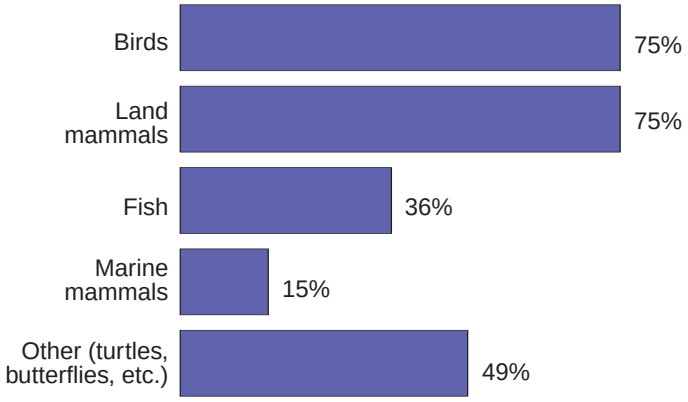
In 1996, many types of wildlife were enjoyed by the 23.7 million people who took trips for the primary purpose of observing, feeding, or photographing fish and wildlife in the United States. Birds attracted the attention of the largest number of people, 17.7 million individuals, 75 percent of all nonresidential participants 16 years old and older. Over 14 million people observed waterfowl on their trips. Shorebirds such as herons and pelicans were enjoyed by 9.5 million people. Almost 13 million people observed songbirds; 10.6 million, birds of prey; and 6.5 million, other birds.

Land mammals such as deer, bear, and coyotes drew as much attention as birds. Approximately 17.7 million participants, 75 percent of all nonresidential participants, observed, fed, or photographed land mammals. Fish attracted the attention of 8.4 million participants, 36 percent of all nonresidential recreationists.

Almost 3.5 million people, 15 percent of all nonresidential participants, observed, fed, or photographed marine mammals such as whales, seals, and dolphins. Other wildlife such as butterflies, snakes, and turtles were of interest to 11.5 million nonresidential participants, 49 percent of all wildlife-watching participants.

Percent of Nonresidential Participants Who Observed, Fed, or Photographed Wildlife

(Total participants: 23.7 million)



Nonresidential Participants, by Type of Wildlife Observed, Fed, or Photographed

(In millions)

Total participants	**23.7**
Birds, total	**17.7**
Waterfowl	14.3
Songbirds	12.9
Birds of prey	10.6
Shore birds	9.5
Other birds	6.5
Land mammals, total	**17.7**
Small land mammals	15.2
Large land mammals	13.2
Fish	8.4
Marine mammals	3.5
Other (turtles, butterflies, etc.)	11.5

Detail does not add to total because of multiple responses.

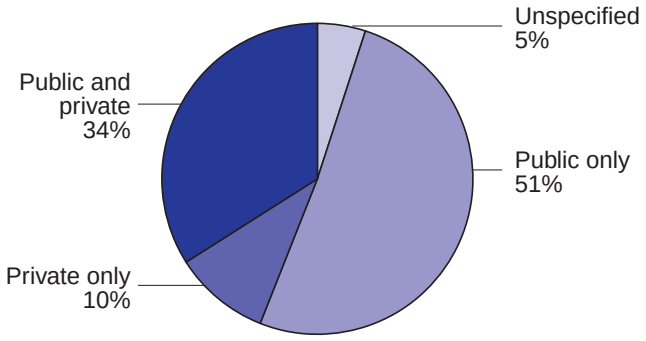
Source: Table 39

Area or Site Visited by Nonresidential Participants

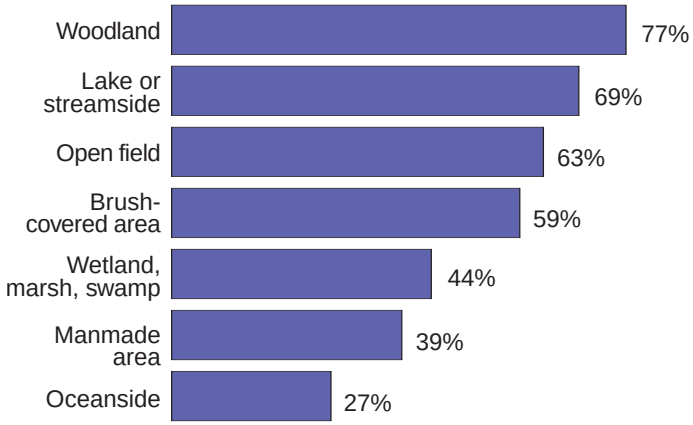
In 1996, both public and private areas provided significant opportunities for Americans to enjoy wildlife-watching activities. Approximately 8 million, or 34 percent of all nonresidential participants, said they had visited both public and private areas during 1996. Many nonresidential participants, 12.0 million or 51 percent, reported visiting only public areas to enjoy their activities, while 2.4 million or 10 percent of nonresidential participants visited only private areas.

People also visited many different types of wildlife habitat while pursuing their activities during 1996. An estimated 18.3 million people visited woodland habitats, 77 percent of the nonresidential participants. Lakes and streamsides also attracted a large number of visitors, 16.3 million people or 69 percent of the total. Brush-covered areas and open fields attracted a similar number of people, 14.1 million (59 percent), and 14.8 million (63 percent), respectively. Wetlands were visited by 10.4 million, or 44 percent of all nonresidential participants, and manmade areas had 9.1 million recreational visitors, 39 percent of all nonresidential participants. Oceanside areas were visited by 6.4 million people accounting for 27 percent of all nonresidential recreationists. Other types of habitats accounted for 3.3 million nonresidential participants, 14 percent of the total nonresidential population.

Nonresidential Participants, by Area Visited



Type of Site Visited by Nonresidential Participants



Nonresidential Participants, by Site Visited

(In millions)

Total participants	**23.7**
Woodland	18.3
Lake or streamside	16.3
Open field	14.8
Brush-covered area	14.1
Wetland, marsh, swamp	10.4
Manmade area	9.1
Oceanside	6.4

Detail does not add to total because of multiple responses.

Source: Table 38

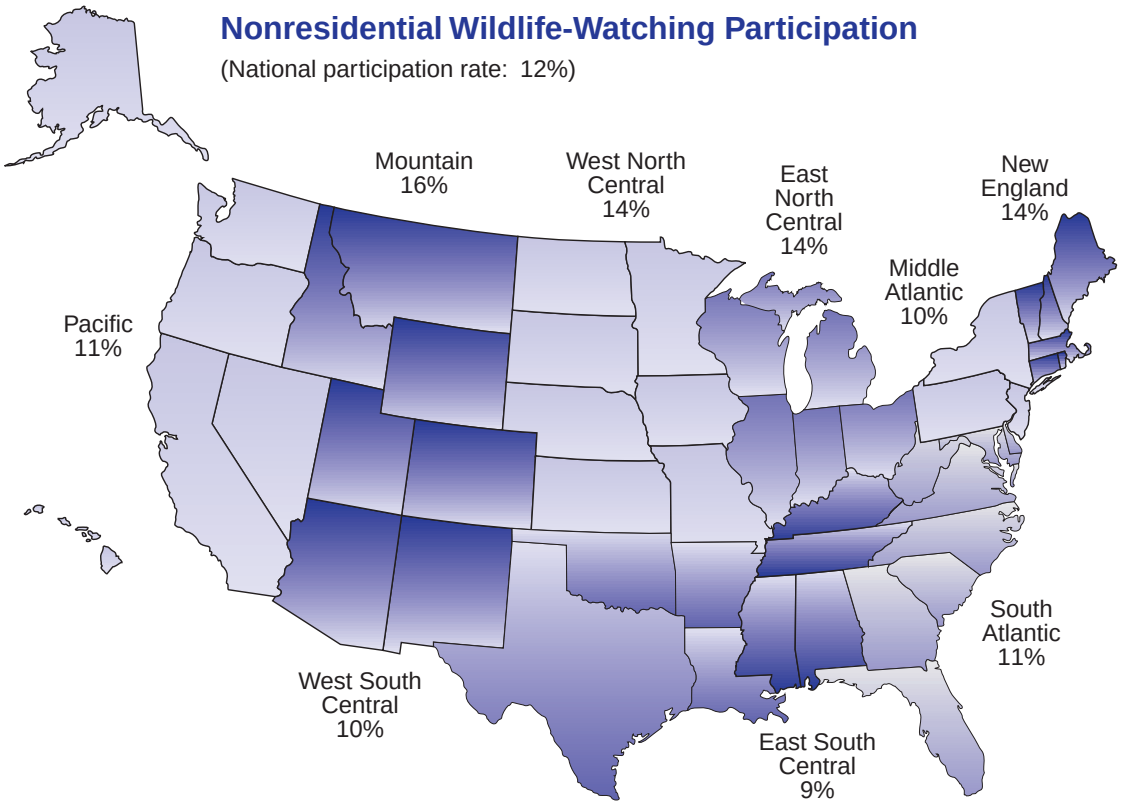
Nonresidential Participants by Geographic Division

In 1996, 201 million people 16 years old and older lived in the United States. Of those individuals, 12 percent participated in nonresidential activities.

Nonresidential participation rates ranged from 9 percent in the East South Central Division to 16 percent in the Mountain Division. Participants in the Middle Atlantic and West South Central Divisions had participation rates of 10 percent. Individuals in the South Atlantic and Pacific Divisions recorded participation rates of 11 percent. The New England, East North Central, and West North Central Divisions all had participation rates of 14 percent—above the national participation rate of 12 percent.

Nonresidential Wildlife-Watching Participation

(National participation rate: 12%)



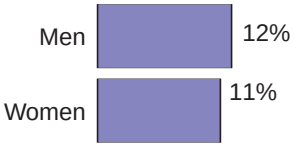
Sex and Age of Nonresidential Participants

Nearly equal numbers of males and females 16 years old and older enjoyed nonresidential wildlife-watching activities. In 1996, 12 percent of American males and 11 percent of American females enjoyed observing, feeding, or photographing wildlife away from home. Among the 23.7 million nonresidential participants, 50 percent (11.7 million) were male, and 50 percent (11.9 million) were female.

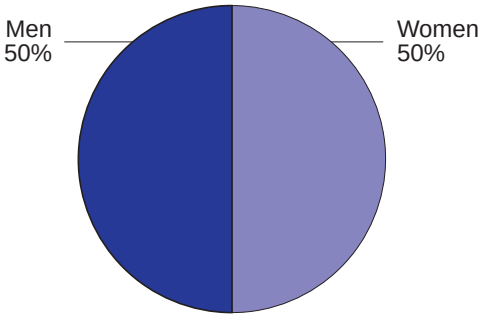
The age group with the most nonresidential participants, 6.9 million, was the 35- to 44-year-olds who had a participation rate of 16 percent. This group was closely followed by the 5.3 million participants in the 45- to 54-year-old age group whose participation rate was 15 percent. These two groups represented 29 percent and 22 percent of all nonresidential participants, respectively.

There were 4.6 million participants in the 25- to 34-year-old age group, 19 percent of all nonresidential participants. Thirteen percent of the people in this age group participated in nonresidential activities. The 55- to 64-year-old age group, which had a participation rate of 11 percent, numbered 2.5 million participants and represented 10 percent of all nonresidential recreationists. Six percent of persons 65 years old and older participated in nonresidential

Percent of U.S. Population 16 Years Old and Older Who Participated, by Sex



Percent of Nonresidential Participants 16 Years Old and Older, by Sex



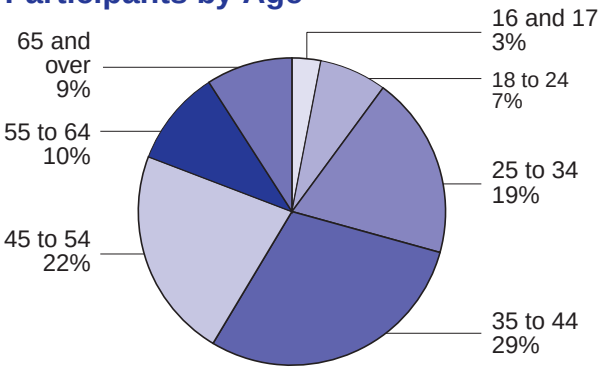
Primary Nonresidential Participants by Sex and Age

Total, both sexes	**23.7 million**
Male	11.7 million
Female	11.9 million
Total, all ages	**23.7 million**
16 to 17	0.6 million
18 to 24	1.7 million
25 to 34	4.6 million
35 to 44	6.9 million
45 to 54	5.3 million
55 to 64	2.5 million
65 and older	2.1 million

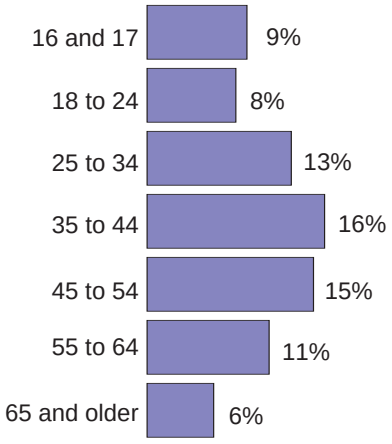
Source: Table 41

activities. They represented 9 percent of all participants. Participants 18 to 24 years old numbered 1.7 million. They accounted for 7 percent of all nonresidential participants and had a participation rate of 8 percent. Finally, persons 16 to 17 years old had a participation rate of 9 percent. These 608 thousand individuals comprised 3 percent of all nonresidential participants.

Percent of Nonresidential Participants by Age



Percent of U.S. Population Who Participated, by Age

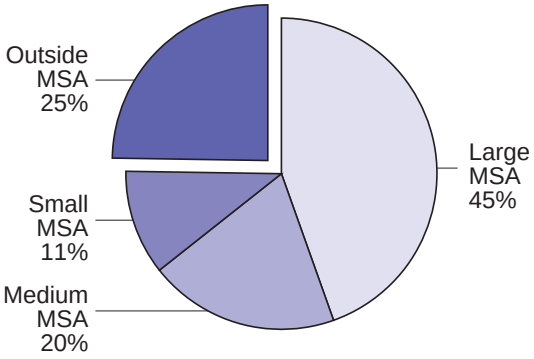


Size of Residence of Nonresidential Participants

Nonresidential wildlife-watching activities were enjoyed by a substantial number of people from both urban and rural areas. In 1996, 11 percent of all persons living in Metropolitan Statistical Areas (MSA's) took trips primarily for the enjoyment of wildlife. They comprised 75 percent of all nonresidential participants. Those living in MSA's with populations of 1,000,000 or more participated at a rate of 11 percent and represented 45 percent of all nonresidential participants. The participation rate for nonresidential recreationists in MSA's with populations of 250,000 to 999,999—20 percent of all nonresidential participants—was 12 percent. MSA's with populations of 50,000 to 249,999 had a participation rate of 13 percent and participants therein represented 11 percent of all nonresidential recreationists. Those participants residing in areas outside an MSA had a participation rate of 14 percent and represented 25 percent of the nonresidential total.

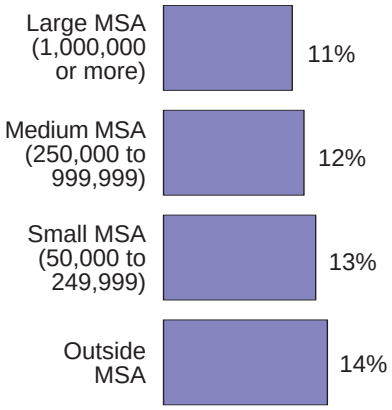
Percent of Nonresidential Participants 16 Years Old and Older, by Residence

(Total nonresidential participants: 23.7 million)



Percent of U.S. Population 16 Years Old and Older Who Participated, by Residence

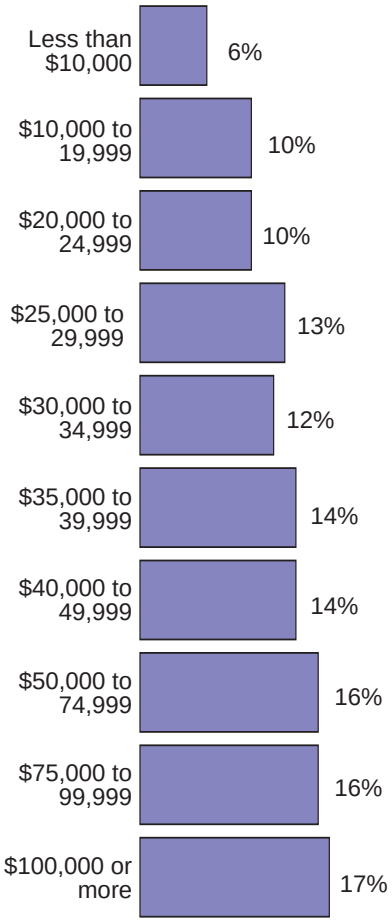
(12% of total U.S. population participated)



Income of Nonresidential Participants

People from households at all income levels enjoyed wildlife-watching activities away from home. Participation rates ranged from 6 percent for those in households earning less than $10,000 per year (4 percent of all nonresidential participants) to 17 percent in those households earning $100,000 or more annually (10 percent of all nonresidential participants). Following close behind this income group were participants from households earning $50,000 to $74,999 and $75,000 to $99,999 per year with participation rates of 16 percent. They represented 22 percent and 11 percent of all nonresidential participants, respectively. Those in the $35,000 to $39,999 and $40,000 to $49,999 income groups had a participation rate of 14 percent, and constituted 6 percent and 11 percent of all nonresidential participants, respectively. Of those with an annual household income of $25,000 to $29,999, 13 percent enjoyed nonresidential activities. They represented 7 percent of the nonresidential total. Participants in the $30,000 to $34,999 household income group had a 12 percent participation rate, and represented 6 percent of all nonresidential recreationists. Lastly, individuals with household earnings of $10,000 to $19,999 or $20,000 to $24,999 recorded participation rates of 10 percent. They represented 8 percent and 6 percent of all nonresidential participants, respectively. Ten percent of the nonresidential wildlife-watching sample did not report their income.

Percent of U.S. Population 16 Years Old and Older Who Participated, by Income

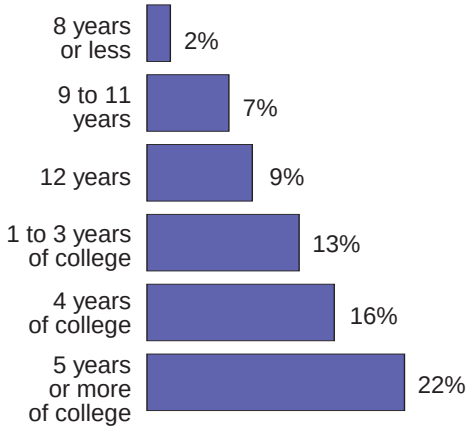


Education and Race of Nonresidential Participants

People of all educational levels participated in nonresidential activities in 1996. Two percent of the U.S. population with 8 years of education or less participated in a nonresidential wildlife-watching activity, 1 percent of the nonresidential total. In comparison, 22 percent of the population with 5 years or more of college joined in nonresidential activities and represented 21 percent of all nonresidential participants. The participation rate of persons with 9 to 11 years of education was 7 percent. These participants made up 6 percent of all nonresidential enthusiasts. Those with 12 years of education had a 9 percent participation rate and represented 27 percent of the nonresidential total. Participants with 1 to 3 years of college participated at a rate of 13 percent, contributing 26 percent to the nonresidential total. Lastly, 16 percent of those with 4 years of college participated in nonresidential activities, making up 18 percent of all nonresidential participants.

The participation rates among races varied greatly. Thirteen

Percent of U.S. Population 16 Years Old and Older Who Participated, by Education

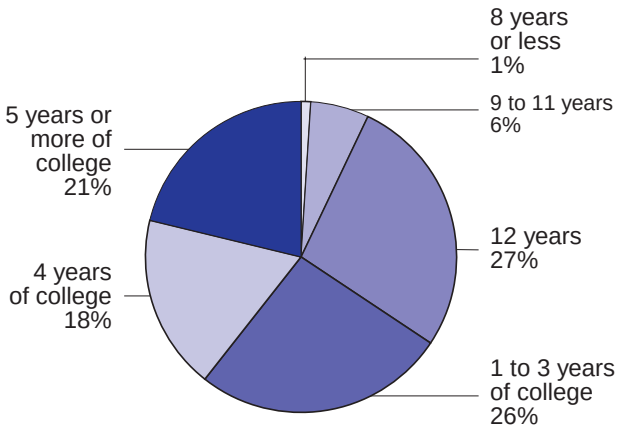


Nonresidential Participants, by Education and Race

Total participants	**23.7 million**
Education	
8 years or less	0.3 million
9 to 11 years	1.5 million
12 years	6.4 million
1 to 3 years of college	6.0 million
4 years of college	4.4 million
5 years or more of college	5.1 million
Race	
White	22.1 million
Black	0.5 million
Other	1.1 million

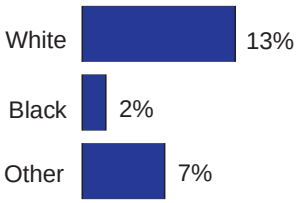
Source: Table 41

Percent of Residential Participants 16 Years Old and Older, by Education

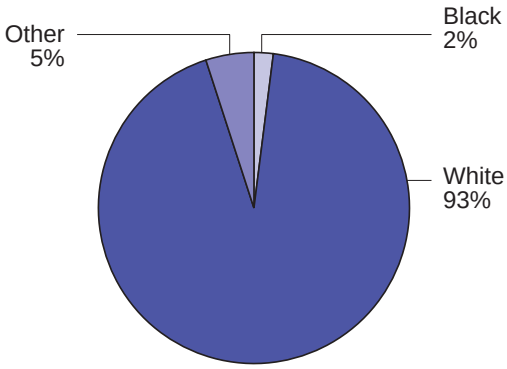


percent of all White individuals living in the U.S. participated in nonresidential activities in 1996, 2 percent of all Black individuals participated, and 7 percent of individuals of other races participated. Of the total 23.7 million nonresidential participants, 93 percent were White, 2 percent were Black, and 5 percent were other races.

Percent of U.S. Population 16 Years Old and Older Who Participated, by Race



Percent of Residential Participants 16 Years Old and Older, by Race



1991-1996 Comparison of Wildlife-Watching Activity

The number of people observing, photographing, or feeding wildlife in the United States in 1996 was substantially less than in 1991. There were 17 percent fewer people wildlife watching in 1996, with 18 percent fewer residential participants and 21 percent fewer nonresidential participants. However, the number of days of nonresidential wildlife watching did not change (at the 95 percent confidence level), and expenditures for wildlife watching increased 21 percent.

The percentage of residential participants that decreased the most, 29 percent, were those who visited public parks or other public areas for the primary purpose of observing, photographing, or feeding wildlife. The number of 1996 residential participants that did not change relative to 1991 were those who photographed wildlife and those who maintained plantings or natural areas.

All categories of nonresidential participation decreased at least 15 percent in the number of participants. The days of participation in nonresidential activities did not decrease, however, when compared at the 95 percent confidence level.

Expenditures increased for the equipment category, but not for the trip-related category. Equipment expenditures increased 35 percent. The purchase of auxiliary equipment such as tents and backpacking equipment increased 88 percent.

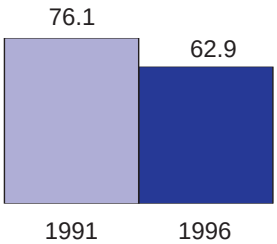
Participants, days and expenditures (Numbers in millions)	1991 Number	1991 Percent	1996 Number	1996 Percent	Percent change
Total wildlife watching	**76.1**	**100**	**62.9**	**100**	**-17**
Residential	73.9	97	60.8	97	-18
Observe wildlife	54.7	72	44.1	70	-21
Photograph wildlife	17.0	22	16.0	25	-6*
Feed wild birds or other wildlife	65.4	86	54.1	86	-17
Visit public parks or areas	15.5	20	11.0	18	-29
Maint. Plantings or Natural Area	13.6	18	13.4	21	-1*
Nonresidential	30.0	39	23.7	38	-21
Observe Wildlife	28.8	38	22.9	36	-21
Photograph Wildlife	14.2	19	12.0	19	-15
Feed Wildlife	13.3	17	10.0	16	-25
Days, nonresidential	342	100	314	100	-8*
Observing wildlife	296	87	279	89	-6*
Photographing wildlife	82	24	79	25	-3*
Feeding wildlife	102	30	90	29	-12*
Total Wildlife-Watching Expenditure**	**$21,242**	**100**	**$25,654**	**100**	**21**
Trip-related	8,604	41	9,007	35	5*
Equipment	10,994	52	14,854	58	35
Wildlife-watching equipment	6,559	31	7,773	30	19*
Auxiliary equipment	402	2	755	3	88
Special equipment	4,032	19	6,326	25	57*
Other	1,643	8	1,793	7	9*

* Not different from zero at the 95 percent confidence level. This means that for 95 percent of all possible samples, the estimate for one survey year is not different from the estimate for the other survey year.

** 1991 expenditure estimates have been adjusted for inflation to be comparable to 1996 expenditure estimates. Excludes expenditures for land lease and ownership, food for wildlife other than birds, boats and trip-related boating costs, cabins, and heating and cooking fuel because the 1991 survey did not collect this information.

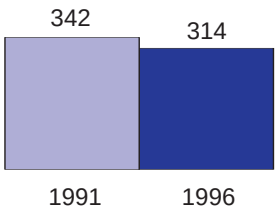
Number of Wildlife-Watching Participants

(Millions)



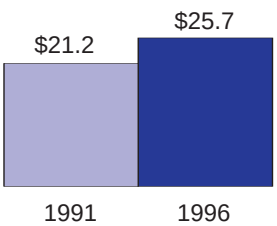
Days of Nonresidential Activity*

(Millions)



Wildlife-Watching Expenditures

(Billions)



*The difference is not significant at the 0.05 level.

Tables

Guide to Statistical Tables

Purpose and Coverage of Tables

The statistical tables of this report were designed to meet a wide range of needs for those interested in knowing about wildlife-related recreation. Special terms used in these tables are defined in Appendix A.

The tables are based on responses to the 1996 Survey which was designed to collect data about participation in wildlife-related recreation. To have taken part in the Survey, a respondent must have been a U.S. resident (a resident of one of the 50 states or the District of Columbia). No one residing outside the United States (including U.S. citizens) was eligible for interviewing. Therefore, reported state and national totals do not include participation by those who were not U.S. residents or who were residing outside the United States.

Comparability With Previous Surveys

The numbers reported can be compared with those in the 1991 Survey Reports. The methodology used in 1996 was similar to that used in 1991. These results should not be directly compared to results from Surveys earlier than 1991 since there were major change in methodology. These changes were made to improve accuracy in the information provided. Trends further back than 1991 are presented in Appendix B. These trends were developed using parts of the Surveys that were comparable.

Coverage of an Individual Table

Since the Survey covers many activities in various places by participants of different ages, all table titles, headnotes, stubs, and footnotes are designed to identify and articulate each item being reported in the table. For example, the title of Table 1 shows that data about anglers and hunters, their days of participation, and their number of trips are being reported by type of activity. By contrast, the title of Table 3 indicates that it contains data on freshwater anglers and the days they fished for different species of fish.

Percentages Reported in the Tables

Percentages are reported in the tables for the convenience of the user. When exclusive groups are being reported, the base of a percentage is apparent from its context because the percents add to 100 percent (plus or minus a rounding error). For example, Table 1 reports the number of trips taken by big game hunters (51 percent), those taken by small game hunters (29 percent), those taken by migratory bird hunters (10 percent), and those taken by sportsmen hunting other animals (10 percent). These form 100 percent because they are exclusive categories.

Percents should not add to 100 when nonexclusive groups are being reported. Using Table 1 as an example again, note that adding the percentages associated with total number of big game hunters (81 percent), total small game hunters (50 percent), total migratory bird hunters (22 percent), and total hunters of other animals (11 percent) will not yield total hunters (100 percent) because respondents could hunt for more than one type of game.

When the base of the percentage may not be apparent in context, it is identified in a footnote. For example, Table 6 reports 3 percentages with different bases: one for the number of hunters, one for the number of trips, and one for days of hunting. Footnotes are used to clarify the bases of the reported percentages.

Footnotes to the Tables

Footnotes are used to clarify the information or items that are being reported in a table. Symbols in the body of a table indicate important footnotes. These symbols are used in the tables to refer to the same footnote each time they appear:

*	Estimate based on a small sample size.
...	Sample size too small to report data reliably.
W	Less than .5 dollars.
Z	Less than .5 percent.
X	Not applicable.
NA	Not asked.

Estimates based upon fewer than 10 responses are regarded as being based on a sample size that is too small for reliable reporting. An estimate based upon at least 10 but fewer than 30 responses is treated as an estimate based on a small sample size. Other footnotes appear, as necessary, to qualify or clarify the estimates reported in the tables.

In addition, these two important footnotes appear frequently:

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

"Multiple responses" is a term used to reflect the fact that individuals or their characteristics fall into more than one category. Using Table 2 as an example, those who fished in saltwater and freshwater appear in both of these totals. Yet each angler is represented only once in the "Total, all fishing" row. Similarly, those who hunt for big game and small game are counted only once as a hunter. Therefore, totals may be smaller than the sum of subcategories when multiple responses exist.

"Nonresponse" exists because the Survey questions were answered voluntarily and some respondents did not or could not answer all of the questions. The effect of nonresponses is illustrated in Table 11, where the reported total for fishing and hunting expenditures is greater than the sum of reported fishing expenditures plus reported hunting expenditures. This occurs because some respondents did not specify either "hunting" or "fishing" as the primary purpose of the purchase. As a result, it is known that the expenditures were for fishing or hunting, but it is not known whether they were primarily for fishing or primarily for hunting, which was the basis for putting them in the individual fishing and hunting expenditure tables. Totals are greater than the sum of subcategories when nonresponses have occurred.

Table 1. **Anglers and Hunters 16 Years Old and Older, Days of Participation, and Trips, by Type of Fishing and Hunting: 1996**

(Population 16 years old and older. Numbers in thousands)

Type of fishing and hunting	Participants		Days of participation		Trips	
	Number	Percent	Number	Percent	Number	Percent
Total sportsmen	**39,694**	**100**	**882,569**	**100**	**729,495**	**100**
FISHING						
Total, all fishing	**35,246**	**100**	**625,893**	**100**	**506,557**	**100**
Total, all freshwater	29,734	84	515,115	82	420,010	83
Freshwater, except Great Lakes	28,921	82	485,474	78	402,814	80
Great Lakes	2,039	6	20,095	3	17,195	3
Saltwater	9,438	27	103,034	17	86,547	17
HUNTING						
Total, all hunting	**13,975**	**100**	**256,676**	**100**	**222,938**	**100**
Big game	11,288	81	153,784	60	113,971	51
Small game	6,945	50	75,117	29	63,744	29
Migratory bird	3,073	22	26,501	10	22,509	10
Other animals	1,521	11	24,522	10	22,714	10

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

Table 2. **Anglers, Trips, and Days of Fishing, by Type of Fishing: 1996**

(Population 16 years old and older. Numbers in thousands)

Anglers, trips, and days of fishing	Total, all fishing		Freshwater						Saltwater	
			Total, all freshwater		Freshwater, except Great Lakes		Great Lakes			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
ANGLERS										
Total in U.S.	**35,246**	**100**	**29,734**	**100**	**28,921**	**100**	**2,039**	**100**	**9,438**	**100**
In state of residence	32,222	91	27,411	92	26,646	92	1,666	82	7,161	76
In other states	9,040	26	6,270	21	5,995	21	479	23	2,946	31
TRIPS										
Total in U.S.	**506,556**	**100**	**420,010**	**100**	**402,814**	**100**	**17,195**	**100**	**86,547**	**100**
In state of residence	464,256	92	388,462	92	372,158	92	16,304	95	75,794	88
In other states	42,300	8	31,548	8	30,656	8	892	5	10,753	12
DAYS OF FISHING										
Total days in U.S.	**625,893**	**100**	**515,115**	**100**	**485,474**	**100**	**20,095**	**100**	**103,034**	**100**
In state of residence	558,394	89	463,668	90	438,692	90	18,346	91	86,654	84
In other states	69,863	11	51,447	10	46,781	10	1,749	9	16,380	16
Average days per angler	18	(X)	17	(X)	17	(X)	10	(X)	11	(X)

(X) Not applicable.

Note: Detail for participants does not add to total because of multiple responses. Percents shown are based on the respective "Total in U.S." rows.

Table 3. **Freshwater Anglers and Days of Fishing, by Type of Fish: 1996**

(Population 16 years old and older. Numbers in thousands. Excludes Great Lakes fishing)

Type of fish	Anglers		Days of fishing		Average days per angler
	Number	Percent	Number	Percent	
Total, all types of fish	**28,921**	**100**	**485,474**	**100**	**17**
Black bass (largemouth, smallmouth, etc.)	12,708	44	191,350	39	15
White bass, striped bass and striped bass hybrids	4,756	16	61,836	13	13
Panfish	7,961	28	103,041	21	13
Crappie	6,363	22	91,031	19	14
Catfish and bullheads	7,430	26	91,498	19	12
Walleye and sauger	3,276	11	48,726	10	15
Trout	8,974	31	93,566	19	10
Salmon	1,218	4	11,742	2	10
Steelhead	470	2	6,699	1	14
Anything[1]	4,218	15	39,035	8	9
Another type of freshwater fish	3,729	13	44,401	9	12

[1] Respondent identified ″Anything″ from a list of categories of fish.

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

Table 4. **Great Lakes Anglers and Days of Fishing, by Type of Fish: 1996**

(Population 16 years old and older. Numbers in thousands)

Type of fish	Anglers		Days of fishing		Average days per angler
	Number	Percent	Number	Percent	
Total, all types of fish	**2,039**	**100**	**20,095**	**100**	**10**
Black bass (largemouth, smallmouth, etc.)	492	24	5,035	25	10
Walleye and sauger	724	36	5,899	29	8
Perch	624	31	5,407	27	9
Salmon	587	29	3,561	18	6
Steelhead	348	17	2,752	14	8
Lake trout	349	17	2,025	10	6
Other trout	256	13	2,387	12	9
Anything[1]	326	16	2,245	11	7
Another type of Great Lakes fish	360	18	2,834	14	8

[1] Respondent identified ″Anything″ from a list of categories of fish.

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

Table 5. **Saltwater Anglers and Days of Fishing, by Type of Fish: 1996**

(Population 16 years old and older. Numbers in thousands)

Type of fish	Anglers		Days of fishing		Average days per angler
	Number	Percent	Number	Percent	
Total, all types of fish	**9,438**	**100**	**103,034**	**100**	**11**
Salmon	637	7	3,976	4	6
Striped bass	1,443	15	15,023	15	10
Flatfish, flounder, halibut	2,626	28	28,644	28	11
Bluefish	1,499	16	13,190	13	9
Lingcod	389	4	1,900	2	5
Seatrout (weakfish)	1,240	13	14,245	14	11
Mackerel	683	7	5,108	5	7
Anything[1]	2,964	31	24,807	24	8
Another type of saltwater fish	4,928	52	45,091	44	9

[1] Respondent identified ″Anything″ from a list of categories of fish.

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

Table 6. **Hunters, Trips, and Days of Hunting, by Type of Hunting: 1996**

(Population 16 years old and older. Numbers in thousands)

Hunters, trips, and days of hunting	Total, all hunting		Big game		Small game		Migratory bird		Other animals	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
HUNTERS										
Total in U.S.	**13,975**	**100**	**11,288**	**100**	**6,945**	**100**	**3,073**	**100**	**1,521**	**100**
In state of residence	13,321	95	10,780	95	6,580	95	2,890	94	1,451	95
In other states	1,999	14	1,385	12	737	11	323	11	140	9
TRIPS										
Total in U.S.	**222,938**	**100**	**113,971**	**100**	**63,744**	**100**	**22,509**	**100**	**22,714**	**100**
In state of residence	211,350	95	107,634	94	60,752	95	21,265	94	21,700	96
In other states	11,587	5	6,336	6	2,992	5	1,244	6	1,014	4
DAYS OF HUNTING										
Total days in U.S.	**256,676**	**100**	**153,784**	**100**	**75,117**	**100**	**26,501**	**100**	**24,522**	**100**
In state of residence	239,728	93	140,983	92	70,600	94	24,617	93	23,247	95
In other states	18,517	7	12,801	8	4,517	6	1,884	7	1,275	5
Average days per hunter	18	(X)	14	(X)	11	(X)	9	(X)	16	(X)

(X) Not applicable.

Note: Detail does not add to total because of multiple responses. Percents shown are based on the respective ″Total in U.S.″ rows.

Table 7. **Hunters and Days of Hunting, by Type of Game: 1996**

Type of game	Hunters		Days of hunting		Average days per hunter
	Number	Percent	Number	Percent	
Total, all big game	**11,288**	**100**	**153,784**	**100**	**14**
Deer	10,722	95	131,345	85	12
Elk	959	8	7,174	5	7
Bear	405	4	2,944	2	7
Wild turkey	2,189	19	18,532	12	8
Other big game	513	5	5,416	4	11
Total, all small game	**6,945**	**100**	**75,117**	**100**	**11**
Rabbit, hare	3,146	45	28,873	38	9
Quail	1,487	21	11,408	15	8
Grouse/prairie chicken	1,220	18	9,609	13	8
Squirrel	3,207	46	25,401	34	8
Pheasant	2,261	33	17,336	23	8
Other small game	447	6	4,328	6	10
Total, all migratory birds	**3,073**	**100**	**26,501**	**100**	**9**
Geese	915	30	8,451	32	9
Ducks	1,596	52	13,800	52	9
Doves	1,581	51	8,141	31	5
Other migratory bird	291	9	2,121	8	7
Total, all other animals (fox, raccoon, groundhog, etc.)	**1,521**	**100**	**24,522**	**100**	**16**

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

Table 8. **Selected Characteristics of Anglers and Hunters: 1996**

(Population 16 years old and older. Numbers in thousands)

Characteristic	U.S. population		Sportsmen (fished or hunted)			Fished only		
	Number	Percent	Number	Percent who participated	Percent	Number	Percent who participated	Percent
Total persons	**201,472**	**100**	**39,694**	**20**	**100**	**25,719**	**13**	**100**
Population density of residence								
Urban	144,760	72	23,575	16	59	17,174	12	67
Rural	56,712	28	16,119	28	41	8,545	15	33
Population size of residence								
MSA	158,818	79	27,165	17	68	19,382	12	75
1,000,000 or more	99,738	50	14,612	15	37	11,294	11	44
250,000 to 999,999	39,800	20	7,956	20	20	5,264	13	20
50,000 to 249,999	19,280	10	4,597	24	12	2,824	15	11
Outside MSA	42,654	21	12,529	29	32	6,337	15	25
Census geographic division								
New England	10,306	5	1,673	16	4	1,207	12	5
Middle Atlantic	29,371	15	4,192	14	11	2,739	9	11
East North Central	33,121	16	6,912	21	17	4,200	13	16
West North Central	13,875	7	3,977	29	10	2,060	15	8
South Atlantic	36,776	18	7,282	20	18	5,232	14	20
East South Central	12,459	6	2,907	23	7	1,606	13	6
West South Central	21,811	11	5,093	23	13	3,281	15	13
Mountain	11,966	6	2,761	23	7	1,700	14	7
Pacific	31,787	16	4,897	15	12	3,694	12	14
Age								
16 to 17 years	7,080	4	1,578	22	4	906	13	4
18 to 24 years	20,423	10	3,787	19	10	2,390	12	9
25 to 34 years	34,973	17	7,891	23	20	5,108	15	20
35 to 44 years	44,376	22	10,833	24	27	7,014	16	27
45 to 54 years	35,867	18	7,924	22	20	5,074	14	20
55 to 64 years	23,311	12	4,164	18	10	2,677	11	10
65 years and older	35,442	18	3,516	10	9	2,549	7	10
Sex								
Male, total	96,660	48	29,773	31	75	16,990	18	66
16 to 17 years	3,565	2	1,248	35	3	637	18	2
18 to 24 years	10,210	5	2,879	28	7	1,597	16	6
25 to 34 years	17,325	9	5,617	32	14	3,127	18	12
35 to 44 years	21,585	11	7,999	37	20	4,540	21	18
45 to 54 years	17,719	9	5,940	34	15	3,313	19	13
55 to 64 years	11,277	6	3,266	29	8	1,855	16	7
65 years and older	14,979	7	2,825	19	7	1,921	13	7
Female, total	104,812	52	9,921	9	25	8,729	8	34
16 to 17 years	3,515	2	330	9	1	269	8	1
18 to 24 years	10,213	5	908	9	2	793	8	3
25 to 34 years	17,647	9	2,275	13	6	1,982	11	8
35 to 44 years	22,792	11	2,834	12	7	2,474	11	10
45 to 54 years	18,148	9	1,985	11	5	1,761	10	7
55 to 64 years	12,034	6	898	7	2	823	7	3
65 years and older	20,463	10	691	3	2	628	3	2
Race								
White	167,497	83	35,990	21	91	22,764	14	89
Black	18,728	9	1,877	10	5	1,574	8	6
All others	15,247	8	1,826	12	5	1,380	9	5
Annual household income								
Less than $10,000	15,034	7	1,549	10	4	1,121	7	4
$10,000 to $19,999	19,690	10	2,871	15	7	1,920	10	7
$20,000 to $24,999	13,080	6	2,372	18	6	1,553	12	6
$25,000 to $29,999	12,337	6	2,995	24	8	1,994	16	8
$30,000 to $34,999	12,572	6	2,793	22	7	1,686	13	7
$35,000 to $39,999	10,653	5	2,653	25	7	1,687	16	7
$40,000 to $49,999	18,274	9	4,765	26	12	2,884	16	11
$50,000 to $74,999	32,223	16	8,249	26	21	5,214	16	20
$75,000 to $99,999	15,079	7	3,540	23	9	2,362	16	9
$100,000 or more	13,756	7	3,038	22	8	2,186	16	9
Not reported	38,774	19	4,868	13	12	3,112	8	12
Education								
8 years or less	12,377	6	1,268	10	3	799	6	3
9 to 11 years	21,366	11	4,052	19	10	2,437	11	9
12 years	71,098	35	14,403	20	36	8,626	12	34
1 to 3 years college	45,573	23	9,664	21	24	6,549	14	25
4 years college	28,005	14	5,418	19	14	3,765	13	15
5 years or more college	23,052	11	4,889	21	12	3,544	15	14

See footnotes at end of table.

Table 8. **Selected Characteristics of Anglers and Hunters: 1996**—Continued

(Population 16 years old and older. Numbers in thousands)

Characteristic	Hunted only			Fished and hunted		
	Number	Percent who participated	Percent	Number	Percent who participated	Percent
Total persons	**4,448**	**2**	**100**	**9,527**	**5**	**100**
Population density of residence						
Urban	1,957	1	44	4,444	3	47
Rural	2,490	4	56	5,083	9	53
Population size of residence						
MSA	2,503	2	56	5,280	3	55
1,000,000 or more	1,094	1	25	2,224	2	23
250,000 to 999,999	807	2	18	1,885	5	20
50,000 to 249,999	601	3	14	1,172	6	12
Outside MSA	1,945	5	44	4,247	10	45
Census geographic division						
New England	153	1	3	313	3	3
Middle Atlantic	566	2	13	888	3	9
East North Central	906	3	20	1,806	5	19
West North Central	561	4	13	1,356	10	14
South Atlantic	647	2	15	1,403	4	15
East South Central	393	3	9	908	7	10
West South Central	477	2	11	1,335	6	14
Mountain	350	3	8	711	6	7
Pacific	396	1	9	807	3	8
Age						
16 to 17 years	169	2	4	503	7	5
18 to 24 years	466	2	10	931	5	10
25 to 34 years	709	2	16	2,074	6	22
35 to 44 years	1,160	3	26	2,659	6	28
45 to 54 years	904	3	20	1,947	5	20
55 to 64 years	626	3	14	860	4	9
65 years and older	414	1	9	553	2	6
Sex						
Male, total	4,037	4	91	8,747	9	92
16 to 17 years	155	4	3	455	13	5
18 to 24 years	427	4	10	855	8	9
25 to 34 years	608	4	14	1,882	11	20
35 to 44 years	1,019	5	23	2,441	11	26
45 to 54 years	841	5	19	1,786	10	19
55 to 64 years	591	5	13	820	7	9
65 years and older	395	3	9	508	3	5
Female, total	411	(Z)	9	780	1	8
16 to 17 years	...	...	...	...	...	...
18 to 24 years	*	*	*	76	1	1
25 to 34 years	100	1	2	193	1	2
35 to 44 years	142	1	3	218	1	2
45 to 54 years	*	*	*	*	*	*
55 to 64 years	*	*	*	*	*	*
65 years and older	...	...	...	...	...	...
Race						
White	4,199	3	94	9,027	5	95
Black	76	(Z)	2	227	1	2
All others	174	1	4	272	2	3
Annual household income						
Less than $10,000	180	1	4	248	2	3
$10,000 to $19,999	304	2	7	647	3	7
$20,000 to $24,999	257	2	6	563	4	6
$25,000 to $29,999	348	3	8	653	5	7
$30,000 to $34,999	368	3	8	738	6	8
$35,000 to $39,999	260	2	6	705	7	7
$40,000 to $49,999	600	3	13	1,282	7	13
$50,000 to $74,999	892	3	20	2,143	7	22
$75,000 to $99,999	373	2	8	805	5	8
$100,000 or more	262	2	6	589	4	6
Not reported	602	2	14	1,154	3	12
Education						
8 years or less	214	2	5	256	2	3
9 to 11 years	492	2	11	1,124	5	12
12 years	1,805	3	41	3,971	6	42
1 to 3 years college	1,083	2	24	2,032	4	21
4 years college	431	2	10	1,223	4	13
5 years or more college	424	2	10	921	4	10

* Estimate based on a small sample size. ... Sample size too small to report data reliably. (Z) Less than 0.5 percent.

Note: Percent who participated shows the percent of each row's population who participated in the activity named by the column (the percent of those living in urban areas who fished only, etc.). Percent columns show the percent of each column's participants who are described by the row heading (the percent of those who fished only who lived in urban areas, etc.).

Table 9. **Selected Characteristics of Anglers, by Type of Fishing: 1996**

(Population 16 years old and older. Numbers in thousands)

Characteristic	U.S. population		Total, all fishing			Total freshwater		
	Number	Percent	Number	Percent who participated	Percent	Number	Percent who participated	Percent
Total persons	**201,472**	**100**	**35,246**	**17**	**100**	**29,734**	**15**	**100**
Population density of residence								
Urban	144,760	72	21,618	15	61	17,601	12	59
Rural	56,712	28	13,628	24	39	12,134	21	41
Population size of residence								
MSA	158,818	79	24,662	16	70	20,148	13	68
1,000,000 or more	99,738	50	13,518	14	38	10,604	11	36
250,000 to 999,999	39,800	20	7,149	18	20	6,006	15	20
50,000 to 249,999	19,280	10	3,995	21	11	3,538	18	12
Outside MSA	42,654	21	10,584	25	30	9,586	22	32
Census geographic division								
New England	10,306	5	1,520	15	4	1,151	11	4
Middle Atlantic	29,371	15	3,627	12	10	2,674	9	9
East North Central	33,121	16	6,006	18	17	5,582	17	19
West North Central	13,875	7	3,416	25	10	3,251	23	11
South Atlantic	36,776	18	6,636	18	19	4,782	13	16
East South Central	12,459	6	2,514	20	7	2,344	19	8
West South Central	21,811	11	4,616	21	13	4,067	19	14
Mountain	11,966	6	2,411	20	7	2,284	19	8
Pacific	31,787	16	4,501	14	13	3,599	11	12
Age								
16 to 17 years	7,080	4	1,409	20	4	1,240	18	4
18 to 24 years	20,423	10	3,321	16	9	2,903	14	10
25 to 34 years	34,973	17	7,183	21	20	6,147	18	21
35 to 44 years	44,376	22	9,673	22	27	8,156	18	27
45 to 54 years	35,867	18	7,020	20	20	5,747	16	19
55 to 64 years	23,311	12	3,537	15	10	2,958	13	10
65 years and older	35,442	18	3,102	9	9	2,585	7	9
Sex								
Male	96,660	48	25,737	27	73	22,018	23	74
Female	104,812	52	9,509	9	27	7,716	7	26
Race								
White	167,497	83	31,791	19	90	27,010	16	91
Black	18,728	9	1,802	10	5	1,456	8	5
All others	15,247	8	1,653	11	5	1,268	8	4
Annual household income								
Less than $10,000	15,034	7	1,369	9	4	1,179	8	4
$10,000 to $19,999	19,690	10	2,567	13	7	2,246	11	8
$20,000 to $24,999	13,080	6	2,116	16	6	1,857	14	6
$25,000 to $29,999	12,337	6	2,646	21	8	2,352	19	8
$30,000 to $34,999	12,572	6	2,425	19	7	2,102	17	7
$35,000 to $39,999	10,653	5	2,393	22	7	2,040	19	7
$40,000 to $49,999	18,274	9	4,165	23	12	3,668	20	12
$50,000 to $74,999	32,223	16	7,357	23	21	6,191	19	21
$75,000 to $99,999	15,079	7	3,167	21	9	2,534	17	9
$100,000 or more	13,756	7	2,775	20	8	2,055	15	7
Not reported	38,774	19	4,266	11	12	3,512	9	12
Education								
8 years or less	12,377	6	1,054	9	3	945	8	3
9 to 11 years	21,366	11	3,561	17	10	3,119	15	10
12 years	71,098	35	12,598	18	36	10,687	15	36
1 to 3 years college	45,573	23	8,581	19	24	7,316	16	25
4 years college	28,005	14	4,988	18	14	4,067	15	14
5 years or more college	23,052	11	4,464	19	13	3,600	16	12

See footnotes at end of table.

Table 9. **Selected Characteristics of Anglers, by Type of Fishing: 1996**—Continued
(Population 16 years old and older. Numbers in thousands)

Characteristic	Freshwater						Saltwater		
	Freshwater, except Great Lakes			Great Lakes					
	Number	Percent who participated	Percent	Number	Percent who participated	Percent	Number	Percent who participated	Percent
Total persons	**28,921**	**14**	**100**	**2,039**	**1**	**100**	**9,438**	**5**	**100**
Population density of residence									
Urban	17,004	12	59	1,389	1	68	6,727	5	71
Rural	11,917	21	41	650	1	32	2,712	5	29
Population size of residence									
MSA	19,495	12	67	1,682	1	82	7,877	5	83
1,000,000 or more	10,172	10	35	1,075	1	53	4,944	5	52
250,000 to 999,999	5,798	15	20	496	1	24	2,061	5	22
50,000 to 249,999	3,525	18	12	111	1	5	873	5	9
Outside MSA	9,426	22	33	357	1	18	1,561	4	17
Census geographic division									
New England	1,143	11	4	*23	*(Z)	*1	728	7	8
Middle Atlantic	2,529	9	9	445	2	22	1,512	5	16
East North Central	4,963	15	17	1,441	4	71	298	1	3
West North Central	3,244	23	11	*51	*(Z)	*2	79	1	1
South Atlantic	4,774	13	17	...	...	...	3,393	9	36
East South Central	2,339	19	8	...	...	...	328	3	3
West South Central	4,046	19	14	...	...	...	1,154	5	12
Mountain	2,283	19	8	*7	*(Z)	*(Z)	144	1	2
Pacific	3,599	11	12	...	...	...	1,803	6	19
Age									
16 to 17 years	1,200	17	4	*75	*1	*4	304	4	3
18 to 24 years	2,840	14	10	154	1	8	760	4	8
25 to 34 years	6,015	17	21	408	1	20	1,732	5	18
35 to 44 years	7,950	18	27	618	1	30	2,827	6	30
45 to 54 years	5,524	15	19	488	1	24	2,119	6	22
55 to 64 years	2,868	12	10	160	1	8	913	4	10
65 years and older	2,524	7	9	136	(Z)	7	783	2	8
Sex									
Male	21,371	22	74	1,713	2	84	7,049	7	75
Female	7,550	7	26	326	(Z)	16	2,390	2	25
Race									
White	26,295	16	91	1,878	1	92	8,239	5	87
Black	1,375	7	5	*118	*1	*6	568	3	6
All others	1,252	8	4	...	...	...	632	4	7
Annual household income									
Less than $10,000	1,164	8	4	*52	*(Z)	*3	245	2	3
$10,000 to $19,999	2,199	11	8	*106	*1	*5	491	2	5
$20,000 to $24,999	1,852	14	6	*41	*(Z)	*2	476	4	5
$25,000 to $29,999	2,287	19	8	165	1	8	431	3	5
$30,000 to $34,999	2,045	16	7	*144	*1	*7	518	4	5
$35,000 to $39,999	1,999	19	7	*130	*1	*6	655	6	7
$40,000 to $49,999	3,581	20	12	242	1	12	945	5	10
$50,000 to $74,999	5,988	19	21	485	2	24	2,067	6	22
$75,000 to $99,999	2,444	16	8	229	2	11	1,153	8	12
$100,000 or more	1,968	14	7	152	1	7	1,227	9	13
Not reported	3,394	9	12	294	1	14	1,232	3	13
Education									
8 years or less	914	7	3	...	...	...	157	1	2
9 to 11 years	3,045	14	11	155	1	8	713	3	8
12 years	10,470	15	36	617	1	30	3,001	4	32
1 to 3 years college	7,017	15	24	623	1	31	2,334	5	25
4 years college	3,998	14	14	293	1	14	1,756	6	19
5 years or more college	3,476	15	12	295	1	14	1,476	6	16

* Estimate based on a small sample size. ... Sample size too small to report data reliably. (Z) Less than 0.5 percent.

Note: Percent who participated shows the percent of each row's population who participated in the activity named by the column (the percent of those living in urban areas who fished in the Great Lakes, etc.). Percent columns show the percent of each column's participants who are described by the row heading (the percent of those who fished in the Great Lakes who lived in urban areas, etc.).

Table 10. **Selected Characteristics of Hunters, by Type of Hunting: 1996**

(Population 16 years old and older. Numbers in thousands)

Characteristic	U.S. population		Total, all hunting			Big game		
	Number	Percent	Number	Percent who participated	Percent	Number	Percent who participated	Percent
Total persons	**201,472**	**100**	**13,975**	**7**	**100**	**11,288**	**6**	**100**
Population density of residence								
Urban	144,760	72	6,402	4	46	5,021	3	44
Rural	56,712	28	7,573	13	54	6,267	11	56
Population size of residence								
MSA	158,818	79	7,783	5	56	6,257	4	55
1,000,000 or more	99,738	50	3,318	3	24	2,618	3	23
250,000 to 999,999	39,800	20	2,692	7	19	2,238	6	20
50,000 to 249,999	19,280	10	1,773	9	13	1,401	7	12
Outside MSA	42,654	21	6,192	15	44	5,031	12	45
Census geographic division								
New England	10,306	5	465	5	3	407	4	4
Middle Atlantic	29,371	15	1,453	5	10	1,358	5	12
East North Central	33,121	16	2,712	8	19	2,234	7	20
West North Central	13,875	7	1,917	14	14	1,396	10	12
South Atlantic	36,776	18	2,050	6	15	1,688	5	15
East South Central	12,459	6	1,301	10	9	983	8	9
West South Central	21,811	11	1,812	8	13	1,464	7	13
Mountain	11,966	6	1,061	9	8	866	7	8
Pacific	31,787	16	1,203	4	9	892	3	8
Age								
16 to 17 years	7,080	4	672	9	5	529	7	5
18 to 24 years	20,423	10	1,397	7	10	1,146	6	10
25 to 34 years	34,973	17	2,783	8	20	2,329	7	21
35 to 44 years	44,376	22	3,819	9	27	3,120	7	28
45 to 54 years	35,867	18	2,851	8	20	2,286	6	20
55 to 64 years	23,311	12	1,486	6	11	1,174	5	10
65 years and older	35,442	18	967	3	7	702	2	6
Sex								
Male	96,660	48	12,783	13	91	10,399	11	92
Female	104,812	52	1,192	1	9	889	1	8
Race								
White	167,497	83	13,226	8	95	10,727	6	95
Black	18,728	9	303	2	2	197	1	2
All others	15,247	8	446	3	3	364	2	3
Annual household income								
Less than $10,000	15,034	7	428	3	3	323	2	3
$10,000 to $19,999	19,690	10	951	5	7	745	4	7
$20,000 to $24,999	13,080	6	820	6	6	694	5	6
$25,000 to $29,999	12,337	6	1,001	8	7	864	7	8
$30,000 to $34,999	12,572	6	1,107	9	8	910	7	8
$35,000 to $39,999	10,653	5	965	9	7	795	7	7
$40,000 to $49,999	18,274	9	1,882	10	13	1,562	9	14
$50,000 to $74,999	32,223	16	3,036	9	22	2,455	8	22
$75,000 to $99,999	15,079	7	1,178	8	8	940	6	8
$100,000 or more	13,756	7	851	6	6	590	4	5
Not reported	38,774	19	1,756	5	13	1,412	4	13
Education								
8 years or less	12,377	6	470	4	3	382	3	3
9 to 11 years	21,366	11	1,616	8	12	1,327	6	12
12 years	71,098	35	5,776	8	41	4,882	7	43
1 to 3 years college	45,573	23	3,115	7	22	2,534	6	22
4 years college	28,005	14	1,654	6	12	1,235	4	11
5 years or more college	23,052	11	1,345	6	10	928	4	8

See footnotes at end of table.

Table 10. **Selected Characteristics of Hunters, by Type of Hunting: 1996**—Continued

(Population 16 years old and older. Numbers in thousands)

Characteristic	Small game			Migratory bird			Other animals		
	Number	Percent who participated	Percent	Number	Percent who participated	Percent	Number	Percent who participated	Percent
Total persons	**6,945**	**3**	**100**	**3,073**	**2**	**100**	**1,521**	**1**	**100**
Population density of residence									
Urban	3,068	2	44	1,674	1	54	436	(Z)	29
Rural	3,877	7	56	1,399	2	46	1,086	2	71
Population size of residence									
MSA	3,780	2	54	1,823	1	59	709	(Z)	47
1,000,000 or more	1,526	2	22	813	1	26	209	(Z)	14
250,000 to 999,999	1,341	3	19	620	2	20	277	1	18
50,000 to 249,999	913	5	13	390	2	13	223	1	15
Outside MSA	3,165	7	46	1,250	3	41	812	2	53
Census geographic division									
New England	212	2	3	67	1	2	36	(Z)	2
Middle Atlantic	637	2	9	159	1	5	244	1	16
East North Central	1,487	4	21	401	1	13	294	1	19
West North Central	1,211	9	17	386	3	13	207	1	14
South Atlantic	920	3	13	454	1	15	195	1	13
East South Central	680	5	10	309	2	10	146	1	10
West South Central	831	4	12	646	3	21	213	1	14
Mountain	423	4	6	246	2	8	101	1	7
Pacific	543	2	8	404	1	13	85	(Z)	6
Age									
16 to 17 years	388	5	6	183	3	6	98	1	6
18 to 24 years	759	4	11	330	2	11	167	1	11
25 to 34 years	1,459	4	21	663	2	22	333	1	22
35 to 44 years	1,896	4	27	842	2	27	452	1	30
45 to 54 years	1,428	4	21	584	2	19	300	1	20
55 to 64 years	604	3	9	275	1	9	114	(Z)	7
65 years and older	411	1	6	197	1	6	58	(Z)	4
Sex									
Male	6,513	7	94	2,888	3	94	1,422	1	93
Female	432	(Z)	6	186	(Z)	6	100	(Z)	7
Race									
White	6,576	4	95	2,964	2	96	1,449	1	95
Black	206	1	3	...	...	...	*24	*(Z)	*2
All others	162	1	2	81	1	3	*49	*(Z)	*3
Annual household income									
Less than $10,000	211	1	3	*45	*(Z)	*1	*43	*(Z)	*3
$10,000 to $19,999	475	2	7	163	1	5	105	1	7
$20,000 to $24,999	384	3	6	135	1	4	90	1	6
$25,000 to $29,999	453	4	7	127	1	4	100	1	7
$30,000 to $34,999	585	5	8	262	2	9	144	1	9
$35,000 to $39,999	467	4	7	176	2	6	102	1	7
$40,000 to $49,999	906	5	13	385	2	13	232	1	15
$50,000 to $74,999	1,579	5	23	678	2	22	325	1	21
$75,000 to $99,999	566	4	8	362	2	12	95	1	6
$100,000 or more	470	3	7	320	2	10	93	1	6
Not reported	849	2	12	419	1	14	192	(Z)	13
Education									
8 years or less	173	1	2	*40	*(Z)	*1	*32	*(Z)	*2
9 to 11 years	804	4	12	244	1	8	234	1	15
12 years	2,830	4	41	982	1	32	598	1	39
1 to 3 years college	1,474	3	21	717	2	23	361	1	24
4 years college	945	3	14	550	2	18	172	1	11
5 years or more college	719	3	10	541	2	18	125	1	8

* Estimate based on a small sample size. ... Sample size too small to report data reliably. (Z) Less than .5 percent.

Note: Percent who participated shows the percent of each row's population who participated in the activity named by the column (the percent of those living in urban areas who hunted big game, etc.). Percent columns show the percent of each column's participants who are described by the row heading (the percent of big game hunters who lived in urban areas, etc.).

Table 11. **Summary of Expenditures for Fishing and Hunting: 1996**

(Population 16 years old and older)

Expenditure item	Expenditures		Spenders		
	Amount (thousands of dollars)	Average per sportsman (dollars)	Number (thousands)	Percent of sportsmen	Average per spender (dollars)
Total, all items	**71,934,242**	**1,812**	**38,593**	**97**	**1,864**
TRIP-RELATED EXPENDITURES					
Total trip-related	**20,536,537**	**517**	**36,546**	**92**	**562**
Food and lodging, total	**8,501,787**	**214**	**32,518**	**82**	**261**
Food	6,334,047	160	32,344	81	196
Lodging	2,167,740	55	9,421	24	230
Transportation, total	**5,509,805**	**139**	**33,337**	**84**	**165**
Public	704,131	18	2,170	5	324
Private	4,805,674	121	32,971	83	146
Other trip costs[1]	**6,524,944**	**164**	**29,755**	**75**	**219**
EQUIPMENT EXPENDITURES					
Fishing equipment	5,395,508	136	25,536	64	211
Hunting equipment	6,422,722	162	13,857	35	464
Auxiliary equipment[2]	3,179,314	80	13,964	35	228
Special equipment[3]	28,745,706	724	5,422	14	5,302
OTHER EXPENDITURES					
Books, magazines	434,083	11	10,846	27	40
Membership dues and contributions	605,748	15	6,730	17	90
Land leasing and ownership	5,519,279	139	1,988	5	2,776
Licenses, stamps, tags, and permits	1,095,345	28	26,292	66	42

[1]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.
[2]Auxiliary equipment includes camping equipment, binoculars, special fishing and hunting clothing, etc.
[3]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: 1996**

(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)
Total, all items	**37,797,061**	**1,072**	**34,002**	**96**	**1,112**
TRIP-RELATED EXPENDITURES					
Total trip-related	**15,381,217**	**436**	**32,180**	**91**	**478**
Food and lodging, total	**5,989,666**	**170**	**28,452**	**81**	**211**
Food	4,255,843	121	28,267	80	151
Lodging	1,733,823	49	8,020	23	216
Transportation, total	**3,730,245**	**106**	**28,741**	**82**	**130**
Public	559,029	16	1,780	5	314
Private	3,171,216	90	28,382	81	112
Other trip costs, total	**5,661,306**	**161**	**28,398**	**81**	**199**
Guide fees, pack trip or package fees	638,466	18	2,873	8	222
Public land use fees	140,258	4	4,607	13	30
Private land use fees	84,354	2	1,558	4	54
Equipment rental	331,308	9	2,974	8	111
Boating costs[1]	2,939,116	83	11,700	33	251
Bait	1,084,661	31	23,298	66	47
Ice	319,258	9	15,114	43	21
Heating and cooking fuel	123,883	4	4,411	13	28
EQUIPMENT EXPENDITURES					
Fishing equipment, total	**5,308,674**	**151**	**24,726**	**70**	**215**
Rods, reels, poles, and rodmaking components	2,331,836	66	13,703	39	170
Lines and leaders	490,917	14	15,833	45	31
Artificial lures, flies, baits, and dressing for flies or lines	880,910	25	18,112	51	49
Hooks, sinkers, swivels, and other items attached to a line, except lures and baits	376,672	11	19,643	56	19
Tackle boxes	128,193	4	4,581	13	28
Creels, stringers, fish bags, landing nets, and gaff hooks	95,915	3	4,644	13	21
Minnow traps, seines, and bait containers	66,221	2	3,886	11	17
Depth finders, fish finders, and other electronic fishing devices	395,927	11	1,382	4	286
Ice fishing equipment	97,557	3	1,025	3	95
Other fishing equipment	444,526	13	4,422	13	101
Auxiliary equipment, total	**1,036,761**	**29**	**6,006**	**17**	**173**
Camping equipment	501,711	14	2,598	7	193
Binoculars, field glasses, telescopes, etc.	46,758	1	522	1	90
Special fishing or hunting clothing, rubber boots, waders, and foul weather gear	312,636	9	3,183	9	98
Processing and taxidermy costs	62,020	2	321	1	193
Other	113,636	3	877	2	130
Special equipment[2]	**12,828,318**	**364**	**3,599**	**10**	**3,564**
OTHER EXPENDITURES					
Magazines, books	169,546	5	4,834	14	35
Membership dues and contributions	152,448	4	2,054	6	74
Land leasing and ownership	2,340,344	66	676	2	3,462
Licenses, stamps, tags, and permits, total	579,753	16	21,324	61	27
Licenses	519,061	15	21,182	60	25
Stamps, tags, and permits	60,692	2	5,023	14	12

[1]Boating costs include launching, mooring, storage, maintenance, insurance, pumpout fees, and fuel.
[2]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 13. **Trip and Equipment Expenditures for Freshwater Fishing: 1996**

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)
Total, all items	**24,160,738**	**813**	**28,356**	**95**	**852**
TRIP-RELATED EXPENDITURES					
Total trip-related	**10,733,409**	**361**	**27,757**	**93**	**387**
Food and lodging, total	**4,390,593**	**148**	**24,349**	**82**	**180**
Food	3,254,306	109	24,192	81	135
Lodging	1,136,288	38	6,418	22	177
Transportation, total	**2,906,588**	**98**	**24,815**	**83**	**117**
Public	362,231	12	1,234	4	293
Private	2,544,358	86	24,530	82	104
Other trip costs, total	**3,436,227**	**116**	**24,309**	**82**	**141**
Guide fees, pack trip or package fees	257,401	9	1,278	4	201
Public land use fees	120,616	4	4,000	13	30
Private land use fees	69,144	2	1,341	5	52
Equipment rental	212,995	7	2,249	8	95
Boating costs[1]	1,652,951	56	9,866	33	168
Bait	794,259	27	20,226	68	39
Ice	230,987	8	12,700	43	18
Heating and cooking fuel	97,874	3	4,115	14	24
EQUIPMENT EXPENDITURES					
Fishing equipment, total	**3,778,084**	**127**	**20,313**	**68**	**186**
Rods, reels, poles, and rodmaking components	1,587,598	53	10,739	36	148
Lines and leaders	352,495	12	12,597	42	28
Artificial lures, flies, baits, and dressing for flies or lines	705,262	24	14,947	50	47
Hooks, sinkers, swivels, and other items attached to a line, except lures and baits	275,626	9	15,657	53	18
Tackle boxes	92,391	3	3,493	12	26
Creels, stringers, fish bags, landing nets, and gaff hooks	66,630	2	3,552	12	19
Minnow traps, seines, and bait containers	42,891	1	2,922	10	15
Depth finders, fish finders, and other electronic fishing devices	276,405	9	1,046	4	264
Ice fishing equipment	92,747	3	1,001	3	93
Other fishing equipment	286,040	10	3,020	10	95
Auxiliary equipment, total	**744,739**	**25**	**4,648**	**16**	**160**
Camping equipment	350,427	12	2,175	7	161
Binoculars, field glasses, telescopes, etc.	32,695	1	357	1	92
Special fishing or hunting clothing, rubber boots, waders, and foul weather gear	242,777	8	2,480	8	98
Processing and taxidermy costs	41,408	1	247	1	168
Other	77,433	3	600	2	129
Special equipment[2]	**8,904,506**	**299**	**2,784**	**9**	**3,199**

[1]Boating costs include launching, mooring, storage, maintenance, insurance, pumpout fees, and fuel.
[2]Special equipment includes boats, campers, cabins, trail bikes, etc.

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

Table 14. **Trip and Equipment Expenditures for Freshwater Fishing, Except Great Lakes: 1996**

(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)
Total, all items	**22,445,123**	**776**	**27,560**	**95**	**814**
TRIP-RELATED EXPENDITURES					
Total trip-related	**10,014,668**	**346**	**26,980**	**93**	**371**
Food and lodging, total	**4,095,986**	**142**	**23,623**	**82**	**173**
Food	3,045,080	105	23,468	81	130
Lodging	1,050,905	36	6,039	21	174
Transportation, total	**2,765,647**	**96**	**24,094**	**83**	**115**
Public	340,858	12	1,137	4	300
Private	2,424,789	84	23,809	82	102
Other trip costs, total	**3,153,035**	**109**	**23,609**	**82**	**134**
Guide fees, pack trip or package fees	205,630	7	998	3	206
Public land use fees	117,252	4	3,843	13	31
Private land use fees	60,125	2	1,267	4	47
Equipment rental	173,832	6	2,131	7	82
Boating costs[1]	1,523,746	53	9,428	33	162
Bait	755,810	26	19,679	68	38
Ice	221,809	8	12,270	42	18
Heating and cooking fuel	94,831	3	4,001	14	24
EQUIPMENT EXPENDITURES					
Fishing equipment, total	**3,512,196**	**121**	**19,557**	**68**	**180**
Rods, reels, poles, and rodmaking components	1,481,022	51	10,220	35	145
Lines and leaders	333,462	12	12,139	42	27
Artificial lures, flies, baits, and dressing for flies or lines	671,560	23	14,393	50	47
Hooks, sinkers, swivels, and other items attached to a line, except lures and baits	256,441	9	15,042	52	17
Tackle boxes	87,347	3	3,325	11	26
Creels, stringers, fish bags, landing nets, and gaff hooks	62,932	2	3,403	12	18
Minnow traps, seines, and bait containers	39,908	1	2,748	10	15
Depth finders, fish finders, and other electronic fishing devices	236,205	8	977	3	242
Ice fishing equipment	84,180	3	910	3	92
Other fishing equipment	259,139	9	2,892	10	90
Auxiliary equipment, total	**692,165**	**24**	**4,372**	**15**	**158**
Camping equipment	337,641	12	2,109	7	160
Binoculars, field glasses, telescopes, etc.	22,134	1	297	1	74
Special fishing or hunting clothing, rubber boots, waders, and foul weather gear	219,825	8	2,284	8	96
Processing and taxidermy costs	37,789	1	229	1	165
Other	74,776	3	556	2	134
Special equipment[2]	**8,226,094**	**284**	**2,634**	**9**	**3,122**

[1]Boating costs include launching, mooring, storage, maintenance, insurance, pumpout fees, and fuel.
[2]Special equipment includes boats, campers, cabins, trail bikes, etc.

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

Table 15. **Trip and Equipment Expenditures for Great Lakes Fishing: 1996**

(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)
Total, all items	**1,404,885**	**689**	**1,955**	**96**	**719**
TRIP-RELATED EXPENDITURES					
Total trip-related	**718,741**	**353**	**1,904**	**93**	**377**
Food and lodging, total	**294,608**	**145**	**1,651**	**81**	**178**
Food	209,226	103	1,634	80	128
Lodging	85,382	42	544	27	157
Transportation, total	**140,941**	**69**	**1,678**	**82**	**84**
Public	*21,372	*10	*99	*5	*215
Private	119,569	59	1,662	82	72
Other trip costs, total	**283,192**	**139**	**1,631**	**80**	**174**
Guide fees, pack trip or package fees	51,771	25	316	16	164
Public land use fees	3,364	2	194	10	17
Private land use fees	*9,019	*4	*89	*4	*102
Equipment rental	*39,162	*19	*132	*6	*296
Boating costs[1]	129,205	63	723	35	179
Bait	38,449	19	1,166	57	33
Ice	9,178	5	756	37	12
Heating and cooking fuel	3,043	1	189	9	16
EQUIPMENT EXPENDITURES					
Fishing equipment, total	**180,100**	**88**	**813**	**40**	**222**
Rods, reels, poles, and rodmaking components	74,405	36	429	21	174
Lines and leaders	14,893	7	398	20	37
Artificial lures, flies, baits, and dressing for flies or lines	24,623	12	496	24	50
Hooks, sinkers, swivels, and other items attached to a line, except lures and baits	14,761	7	538	26	27
Tackle boxes	*2,504	*1	*111	*5	*22
Creels, stringers, fish bags, landing nets, and gaff hooks	*2,751	*1	*116	*6	*24
Minnow traps, seines, and bait containers	*2,262	*1	*141	*7	*16
Depth finders, fish finders, and other electronic fishing devices	...	...	...	...	...
Ice fishing equipment	*7,290	*4	*71	*4	*102
Other fishing equipment	*21,542	*11	*120	*6	*179
Auxiliary equipment, total	**34,588**	**17**	**209**	**10**	**166**
Camping equipment	...	...	...	...	...
Binoculars, field glasses, telescopes, etc.	...	...	...	...	...
Special fishing or hunting clothing, rubber boots, waders, and foul weather gear	14,768	7	140	7	106
Processing and taxidermy costs	...	...	...	...	...
Other	...	...	...	...	...
Special equipment[2]	**471,455**	**231**	**110**	**5**	**4,297**

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

[1]Boating costs include launching, mooring, storage, maintenance, insurance, pumpout fees, and fuel.
[2]Special equipment includes boats, campers, cabins, trail bikes, etc.

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

Table 16. **Trip and Equipment Expenditures for Saltwater Fishing: 1996**

(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)
Total, all items	**8,081,276**	**856**	**8,844**	**94**	**914**
TRIP-RELATED EXPENDITURES					
Total trip-related	**4,647,809**	**492**	**8,704**	**92**	**534**
Food and lodging, total	**1,599,072**	**169**	**7,845**	**83**	**204**
Food	1,001,537	106	7,763	82	129
Lodging	597,536	63	2,138	23	280
Transportation, total	**823,657**	**87**	**7,468**	**79**	**110**
Public	196,799	21	634	7	311
Private	626,858	66	7,214	76	87
Other trip costs, total	**2,225,079**	**236**	**7,591**	**80**	**293**
Guide fees, pack trip or package fees	381,065	40	1,756	19	217
Public land use fees	19,642	2	873	9	22
Private land use fees	15,210	2	267	3	57
Equipment rental	118,314	13	840	9	141
Boating costs[1]	1,286,165	136	2,737	29	470
Bait	290,403	31	5,297	56	55
Ice	88,271	9	4,021	43	22
Heating and cooking fuel	26,009	3	511	5	51
EQUIPMENT EXPENDITURES					
Fishing equipment, total	**1,054,054**	**112**	**4,166**	**44**	**253**
Rods, reels, poles, and rodmaking components	529,574	56	2,114	22	250
Lines and leaders	96,954	10	2,569	27	38
Artificial lures, flies, baits, and dressing for flies or lines	105,365	11	2,222	24	47
Hooks, sinkers, swivels, and other items attached to a line, except lures and baits	66,369	7	3,018	32	22
Tackle boxes	21,793	2	670	7	33
Creels, stringers, fish bags, landing nets, and gaff hooks	20,760	2	740	8	28
Minnow traps, seines, and bait containers	17,711	2	711	8	25
Depth finders, fish finders, and other electronic fishing devices	70,450	7	201	2	351
Other fishing equipment	125,077	13	987	10	127
Auxiliary equipment, total	**137,969**	**15**	**886**	**9**	**156**
Camping equipment	33,247	4	210	2	158
Binoculars, field glasses, telescopes, etc.	9,230	1	97	1	95
Special fishing or hunting clothing, rubber boots, waders, and foul weather gear	44,561	5	456	5	98
Processing and taxidermy costs	19,117	2	63	1	303
Other	31,815	3	198	2	161
Special equipment[2]	**2,241,444**	**237**	**550**	**6**	**4,077**

[1]Boating costs include launching, mooring, storage, maintenance, insurance, pumpout fees, and fuel.
[2]Special equipment includes boats, campers, cabins, trail bikes, etc

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

Table 17. **Expenditures for Hunting: 1996**

(Population 16 years old and older)

Expenditure item	Expenditures		Spenders		
	Amount (thousands of dollars)	Average per hunter (dollars)	Number (thousands)	Percent of hunters	Average per spender (dollars)
Total, all items	**20,613,412**	**1,475**	**13,769**	**99**	**1,497**
TRIP-RELATED EXPENDITURES					
Total trip-related	**5,155,319**	**369**	**12,721**	**91**	**405**
Food and lodging, total	**2,512,121**	**180**	**11,073**	**79**	**227**
Food	2,078,204	149	11,060	79	188
Lodging	433,917	31	1,909	14	227
Transportation, total	**1,779,560**	**127**	**12,022**	**86**	**148**
Public	145,102	10	479	3	303
Private	1,634,458	117	11,926	85	137
Other trip costs, total	**863,638**	**62**	**4,378**	**31**	**197**
Guide fees, pack trip or package fees	176,275	13	400	3	441
Public land use fees	41,881	3	651	5	64
Private land use fees	323,960	23	930	7	348
Equipment rental	36,846	3	229	2	161
Boating costs[1]	172,550	12	1,139	8	151
Heating and cooking fuel	112,126	8	2,807	20	40
EQUIPMENT EXPENDITURES					
Hunting equipment, total	**5,519,137**	**395**	**11,278**	**81**	**489**
Guns and rifles	2,547,211	182	3,635	26	701
Rifles	1,092,802	78	1,954	14	559
Shotguns	895,857	64	1,763	13	508
Muzzleloaders, primitive firearms	171,949	12	629	5	273
Pistols, handguns	386,603	28	820	6	471
Bows, arrows, archery equipment	589,565	42	2,647	19	223
Telescopic sights	320,512	23	1,682	12	191
Decoys and game calls	161,722	12	2,588	19	62
Ammunition	700,269	50	10,115	72	69
Hand loading equipment	202,926	15	1,275	9	159
Hunting dogs and associated costs	625,636	45	1,414	10	442
Other	371,296	27	3,350	24	111
Auxiliary equipment, total	**1,233,118**	**88**	**5,730**	**41**	**215**
Camping equipment	145,682	10	976	7	149
Binoculars, field glasses, telescopes, etc.	169,417	12	1,470	11	115
Special fishing or hunting clothing, rubber boots, waders, and foul weather gear	542,485	39	3,996	29	136
Processing and taxidermy costs	320,688	23	1,491	11	215
Other	54,846	4	461	3	119
Special equipment[2]	**4,520,514**	**323**	**805**	**6**	**5,616**
OTHER EXPENDITURES					
Magazines, books	109,666	8	2,550	18	43
Membership dues and contributions	244,905	18	2,428	17	101
Land leasing and ownership	3,178,935	227	1,443	10	2,203
Licenses, stamps, tags, and permits, total	651,818	47	11,591	83	56
Licenses	477,944	34	11,067	79	43
Federal duck stamps	30,888	2	2,059	15	15
Other stamps, tags, and permits	142,986	10	4,754	34	30

[1]Boating costs include launching, mooring, storage, maintenance, insurance, pumpout fees, and fuel.
[2]Special equipment includes boats, campers, cabins, trail bikes, etc.

Note: Detail does not add to total because of multiple responses. Detail in Tables 18 to 21 may not add to totals shown here because of multiple responses and nonresponse.

Table 18. **Trip and Equipment Expenditures for Big Game Hunting: 1996**

(Population 16 years old and older)

Expenditure item	Expenditures		Spenders		
	Amount (thousands of dollars)	Average per hunter (dollars)	Number (thousands)	Percent of hunters	Average per spender (dollars)
Total, all items	**9,712,735**	**860**	**10,805**	**96**	**899**
TRIP-RELATED EXPENDITURES					
Total trip-related	**3,173,957**	**281**	**10,284**	**91**	**309**
Food and lodging, total	**1,566,298**	**139**	**8,971**	**79**	**175**
Food	1,283,799	114	8,955	79	143
Lodging	282,499	25	1,399	12	202
Transportation, total	**1,022,708**	**91**	**9,643**	**85**	**106**
Public	74,952	7	277	2	270
Private	947,755	84	9,574	85	99
Other trip costs, total	**584,952**	**52**	**3,434**	**30**	**170**
Guide fees, pack trip or package fees	142,731	13	249	2	572
Public land use fees	25,777	2	452	4	57
Private land use fees	208,220	18	663	6	314
Equipment rental	29,635	3	170	2	174
Boating costs[1]	96,156	9	623	6	154
Heating and cooking fuel	82,433	7	2,415	21	34
EQUIPMENT EXPENDITURES					
Hunting equipment, total	**2,636,400**	**234**	**7,538**	**67**	**350**
Guns and rifles	1,196,362	106	2,123	19	564
Rifles	752,403	67	1,304	12	577
Shotguns	166,358	15	420	4	396
Muzzleloaders, primitive firearms	137,608	12	523	5	263
Pistols, handguns	139,992	12	287	3	488
Bows, arrows, archery equipment	535,643	47	2,372	21	226
Telescopic sights	254,247	23	1,258	11	202
Decoys and game calls	55,405	5	1,442	13	38
Ammunition	227,039	20	5,078	45	45
Hand loading equipment	78,697	7	705	6	112
Hunting dogs and associated costs	47,493	4	95	1	500
Other	241,515	21	1,979	18	122
Auxiliary equipment, total	**847,148**	**75**	**3,976**	**35**	**213**
Camping equipment	99,192	9	664	6	149
Binoculars, field glasses, telescopes, etc.	124,630	11	1,101	10	113
Special fishing or hunting clothing, rubber boots, waders, and foul weather gear	307,014	27	2,293	20	134
Processing and taxidermy costs	294,087	26	1,382	12	213
Other	22,225	2	252	2	88
Special equipment[2]	**3,055,230**	**271**	**553**	**5**	**5,530**

[1]Boating costs include launching, mooring, storage, maintenance, insurance, pumpout fees, and fuel.
[2]Special equipment includes boats, campers, cabins, trail bikes, etc.

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

Table 19. **Trip and Equipment Expenditures for Small Game Hunting: 1996**

(Population 16 years old and older)

Expenditure item	Expenditures		Spenders		
	Amount (thousands of dollars)	Average per hunter (dollars)	Number (thousands)	Percent of hunters	Average per spender (dollars)
Total, all items	**2,481,385**	**357**	**6,262**	**90**	**396**
TRIP-RELATED EXPENDITURES					
Total trip-related	**1,192,165**	**172**	**5,951**	**86**	**200**
Food and lodging, total	**595,314**	**86**	**5,033**	**72**	**118**
Food	490,409	71	5,025	72	98
Lodging	104,905	15	499	7	210
Transportation, total	**449,538**	**65**	**5,503**	**79**	**82**
Public	40,167	6	172	2	233
Private	409,371	59	5,447	78	75
Other trip costs, total	**147,313**	**21**	**1,271**	**18**	**116**
Guide fees, pack trip or package fees	22,793	3	121	2	189
Public land use fees	10,613	2	179	3	59
Private land use fees	62,594	9	264	4	237
Equipment rental	5,303	1	67	1	79
Boating costs[1]	27,109	4	367	5	74
Heating and cooking fuel	18,901	3	724	10	26
EQUIPMENT EXPENDITURES					
Hunting equipment, total	**965,106**	**139**	**3,288**	**47**	**294**
Guns and rifles	517,329	74	1,027	15	504
Rifles	161,095	23	383	6	421
Shotguns	279,005	40	561	8	497
Muzzleloaders, primitive firearms	7,806	1	22	(Z)	360
Pistols, handguns	69,424	10	166	2	418
Bows, arrows, archery equipment	6,699	1	78	1	86
Telescopic sights	21,436	3	198	3	108
Decoys and game calls	11,383	2	303	4	38
Ammunition	119,352	17	2,304	33	52
Hand loading equipment	23,924	3	208	3	115
Hunting dogs and associated costs	238,708	34	705	10	338
Other	26,276	4	475	7	55
Auxiliary equipment, total	**61,967**	**9**	**589**	**8**	**105**
Camping equipment	12,351	2	88	1	140
Binoculars, field glasses, telescopes, etc.	5,006	1	74	1	68
Special fishing or hunting clothing, rubber boots, waders, and foul weather gear	36,419	5	424	6	86
Processing and taxidermy costs	3,601	1	20	(Z)	178
Other	4,591	1	62	1	74
Special equipment[2]	**262,146**	**38**	**49**	**1**	**5,387**

(Z) Less than .5 percent.

[1]Boating costs include launching, mooring, storage, maintenance, insurance, pumpout fees, and fuel.
[2]Special equipment includes boats, campers, cabins, trail bikes, etc.

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

Table 20. **Trip and Equipment Expenditures for Migratory Bird Hunting: 1996**

(Population 16 years old and older)

Expenditure item	Expenditures		Spenders		
	Amount (thousands of dollars)	Average per hunter (dollars)	Number (thousands)	Percent of hunters	Average per spender (dollars)
Total, all items	**1,296,322**	**422**	**2,785**	**91**	**465**
TRIP-RELATED EXPENDITURES					
Total trip-related	**575,903**	**187**	**2,670**	**87**	**216**
Food and lodging, total	**263,433**	**86**	**2,241**	**73**	**118**
Food	227,490	74	2,241	73	101
Lodging	35,944	12	239	8	150
Transportation, total	**196,074**	**64**	**2,435**	**79**	**81**
Public	29,204	10	91	3	320
Private	166,870	54	2,396	78	70
Other trip costs, total	**116,395**	**38**	**683**	**22**	**170**
Guide fees, pack trip or package fees	*10,660	*3	*64	*2	*167
Public land use fees	4,509	1	96	3	47
Private land use fees	48,590	16	160	5	303
Equipment rental	*901	*(W)	*22	*1	*42
Boating costs[1]	43,201	14	376	12	115
Heating and cooking fuel	8,533	3	275	9	31
EQUIPMENT EXPENDITURES					
Hunting equipment, total	**503,394**	**164**	**1,613**	**52**	**312**
Guns and rifles	188,903	61	319	10	592
Rifles	...	...	...	...	...
Shotguns	183,137	60	312	10	587
Muzzleloaders, primitive firearms	...	...	...	...	...
Pistols, handguns	...	...	...	...	...
Bows, arrows, archery equipment	...	...	...	...	...
Telescopic sights	...	...	...	...	...
Decoys and game calls	64,941	21	547	18	119
Ammunition	103,838	34	1,151	37	90
Hand loading equipment	11,964	4	66	2	182
Hunting dogs and associated costs	122,306	40	290	9	422
Other	10,632	3	182	6	58
Auxiliary equipment, total	**81,884**	**27**	**448**	**15**	**183**
Camping equipment	*2,241	*1	*31	*1	*72
Binoculars, field glasses, telescopes, etc.	*7,493	*2	*35	*1	*216
Special fishing or hunting clothing, rubber boots, waders, and foul weather gear	46,232	15	363	12	127
Processing and taxidermy costs	*11,887	*4	*51	*2	*235
Other	*14,032	*5	*49	*2	*289
Special equipment[2]	***135,142**	***44**	***62**	***2**	***2,195**

* Estimate based on a small sample size. ... Sample size too small to report data reliably. (W) Less than .5 dollars.

[1]Boating costs include launching, mooring, storage, maintenance, insurance, pumpout fees, and fuel.
[2]Special equipment includes boats, campers, cabins, trail bikes, etc.

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

Table 21. **Trip and Equipment Expenditures for Hunting Other Animals: 1996**

(Population 16 years old and older)

Expenditure item	Expenditures		Spenders		
	Amount (thousands of dollars)	Average per hunter (dollars)	Number (thousands)	Percent of hunters	Average per spender (dollars)
Total, all items	**432,593**	**284**	**1,164**	**76**	**372**
TRIP-RELATED EXPENDITURES					
Total trip-related	**210,998**	**139**	**1,091**	**72**	**193**
Food and lodging, total	**86,389**	**57**	**798**	**52**	**108**
Food	75,819	50	798	52	95
Lodging	*10,570	*7	*48	*3	*219
Transportation, total	**110,117**	**72**	**1,019**	**67**	**108**
Public	*779	*1	*24	*2	*33
Private	109,338	72	1,013	67	108
Other trip costs, total	**14,491**	**10**	**150**	**10**	**97**
Guide fees, pack trip or package fees	...	...	...	...	...
Public land use fees	...	...	...	...	...
Private land use fees	*4,556	*3	*32	*2	*142
Equipment rental	...	...	...	...	...
Boating costs[1]	*5,597	*4	*31	*2	*180
Heating and cooking fuel	2,259	1	104	7	22
EQUIPMENT EXPENDITURES					
Hunting equipment, total	**117,477**	**77**	**297**	**20**	**395**
Guns and rifles	29,309	19	78	5	374
Rifles	*16,713	*11	*41	*3	*413
Shotguns	...	...	...	...	...
Muzzleloaders, primitive firearms	...	...	...	...	...
Pistols, handguns	...	...	...	...	...
Bows, arrows, archery equipment	...	...	...	...	...
Telescopic sights	*4,936	*3	*43	*3	*114
Decoys and game calls	*3,260	*2	*86	*6	*38
Ammunition	12,046	8	126	8	96
Hand loading equipment	*11,021	*7	*50	*3	*221
Hunting dogs and associated costs	*51,044	*34	*77	*5	*662
Other	*5,847	*4	*35	*2	*166
Auxiliary equipment, total	***10,085**	***7**	***56**	***4**	***179**
Camping equipment	...	...	...	...	...
Binoculars, field glasses, telescopes, etc.	...	...	...	...	...
Special fishing or hunting clothing, rubber boots, waders, and foul weather gear	*3,048	*2	*29	*2	*104
Processing and taxidermy costs	...	...	...	...	...
Other	...	...	...	...	...
Special equipment[2]	**...**	**...**	**...**	**...**	**...**

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

[1]Boating costs include launching, mooring, storage, maintenance, insurance, pumpout fees, and fuel.
[2]Special equipment includes boats, campers, cabins, trail bikes, etc.

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

Table 22. **Special Equipment Expenditures for Fishing and Hunting: 1996**

(Population 16 years old and older)

Special equipment item	Expenditures		Spenders		
	Amount (thousands of dollars)	Average per sportsman (dollars)	Number (thousands)	Percent of sportsmen	Average per spender (dollars)
Total, all items	**28,745,706**	**724**	**5,422**	**14**	**5,302**
Motor boat (other than bass boat)	3,934,391	99	705	2	5,584
Bass boat	2,143,859	54	367	1	5,834
Canoe, other non-motor boat	163,046	4	371	1	439
Boat motor, trailer or hitch, and other boat accessories	1,117,173	28	1,935	5	577
Travel or tent trailer, pickup, camper, van, motor home	13,005,027	328	1,133	3	11,483
Cabin	*1,245,305	*31	*66	*(Z)	*18,993
Trail bike, dune buggy, 4x4 vehicle, 4-wheeler, snowmobile	6,137,944	155	948	2	6,475
Other	998,960	25	1,467	4	681

(Z) Less than .5 percent. * Estimate based on a small sample size.

Note: Detail for spenders does not add to total because of multiple responses.

Table 23. **Anglers and Hunters Who Purchased Licenses or Were Exempt: 1996**

(Population 16 years old and older. Numbers in thousands)

Sportsmen	Anglers		Hunters	
	Number	Percent	Number	Percent
Total sportsmen	**35,246**	**100**	**13,975**	**100**
Total license purchasers[1]	**23,203**	**66**	**11,818**	**85**
Sportsmen purchasing licenses				
In state of residence	21,437	61	11,257	81
In other states	4,356	12	1,483	11
Total exempt from purchasing licenses	**3,281**	**9**	**1,437**	**10**
Sportsmen exempt from license purchase				
In state of residence	2,365	7	1277	9
In other states	427	1	97	1
Other[2]	**9,143**	**26**	**1,089**	**8**
Not reported	**558**	**2**	**169**	**1**

[1]Includes persons who had licenses bought for them. Does not include persons who purchased licenses and did not fish or hunt in 1996.
[2]Includes persons engaged in activities requiring no licenses or exemptions and those who failed to buy a license for activities requiring a license.

Note: Detail does not add to total because of multiple responses and nonresponse. Respondents could have been licensed in one state and exempt in another.

Table 24. **Selected Characteristics of Anglers and Hunters Who Purchased Licenses: 1996**

(Population 16 years old and older. Numbers in thousands)

Characteristic	Anglers						Hunters					
	Total		Purchased a license[1]		Did not purchase a license[2]		Total		Purchased a license[1]		Did not purchase a license[2]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total persons	**35,246**	**100**	**23,203**	**66**	**12,043**	**34**	**13,975**	**100**	**11,818**	**85**	**2,156**	**15**
Population density of residence												
Urban	21,618	100	13,999	65	7,619	35	6,402	100	5,597	87	804	13
Rural	13,628	100	9,204	68	4,424	32	7,573	100	6,221	82	1,352	18
Population size of residence				65								
MSA	24,662	100	16,121	8,541	35	7,783	100	6,728	86	1,054	14	
1,000,000 or more	13,518	100	8,791	65	4,727	35	3,318	100	2,898	87	419	13
250,000 to 999,999	7,149	100	4,646	65	2,503	35	2,692	100	2,283	85	409	15
50,000 to 249,999	3,995	100	2,684	67	1,311	33	1,773	100	1,547	87	226	13
Outside MSA	10,584	100	7,082	67	3,502	33	6,192	100	5,090	82	1,102	18
Census geographic division												
New England	1,520	100	908	60	612	40	465	100	403	87	63	13
Middle Atlantic	3,627	100	2,009	55	1,617	45	1,453	100	1,344	92	110	8
East North Central	6,006	100	4,386	73	1,620	27	2,712	100	2,355	87	358	13
West North Central	3,416	100	2,636	77	780	23	1,917	100	1,664	87	253	13
South Atlantic	6,636	100	3,572	54	3,063	46	2,050	100	1,609	79	440	21
East South Central	2,514	100	1,627	65	887	35	1,301	100	1,003	77	298	23
West South Central	4,616	100	2,921	63	1,695	37	1,812	100	1,410	78	402	22
Mountain	2,411	100	1,900	79	511	21	1,061	100	975	92	86	8
Pacific	4,501	100	3,244	72	1,257	28	1,203	100	1,056	88	147	12
Age												
16 to 17 years	1,409	100	766	54	643	46	672	100	547	81	125	19
18 to 24 years	3,321	100	2,072	62	1,250	38	1,397	100	1,171	84	226	16
25 to 34 years	7,183	100	4,864	68	2,319	32	2,783	100	2,450	88	333	12
35 to 44 years	9,673	100	6,744	70	2,928	30	3,819	100	3,363	88	456	12
45 to 54 years	7,020	100	5,081	72	1,940	28	2,851	100	2,466	87	385	13
55 to 64 years	3,537	100	2,480	70	1,057	30	1,486	100	1,297	87	189	13
65 years and older	3,102	100	1,196	39	1,906	61	967	100	524	54	442	46
Sex												
Male	25,737	100	17,896	70	7,841	30	12,783	100	10,967	86	1,817	14
Female	9,509	100	5,307	56	4,202	44	1,192	100	852	71	340	29
Race												
White	31,791	100	21,213	67	10,579	33	13,226	100	11,222	85	2,004	15
Black	1,802	100	1,031	57	770	43	303	100	233	77	70	23
All others	1,653	100	959	58	694	42	446	100	364	82	82	18
Annual household income												
Less than $10,000	1,369	100	689	50	679	50	428	100	305	71	123	29
$10,000 to $19,999	2,567	100	1,433	56	1,134	44	951	100	712	75	239	25
$20,000 to $24,999	2,116	100	1,269	60	847	40	820	100	641	78	179	22
$25,000 to $29,999	2,646	100	1,718	65	929	35	1,001	100	830	83	171	17
$30,000 to $34,999	2,425	100	1,608	66	817	34	1,107	100	942	85	165	15
$35,999 to $39,999	2,393	100	1,645	69	748	31	965	100	837	87	128	13
$40,000 to $49,999	4,165	100	2,957	71	1,209	29	1,882	100	1,645	87	237	13
$50,000 to $74,999	7,357	100	5,206	71	2,150	29	3,036	100	2,697	89	338	11
$75,000 to $99,999	3,167	100	2,289	72	878	28	1,178	100	1,053	89	125	11
$100,000 or more	2,775	100	1,753	63	1,022	37	851	100	714	84	137	16
Not reported	4,266	100	2,636	62	1,630	38	1,756	100	1,442	82	314	18
Education												
8 years or less	1,054	100	579	55	475	45	470	100	349	74	121	26
9 to 11 years	3,561	100	2,168	61	1,392	39	1,616	100	1,292	80	324	20
12 years	12,598	100	8,521	68	4,077	32	5,776	100	4,959	86	817	14
1 to 3 years college	8,581	100	5,715	67	2,866	33	3,115	100	2,622	84	493	16
4 years college	4,988	100	3,329	67	1,658	33	1,654	100	1,416	86	237	14
5 years or more college	4,464	100	2,889	65	1,575	35	1,345	100	1,180	88	165	12
Days of participation												
1 to 5 days	14,470	100	7,699	53	6770	47	4,434	100	3,469	78	965	22
6 to 10 days	6,528	100	4,493	69	2,034	31	2,647	100	2,206	83	441	17
11 to 25 days	7,222	100	5,375	74	1,847	26	3,736	100	3,294	88	442	12
26 days or more	7,026	100	5,635	80	1,391	20	3,158	100	2,848	90	310	10

[1]Includes persons who purchased a license in 1996 in any state. Respondents could have been licensed in one state and exempt in another.
[2]Includes those persons who did not purchase a license in any state in 1996 and those who did not specify a license purchase in 1996.

Table 25. **Freshwater Anglers and Days of Fishing, by Type of Water: 1996**

(Population 16 years old and older. Numbers in thousands. Excludes Great Lakes fishing)

Type of water	Anglers		Days of fishing	
	Number	Percent	Number	Percent
Total, all types of water	**28,921**	**100**	**485,474**	**100**
Lakes, reservoirs, and ponds	24,832	86	361,009	74
Rivers or streams	13,422	46	145,384	30

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

Table 26. **Great Lakes Anglers and Days of Fishing, by Great Lake: 1996**

(Population 16 years old and older. Numbers in thousands)

Great Lake	Anglers		Days of fishing	
	Number	Percent	Number	Percent
Total, all Great Lakes	**2,039**	**100**	**20,095**	**100**
Lake Ontario, including the Niagara River	260	13	3,158	16
Lake Erie, including the Detroit River	746	37	6,421	32
Lake Huron, including St. Mary's River System	279	14	2,059	10
Lake Michigan	715	35	4,338	22
Lake Superior	*140	*7	*1,301	*6
Lake St. Clair, including the St. Clair River	*91	*4	*1,263	*6
St. Lawrence River	*95	*5	*598	*3
Tributaries to the Great Lakes	205	10	2,482	12

* Estimate based on a small sample size.

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

Table 27. **Hunters and Days of Hunting on Public and Private Land, by Type of Hunting: 1996**

(Population 16 years old and older. Numbers in thousands)

Hunters and days of hunting	Total, all hunting		Big game		Small game		Migratory bird		Other animals	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
HUNTERS										
Total, all land	**13,975**	**100**	**11,288**	**100**	**6,945**	**100**	**3,073**	**100**	**1,521**	**100**
Public land, total	**6,533**	**47**	**4,937**	**44**	**2,655**	**38**	**1,117**	**36**	**394**	**26**
Public land only	2,344	17	2,353	21	1,110	16	641	21	155	10
Public and private land	4,188	30	2,584	23	1,545	22	476	15	240	16
Private land, total	**11,383**	**81**	**8,746**	**77**	**5,713**	**82**	**2,377**	**77**	**1,307**	**86**
Private land only	7,195	51	6,162	55	4,168	60	1,901	62	1,068	70
Private and public land	4,188	30	2,584	23	1,545	22	476	15	240	16
DAYS OF HUNTING										
Total, all land	**256,676**	**100**	**153,784**	**100**	**75,117**	**100**	**26,501**	**100**	**24,522**	**100**
Public land[1]	77,018	30	43,409	28	20,069	27	7,809	29	5,731	23
Private land[2]	198,165	77	105,627	69	54,993	73	17,674	67	19,871	81

[1] Days of hunting on public land includes both days spent solely on public land and those spent on public and private land.
[2] Days of hunting on private land includes both days spent solely on private land and those spent on private and public land.

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

Table 28. **Hunters and Days of Hunting on Public Land, by Selected Characteristic: 1996**

(Population 16 years old and older. Numbers in thousands)

Characteristic	Hunters				Days of hunting			
		Hunters on public land[1]				Days on public land [2]		
	Total hunters, public and private land	Number	Percent of total hunters	Percent of hunters using public land	Total days, public and private land	Number	Percent of total days	Percent of days on public land
Total persons	**13,975**	**6,533**	**47**	**100**	**256,676**	**77,018**	**30**	**100**
Population density of residence								
Urban	6,402	3,322	52	51	101,159	37,216	37	48
Rural	7,573	3,211	42	49	155,517	39,803	26	52
Population size of residence								
MSA	7,783	3,828	49	59	129,005	41,411	32	54
1,000,000 or more	3,318	1,695	51	26	46,344	16,390	35	21
250,000 to 999,999	2,692	1,275	47	20	50,005	14,908	30	19
50,000 to 249,999	1,773	858	48	13	32,657	10,113	31	13
Outside MSA	6,192	2,705	44	41	127,671	35,608	28	46
Census geographic division								
New England	465	216	46	3	8,433	3,346	40	4
Middle Atlantic	1,453	760	52	12	26,874	7,491	28	10
East North Central	2,712	1,198	44	18	50,075	13,933	28	18
West North Central	1,917	809	42	12	29,376	7,657	26	10
South Atlantic	2,050	755	37	12	42,985	9,750	23	13
East South Central	1,301	435	33	7	28,613	5,484	19	7
West South Central	1,812	540	30	8	38,285	7,865	21	10
Mountain	1,061	886	84	14	13,158	10,435	79	14
Pacific	1,203	935	78	14	18,878	11,058	59	14
Age								
16 to 17 years	672	333	50	5	14,033	3,848	27	5
18 to 24 years	1,397	640	46	10	27,527	7,380	27	10
25 to 34 years	2,783	1,262	45	19	60,353	18,526	31	24
35 to 44 years	3,819	1,922	50	29	69,502	23,048	33	30
45 to 54 years	2,851	1,374	48	21	51,529	15,996	31	21
55 to 64 years	1,486	609	41	9	20,900	4,926	24	6
65 years and older	967	393	41	6	12,831	3,295	26	4
Sex								
Male	12,783	6,064	47	93	241,567	72,595	30	94
Female	1,192	468	39	7	15,109	4,423	29	6
Race								
White	13,226	6,185	47	95	242,804	73,193	30	95
Black	303	111	37	2	4,839	775	16	1
All others	446	237	53	4	9,033	3,050	34	4
Annual household income								
Less than $10,000	428	183	43	3	5,977	1,762	29	2
$10,000 to $19,999	951	418	44	6	18,430	5,948	32	8
$20,000 to $24,999	820	313	38	5	17,251	5,109	30	7
$25,000 to $29,999	1,001	469	47	7	20,243	5,408	27	7
$30,000 to $34,999	1,107	522	47	8	22,354	6,454	29	8
$35,000 to $39,999	965	465	48	7	17,973	5,543	31	7
$40,000 to $49,999	1,882	963	51	15	33,432	11,815	35	15
$50,000 to $74,999	3,036	1,492	49	23	52,368	16,648	32	22
$75,000 to $99,999	1,178	576	49	9	20,971	6,993	33	9
$100,000 or more	851	381	45	6	15,368	4,299	28	6
Not reported	1,756	752	43	12	32,310	7,040	22	9
Education								
8 years or less	470	207	44	3	6,655	2,023	30	3
9 to 11 years	1,616	734	45	11	34,173	10,744	31	14
12 years	5,776	2,661	46	41	113,735	32,311	28	42
1 to 3 years college	3,115	1,530	49	23	53,532	16,416	31	21
4 years college	1,654	789	48	12	28,714	9,335	33	12
5 years or more college	1,345	612	46	9	19,867	6,188	31	8

[1] Hunters on public land include those who hunted on both public and private land.

[2] Days of hunting on public land includes both days spent solely on public land and those spent on public and private land.

Note: Percent of total hunters and percent of total days are based on the total hunters and total days columns for each row. Percent of hunters using public land and percent of days on public land are based on the total number of hunters on public land and total number of days on public land, respectively.

Table 29. **Hunters and Days of Hunting on Private Land, by Selected Characteristic: 1996**

(Population 16 years old and older. Numbers in thousands)

Characteristic	Hunters				Days of hunting			
		Hunters on private land[1]				Days on private land [2]		
	Total hunters, public and private land	Number	Percent of total hunters	Percent of hunters using private land	Total days, public and private land	Number	Percent of total days	Percent of days on private land
Total persons	**13,975**	**11,383**	**81**	**100**	**256,676**	**198,165**	**77**	**100**
Population density of residence								
Urban	6,402	4,971	78	44	101,159	70,257	69	35
Rural	7,573	6,412	85	56	155,517	127,908	82	65
Population size of residence								
MSA	7,783	6,212	80	55	129,005	95,882	74	48
1,000,000 or more	3,318	2,572	78	23	46,344	34,549	75	17
250,000 to 999,999	2,692	2,207	82	19	50,005	35,932	72	18
50,000 to 249,999	1,773	1,434	81	13	32,657	25,402	78	13
Outside MSA	6,192	5,171	84	45	127,671	102,283	80	52
Census geographic division								
New England	465	374	80	3	8,433	6,552	78	3
Middle Atlantic	1,453	1,208	83	11	26,874	20,604	77	10
East North Central	2,712	2,337	86	21	50,075	38,278	76	19
West North Central	1,917	1,711	89	15	29,376	24,887	85	13
South Atlantic	2,050	1,821	89	16	42,985	35,903	84	18
East South Central	1,301	1,196	92	11	28,613	23,516	82	12
West South Central	1,812	1,579	87	14	38,285	33,824	88	17
Mountain	1,061	477	45	4	13,158	4,884	37	2
Pacific	1,203	680	57	6	18,878	9,719	51	5
Age								
16 to 17 years	672	542	81	5	14,033	12,793	91	6
18 to 24 years	1,397	1,145	82	10	27,527	20,152	73	10
25 to 34 years	2,783	2,316	83	20	60,353	45,577	76	23
35 to 44 years	3,819	3,076	81	27	69,502	52,522	76	27
45 to 54 years	2,851	2,315	81	20	51,529	39,709	77	20
55 to 64 years	1,486	1,215	82	11	20,900	16,693	80	8
65 years and older	967	774	80	7	12,831	10,720	84	5
Sex								
Male	12,783	10,498	82	92	241,567	185,345	77	94
Female	1,192	885	74	8	15,109	12,820	85	6
Race								
White	13,226	10,854	82	95	242,804	185,731	76	94
Black	303	260	86	2	4,839	4,300	89	2
All others	446	269	60	2	9,033	8,134	90	4
Annual household income								
Less than $10,000	428	331	77	3	5,977	4,233	71	2
$10,000 to $19,999	951	756	80	7	18,430	13,901	75	7
$20,000 to $24,999	820	720	88	6	17,251	15,572	90	8
$25,000 to $29,999	1,001	790	79	7	20,243	15,214	75	8
$30,000 to $34,999	1,107	914	83	8	22,354	16,323	73	8
$35,000 to $39,999	965	751	78	7	17,973	12,564	70	6
$40,000 to $49,999	1,882	1,519	81	13	33,432	25,471	76	13
$50,000 to $74,999	3,036	2,467	81	22	52,368	40,528	77	20
$75,000 to $99,999	1,178	973	83	9	20,971	14,945	71	8
$100,000 or more	851	734	86	6	15,368	12,912	84	7
Not reported	1,756	1,428	81	13	32,310	26,504	82	13
Education								
8 years or less	470	362	77	3	6,655	5,341	80	3
9 to 11 years	1,616	1,247	77	11	34,173	24,712	72	12
12 years	5,776	4,654	81	41	113,735	87,824	77	44
1 to 3 years college	3,115	2,532	81	22	53,532	41,009	77	21
4 years college	1,654	1,440	87	13	28,714	23,006	80	12
5 years or more college	1,345	1,147	85	10	19,867	16,273	82	8

[1] Hunters on private land include those who hunted on both private and public land.

[2] Days of hunting on private land includes both days spent solely on private land and those spent on private and public land.

Note: Percent of total hunters and percent of total days are based on the total hunters and total days columns for each row. Percent of hunters using private land and percent of days on private land are based on the total number of hunters on private land and total number of days on private land, respectively.

Table 30. **Participation in Catch and Release Fishing, Ice Fishing, and Fly-Fishing: 1996**
(Population 16 years old and older. Numbers in thousands)

Anglers and days	Number	Percent
Total anglers	**35,246**	**100**
Catch and release anglers	20,276	58
Ice anglers	2,417	7
Fly-anglers	4,497	13
Total days of fishing	**625,893**	**100**
Days of catch and release fishing	311,414	50
Days of ice fishing	22,558	4
Days of fly-fishing	41,836	7

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

Table 31. **Hunters Using Bows and Arrows, Muzzleloaders, and Other Primitive Firearms for Hunting: 1996**
(Population 16 years old and older. Numbers in thousands)

Hunters	Number	Percent
Total hunters	**13,975**	**100**
Hunters using bow and arrow	3,289	24
Hunters using muzzleloader or other primitive firearm	1,677	12
Total days of hunting	**256,676**	**100**
With bow and arrow	24,612	10
With muzzleloader or other primitive firearm	26,224	10

Table 32. **Land Owned or Leased for the Primary Purpose of Fishing and Hunting: 1996**

(Population 16 years old and older. Numbers in thousands)

Fishing and hunting	Number	Percent
SPORTSMEN OWNING OR LEASING LAND		
Total sportsmen	**2,357**	**100**
Anglers	897	38
Hunters	1,618	69
ACRES OWNED OR LEASED		
Total acres owned or leased	**380,257**	**100**
Acres for fishing	17,776	5
Acres for hunting	362,481	95
EXPENDITURES FOR LAND OWNED OR LEASED		
Total expenditures	**$5,519,279**	**100**
For fishing	$2,340,344	42
For hunting	$3,178,935	58

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

Table 33. **Persons With Disabilities Who Participated in Fishing and Hunting: 1996**

(Population 16 years old and older. Numbers in thousands)

Fishing and Hunting	Participants		Days of participation		Trips	
	Number	Percent	Number	Percent	Number	Percent
Total sportsmen	**39,694**	**100**	**882,569**	**100**	**729,494**	**100**
Total disabled sportsmen	2,245	100	65,610	100	54,610	100
Mobility impaired	1,650	73	45,286	69	35,775	66
Hearing impaired	435	19	14,541	22	13,164	24
Sight impaired	154	7	3,851	6	3,367	6
Mentally impaired	217	10	6,224	9	6,049	11
Total anglers	**35,246**	**100**	**625,893**	**100**	**506,556**	**100**
Total disabled anglers	2,024	100	53,085	100	43,747	100
Mobility impaired	1,451	72	36,284	68	28,264	65
Hearing impaired	401	20	12,743	24	11,357	26
Sight impaired	142	7	3,088	6	2,806	6
Mentally impaired	206	10	4,746	9	4,610	11
Total hunters	**13,975**	**100**	**256,676**	**100**	**222,938**	**100**
Total disabled hunters	713	100	12,525	100	10,862	100
Mobility impaired	553	78	9,002	72	7,511	69
Hearing impaired	122	17	1,798	14	1,808	17
Sight impaired	*38	*5	*762	*6	*561	*5
Mentally impaired	*53	*7	*1,478	*12	*1,439	*13

* Estimate based on a small sample size.

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

Table 34. **Why Anglers and Hunters Did Not Participate More in 1996**

(Population 16 years old and older. Numbers in thousands)

Reasons	Number	Percent
ANGLERS		
Total anglers	**35,246**	**100**
Anglers who did not fish as much in 1996 as they would have liked to	22,765	65
Reasons:		
Not enough time	7,532	21
Family or work obligations	15,101	43
Not enough money/cost too much	1,246	4
Personal health or disability	1,470	4
No one to fish with	528	1
Not enough places to fish/not enough access	299	1
Fishing places too crowded	*60	*(Z)
Did not know where to go	*133	*(Z)
Catch limits too restrictive	*60	*(Z)
Length of fishing season too restrictive	*58	*(Z)
Not enough fish	277	1
Safety (fear of injury)	*36	*(Z)
Weather	1,232	3
Pollution or litter	*41	*(Z)
Other	2,528	7
HUNTERS		
Total hunters	**13,975**	**100**
Hunters who did not hunt as much in 1996 as they would have liked to	9,356	67
Reasons:		
Not enough time	2,695	19
Family or work obligations	6,230	45
Not enough money/cost too much	644	5
Personal health or disability	668	5
No one to hunt with	88	1
Not enough places to hunt/not enough access	237	2
Hunting places too crowded	*62	*(Z)
Did not know where to go	...	...
Bag limits too restrictive	*39	*(Z)
Length of hunting season too restrictive	206	1
Not enough game	157	1
Safety (fear of injury)	*24	*(Z)
Weather	531	4
Pollution or litter	...	...
Other	925	7

* Estimate based on a small sample size. ... Sample size too small to report data reliably. (Z) Less than 0.5 percent.

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

Table 35. **Wildlife-Watching Participants, by Type of Activity: 1996**

(Population 16 years old and older. Numbers in thousands)

Activity	Number	Percent
Total participants	**62,868**	**100**
Nonresidential	23,652	38
Observe wildlife	22,878	36
Photograph wildlife	12,038	19
Feed wildlife	9,976	16
Residential	60,751	97
Observe wildlife	44,063	70
Photograph wildlife	16,021	25
Feed wild birds or other wildlife	54,122	86
Visit public parks[1]	11,011	18
Maintain plantings or natural areas	13,401	21

[1]Includes visits only to parks or publicly held areas within one mile of home.

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

Table 36. **Participants, Trips, and Days of Participation in Nonresidential (Away From Home) Wildlife-Watching Activities: 1996**

(Population 16 years old and older. Numbers in thousands)

Participants, trips, and days of participation	Number	Percent
PARTICIPANTS		
Total participants	**23,652**	**100**
Observe wildlife	22,878	97
Photograph wildlife	12,038	51
Feed wildlife	9,976	42
TRIPS		
Total trips	**266,673**	**100**
Average days per trip	1	(X)
DAYS		
Total days	**313,790**	**100**
Observing wildlife	278,683	89
Photographing wildlife	79,342	25
Feeding wildlife	89,606	29
Average days per participant	13	(X)
Observing wildlife	12	(X)
Photographing wildlife	7	(X)
Feeding wildlife	9	(X)

(X) Not applicable.

Note: Detail does not add to total because of multiple responses and nonresponse. Percents shown are based on the ″Total participants,″ and ″Total days″ rows.

Table 37. **Participation in Residential (Around the Home) Wildlife-Watching Activities: 1996**

(Population 16 years old and older. Numbers in thousands)

Activity	Number	Percent
Total residential participants	**60,751**	**100**
Observe wildlife	44,063	73
Visit public parks[1]	11,011	18
Photograph wildlife	16,021	26
Feed wildlife	54,122	89
Maintain natural areas	7,921	13
Maintain plantings	9,218	15
OBSERVE WILDLIFE		
Participants observing		
Total, all wildlife	**44,063**	**100**
Birds	42,168	96
Land mammals, all	38,505	87
Large mammals	17,513	40
Small mammals	37,042	84
Amphibians or reptiles	13,574	31
Insects or spiders	19,842	45
Fish or other wildlife	11,086	25
Participants observing		
Total, 1 day or more	**44,063**	**100**
1 to 10 days	10,723	24
11 to 20 days	4,698	11
21 to 50 days	6,865	16
51 to 100 days	6,369	14
101 to 200 days	6,426	15
201 days or more	7,850	18
VISIT PUBLIC PARKS[1]		
Participants visiting:		
Total, 1 day or more	**11,011**	**100**
1 to 5 days	5,854	53
6 to 10 days	1,587	14
11 days or more	3,489	32
PHOTOGRAPH WILDLIFE		
Participants photographing		
Total, 1 day or more	**16,021**	**100**
1 day	2,494	16
2 to 3 days	4,603	29
4 to 5 days	2,907	18
6 to 10 days	2,837	18
11 to 20 days	1,724	11
21 days or more	1,224	8
FEED WILDLIFE		
Participants feeding		
Total, all wildlife	**54,122**	**100**
Wild birds	52,178	96
Other wildlife	19,593	36
Months fed wild birds:[2]		
January	40,507	78
February	40,546	78
March	39,882	76
April	37,025	71
May	33,567	64
June	33,112	63
July	31,624	61
August	30,415	58
September	31,424	60
October	30,998	59
November	32,527	62
December	34,102	65
Average months feeding wild birds	8	(X)

See footnotes at end of table.

Table 37. **Participation in Residential (Around the Home) Wildlife-Watching Activities: 1996**—Continued

(Population 16 years old and older. Numbers in thousands)

Activity	Number	Percent
FEED WILDLIFE—Continued		
Months fed other wildlife:[3]		
January	13,026	66
February	12,875	66
March	12,778	65
April	12,374	63
May	11,086	57
June	11,291	58
July	11,028	56
August	10,700	55
September	11,144	57
October	9,505	49
November	9,313	48
December	9,479	48
Average months feeding other wildlife	7	(X)
MAINTAIN NATURAL AREAS		
Participants maintaining		
Total, all acreages	**7,921**	**100**
1 acre or less	4,400	56
2 to 10 acres	2,454	31
11 to 50 acres	761	10
More than 50 acres	204	3
MAINTAIN PLANTINGS		
Participants maintaining plantings	9,218	100
Participants spending		
Less than $25	5,024	55
$25 to $75	2,151	23
More than $75	1,527	17
Average expenditure per participant for plantings	58	(X)

(X) Not applicable.

[1] Includes visits only to parks or publicly held areas within one mile of home.
[2] These are months where participants fed wild birds at least once a week.
[3] These are months where participants fed other wildlife at least once.

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

Table 38. **Nonresidential Wildlife-Watching Participants, by Area or Site Visited: 1996**

(Population 16 years old and older. Numbers in thousands)

Area or site visited	Number	Percent
Total, all areas	**23,652**	**100**
Public only	11,983	51
Private only	2,357	10
Public and private	8,062	34
SITES		
Total, all sites	**23,652**	**100**
Oceanside	6,353	27
Lake and streamside	16,349	69
Marsh, wetland, swamp	10,420	44
Woodland	18,313	77
Brush-covered area	14,065	59
Open field	14,849	63
Manmade area	9,145	39
Other	3,299	14

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

Table 39. **Nonresidential Wildlife-Watching Participants, by Wildlife Observed, Photographed, or Fed and Place: 1996**

(Population 16 years old and older. Numbers in thousands)

Wildlife observed, photographed, or fed	Total participants		Participation by place					
			Total		In state of residence		In other states	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total, all wildlife	**23,652**	**100**	**23,652**	**100**	**20,656**	**87**	**7,502**	**32**
Total birds	**17,711**	**75**	**17,711**	**100**	**15,391**	**87**	**6,027**	**34**
Songbirds	12,905	55	12,905	100	11,149	86	4,171	32
Birds of prey	10,578	45	10,578	100	8,612	81	3,788	36
Waterfowl	14,320	61	14,320	100	12,359	86	4,604	32
Other water birds (shorebirds, herons, pelicans, etc.)	9,463	40	9,463	100	7,546	80	3,478	37
Other birds (pheasants, turkeys, road runners, etc.)	6,478	27	6,478	100	5,352	83	1,730	27
Total land mammals	**17,668**	**75**	**17,668**	**100**	**15,224**	**86**	**5,614**	**32**
Large land mammals (deer, bear, etc.)	13,152	56	13,152	100	10,946	83	4,074	31
Small land mammals (squirrel, prairie dog, etc.)	15,211	64	15,211	100	13,088	86	4,905	32
Fish	8,424	36	8,424	100	6,532	78	3,023	36
Marine mammals	3,471	15	3,471	100	2,098	60	1,678	48
Other wildlife (turtles, butterfiles, etc)	11,533	49	11,533	100	9,738	84	4,014	35

Note: Detail does not add to total because of multiple responses. Column showing percent of total participants is based on the ″Total, all wildlife″ number. Participation by place percent columns are based on the total number of participants for each type of wildlife.

Table 40. **Expenditures for Wildlife Watching: 1996**

(Population 16 years old and older)

Expenditure item	Expenditures (thousands of dollars)	Spenders		
		Number (thousands)	Percent of wildlife-watching participants[1]	Average per spender (dollars)
Total, all items[2]	**29,227,888**	**52,729**	**84**	**554**
TRIP-RELATED EXPENDITURES				
Total trip-related	**9,443,808**	**21,456**	**91**	**440**
Food and lodging, total	**5,351,596**	**17,922**	**76**	**299**
Food	3,446,666	17,761	75	194
Lodging	1,904,929	6,783	29	281
Transportation, total	**2,942,525**	**20,260**	**86**	**145**
Public	810,930	2,229	9	364
Private	2,131,595	19,863	84	107
Other trip costs, total	**1,149,687**	**9,340**	**39**	**123**
Guide fees, pack trip or package fees	310,474	1,647	7	188
Public land use fees	173,719	5,865	25	30
Private land use fees	106,599	1,602	7	67
Equipment rental	121,787	1,595	7	76
Boating costs[3]	372,477	1,523	6	245
Heating and cooking fuel	64,630	2,634	11	25
EQUIPMENT AND OTHER EXPENSES				
Total	**19,784,081**	**49,577**	**79**	**399**
Wildlife-watching equipment, total	**8,229,736**	**47,355**	**75**	**174**
Binoculars, spotting scopes	635,648	5,618	9	113
Cameras, video cameras, special lenses, and other photographic equipment	1,748,237	4,539	7	385
Film and developing	1,103,759	18,053	29	61
Bird food, total	2,733,217	38,813	62	70
Commercially prepared and packaged wild bird food	2,129,500	35,852	57	59
Other bulk foods used to feed wild birds	603,717	14,099	22	43
Feed for other wildlife	456,811	10,328	16	44
Nest boxes, bird houses, feeders, baths	831,639	19,658	31	42
Day packs, carrying cases, and special clothing	553,354	5,204	8	106
Other wildlife-watching equipment	167,071	5,287	8	32
Auxiliary equipment, total	**858,348**	**4,763**	**8**	**180**
Tents, tarps	285,934	2,315	4	124
Frame packs and backpacking equipment	134,841	1,432	2	94
Other camping equipment	334,423	2,843	5	118
Other auxiliary equipment	103,150	526	1	196
Special equipment, total	**7,564,487**	**1,094**	**2**	**6,913**
Off-the-road vehicle	3,970,360	289	(Z)	13,736
Travel or tent trailer, pickup, camper, van, motor home	2,247,305	264	(Z)	8,508
Boats, boat accessories	537,039	390	1	1,377
Cabins	...	...	...	...
Other	108,584	172	(Z)	631
Magazines, books	394,987	11,738	19	34
Land leasing and ownership	1,338,164	402	1	3,329
Membership dues and contributions	861,762	11,544	18	75
Plantings	536,596	6,112	10	88

... Sample size too small to report data reliably. (Z) Less than .5 percent.

[1] Percent of wildlife-watching participants is based on nonresidential participants for trip-related expenditures. For equipment and other expenditures the percent of wildlife-watching participants is based on total participants.

[2] Information on trip-related expenditures was collected for nonresidential participants only. Equipment and other expenditures are based on information collected from both nonresidential and residential participants.

[3] Boating costs include launching, mooring, storage, maintenance, insurance, pumpout fees, and fuel.

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

Table 41. **Selected Characteristics of Participants in Nonresidential Wildlife-Watching Activities: 1996**

(Population 16 years old and older. Numbers in thousands)

Characteristic	U.S. population		Total wildlife-watching participants			Total nonresidential participants		
	Number	Percent	Number	Percent who participated	Percent	Number	Percent who participated	Percent
Total persons	**201,472**	**100**	**62,868**	**31**	**100**	**23,652**	**12**	**100**
Population density of residence								
Urban	144,760	72	40,696	28	65	15,709	11	66
Rural	56,712	28	22,173	39	35	7,943	14	34
Population size of residence								
MSA	158,818	79	47,224	30	75	17,812	11	75
1,000,000 or more	99,738	50	27,557	28	44	10,559	11	45
250,000 to 999,999	39,800	20	12,701	32	20	4,681	12	20
50,000 to 249,999	19,280	10	6,966	36	11	2,572	13	11
Outside MSA	42,654	21	15,645	37	25	5,840	14	25
Census geographic division								
New England	10,306	5	3,710	36	6	1,443	14	6
Middle Atlantic	29,371	15	8,185	28	13	2,960	10	13
East North Central	33,121	16	11,731	35	19	4,501	14	19
West North Central	13,875	7	5,089	37	8	1,927	14	8
South Atlantic	36,776	18	11,252	31	18	3,992	11	17
East South Central	12,459	6	3,904	31	6	1,118	9	5
West South Central	21,811	11	5,933	27	9	2,096	10	9
Mountain	11,966	6	4,099	34	7	1,967	16	8
Pacific	31,787	16	8,966	28	14	3,648	11	15
Age								
16 to 17 years	7,080	4	1,303	18	2	608	9	3
18 to 24 years	20,423	10	3,443	17	5	1,727	8	7
25 to 34 years	34,973	17	9,700	28	15	4,553	13	19
35 to 44 years	44,376	22	15,842	36	25	6,893	16	29
45 to 54 years	35,867	18	12,711	35	20	5,295	15	22
55 to 64 years	23,311	12	8,400	36	13	2,464	11	10
65 years and older	35,442	18	11,470	32	18	2,113	6	9
Sex								
Male, total	96,660	48	29,505	31	47	11,740	12	50
16 to 17 years	3,565	2	629	18	1	295	8	1
18 to 24 years	10,210	5	1,613	16	3	945	9	4
25 to 34 years	17,325	9	4,225	24	7	1,965	11	8
35 to 44 years	21,585	11	7,403	34	12	3,488	16	15
45 to 54 years	17,719	9	6,328	36	10	2,818	16	12
55 to 64 years	11,277	6	4,270	38	7	1,199	11	5
65 years and older	14,979	7	5,038	34	8	1,030	7	4
Female, total	104,812	52	33,363	32	53	11,912	11	50
16 to 17 years	3,515	2	674	19	1	313	9	1
18 to 24 years	10,213	5	1,830	18	3	782	8	3
25 to 34 years	17,647	9	5,475	31	9	2,588	15	11
35 to 44 years	22,792	11	8,439	37	13	3,405	15	14
45 to 54 years	18,148	9	6,383	35	10	2,478	14	10
55 to 64 years	12,034	6	4,130	34	7	1,265	11	5
65 years and older	20,463	10	6,432	31	10	1,082	5	5
Race								
White	167,497	83	58,556	35	93	22,076	13	93
Black	18,728	9	1,955	10	3	460	2	2
All others	15,247	8	2,358	15	4	1,116	7	5
Annual household income								
Less than $10,000	15,034	7	3,391	23	5	873	6	4
$10,000 to $19,999	19,690	10	5,274	27	8	1,907	10	8
$20,000 to $24,999	13,080	6	3,762	29	6	1,322	10	6
$25,000 to $29,999	12,337	6	4,118	33	7	1,660	13	7
$30,000 to $34,999	12,572	6	3,954	31	6	1,508	12	6
$35,000 to $39,999	10,653	5	3,776	35	6	1,523	14	6
$40,000 to $49,999	18,274	9	6,866	38	11	2,626	14	11
$50,000 to $74,999	32,223	16	11,585	36	18	5,162	16	22
$75,000 to $99,999	15,079	7	6,149	41	10	2,485	16	11
$100,000 or more	13,756	7	5,283	38	8	2,339	17	10
Not reported	38,774	19	8,709	22	14	2,247	6	10
Education								
8 years or less	12,377	6	2,057	17	3	307	2	1
9 to 11 years	21,366	11	5,007	23	8	1,510	7	6
12 years	71,098	35	19,969	28	32	6,361	9	27
1 to 3 years college	45,573	23	15,476	34	25	6,032	13	26
4 years college	28,005	14	10,172	36	16	4,361	16	18
5 years or more college	23,052	11	10,188	44	16	5,082	22	21

See footnotes at end of table.

Table 41. **Selected Characteristics of Participants in Nonresidential Wildlife-Watching Activities: 1996**—Continued

(Population 16 years old and older. Numbers in thousands)

Characteristic	Nonresidential participants								
	Observe			Photograph			Feed		
	Number	Percent who participated	Percent	Number	Percent who participated	Percent	Number	Percent who participated	Percent
Total persons	**22,878**	**11**	**100**	**12,038**	**6**	**100**	**9,976**	**5**	**100**
Population density of residence									
Urban	15,231	11	67	8,185	6	68	6,879	5	69
Rural	7,647	13	33	3,853	7	32	3,097	5	31
Population size of residence									
MSA	17,291	11	76	9,308	6	77	7,729	5	77
1,000,000 or more	10,254	10	45	5,777	6	48	4,578	5	46
250,000 to 999,999	4,544	11	20	2,222	6	18	2,078	5	21
50,000 to 249,999	2,493	13	11	1,309	7	11	1,074	6	11
Outside MSA	5,587	13	24	2,730	6	23	2,246	5	23
Census geographic division									
New England	1,382	13	6	730	7	6	569	6	6
Middle Atlantic	2,868	10	13	1,360	5	11	1,386	5	14
East North Central	4,354	13	19	2,086	6	17	1,870	6	19
West North Central	1,845	13	8	890	6	7	790	6	8
South Atlantic	3,874	11	17	2,069	6	17	1,912	5	19
East South Central	1,084	9	5	510	4	4	593	5	6
West South Central	2,020	9	9	915	4	8	1,028	5	10
Mountain	1,914	16	8	1,178	10	10	481	4	5
Pacific	3,536	11	15	2,300	7	19	1,346	4	13
Age									
16 to 17 years	600	8	3	250	4	2	218	3	2
18 to 24 years	1,716	8	8	855	4	7	747	4	7
25 to 34 years	4,430	13	19	2,377	7	20	1,974	6	20
35 to 44 years	6,704	15	29	3,495	8	29	2,902	7	29
45 to 54 years	5,104	14	22	2,893	8	24	2,111	6	21
55 to 64 years	2,372	10	10	1,336	6	11	1,143	5	11
65 years and older	1,951	6	9	833	2	7	881	2	9
Sex									
Male, total	11,399	12	50	5,751	6	48	4,666	5	47
16 to 17 years	288	8	1	*91	*3	*1	*100	*3	*1
18 to 24 years	941	9	4	367	4	3	393	4	4
25 to 34 years	1,929	11	8	945	5	8	704	4	7
35 to 44 years	3,436	16	15	1,900	9	16	1,397	6	14
45 to 54 years	2,725	15	12	1,501	8	12	1,139	6	11
55 to 64 years	1,147	10	5	560	5	5	516	5	5
65 years and older	932	6	4	386	3	3	417	3	4
Female, total	11,479	11	50	6,287	6	52	5,310	5	53
16 to 17 years	312	9	1	*159	*5	*1	*118	*3	*1
18 to 24 years	775	8	3	488	5	4	354	3	4
25 to 34 years	2,501	14	11	1,432	8	12	1,270	7	13
35 to 44 years	3,268	14	14	1,594	7	13	1,505	7	15
45 to 54 years	2,379	13	10	1,392	8	12	971	5	10
55 to 64 years	1,225	10	5	776	6	6	627	5	6
65 years and older	1,019	5	4	446	2	4	465	2	5
Race									
White	21,321	13	93	11,091	7	92	9,054	5	91
Black	457	2	2	171	1	1	343	2	3
All others	1,100	7	5	776	5	6	579	4	6
Annual household income									
Less than $10,000	848	6	4	325	2	3	536	4	5
$10,000 to $19,999	1,829	9	8	1,045	5	9	920	5	9
$20,000 to $24,999	1,250	10	5	581	4	5	677	5	7
$25,000 to $29,999	1,610	13	7	797	6	7	826	7	8
$30,000 to $34,999	1,487	12	7	734	6	6	746	6	7
$35,000 to $39,999	1,442	14	6	667	6	6	696	7	7
$40,000 to $49,999	2,526	14	11	1,333	7	11	1,087	6	11
$50,000 to $74,999	5,036	16	22	2,724	8	23	1,837	6	18
$75,000 to $99,999	2,415	16	11	1,452	10	12	903	6	9
$100,000 or more	2,289	17	10	1,247	9	10	878	6	9
Not reported	2,145	6	9	1,133	3	9	869	2	9
Education									
8 years or less	272	2	1	*61	*(Z)	*1	*160	*1	*2
9 to 11 years	1,440	7	6	584	3	5	670	3	7
12 years	6,019	8	26	2,895	4	24	3,037	4	30
1 to 3 years college	5,882	13	26	3,148	7	26	2,648	6	27
4 years college	4,235	15	19	2,256	8	19	1,491	5	15
5 years or more college	5,029	22	22	3,094	13	26	1,970	9	20

* Estimate based on a small sample size. (Z) Less than 0.5 percent.

Note: Detail does not add to total because of multiple responses. Percent who participated columns show the percent of each row's population who participated in the activity named by the column (the percent of those living in urban areas who observed wildlife, etc.). Percent columns show the percent of each column's participants who are described by the row heading (the percent of those who observed wildlife who lived in urban areas, etc.).

Table 42. **Selected Characteristics of Participants in Residential Wildlife-Watching Activities: 1996**

(Population 16 years old and older. Numbers in thousands)

Characteristic	U.S. population		Total wildlife-watching participants			Total residential participants		
	Number	Percent	Number	Percent who participated	Percent	Number	Percent who participated	Percent
Total persons	**201,472**	**100**	**62,868**	**31**	**100**	**60,751**	**30**	**100**
Population density of residence								
Urban	144,760	72	40,696	28	65	39,084	27	64
Rural	56,712	28	22,173	39	35	21,666	38	36
Population size of residence								
MSA	158,818	79	47,224	30	75	45,597	29	75
1,000,000 or more	99,738	50	27,557	28	44	26,870	27	44
250,000 to 999,999	39,800	20	12,701	32	20	12,037	30	20
50,000 to 249,999	19,280	10	6,966	36	11	6,690	35	11
Outside MSA	42,654	21	15,645	37	25	15,154	36	25
Census geographic division								
New England	10,306	5	3,710	36	6	3,586	35	6
Middle Atlantic	29,371	15	8,185	28	13	8,023	27	13
East North Central	33,121	16	11,731	35	19	11,297	34	19
West North Central	13,875	7	5,089	37	8	4,900	35	8
South Atlantic	36,776	18	11,252	31	18	10,964	30	18
East South Central	12,459	6	3,904	31	6	3,795	30	6
West South Central	21,811	11	5,933	27	9	5,773	26	10
Mountain	11,966	6	4,099	34	7	3,855	32	6
Pacific	31,787	16	8,966	28	14	8,558	27	14
Age								
16 to 17 years	7,080	4	1,303	18	2	1,246	18	2
18 to 24 years	20,423	10	3,443	17	5	2,989	15	5
25 to 34 years	34,973	17	9,700	28	15	9,238	26	15
35 to 44 years	44,376	22	15,842	36	25	15,263	34	25
45 to 54 years	35,867	18	12,711	35	20	12,330	34	20
55 to 64 years	23,311	12	8,400	36	13	8,276	36	14
65 years and older	35,442	18	11,470	32	18	11,408	32	19
Sex								
Male, total	96,660	48	29,505	31	47	28,063	29	46
16 to 17 years	3,565	2	629	18	1	592	17	1
18 to 24 years	10,210	5	1,613	16	3	1,243	12	2
25 to 34 years	17,325	9	4,225	24	7	3,893	22	6
35 to 44 years	21,585	11	7,403	34	12	7,069	33	12
45 to 54 years	17,719	9	6,328	36	10	6,072	34	10
55 to 64 years	11,277	6	4,270	38	7	4,182	37	7
65 years and older	14,979	7	5,038	34	8	5,012	33	8
Female, total	104,812	52	33,363	32	53	32,688	31	54
16 to 17 years	3,515	2	674	19	1	654	19	1
18 to 24 years	10,213	5	1,830	18	3	1,746	17	3
25 to 34 years	17,647	9	5,475	31	9	5,345	30	9
35 to 44 years	22,792	11	8,439	37	13	8,194	36	13
45 to 54 years	18,148	9	6,383	35	10	6,259	34	10
55 to 64 years	12,034	6	4,130	34	7	4,093	34	7
65 years and older	20,463	10	6,432	31	10	6,397	31	11
Race								
White	167,497	83	58,556	35	93	56,571	34	93
Black	18,728	9	1,955	10	3	1,936	10	3
All others	15,247	8	2,358	15	4	2,243	15	4
Annual household income								
Less than $10,000	15,034	7	3,391	23	5	3,325	22	5
$10,000 to $19,999	19,690	10	5,274	27	8	5,068	26	8
$20,000 to $24,999	13,080	6	3,762	29	6	3,629	28	6
$25,000 to $29,999	12,337	6	4,118	33	7	3,886	32	6
$30,000 to $34,999	12,572	6	3,954	31	6	3,832	30	6
$35,000 to $39,999	10,653	5	3,776	35	6	3,660	34	6
$40,000 to $49,999	18,274	9	6,866	38	11	6,591	36	11
$50,000 to $74,999	32,223	16	11,585	36	18	11,067	34	18
$75,000 to $99,999	15,079	7	6,149	41	10	5,985	40	10
$100,000 or more	13,756	7	5,283	38	8	5,150	37	8
Not reported	38,774	19	8,709	22	14	8,556	22	14
Education								
8 years or less	12,377	6	2,057	17	3	2,034	16	3
9 to 11 years	21,366	11	5,007	23	8	4,925	23	8
12 years	71,098	35	19,969	28	32	19,318	27	32
1 to 3 years college	45,573	23	15,476	34	25	14,703	32	24
4 years college	28,005	14	10,172	36	16	9,823	35	16
5 years or more college	23,052	11	10,188	44	16	9,948	43	16

See footnotes at end of table.

Table 42. **Selected Characteristics of Participants in Residential Wildlife-Watching Activities: 1996**—Continued
(Population 16 years old and older. Numbers in thousands)

Characteristic	Residential participants								
	Observe			Photograph			Feed wild birds		
	Number	Percent who participated	Percent	Number	Percent who participated	Percent	Number	Percent who participated	Percent
Total persons	**44,063**	**22**	**100**	**16,021**	**8**	**100**	**52,178**	**26**	**100**
Population density of residence									
Urban	27,628	19	63	9,539	7	60	32,933	23	63
Rural	16,435	29	37	6,482	11	40	19,245	34	37
Population size of residence									
MSA	33,060	21	75	11,757	7	73	39,002	25	75
1,000,000 or more	19,527	20	44	7,028	7	44	22,576	23	43
250,000 to 999,999	8,618	22	20	3,071	8	19	10,701	27	21
50,000 to 249,999	4,914	25	11	1,658	9	10	5,724	30	11
Outside MSA	11,003	26	25	4,264	10	27	13,176	31	25
Census geographic division									
New England	2,578	25	6	1,046	10	7	3,202	31	6
Middle Atlantic	5,554	19	13	2,387	8	15	6,891	23	13
East North Central	8,557	26	19	2,932	9	18	10,087	30	19
West North Central	3,689	27	8	1,245	9	8	4,228	30	8
South Atlantic	7,967	22	18	3,092	8	19	9,805	27	19
East South Central	2,447	20	6	785	6	5	3,535	28	7
West South Central	4,114	19	9	1,177	5	7	5,185	24	10
Mountain	2,749	23	6	1,152	10	7	2,885	24	6
Pacific	6,408	20	15	2,206	7	14	6,360	20	12
Age									
16 to 17 years	799	11	2	313	4	2	835	12	2
18 to 24 years	1,611	8	4	604	3	4	2,153	11	4
25 to 34 years	6,359	18	14	2,481	7	15	7,643	22	15
35 to 44 years	11,377	26	26	4,134	9	26	12,995	29	25
45 to 54 years	9,369	26	21	4,122	11	26	10,707	30	21
55 to 64 years	6,088	26	14	2,108	9	13	7,315	31	14
65 years and older	8,460	24	19	2,259	6	14	10,529	30	20
Sex									
Male, total	20,107	21	46	7,473	8	47	23,524	24	45
16 to 17 years	362	10	1	*134	*4	*1	357	10	1
18 to 24 years	702	7	2	320	3	2	872	9	2
25 to 34 years	2,674	15	6	993	6	6	3,058	18	6
35 to 44 years	5,159	24	12	1,905	9	12	5,826	27	11
45 to 54 years	4,524	26	10	1,973	11	12	5,219	29	10
55 to 64 years	2,887	26	7	964	9	6	3,719	33	7
65 years and older	3,799	25	9	1,183	8	7	4,473	30	9
Female, total	23,955	23	54	8,548	8	53	28,654	27	55
16 to 17 years	437	12	1	*178	*5	*1	478	14	1
18 to 24 years	909	9	2	284	3	2	1,281	13	2
25 to 34 years	3,686	21	8	1,488	8	9	4,585	26	9
35 to 44 years	6,218	27	14	2,229	10	14	7,170	31	14
45 to 54 years	4,845	27	11	2,149	12	13	5,488	30	11
55 to 64 years	3,201	27	7	1,145	10	7	3,596	30	7
65 years and older	4,661	23	11	1,075	5	7	6,056	30	12
Race									
White	41,405	25	94	15,332	9	96	48,477	29	93
Black	1,118	6	3	310	2	2	1,705	9	3
All others	1,540	10	3	379	2	2	1,996	13	4
Annual household income									
Less than $10,000	2,174	14	5	439	3	3	2,788	19	5
$10,000 to $19,999	3,746	19	9	1,033	5	6	4,260	22	8
$20,000 to $24,999	2,446	19	6	757	6	5	3,268	25	6
$25,000 to $29,999	2,904	24	7	976	8	6	3,563	29	7
$30,000 to $34,999	2,705	22	6	1,013	8	6	3,272	26	6
$35,000 to $39,999	2,515	24	6	1,006	9	6	3,231	30	6
$40,000 to $49,999	4,780	26	11	1,894	10	12	5,383	29	10
$50,000 to $74,999	8,487	26	19	3,516	11	22	9,822	30	19
$75,000 to $99,999	4,614	31	10	1,813	12	11	4,935	33	9
$100,000 or more	3,953	29	9	1,696	12	11	4,249	31	8
Not reported	5,739	15	13	1,878	5	12	7,406	19	14
Education									
8 years or less	1,244	10	3	165	1	1	1,678	14	3
9 to 11 years	3,294	15	7	873	4	5	4,221	20	8
12 years	13,343	19	30	4,147	6	26	17,000	24	33
1 to 3 years college	10,559	23	24	4,390	10	27	12,949	28	25
4 years college	7,438	27	17	2,811	10	18	8,273	30	16
5 years or more college	8,185	36	19	3,634	16	23	8,056	35	15

* Estimate based on a small sample size.

Note: Detail does not add to total because of multiple responses and nonresponse. Percent who participated columns show the percent of each row's population who participated in the activity named by the column (the percent of those living in urban areas who observed wildlife, etc.). Percent columns show the percent of each column's participants who are described by the row heading (the percent of those who observed wildlife who lived in urban areas, etc.).

Table 43. **Land Owned or Leased for the Primary Purpose of Wildlife Watching: 1996**

(Population 16 years old and older. Numbers in thousands)

Wildlife watching	Number	Average per person owning or leasing land
Wildlife-watching participants owning or leasing land	571	(X)
Acres owned or leased primarily for wildlife watching	38,655	68
Expenditures for land owned or leased	$1,338,164	$2,345

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

Table 44. **Persons With Disabilities Who Participated in Wildlife Watching: 1996**

(Population 16 years old and older. Numbers in thousands)

Disability	Total wildlife watching		Residential		Nonresidential	
	Number	Percent	Number	Percent	Number	Percent
Total wildlife-watching participants	**62,868**	**100**	**60,751**	**100**	**23,652**	**100**
Total disabled participants	**4,496**	**100**	**4,378**	**100**	**1,139**	**100**
Mobility impaired	3,522	78	3,427	78	904	79
Hearing impaired	655	15	654	15	111	10
Sight impaired	436	10	429	10	69	6
Mentally impaired	424	9	404	9	158	14

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

Table 45. **Participation of Wildlife-Watching Participants in Fishing and Hunting: 1996**

(Population 16 years old and older. Numbers in thousands)

Type of fishing and hunting	Total		Nonresidential		Residential	
	Number	Percent	Number	Percent	Number	Percent
Total participants	**62,868**	**100**	**23,652**	**100**	**60,751**	**100**
Nonsportsmen	36,990	59	10,936	46	37,058	61
Sportsmen	25,878	41	12,716	54	23,693	39
Anglers	22,990	37	11,224	47	21,040	35
Hunters	9,527	15	5,164	22	8,688	14

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

Table 46. **Participation of Sportsmen in Wildlife-Watching Activities: 1996**

(Population 16 years old and older. Numbers in thousands)

Wildlife-watching activity	Sportsmen		Anglers		Hunters	
	Number	Percent	Number	Percent	Number	Percent
Total sportsmen	**39,694**	**100**	**35,246**	**100**	**13,975**	**100**
No wildlife-watching activities	13,816	35	12,256	35	4,448	32
With wildlife-watching activities	25,878	65	22,990	65	9,527	68
Nonresidential	12,716	32	11,224	32	5,164	37
Residential	23,693	60	21,040	60	8,688	62

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

Table 47. **Participants in Wildlife-Related Recreation, by Participant's State of Residence: 1996**

(Population 16 years old and older. Numbers in thousands)

Participant's state of residence	Population	Total participants		Sportsmen		Wildlife-watching participants	
		Number	Percent of population	Number	Percent of population	Number	Percent of population
U.S., total	**201,472**	**76,964**	**38**	**39,694**	**20**	**62,868**	**31**
Alabama	3,306	1,264	38	788	24	988	30
Alaska	432	279	65	187	43	216	50
Arizona	3,234	1,210	37	497	15	999	31
Arkansas	1,914	890	47	596	31	658	34
California	23,777	7,097	30	2,938	12	5,959	25
Colorado	2,929	1,535	52	732	25	1,244	42
Connecticut	2,514	928	37	375	15	774	31
Delaware	560	232	41	118	21	192	34
Florida	11,239	3,642	32	1,988	18	2,840	25
Georgia	5,544	1,960	35	1,093	20	1,622	29
Hawaii	900	201	22	136	15	123	14
Idaho	879	484	55	336	38	355	40
Illinois	8,979	3,740	42	1,761	20	3,137	35
Indiana	4,456	1,876	42	972	22	1,542	35
Iowa	2,174	1,032	47	607	28	828	38
Kansas	1,916	793	41	437	23	607	32
Kentucky	3,001	1,206	40	779	26	951	32
Louisiana	3,227	1,271	39	927	29	861	27
Maine	966	511	53	266	28	443	46
Maryland	3,912	1,537	39	629	16	1,323	34
Massachusetts	4,726	1,835	39	622	13	1,638	35
Michigan	7,267	3,134	43	1,748	24	2,585	36
Minnesota	3,473	1,663	48	1,212	35	1,325	38
Mississippi	2,032	680	33	519	26	458	23
Missouri	4,056	1,888	47	1,081	27	1,623	40
Montana	672	394	59	222	33	315	47
Nebraska	1,232	539	44	289	23	428	35
Nevada	1,214	365	30	223	18	258	21
New Hampshire	887	448	51	181	20	394	44
New Jersey	6,129	1,864	30	821	13	1,574	26
New Mexico	1,276	501	39	281	22	370	29
New York	13,944	3,800	27	1,708	12	3,169	23
North Carolina	5,605	2,364	42	1,217	22	1,984	35
North Dakota	483	190	39	148	31	112	23
Ohio	8,522	3,281	39	1,280	15	2,816	33
Oklahoma	2,484	1,199	48	798	32	860	35
Oregon	2,472	1,260	51	619	25	1,048	42
Pennsylvania	9,298	3,886	42	1,664	18	3,442	37
Rhode Island	759	284	37	111	15	243	32
South Carolina	2,842	1,093	38	718	25	829	29
South Dakota	541	249	46	204	38	165	30
Tennessee	4,120	1,792	44	820	20	1,507	37
Texas	14,186	4,695	33	2,772	20	3,553	25
Utah	1,396	558	40	331	24	415	30
Vermont	455	242	53	116	26	217	48
Virginia	5,168	2,278	44	1,090	21	1,905	37
Washington	4,207	1,908	45	1,018	24	1,621	39
West Virginia	1,467	593	40	374	26	452	31
Wisconsin	3,897	1,961	50	1,151	30	1,651	42
Wyoming	366	192	53	139	38	143	39

Note: Detail does not add to total because of multiple responses. U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix.

Table 48. Expenditures for Wildlife-Related Recreation, by State Where Spending Took Place: 1996

(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
U.S., total	**101,162,130**	**29,980,344**	**60,395,820**	**10,785,965**	**71,934,242**	**20,536,537**	**43,743,249**	**7,654,456**
Alabama	1,827,196	572,320	1,073,529	181,347	1,548,252	490,057	914,476	143,719
Alaska	1,660,766	1,187,956	446,619	26,192	880,235	535,610	323,826	20,799
Arizona	1,618,349	525,078	1,011,752	81,518	830,865	251,091	550,228	29,545
Arkansas	1,229,495	334,634	814,243	80,617	1,038,109	273,158	714,579	50,371
California	7,514,244	2,815,890	4,211,340	487,014	5,117,435	1,731,384	3,138,600	247,451
Colorado	2,489,148	929,444	1,297,210	262,495	1,697,033	503,243	1,049,757	144,033
Connecticut	824,923	154,244	620,163	50,517	371,576	108,887	243,178	19,511
Delaware	507,482	98,900	376,940	31,641	443,601	86,622	339,297	17,683
Florida	5,522,854	2,500,595	2,743,877	278,383	3,845,684	1,745,856	1,976,243	123,585
Georgia	2,862,355	535,975	1,738,015	588,365	2,027,809	418,801	1,434,299	174,709
Hawaii	445,239	373,849	65,638	5,752	149,809	104,082	43,885	1,842
Idaho	826,819	271,797	431,618	123,404	680,714	210,605	376,526	93,583
Illinois	3,379,659	528,099	2,610,469	241,091	2,669,203	402,570	2,095,034	171,599
Indiana	1,689,335	315,137	1,249,548	124,650	1,403,670	249,335	1,056,800	97,535
Iowa	877,298	236,558	526,397	114,343	686,581	182,894	413,184	90,503
Kansas	827,145	189,092	448,517	189,535	721,853	167,882	386,543	167,428
Kentucky	1,557,894	363,188	1,092,058	102,647	1,221,372	292,429	848,420	80,522
Louisiana	1,755,942	576,349	1,025,727	153,866	1,557,263	514,920	908,006	134,337
Maine	923,921	355,743	483,784	84,393	703,762	230,052	405,791	67,919
Maryland	1,145,661	390,722	628,464	126,476	640,149	295,235	300,130	44,785
Massachusetts	1,322,905	415,293	816,619	90,993	727,605	257,114	438,619	31,872
Michigan	4,991,316	1,153,521	3,499,807	337,987	3,719,986	886,648	2,553,798	279,539
Minnesota	3,057,767	923,862	1,645,988	487,916	2,674,530	800,437	1,432,520	441,572
Mississippi	1,766,463	375,064	1,022,161	369,238	1,467,127	352,371	773,802	340,954
Missouri	2,352,317	690,275	1,439,028	223,015	1,844,391	497,438	1,143,782	203,171
Montana	718,571	403,227	240,661	74,682	499,707	272,386	184,608	42,713
Nebraska	640,790	137,720	466,185	36,884	548,316	120,571	402,701	25,044
Nevada	626,333	180,815	419,451	26,066	363,535	94,702	251,369	17,465
New Hampshire	684,992	164,167	366,556	154,269	402,615	84,284	298,043	20,288
New Jersey	3,148,449	734,538	2,297,448	116,463	1,347,758	513,930	773,039	60,789
New Mexico	758,268	301,136	429,011	28,121	329,433	135,655	178,274	15,504
New York	3,862,510	961,270	2,672,907	228,333	2,599,894	821,548	1,670,254	108,092
North Carolina	2,884,910	772,933	1,726,757	385,220	2,375,185	603,078	1,445,239	326,868
North Dakota	203,794	73,638	119,428	10,727	167,809	54,883	104,638	8,289
Ohio	1,976,237	508,406	1,364,022	103,809	1,521,327	372,008	1,101,743	47,576
Oklahoma	1,291,940	376,877	853,844	61,220	1,090,143	341,631	708,995	39,516
Oregon	2,219,290	662,480	1,451,936	104,873	1,526,556	400,628	1,047,405	78,523
Pennsylvania	2,773,991	741,972	1,817,065	214,954	1,915,637	482,496	1,264,594	168,546
Rhode Island	294,232	69,278	214,538	10,416	169,870	50,849	114,633	4,388
South Carolina	1,533,218	529,973	838,697	164,548	1,234,517	417,538	678,936	138,043
South Dakota	624,935	295,722	284,065	45,148	473,763	185,271	255,685	32,807
Tennessee	1,724,267	524,547	1,029,948	169,772	1,284,684	331,583	826,732	126,369
Texas	6,461,454	2,195,962	3,477,100	788,391	5,286,215	1,694,049	2,867,187	724,978
Utah	701,336	285,689	357,954	57,693	464,710	160,212	274,557	29,942
Vermont	341,317	124,215	167,809	49,292	248,386	70,515	133,646	44,224
Virginia	2,140,921	608,345	1,367,841	164,735	1,442,677	411,600	948,825	82,252
Washington	2,270,161	928,314	1,235,902	105,945	1,310,356	419,680	843,416	47,260
West Virginia	589,497	189,365	342,253	57,878	476,467	131,389	292,571	52,506
Wisconsin	3,281,942	1,008,352	1,735,379	538,212	2,369,345	572,005	1,342,826	454,515
Wyoming	624,461	386,909	196,761	40,791	389,845	204,421	150,210	35,214

See footnotes at end of table.

Table 48. Expenditures for Wildlife-Related Recreation, by State Where Spending Took Place: 1996—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
U.S., total	**29,227,888**	**9,443,808**	**16,652,571**	**3,131,510**
Alabama	278,944	82,263	159,053	37,628
Alaska	780,531	652,346	122,793	5,393
Arizona	787,484	273,987	461,524	51,973
Arkansas	191,386	61,476	99,664	30,246
California	2,396,809	1,084,506	1,072,740	239,563
Colorado	792,115	426,201	247,453	118,462
Connecticut	453,347	45,357	376,985	31,005
Delaware	63,880	12,278	37,644	13,958
Florida	1,677,170	754,739	767,633	154,798
Georgia	834,547	117,175	303,716	413,656
Hawaii	295,429	269,767	21,753	3,910
Idaho	146,105	61,192	55,092	29,821
Illinois	710,456	125,529	515,435	69,492
Indiana	285,665	65,801	192,748	27,115
Iowa	190,718	53,664	113,213	23,841
Kansas	105,292	21,210	61,974	22,108
Kentucky	336,522	70,759	243,638	22,125
Louisiana	198,679	61,429	117,721	19,529
Maine	220,158	125,692	77,993	16,474
Maryland	505,512	95,487	328,334	81,691
Massachusetts	595,300	158,179	378,000	59,121
Michigan	1,271,330	266,873	946,009	58,448
Minnesota	383,237	123,425	213,468	46,344
Mississippi	299,336	22,693	248,359	28,284
Missouri	507,926	192,837	295,246	19,844
Montana	218,864	130,841	56,053	31,970
Nebraska	92,474	17,150	63,484	11,840
Nevada	262,798	86,114	168,082	8,602
New Hampshire	282,377	79,883	68,513	133,981
New Jersey	1,800,691	220,608	1,524,409	55,674
New Mexico	428,835	165,481	250,738	12,617
New York	1,262,616	139,722	1,002,653	120,241
North Carolina	509,725	169,856	281,517	58,352
North Dakota	35,984	18,755	14,791	2,438
Ohio	454,910	136,398	262,279	56,233
Oklahoma	201,797	35,246	144,848	21,703
Oregon	692,734	261,852	404,532	26,350
Pennsylvania	858,355	259,476	552,471	46,408
Rhode Island	124,362	18,429	99,905	6,028
South Carolina	298,701	112,435	159,761	26,505
South Dakota	151,172	110,451	28,380	12,341
Tennessee	439,583	192,964	203,215	43,403
Texas	1,175,239	501,913	609,913	63,413
Utah	236,626	125,477	83,397	27,752
Vermont	92,932	53,700	34,163	5,068
Virginia	698,245	196,745	419,016	82,483
Washington	959,805	508,634	392,486	58,686
West Virginia	113,030	57,976	49,682	5,372
Wisconsin	912,597	436,347	392,553	83,697
Wyoming	234,616	182,487	46,551	5,577

Note: U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix.

Table 49. Expenditures for Wildlife-Related Recreation, by Participant's State of Residence: 1996

(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
U.S., total	**101,162,130**	**29,980,344**	**60,395,820**	**10,785,965**	**71,934,242**	**20,536,537**	**43,743,249**	**7,654,456**
Alabama	1,670,232	438,851	1,097,328	134,053	1,393,549	370,282	917,811	105,457
Alaska	737,244	284,516	435,145	17,583	497,530	179,533	303,880	14,118
Arizona	1,413,052	388,838	939,679	84,535	731,235	226,407	476,831	27,996
Arkansas	1,448,640	360,668	973,221	114,751	1,267,023	314,326	869,551	83,146
California	8,557,248	3,788,002	4,200,374	568,872	5,682,898	2,208,568	3,160,019	314,311
Colorado	2,184,869	741,052	1,261,312	182,505	1,504,931	420,261	1,018,760	65,911
Connecticut	1,038,773	375,565	577,339	85,869	415,298	159,432	205,043	50,823
Delaware	326,533	88,815	211,291	26,427	257,531	61,966	175,809	19,755
Florida	5,013,070	1,854,454	2,858,543	300,073	3,458,055	1,363,698	1,959,651	134,707
Georgia	3,091,948	760,322	1,750,060	581,566	2,150,869	513,226	1,430,613	207,030
Hawaii	182,447	108,350	67,591	6,505	112,073	65,537	44,274	2,263
Idaho	711,548	206,705	401,021	103,823	576,380	147,335	354,279	74,766
Illinois	4,492,021	1,484,275	2,685,837	321,910	3,177,513	800,956	2,150,951	225,607
Indiana	1,748,148	418,535	1,195,095	134,518	1,423,516	323,669	994,115	105,732
Iowa	1,018,631	331,396	568,233	119,003	762,041	234,069	433,778	94,194
Kansas	975,514	266,547	505,604	203,363	816,572	212,180	432,228	172,165
Kentucky	1,775,040	397,332	1,267,779	109,929	1,426,156	315,341	1,024,565	86,250
Louisiana	1,962,584	640,357	1,141,162	181,065	1,704,170	526,441	1,016,462	161,267
Maine	490,757	138,570	303,734	48,453	392,299	109,789	249,798	32,711
Maryland	1,629,012	656,375	792,621	180,016	856,489	326,577	468,161	61,750
Massachusetts	1,757,835	535,787	1,006,040	216,008	943,733	279,968	626,996	36,769
Michigan	5,137,989	1,240,335	3,558,907	338,748	3,730,256	846,186	2,601,276	282,795
Minnesota	2,729,101	741,772	1,509,127	478,202	2,324,072	586,188	1,303,883	434,001
Mississippi	1,616,670	329,196	927,628	359,846	1,316,715	277,717	709,705	329,293
Missouri	2,206,154	651,634	1,352,435	202,086	1,733,027	488,406	1,061,718	182,902
Montana	432,824	134,318	255,830	42,677	295,031	81,340	197,742	15,949
Nebraska	559,407	155,929	368,042	35,435	435,588	106,747	305,216	23,626
Nevada	738,453	215,801	492,691	29,961	505,388	153,136	331,103	21,149
New Hampshire	431,651	119,359	271,145	41,148	303,404	76,157	207,797	19,449
New Jersey	3,706,552	1,142,239	2,324,218	240,095	1,516,248	666,591	780,185	69,472
New Mexico	624,156	160,962	433,721	29,473	318,041	117,343	183,874	16,824
New York	4,149,293	1,107,212	2,815,039	227,043	2,802,304	815,414	1,871,974	114,916
North Carolina	2,902,109	773,594	1,729,610	398,904	2,323,802	618,358	1,367,247	338,196
North Dakota	309,954	87,712	193,092	29,151	285,589	77,743	181,215	26,632
Ohio	2,165,163	670,932	1,358,536	135,696	1,607,951	474,346	1,076,805	56,799
Oklahoma	1,392,587	471,676	858,591	62,319	1,150,206	390,511	711,400	48,295
Oregon	2,052,441	578,692	1,382,394	91,354	1,461,261	399,391	998,384	63,485
Pennsylvania	3,053,802	979,308	1,852,523	221,971	2,116,142	638,957	1,306,634	170,551
Rhode Island	330,501	86,034	232,323	12,145	194,627	57,742	129,959	6,927
South Carolina	1,590,254	464,835	922,797	202,622	1,274,357	370,356	770,250	133,751
South Dakota	408,299	126,594	248,611	33,093	350,832	110,715	219,224	20,893
Tennessee	1,941,651	608,115	1,158,969	174,567	1,557,197	453,624	975,752	127,821
Texas	6,607,315	2,253,987	3,580,113	773,217	5,414,904	1,735,740	2,975,349	703,815
Utah	607,705	199,027	362,995	45,682	459,544	145,043	290,484	24,017
Vermont	317,571	114,091	172,760	30,721	252,599	90,509	136,305	25,784
Virginia	2,215,064	783,439	1,269,890	161,736	1,436,812	542,199	803,192	91,420
Washington	2,008,190	656,498	1,245,303	106,390	1,296,688	404,717	841,123	50,849
West Virginia	534,581	150,608	341,841	42,132	452,758	128,968	287,255	36,535
Wisconsin	2,792,635	609,395	1,681,323	501,918	2,201,345	445,920	1,313,553	441,873
Wyoming	349,390	93,290	225,210	30,891	286,248	70,201	188,945	27,102

See footnotes at end of table.

Table 49. Expenditures for Wildlife-Related Recreation, by Participant's State of Residence: 1996—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
U.S., total	**29,227,888**	**9,443,808**	**16,652,571**	**3,131,510**
Alabama	276,683	68,569	179,517	28,596
Alaska	239,714	104,983	131,265	3,465
Arizona	681,817	162,431	462,848	56,538
Arkansas	181,617	46,341	103,670	31,605
California	2,874,350	1,579,434	1,040,355	254,561
Colorado	679,938	320,791	242,553	116,594
Connecticut	623,475	216,133	372,296	35,046
Delaware	69,003	26,850	35,482	6,672
Florida	1,555,015	490,757	898,892	165,366
Georgia	941,079	247,096	319,447	374,535
Hawaii	70,374	42,814	23,318	4,242
Idaho	135,168	59,370	46,742	29,056
Illinois	1,314,508	683,319	534,886	96,303
Indiana	324,632	94,865	200,980	28,787
Iowa	256,591	97,328	134,455	24,808
Kansas	158,942	54,367	73,376	31,199
Kentucky	348,884	81,991	243,214	23,679
Louisiana	258,414	113,916	124,700	19,798
Maine	98,458	28,781	53,935	15,742
Maryland	772,523	329,798	324,459	118,266
Massachusetts	814,102	255,819	379,043	179,240
Michigan	1,407,733	394,150	957,631	55,953
Minnesota	405,029	155,585	205,244	44,201
Mississippi	299,955	51,479	217,923	30,553
Missouri	473,127	163,227	290,717	19,184
Montana	137,793	52,978	58,088	26,728
Nebraska	123,819	49,183	62,826	11,810
Nevada	233,065	62,666	161,588	8,812
New Hampshire	128,247	43,201	63,347	21,699
New Jersey	2,190,304	475,648	1,544,033	170,623
New Mexico	306,116	43,620	249,847	12,650
New York	1,346,989	291,798	943,065	112,127
North Carolina	578,307	155,236	362,363	60,708
North Dakota	24,365	9,969	11,877	2,519
Ohio	557,213	196,586	281,730	78,896
Oklahoma	242,381	81,166	147,191	14,024
Oregon	591,180	179,301	384,010	27,869
Pennsylvania	937,660	340,350	545,890	51,420
Rhode Island	135,874	28,292	102,364	5,219
South Carolina	315,897	94,479	152,548	68,871
South Dakota	57,466	15,879	29,387	12,200
Tennessee	384,455	154,491	183,216	46,747
Texas	1,192,412	518,246	604,764	69,401
Utah	148,161	53,985	72,511	21,666
Vermont	64,972	23,582	36,454	4,936
Virginia	778,253	241,240	466,698	70,315
Washington	711,502	251,781	404,180	55,542
West Virginia	81,823	21,640	54,586	5,597
Wisconsin	591,290	163,476	367,770	60,045
Wyoming	63,142	23,089	36,264	3,789

Note: U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix.

Table 50. **Anglers and Hunters, by Sportsman's State of Residence: 1996**

(Population 16 years old and older. Numbers in thousands)

Sportsman's state of residence	Population	Fished or hunted		Fished only		Hunted only		Fished and hunted	
		Number	Percent of population	Number	Percent of population	Number	Percent of population	Number	Percent of population
U.S., total	**201,472**	**39,694**	**20**	**25,719**	**13**	**4,448**	**2**	**9,527**	**5**
Alabama	3,306	788	24	523	16	91	3	175	5
Alaska	432	187	43	121	28	*9	*2	57	13
Arizona	3,234	497	15	346	11	53	2	97	3
Arkansas	1,914	596	31	267	14	102	5	227	12
California	23,777	2,938	12	2,360	10	*217	*1	361	2
Colorado	2,929	732	25	484	17	*61	*2	187	6
Connecticut	2,514	375	15	308	12	*12	*(Z)	56	2
Delaware	560	118	21	86	15	*9	*2	23	4
Florida	11,239	1,988	18	1,753	16	...	...	*195	*2
Georgia	5,544	1,093	20	728	13	*111	*2	254	5
Hawaii	900	136	15	111	12	...	...	21	2
Idaho	879	336	38	153	17	55	6	128	15
Illinois	8,979	1,761	20	1,318	15	170	2	273	3
Indiana	4,456	972	22	625	14	118	3	229	5
Iowa	2,174	607	28	306	14	95	4	206	9
Kansas	1,916	437	23	220	11	66	3	151	8
Kentucky	3,001	779	26	425	14	99	3	256	9
Louisiana	3,227	927	29	561	17	*67	*2	299	9
Maine	966	266	28	118	12	59	6	89	9
Maryland	3,912	629	16	504	13	60	2	65	2
Massachusetts	4,726	622	13	534	11	*21	*(Z)	67	1
Michigan	7,267	1,748	24	876	12	263	4	609	8
Minnesota	3,473	1,212	35	639	18	*134	*4	439	13
Mississippi	2,032	519	26	219	11	88	4	212	10
Missouri	4,056	1,081	27	581	14	146	4	354	9
Montana	672	222	33	79	12	59	9	84	12
Nebraska	1,232	289	23	152	12	50	4	87	7
Nevada	1,214	223	18	163	13	*15	*1	45	4
New Hampshire	887	181	20	113	13	23	3	46	5
New Jersey	6,129	821	13	727	12	*32	*1	*61	*1
New Mexico	1,276	281	22	189	15	47	4	46	4
New York	13,944	1,708	12	1,100	8	215	2	393	3
North Carolina	5,605	1,217	22	865	15	*95	*2	257	5
North Dakota	483	148	31	67	14	34	7	47	10
Ohio	8,522	1,280	15	827	10	172	2	281	3
Oklahoma	2,484	798	32	510	21	*43	*2	245	10
Oregon	2,472	619	25	344	14	94	4	181	7
Pennsylvania	9,298	1,664	18	912	10	318	3	434	5
Rhode Island	759	111	15	89	12	*7	*1	15	2
South Carolina	2,842	718	25	475	17	44	2	199	7
South Dakota	541	204	38	94	17	36	7	74	14
Tennessee	4,120	820	20	440	11	116	3	265	6
Texas	14,186	2,772	20	1,943	14	*264	*2	565	4
Utah	1,396	331	24	216	15	35	2	80	6
Vermont	455	116	26	46	10	29	6	41	9
Virginia	5,168	1,090	21	690	13	139	3	260	5
Washington	4,207	1,018	24	759	18	*73	*2	186	4
West Virginia	1,467	374	26	118	8	106	7	151	10
Wisconsin	3,897	1,151	30	554	14	183	5	415	11
Wyoming	366	139	38	69	19	25	7	45	12

* Estimate based on a small sample size. ... Sample size too small to report data reliably. (Z) Less than .5 percent.

Note: U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix.

Table 51. **Anglers and Hunters, by State Where Fishing or Hunting Took Place: 1996**

(Population 16 years old and older. Numbers in thousands)

State where fishing or hunting took place	Anglers						Hunters					
	Total anglers, residents and nonresidents		Residents		Nonresidents		Total hunters, residents and nonresidents		Residents		Nonresidents	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
U.S., total	**35,246**	**100**	**32,222**	**91**	**9,040**	**26**	**13,975**	**100**	**13321**	**95**	**1999**	**14**
Alabama	984	100	661	67	323	33	347	100	253	73	94	27
Alaska	463	100	176	38	287	62	73	100	65	89	...	...
Arizona	512	100	399	78	114	22	167	100	149	89	*18	*11
Arkansas	764	100	486	64	278	36	379	100	329	87	*50	*13
California	2,722	100	2,509	92	212	8	515	100	505	98	*10	*2
Colorado	830	100	606	73	224	27	454	100	237	52	217	48
Connecticut	419	100	316	76	102	24	62	100	46	74	*16	*26
Delaware	196	100	94	48	102	52	40	100	27	67	...	...
Florida	2,864	100	1,878	66	986	34	*184	*100	*170	*92	...	...
Georgia	1,087	100	853	78	234	22	403	100	353	88	*50	*12
Hawaii	260	100	130	50	130	50	23	100	23	100	...	...
Idaho	483	100	275	57	208	43	248	100	183	74	*65	*26
Illinois	1,351	100	1,240	92	111	8	432	100	393	91	*39	*9
Indiana	992	100	807	81	185	19	357	100	338	94	...	...
Iowa	497	100	462	93	35	7	368	100	297	81	*72	*19
Kansas	364	100	324	89	40	11	275	100	212	77	*63	*23
Kentucky	817	100	636	78	181	22	377	100	348	92	*30	*8
Louisiana	1,031	100	810	79	221	21	352	100	323	92	...	...
Maine	356	100	205	58	151	42	195	100	148	76	48	24
Maryland	715	100	504	70	211	30	160	100	110	69	*50	*31
Massachusetts	704	100	531	75	173	25	84	100	80	95	*5	*5
Michigan	1,824	100	1,455	80	368	20	934	100	865	93	*70	*7
Minnesota	1,538	100	1,022	66	516	34	588	100	544	92	*45	*8
Mississippi	579	100	416	72	163	28	433	100	291	67	141	33
Missouri	1,209	100	900	74	309	26	552	100	471	85	81	15
Montana	335	100	158	47	178	53	195	100	141	72	54	28
Nebraska	269	100	204	76	65	24	176	100	131	74	*45	*26
Nevada	224	100	164	73	59	27	52	100	46	89	...	...
New Hampshire	267	100	133	50	134	50	84	100	66	78	*18	*22
New Jersey	1,059	100	699	66	360	34	95	100	84	88	...	...
New Mexico	321	100	198	62	123	38	97	100	88	91	...	...
New York	1,706	100	1,362	80	344	20	642	100	608	95	*34	*5
North Carolina	1,557	100	1,070	69	487	31	370	100	313	84	*57	*16
North Dakota	97	100	75	77	22	23	88	100	77	88	...	...
Ohio	1,231	100	1,031	84	201	16	479	100	443	92	*36	*8
Oklahoma	924	100	701	76	223	24	297	100	284	96	...	...
Oregon	658	100	501	76	157	24	293	100	272	93	...	...
Pennsylvania	1,355	100	1,094	81	261	19	879	100	752	86	127	14
Rhode Island	163	100	94	57	69	43	26	100	19	73	...	...
South Carolina	986	100	638	65	349	35	300	100	236	79	*64	*21
South Dakota	227	100	155	68	72	32	186	100	109	58	77	42
Tennessee	860	100	617	72	243	28	408	100	362	89	*46	*11
Texas	2,613	100	2,378	91	235	9	911	100	829	91	*82	*9
Utah	406	100	265	65	141	35	143	100	113	79	*30	*21
Vermont	188	100	78	41	111	59	106	100	68	64	39	36
Virginia	1,029	100	778	76	251	24	392	100	363	93	*29	*7
Washington	1,005	100	834	83	172	17	271	100	256	94	...	...
West Virginia	336	100	253	75	82	25	369	100	252	68	116	32
Wisconsin	1,474	100	936	64	537	36	665	100	586	88	*79	*12
Wyoming	413	100	112	27	301	73	136	100	67	49	69	51

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

Note: For the U.S. row, detail does not add to total because of multiple responses. U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix.

Table 52. **Hunters, by Type of Hunting and State Where Hunting Took Place: 1996**

(Population 16 years old and older. Numbers in thousands)

State where hunting took place	Total, all hunting		Big game		Small game		Migratory bird		Other animals	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
U.S., total	**13,975**	**100**	**11,288**	**81**	**6,945**	**50**	**3,073**	**22**	**1521**	**11**
Alabama	347	100	279	80	97	28	*83	*24	*32	*9
Alaska	73	100	64	87	23	32	17	23	*10	*14
Arizona	167	100	100	60	79	47	75	45	...	...
Arkansas	379	100	298	79	198	52	107	28	...	...
California	515	100	294	57	292	57	247	48	...	...
Colorado	454	100	411	91	99	22	*62	*14	*29	*6
Connecticut	62	100	43	69	32	52	*7	*11	...	...
Delaware	40	100	28	70	18	44	22	54	...	...
Florida	*184	*100	*159	*87	*54	*29	...	...	...	...
Georgia	403	100	322	80	*126	*31	128	32	...	...
Hawaii	23	100	20	86	*9	*37	...	...	...	...
Idaho	248	100	215	86	84	34	*38	*15	*42	*17
Illinois	432	100	264	61	292	68	*98	*23	*50	*12
Indiana	357	100	262	73	185	52	*27	*8	*43	*12
Iowa	368	100	203	55	290	79	*36	*10	57	15
Kansas	275	100	114	41	222	81	*63	*23	*22	*8
Kentucky	377	100	282	75	226	60	77	20	*47	*12
Louisiana	352	100	228	65	245	70	141	40	...	...
Maine	195	100	172	88	76	39	*25	*13	*13	*7
Maryland	160	100	111	69	*45	*28	*47	*29	...	...
Massachusetts	84	100	76	89	*41	*48	...	...	...	...
Michigan	934	100	855	91	461	49	*114	*12	...	...
Minnesota	588	100	486	83	293	50	151	26	...	...
Mississippi	433	100	352	81	205	47	120	28	*31	*7
Missouri	552	100	457	83	300	54	*62	*11	*48	*9
Montana	195	100	161	83	53	27	*31	*16	...	...
Nebraska	176	100	77	44	138	78	51	29	*24	*14
Nevada	52	100	28	54	26	50	*17	*33	...	...
New Hampshire	84	100	66	78	38	45	*11	*13	...	...
New Jersey	95	100	75	79	*42	*44	*23	*25	.	.
New Mexico	97	100	73	75	*29	*30	*18	*18	...	...
New York	642	100	596	93	260	41	*59	*9	*83	*13
North Carolina	370	100	266	72	235	63	*117	*31	...	...
North Dakota	88	100	59	68	43	50	22	25	*9	*10
Ohio	479	100	322	67	302	63	*49	*10	*109	*23
Oklahoma	297	100	226	76	156	52	*73	*25	...	...
Oregon	293	100	254	87	90	31	*57	*20	...	...
Pennsylvania	879	100	816	93	366	42	*79	*9	171	19
Rhode Island	26	100	20	75	*11	*41	*4	*15	...	...
South Carolina	300	100	245	82	106	35	90	30	...	...
South Dakota	186	100	79	42	144	77	46	25	*15	*8
Tennessee	408	100	277	68	208	51	*71	*17	*53	*13
Texas	911	100	775	85	258	28	369	40	*120	*13
Utah	143	100	118	83	52	36	*26	*18	...	...
Vermont	106	100	91	85	43	40	*15	*14	*8	*8
Virginia	392	100	332	85	148	38	*48	*12	*38	*10
Washington	271	100	233	86	119	44	*65	*24	...	...
West Virginia	369	100	352	96	193	52	...	...	*46	*13
Wisconsin	665	100	584	88	298	45	*98	*15	*54	*8
Wyoming	136	100	109	80	41	30	*22	*16	*10	*7

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

Note: Detail does not add to total because of multiple responses. U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix.

Table 53. **Days of Hunting, by State Where Hunting Took Place and Hunter's State of Residence: 1996**

(Population 16 years old and older. Numbers in thousands)

State	Days of hunting in state						Days of hunting by state residents					
	Total days, residents and nonresidents		Days by state residents		Days by nonresidents		Total days, in state of residence and other states		Days in state of residence		Days in other states	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
U.S., total	**256,676**	**100**	**239,728**	**93**	**18,517**	**7**	**256,676**	**100**	**239,728**	**93**	**18,517**	**7**
Alabama	7,181	100	6,477	90	*704	*10	6,880	100	6,477	94	*403	*6
Alaska	1,067	100	991	93	...	...	1,031	100	991	96	*40	*4
Arizona	1,630	100	1,555	95	...	...	1,611	100	1,555	97	...	...
Arkansas	8,381	100	7,841	94	*540	*6	8,617	100	7,841	91	*776	*9
California	7,452	100	7,384	99	...	...	8,500	100	7,384	87	*1,116	*13
Colorado	4,287	100	2,778	65	1,509	35	3,373	100	2,778	82	*595	*18
Connecticut	854	100	699	82	*155	*18	884	100	699	79	185	21
Delaware	716	100	578	81	...	...	680	100	578	85	102	15
Florida	*4,446	*100	*4,334	*97	...	...	5,519	100	*4,334	*79	*1,185	*21
Georgia	6,993	100	6,504	93	*489	*7	6,862	100	6,504	95	*358	*5
Hawaii	258	100	258	100	...	...	275	100	258	94	...	...
Idaho	3,301	100	2,687	81	*614	*19	2,736	100	2,687	98	...	...
Illinois	6,488	100	6,250	96	*239	*4	7,176	100	6,250	87	*926	*13
Indiana	6,204	100	6,013	97	...	...	6,248	100	6,013	96	*235	*4
Iowa	5,182	100	4,768	92	*414	*8	5,063	100	4,768	94	*295	*6
Kansas	3,954	100	3,656	92	*298	*8	3,786	100	3,656	97	*129	*3
Kentucky	5,454	100	5,337	98	*117	*2	5,619	100	5,337	95	*282	*5
Louisiana	6,756	100	6,623	98	...	...	7,833	100	6,623	85	1,210	15
Maine	3,144	100	2,677	85	467	15	2,694	100	2,677	99	...	...
Maryland	1,741	100	1,456	84	*285	*16	1,744	100	1,456	83	*288	*17
Massachusetts	1,261	100	1,244	99	...	...	1,775	100	1,244	70	*530	*30
Michigan	18,408	100	18,055	98	*353	*2	18,281	100	18,055	99	...	...
Minnesota	6,984	100	6,687	96	*297	*4	7,192	100	6,687	93	*505	*7
Mississippi	8,327	100	6,351	76	1,976	24	6,726	100	6,351	94	*374	*6
Missouri	8,508	100	7,733	91	*775	*9	8,227	100	7,733	94	*495	*6
Montana	1,807	100	1,483	82	325	18	1,497	100	1,483	99	...	...
Nebraska	2,264	100	2,089	92	*175	*8	2,234	100	2,089	93	*145	*7
Nevada	649	100	615	95	...	...	784	100	615	78	170	22
New Hampshire	1,204	100	1,108	92	*96	*8	1,240	100	1,108	89	*132	*11
New Jersey	2,242	100	2,195	98	...	...	2,390	100	2,195	92	*195	*8
New Mexico	632	100	598	95	...	...	681	100	598	88	*83	*12
New York	11,552	100	11,319	98	*233	*2	11,770	100	11,319	96	*451	*4
North Carolina	7,834	100	7,503	96	*332	*4	8,477	100	7,503	89	*974	*11
North Dakota	1,033	100	1,002	97	...	...	1,127	100	1,002	89	*125	*11
Ohio	7,933	100	7,365	93	*568	*7	7,805	100	7,365	94	*441	*6
Oklahoma	5,605	100	5,522	99	...	...	5,698	100	5,522	97	*177	*3
Oregon	4,281	100	4,158	97	...	...	4,354	100	4,158	95	...	...
Pennsylvania	13,173	100	12,204	93	969	7	12,806	100	12,204	95	*602	*5
Rhode Island	502	100	340	68	...	32	450	100	340	76	110	24
South Carolina	6,921	100	6,268	91	*653	*9	6,517	100	6,268	96	*250	*4
South Dakota	2,280	100	1,833	80	447	20	1,895	100	1,833	97	*63	*3
Tennessee	9,057	100	8,541	94	*516	*6	9,972	100	8,541	86	*1,431	*14
Texas	17,050	100	16,294	96	*756	*4	16,522	100	16,294	99	...	...
Utah	1,660	100	1,455	88	*205	*12	1,564	100	1,455	93	*109	*7
Vermont	1,642	100	1,405	86	237	14	1,594	100	1,405	88	189	12
Virginia	7,470	100	7,015	94	*456	*6	7,501	100	7,015	94	*486	*6
Washington	4,732	100	4,619	98	...	...	4,828	100	4,619	96	...	...
West Virginia	6,262	100	5,415	86	847	14	5,647	100	5,415	96	*233	*4
Wisconsin	10,042	100	9,565	95	*477	*5	10,342	100	9,565	92	*777	*8
Wyoming	1,442	100	885	61	557	39	956	100	885	93	*71	*7

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

Note: U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix.

Table 54. **Days of Hunting, by Type of Hunting and State Where Hunting Took Place: 1996**

(Population 16 years old and older. Numbers in thousands)

State where hunting took place	Total, all hunting		Big game		Small game		Migratory bird		Other animals	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
U.S., total	**256,676**	**100**	**153,784**	**60**	**75,117**	**29**	**26,501**	**10**	**24,522**	**10**
Alabama	7,181	100	5,276	73	776	11	*470	*7	*735	*10
Alaska	1,067	100	748	70	203	19	168	16	*125	*12
Arizona	1,630	100	681	42	689	42	362	22	...	...
Arkansas	8,381	100	4,631	55	1,699	20	1,362	16	...	...
California	7,452	100	2,773	37	2,775	37	2,742	37	...	...
Colorado	4,287	100	3,004	70	934	22	*305	*7	*322	*8
Connecticut	854	100	607	71	247	29	*62	*7	...	...
Delaware	716	100	407	57	188	26	200	28	...	...
Florida	*4,446	*100	*4,189	*94	*555	*12	...	...	...	...
Georgia	6,993	100	5,323	76	*1,371	*20	500	7	...	...
Hawaii	258	100	193	75	*86	*33	...	...	...	...
Idaho	3,301	100	2,085	63	927	28	*472	*14	*407	*12
Illinois	6,488	100	3,628	56	2,528	39	*745	*11	*148	*2
Indiana	6,204	100	3,602	58	1,900	31	*163	*3	*681	*11
Iowa	5,182	100	1,764	34	2,938	57	*227	*4	740	14
Kansas	3,954	100	1,184	30	2,250	57	*799	*20	*449	*11
Kentucky	5,454	100	2,380	44	2,259	41	679	12	*580	*11
Louisiana	6,756	100	3,348	50	2,377	35	869	13	...	...
Maine	3,144	100	2,529	80	1,125	36	*122	*4	*98	*3
Maryland	1,741	100	1,321	76	*285	*16	*209	*12	...	...
Massachusetts	1,261	100	702	56	*519	*41	...	...	...	...
Michigan	18,408	100	11,227	61	5,727	31	*1,585	*9	...	...
Minnesota	6,984	100	2,883	41	2,519	36	1,637	23	...	...
Mississippi	8,327	100	6,210	75	1,598	19	836	10	*452	*5
Missouri	8,508	100	5,127	60	2,512	30	*652	*8	*914	*11
Montana	1,807	100	1,235	68	501	28	*232	*13	...	...
Nebraska	2,264	100	703	31	1,267	56	398	18	*181	*8
Nevada	649	100	172	26	238	37	*158	*24	...	...
New Hampshire	1,204	100	783	65	470	39	*69	*6	...	...
New Jersey	2,242	100	1,169	52	*417	*19	*195	*9	...	...
New Mexico	632	100	387	61	*167	*26	*87	*14	...	...
New York	11,552	100	8,166	71	2,812	24	*412	*4	*990	*9
North Carolina	7,834	100	4,286	55	3,168	40	*896	*11	...	...
North Dakota	1,033	100	390	38	427	41	163	16	*92	*9
Ohio	7,933	100	3,927	50	3,627	46	*335	*4	*1,258	*16
Oklahoma	5,605	100	2,877	51	1,748	31	*334	*6	...	...
Oregon	4,281	100	2,781	65	944	22	*616	*14	...	...
Pennsylvania	13,173	100	8,973	68	3,032	23	*502	*4	1,665	13
Rhode Island	502	100	424	85	*82	*16	*25	*5	...	...
South Carolina	6,921	100	4,750	69	1,348	19	825	12	...	...
South Dakota	2,280	100	684	30	1,153	51	430	19	*147	*6
Tennessee	9,057	100	4,340	48	2,603	29	*552	*6	*1,955	*22
Texas	17,050	100	11,122	65	3,366	20	2,074	12	*3,652	*21
Utah	1,660	100	830	50	457	28	*333	*20	...	...
Vermont	1,642	100	1,158	71	409	25	*114	*7	*75	*5
Virginia	7,470	100	5,132	69	1,511	20	*220	*3	*278	*4
Washington	4,732	100	2,829	60	1,212	26	*797	*17	...	...
West Virginia	6,262	100	3,933	63	1,713	27	...	...	*1,176	*19
Wisconsin	10,042	100	5,804	58	3,209	32	*1,057	*11	*676	*7
Wyoming	1,442	100	1,105	77	247	17	*113	*8	*236	*16

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

Note: Detail does not add to total because of multiple responses. U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix.

Table 55. Expenditures for Hunting, by State Where Spending Took Place: 1996

(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[1]
		Total trip-related	Food and lodging	Transportation	Other trip costs	Total equipment	Hunting equipment	Auxiliary equipment	Special equipment	
U.S., total	**20,613,412**	**5,155,319**	**2,512,121**	**1,779,560**	**863,638**	**11,272,769**	**5,519,137**	**1,233,118**	**4,520,514**	**4,185,324**
Alabama	610,308	126,894	54,743	35,630	36,521	389,667	126,650	23,543	*239,473	93,748
Alaska	198,436	95,695	19,306	29,540	46,849	94,647	25,115	7,655	*61,877	8,094
Arizona	220,438	66,092	35,803	24,759	5,530	139,200	71,002	16,367	...	15,146
Arkansas	338,855	92,102	42,643	37,523	11,935	214,487	141,961	39,879	...	32,266
California	854,958	277,060	103,944	87,431	85,684	471,380	309,588	62,824	...	106,518
Colorado	659,711	231,227	113,124	72,209	45,894	328,850	165,047	27,528	...	99,634
Connecticut	42,187	8,443	3,988	3,736	*720	29,895	22,093	6,671	...	3,849
Delaware	28,499	8,282	4,748	2,425	1,109	16,910	9,899	2,566	...	3,307
Florida	341,311	120,920	51,082	16,767	*53,071	161,271	125,739	*32,415	...	59,120
Georgia	843,658	106,844	52,491	39,111	15,241	606,724	195,836	37,685	...	130,090
Hawaii	16,436	7,997	4,003	3,426	*568	8,007	6,942	*1,064	...	433
Idaho	246,139	78,778	37,159	33,001	8,618	128,622	65,027	14,884	...	38,739
Illinois	469,850	110,723	56,550	34,384	19,789	238,762	130,726	49,598	...	120,366
Indiana	272,693	47,083	22,888	18,708	5,488	196,657	98,107	19,267	...	28,952
Iowa	212,851	75,555	40,687	32,466	2,402	86,323	65,895	15,148	...	50,973
Kansas	312,868	88,803	47,372	39,314	*2,117	106,389	84,889	10,186	...	117,677
Kentucky	342,868	70,280	40,964	23,457	5,860	206,881	162,690	22,087	...	65,707
Louisiana	577,091	131,024	49,059	44,005	37,959	348,490	139,773	15,095	*193,622	97,576
Maine	284,172	85,621	41,318	21,713	22,590	169,201	31,539	16,801	...	29,350
Maryland	78,898	30,246	17,628	9,292	3,327	37,972	25,049	12,923	...	10,681
Massachusetts	106,001	19,678	10,299	9,284	*94	79,141	67,369	7,980	...	7,182
Michigan	1,197,274	303,460	172,994	96,987	33,478	733,338	317,734	73,306	...	160,476
Minnesota	529,765	132,840	73,807	50,292	8,741	325,863	177,172	39,745	...	71,062
Mississippi	576,290	182,679	88,346	65,248	29,085	271,749	105,615	33,387	*132,747	121,861
Missouri	683,161	151,817	82,655	52,863	16,299	390,855	220,520	47,897	...	140,490
Montana	215,878	99,605	44,043	36,244	19,318	82,582	35,276	7,804	...	33,692
Nebraska	189,093	73,133	26,779	43,283	3,071	102,521	65,103	36,957	...	13,439
Nevada	94,915	20,762	10,941	8,231	1,590	67,635	21,048	7,974	...	6,518
New Hampshire	65,816	14,969	9,668	3,810	1,491	42,027	26,638	6,551	...	8,819
New Jersey	163,771	43,853	23,785	12,032	*8,036	104,712	32,757	16,700	...	15,205
New Mexico	85,756	29,997	12,384	11,918	5,695	50,595	18,937	6,026	...	5,164
New York	762,537	220,142	125,788	76,017	18,337	475,186	200,006	53,509	...	67,209
North Carolina	463,096	103,311	45,331	44,696	13,285	324,172	155,218	38,881	...	35,613
North Dakota	57,741	23,843	11,785	11,661	397	28,214	18,754	5,751	...	5,684
Ohio	514,681	82,572	44,602	33,802	*4,168	405,478	211,580	31,677	...	26,631
Oklahoma	426,803	78,951	41,381	33,149	4,421	329,078	142,267	15,851	...	18,774
Oregon	614,335	134,002	53,478	41,775	38,749	428,320	83,018	22,549	*322,752	52,013
Pennsylvania	691,546	186,019	99,064	80,853	6,102	431,176	264,002	56,422	...	74,351
Rhode Island	20,728	6,625	1,810	1,998	*2,818	12,588	8,448	1,702	...	1,515
South Carolina	349,675	115,196	57,440	30,565	27,191	187,943	149,685	25,211	...	46,536
South Dakota	176,212	107,667	60,173	36,781	10,714	43,389	34,395	6,666	...	25,156
Tennessee	632,260	115,779	57,474	43,991	14,314	414,269	164,009	35,903	...	102,213
Texas	1,413,306	499,257	245,890	126,139	127,227	645,301	346,919	75,713	...	268,748
Utah	132,248	40,326	16,762	14,020	9,544	75,237	46,978	12,989	...	16,685
Vermont	116,405	28,396	19,367	7,553	1,475	48,962	23,436	5,234	...	39,047
Virginia	518,891	97,526	42,095	38,115	17,317	380,710	155,259	23,638	*201,813	40,655
Washington	327,374	92,222	42,919	43,981	5,323	216,354	109,391	25,260	...	18,798
West Virginia	239,662	68,195	36,137	29,210	2,849	136,326	62,780	11,570	...	35,141
Wisconsin	855,289	129,961	71,901	50,991	7,068	337,535	191,733	50,178	*95,624	387,793
Wyoming	148,830	92,869	43,523	35,173	14,173	30,527	21,696	8,831	...	25,434

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

[1] 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 the statistical reliability appendix.

Table 56. **Freshwater (Except Great Lakes) Anglers and Days of Fishing, by State Where Fishing Took Place: 1996**

(Population 16 years old and older. Numbers in thousands)

State where fishing took place	Anglers						Days of fishing					
	Total anglers, residents and nonresidents		Residents		Nonresidents		Total days, residents and nonresidents		Days by state residents		Days by nonresidents	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
U.S., total	**28,921**	**100**	**26,646**	**92**	**5,995**	**21**	**485,474**	**100**	**438,692**	**90**	**46,781**	**10**
Alabama	843	100	624	74	219	26	14,256	100	13,184	92	1072	8
Alaska	313	100	138	44	175	56	3,602	100	2,093	58	1,509	42
Arizona	483	100	385	80	98	20	4,689	100	4,031	86	658	14
Arkansas	739	100	467	63	272	37	9,661	100	7,737	80	1,924	20
California	2,175	100	2,053	94	122	6	28,987	100	28,232	97	755	3
Colorado	787	100	583	74	204	26	8,232	100	6,791	82	1,442	18
Connecticut	318	100	247	78	70	22	3,880	100	3,572	92	308	8
Delaware	66	100	46	70	...	...	980	100	729	74	...	...
Florida	1,137	100	942	83	196	17	18,409	100	16,935	92	1,474	8
Georgia	967	100	805	83	163	17	12,857	100	11,591	90	1,266	10
Hawaii	22	100	22	100	...	...	189	100	189	100	...	...
Idaho	474	100	271	57	203	43	4,411	100	3,344	76	1,067	24
Illinois	1,123	100	1,050	93	*74	*7	17,089	100	16,832	98	*257	*2
Indiana	863	100	711	82	151	18	13,465	100	12,655	94	811	6
Iowa	477	100	448	94	*29	*6	7,062	100	6,924	98	*138	*2
Kansas	341	100	305	89	*36	*11	6,355	100	6,174	97	*181	*3
Kentucky	772	100	626	81	146	19	9,631	100	8,876	92	755	8
Louisiana	815	100	697	86	*118	*14	18,493	100	18,073	98	*420	*2
Maine	290	100	180	62	109	38	4,107	100	3,275	80	832	20
Maryland	319	100	274	86	44	14	4,290	100	3,848	90	442	10
Massachusetts	377	100	311	82	66	18	6,746	100	6,365	94	381	6
Michigan	1,311	100	1,080	82	230	18	19,456	100	18,080	93	1,376	7
Minnesota	1,421	100	966	68	455	32	25,897	100	19,680	76	6,217	24
Mississippi	487	100	370	76	117	24	8,213	100	6,616	81	1,597	19
Missouri	1,138	100	878	77	260	23	14,682	100	12,736	87	1,946	13
Montana	329	100	156	48	173	52	2,617	100	1,771	68	846	32
Nebraska	247	100	187	76	*60	*24	3,004	100	2,649	88	*355	*12
Nevada	219	100	160	73	*58	*27	1,976	100	1,772	90	*204	*10
New Hampshire	237	100	119	50	118	50	3,139	100	2,368	75	771	25
New Jersey	428	100	359	84	*69	*16	6,021	100	5,610	93	*411	*7
New Mexico	312	100	194	62	*117	*38	2,836	100	2,303	81	*533	*19
New York	1,111	100	901	81	209	19	17,412	100	15,569	89	1,843	11
North Carolina	1,009	100	852	84	156	16	15,831	100	14,700	93	1,132	7
North Dakota	90	100	73	82	...	...	1,321	100	1,279	97	...	...
Ohio	908	100	812	89	*96	*11	12,878	100	12,341	96	*537	*4
Oklahoma	891	100	674	76	217	24	14,674	100	13,129	89	1,545	11
Oregon	589	100	465	79	*124	*21	7,117	100	6,745	95	*373	*5
Pennsylvania	1,277	100	1,044	82	233	18	18,635	100	17,325	93	1,311	7
Rhode Island	72	100	60	84	...	...	1,347	100	1,240	92	...	...
South Carolina	716	100	562	78	154	22	11,341	100	10,465	92	876	8
South Dakota	213	100	151	71	63	29	2,748	100	2,300	84	448	16
Tennessee	767	100	577	75	189	25	11,317	100	10,330	91	987	9
Texas	2,147	100	2,004	93	143	7	37,575	100	36,996	98	579	2
Utah	397	100	257	65	140	35	3,936	100	2,843	72	1,093	28
Vermont	176	100	74	42	102	58	1,951	100	1,543	79	408	21
Virginia	761	100	632	83	130	17	9,282	100	8,746	94	536	6
Washington	768	100	646	84	122	16	10,975	100	10,435	95	541	5
West Virginia	323	100	250	77	*73	*23	5,040	100	4,649	92	*391	*8
Wisconsin	1,232	100	846	69	386	31	14,398	100	11,760	82	2,638	18
Wyoming	379	100	108	29	270	71	2,415	100	1,267	52	1,148	48

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

Note: For the U.S. row, detail does not add to total because of multiple responses. U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix.

Table 57. **Great Lakes Anglers and Days of Great Lakes Fishing, by State Where Fishing Took Place: 1996**

(Population 16 years old and older. Numbers in thousands)

State where fishing took place	Anglers						Days of fishing					
	Total anglers, residents and nonresidents		Residents		Nonresidents		Total days, residents and nonresidents		Days by state residents		Days by nonresidents	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
U.S., total	**2,039**	**100**	**1,666**	**82**	**479**	**23**	**20,095**	**100**	**18,346**	**91**	**1,749**	**9**
Illinois	260	100	240	93	...	...	1,542	100	1,476	96	...	...
Indiana	*60	*100	*46	*77	...	...	*787	*100	*769	*98	...	...
Michigan	674	100	518	77	156	23	6,084	100	5,703	94	381	6
Minnesota	*48	*100	...	...	...	...	*163	*100	...	...	...	...
New York	415	100	324	78	91	22	6,419	100	5,860	91	560	9
Ohio	453	100	347	77	*106	*23	3,539	100	3,150	89	*390	*11
Pennsylvania	*84	*100	*65	*77	...	...	*709	*100	*666	*94	...	...
Wisconsin	181	100	*95	*53	*85	*47	850	100	*593	*70	*257	*30

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

Note: For the U.S. row, detail does not add to total because of multiple responses. U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix.

Table 58. **Saltwater Anglers and Days of Saltwater Fishing, by State Where Fishing Took Place: 1996**

(Population 16 years old and older. Numbers in thousands)

State where fishing took place	Anglers						Days of fishing					
	Total anglers, residents and nonresidents		Residents		Nonresidents		Total days, residents and nonresidents		Days by state residents		Days by nonresidents	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
U.S., total	**9,438**	**100**	**7,161**	**76**	**2,946**	**31**	**103,034**	**100**	**86,654**	**84**	**16,380**	**16**
Alabama	160	100	65	41	*95	*59	1,561	100	978	63	*583	*37
Alaska	283	100	111	39	172	61	1,949	100	1,074	55	875	45
California	1,049	100	937	89	112	11	7,302	100	6,992	96	310	4
Connecticut	178	100	145	81	*33	*19	1,747	100	1,521	87	*226	*13
Delaware	148	100	65	44	*82	*56	1,612	100	986	61	*626	*39
Florida	2,255	100	1,436	64	819	36	25,140	100	21,147	84	3,993	16
Georgia	*137	*100	*80	*58	*57	*42	*993	*100	*787	*79	*206	*21
Hawaii	244	100	125	51	*119	*49	2,901	100	2,463	85	*438	*15
Louisiana	346	100	255	74	*91	*26	2,083	100	1,849	89	*234	*11
Maine	106	100	57	54	49	46	989	100	749	76	240	24
Maryland	498	100	331	66	167	34	5,264	100	4,057	77	1,207	23
Massachusetts	429	100	318	74	111	26	3,953	100	3,376	85	578	15
Mississippi	121	100	91	76	...	...	1,443	100	1,295	90	...	...
New Hampshire	46	100	31	68	...	...	314	100	264	84	...	...
New Jersey	841	100	533	63	309	37	10,366	100	8,720	84	1,646	16
New York	476	100	416	87	60	13	5,151	100	4,530	88	621	12
North Carolina	770	100	424	55	346	45	5,677	100	3,672	65	2,005	35
Oregon	162	100	129	80	*33	*20	870	100	818	94	*53	*6
Rhode Island	108	100	52	48	56	52	947	100	640	68	307	32
South Carolina	382	100	189	50	192	50	2,451	100	1,726	70	725	30
Texas	862	100	807	94	*54	*6	13,030	100	12,611	97	*419	*3
Virginia	377	100	247	66	130	34	5,156	100	4,627	90	529	10
Washington	378	100	316	84	*62	*16	2,134	100	1,773	83	*361	*17

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

Note: For the U.S. row, detail does not add to total because of multiple responses. U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix.

Table 59. **Days of Fishing, by State Where Fishing Took Place and Angler's State of Residence: 1996**

(Population 16 years old and older. Numbers in thousands)

State	Days of fishing in state						Days of fishing by state residents					
	Total days, residents and nonresidents		Days by state residents		Days by nonresidents		Total days, in state of residence and other states		Days in state of residence		Days in other states	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
U.S., total	**625,893**	**100**	**558,394**	**89**	**69,863**	**11**	**625,893**	**100**	**558,394**	**89**	**69,863**	**11**
Alabama	16,533	100	14,541	88	1,992	12	15,337	100	14,541	95	797	5
Alaska	5,331	100	3,185	60	2,146	40	3,218	100	3,185	99	*33	*1
Arizona	4,689	100	4,031	86	658	14	4,749	100	4,031	85	717	15
Arkansas	9,661	100	7,737	80	1,924	20	8,018	100	7,737	97	*281	*3
California	36,914	100	35,815	97	1,099	3	39,158	100	35,815	91	3,344	9
Colorado	8,232	100	6,791	82	1,442	18	7,856	100	6,791	86	1065	14
Connecticut	5,483	100	4,940	90	542	10	6,081	100	4,940	81	1,141	19
Delaware	2,509	100	1,779	71	730	29	2,327	100	1,779	76	548	24
Florida	45,465	100	39,790	88	5,675	12	41,489	100	39,790	96	1,699	4
Georgia	15,171	100	13,466	89	1,705	11	16,139	100	13,466	83	2,673	17
Hawaii	3,055	100	2,595	85	*460	*15	2,667	100	2,595	97	*71	*3
Idaho	4,411	100	3,344	76	1,067	24	3,724	100	3,344	90	380	10
Illinois	20,459	100	19,996	98	463	2	26,747	100	19,996	75	6,751	25
Indiana	15,811	100	14,536	92	1,274	8	16,405	100	14,536	89	1,869	11
Iowa	7,062	100	6,924	98	*138	*2	8,676	100	6,924	80	1,752	20
Kansas	6,355	100	6,174	97	*181	*3	7,104	100	6,174	87	930	13
Kentucky	9,631	100	8,876	92	755	8	10,306	100	8,876	86	1,430	14
Louisiana	20,987	100	20,188	96	799	4	20,934	100	20,188	96	745	4
Maine	5,114	100	3,962	77	1,152	23	4,039	100	3,962	98	*77	*2
Maryland	10,195	100	8,420	83	1,775	17	10,014	100	8,420	84	1,594	16
Massachusetts	10,134	100	9,145	90	989	10	11,024	100	9,145	83	1,879	17
Michigan	28,709	100	26,595	93	2,114	7	27,602	100	26,595	96	1,007	4
Minnesota	27,002	100	20,277	75	6,726	25	21,237	100	20,277	95	961	5
Mississippi	9,732	100	7,855	81	1,877	19	8,476	100	7,855	93	621	7
Missouri	14,682	100	12,736	87	1,946	13	15,135	100	12,736	84	2,399	16
Montana	2,617	100	1,771	68	846	32	1,857	100	1,771	95	*85	*5
Nebraska	3,004	100	2,649	88	*355	*12	3,272	100	2,649	81	623	19
Nevada	1,976	100	1,772	90	*204	*10	2,900	100	1,772	61	1,128	39
New Hampshire	3,541	100	2,675	76	866	24	3,159	100	2,675	85	484	15
New Jersey	16,125	100	14,059	87	2,066	13	16,683	100	14,059	84	2,623	16
New Mexico	2,836	100	2,303	81	*533	*19	2,761	100	2,303	83	458	17
New York	29,359	100	26,181	89	3,178	11	27,570	100	26,181	95	1,389	5
North Carolina	22,230	100	18,943	85	3,287	15	20,602	100	18,943	92	1,659	8
North Dakota	1,321	100	1,279	97	...	...	1,793	100	1,279	71	514	29
Ohio	17,848	100	16,907	95	941	5	19,434	100	16,907	87	2,527	13
Oklahoma	14,674	100	13,129	89	1,545	11	13,834	100	13,129	95	706	5
Oregon	7,989	100	7,547	94	442	6	8,260	100	7,547	91	713	9
Pennsylvania	20,901	100	19,253	92	1,648	8	24,284	100	19,253	79	5,031	21
Rhode Island	2,155	100	1,722	80	433	20	2,158	100	1,722	80	436	20
South Carolina	15,018	100	12,695	85	2,323	15	14,015	100	12,695	91	1,320	9
South Dakota	2,748	100	2,300	84	448	16	2,473	100	2,300	93	173	7
Tennessee	11,317	100	10,330	91	987	9	12,927	100	10,330	80	2,597	20
Texas	51,329	100	50,120	98	1,209	2	55,884	100	50,120	90	5,764	10
Utah	3,926	100	2,843	72	1,083	28	3,261	100	2,843	87	418	13
Vermont	1,951	100	1,543	79	408	21	1,868	100	1,543	83	325	17
Virginia	14,571	100	13,408	92	1,163	8	16,256	100	13,408	82	2,848	18
Washington	12,860	100	11,964	93	896	7	12,756	100	11,964	94	793	6
West Virginia	5,040	100	4,649	92	*391	*8	5,680	100	4,649	82	1,030	18
Wisconsin	17,130	100	13,385	78	3,745	22	14,546	100	13,385	92	*1,161	*8
Wyoming	2,415	100	1,267	52	1,148	48	1,412	100	1,267	90	145	10

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

Note: U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix.

Table 60. Expenditures for Fishing, by State Where Spending Took Place: 1996

(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[1]
		Total trip-related	Food and lodging	Transportation	Other trip costs	Total equipment	Fishing equipment	Auxiliary equipment	Special equipment	
U.S., total	**37,797,061**	**15,381,217**	**5,989,666**	**3,730,245**	**5,661,306**	**19,173,753**	**5,308,674**	**1,036,761**	**12,828,318**	**3,242,091**
Alabama	835,615	363,163	127,472	85,002	150,690	425,851	102,334	15,268	308,249	46,600
Alaska	548,364	439,915	172,566	142,925	124,424	96,071	34,103	12,892	49,075	12,378
Arizona	358,144	184,999	89,408	48,936	46,655	161,289	47,167	8,670	105,452	11,855
Arkansas	301,829	181,057	78,506	52,279	50,273	105,291	53,792	6,720	44,778	15,481
California	3,324,359	1,454,325	477,695	326,420	650,210	1,746,979	450,806	120,380	1,175,793	123,055
Colorado	634,447	272,016	112,819	90,540	68,657	333,494	80,374	23,992	229,128	28,937
Connecticut	284,278	100,444	23,646	31,726	45,072	170,937	67,676	7,990	95,270	12,897
Delaware	276,733	78,340	20,848	29,451	28,041	184,542	21,871	637	162,034	13,850
Florida	3,288,844	1,624,935	594,294	309,185	721,456	1,606,701	488,750	40,411	1,077,539	57,208
Georgia	1,121,278	311,957	112,596	76,121	123,240	770,979	124,345	12,192	634,442	38,342
Hawaii	130,039	96,085	36,636	32,838	26,611	33,004	22,046	2,517	8,440	949
Idaho	279,950	131,827	52,659	51,562	27,606	92,677	29,900	8,428	54,348	55,446
Illinois	1,568,471	291,847	120,065	61,917	109,865	1,240,196	250,489	55,343	934,364	36,428
Indiana	799,252	202,252	77,507	50,976	73,769	533,276	83,315	36,641	413,320	63,725
Iowa	338,969	107,338	39,928	26,695	40,715	193,518	45,201	20,271	128,046	38,113
Kansas	180,019	79,079	36,816	21,478	20,786	53,931	34,414	5,335	14,182	47,008
Kentucky	517,029	222,149	72,023	62,235	87,892	280,123	89,060	17,776	173,287	14,757
Louisiana	824,340	383,896	145,234	80,947	157,716	407,199	112,850	8,498	285,852	33,244
Maine	348,548	144,431	63,543	33,582	47,305	166,281	35,815	16,849	113,617	37,837
Maryland	475,266	264,989	80,223	47,769	136,997	183,238	76,178	12,104	94,956	27,039
Massachusetts	524,575	237,436	81,548	43,589	112,299	268,563	81,634	22,680	164,250	18,576
Michigan	1,506,228	583,188	229,444	121,614	232,130	820,902	230,156	30,902	559,844	102,138
Minnesota	1,807,919	667,597	314,568	171,567	181,461	778,026	195,157	46,006	536,863	362,297
Mississippi	599,004	169,691	51,415	45,193	73,084	216,296	71,847	4,833	139,616	213,017
Missouri	702,978	345,621	119,887	82,377	143,357	296,041	152,022	14,697	129,321	61,316
Montana	243,501	172,781	63,602	79,758	29,421	59,028	20,584	5,063	33,380	11,692
Nebraska	235,815	47,437	19,072	17,244	11,121	177,746	56,306	13,848	107,592	10,631
Nevada	211,092	73,940	37,330	19,639	16,970	129,432	38,347	6,564	84,521	7,721
New Hampshire	320,449	69,315	30,597	17,735	20,983	239,889	39,682	42,143	158,064	11,245
New Jersey	1,025,230	470,076	154,560	73,627	241,889	517,015	173,948	38,653	304,413	38,139
New Mexico	195,012	105,658	43,638	40,246	21,775	81,383	21,665	4,367	55,351	7,970
New York	1,302,998	601,407	229,502	154,638	217,267	665,235	223,818	19,011	422,406	36,356
North Carolina	1,571,727	499,766	234,423	104,240	161,103	786,119	150,116	27,615	608,389	285,841
North Dakota	83,415	31,040	12,127	9,859	9,054	50,634	15,550	1,065	34,019	1,741
Ohio	836,192	289,436	107,436	59,627	122,372	532,346	84,653	34,392	413,301	14,410
Oklahoma	490,767	262,680	107,454	64,908	90,319	207,446	100,367	24,045	83,034	20,641
Oregon	622,806	266,626	96,001	88,740	81,886	332,811	77,385	17,674	237,753	23,369
Pennsylvania	649,763	296,478	130,760	91,654	74,064	278,404	124,144	26,691	127,569	74,882
Rhode Island	136,793	44,224	12,767	7,374	24,082	90,326	18,150	4,845	67,331	2,243
South Carolina	707,100	302,341	124,758	70,859	106,724	318,721	79,120	9,343	230,258	86,037
South Dakota	206,432	77,604	35,114	24,630	17,860	121,141	23,408	3,223	94,510	7,687
Tennessee	474,724	215,804	90,078	45,480	80,247	236,104	95,290	10,069	130,745	22,816
Texas	2,869,558	1,194,792	523,408	244,768	426,616	1,223,488	493,837	113,579	616,072	451,279
Utah	231,292	119,886	45,993	39,696	34,198	98,566	23,682	8,439	66,445	12,839
Vermont	103,482	42,119	20,652	10,566	10,902	56,504	13,969	3,359	39,177	4,859
Virginia	821,318	314,074	124,569	70,695	118,810	479,385	129,115	19,666	330,603	27,859
Washington	704,396	327,458	114,257	89,143	124,058	349,995	89,656	15,925	244,414	26,943
West Virginia	204,923	63,194	29,276	19,111	14,807	122,624	23,435	6,433	92,756	19,105
Wisconsin	1,072,570	442,044	222,852	114,448	104,744	570,400	134,819	22,330	413,250	60,126
Wyoming	174,575	111,552	47,687	44,488	19,377	54,054	21,194	4,172	28,687	8,969

[1] 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 the statistical reliability appendix.

Table 61. **Participants in Wildlife-Watching Activities, by Participant's State of Residence: 1996**

(Population 16 years old and older. Numbers in thousands)

Participant's state of residence	Population	Participants					
		Total		Nonresidential		Residential	
		Number	Percent of population	Number	Percent of population	Number	Percent of population
U.S., total	**201,472**	**62,868**	**31**	**23,652**	**12**	**60,751**	**30**
Alabama	3,306	988	30	259	8	970	29
Alaska	432	216	50	128	30	204	47
Arizona	3,234	999	31	432	13	977	30
Arkansas	1,914	658	34	212	11	647	34
California	23,777	5,959	25	2,391	10	5,707	24
Colorado	2,929	1,244	42	603	21	1,187	41
Connecticut	2,514	774	31	257	10	766	30
Delaware	560	192	34	77	14	188	34
Florida	11,239	2,840	25	1,088	10	2,744	24
Georgia	5,544	1,622	29	553	10	1,562	28
Hawaii	900	123	14	57	6	111	12
Idaho	879	355	40	157	18	320	36
Illinois	8,979	3,137	35	1,370	15	2,976	33
Indiana	4,456	1,542	35	444	10	1,509	34
Iowa	2,174	828	38	367	17	782	36
Kansas	1,916	607	32	215	11	592	31
Kentucky	3,001	951	32	357	12	923	31
Louisiana	3,227	861	27	306	9	835	26
Maine	966	443	46	140	14	433	45
Maryland	3,912	1,323	34	528	14	1,267	32
Massachusetts	4,726	1,638	35	697	15	1,549	33
Michigan	7,267	2,585	36	1,075	15	2,506	34
Minnesota	3,473	1,325	38	511	15	1,259	36
Mississippi	2,032	458	23	100	5	451	22
Missouri	4,056	1,623	40	528	13	1,600	39
Montana	672	315	47	162	24	300	45
Nebraska	1,232	428	35	192	16	407	33
Nevada	1,214	258	21	121	10	233	19
New Hampshire	887	394	44	169	19	386	44
New Jersey	6,129	1,574	26	623	10	1,561	25
New Mexico	1,276	370	29	186	15	326	26
New York	13,944	3,169	23	1,027	7	3,078	22
North Carolina	5,605	1,984	35	556	10	1,957	35
North Dakota	483	112	23	40	8	106	22
Ohio	8,522	2,816	33	921	11	2,714	32
Oklahoma	2,484	860	35	289	12	819	33
Oregon	2,472	1,048	42	408	16	972	39
Pennsylvania	9,298	3,442	37	1,311	14	3,383	36
Rhode Island	759	243	32	84	11	241	32
South Carolina	2,842	829	29	274	10	817	29
South Dakota	541	165	30	74	14	155	29
Tennessee	4,120	1,507	37	401	10	1,451	35
Texas	14,186	3,553	25	1,289	9	3,473	24
Utah	1,396	415	30	220	16	380	27
Vermont	455	217	48	96	21	211	46
Virginia	5,168	1,905	37	757	15	1,877	36
Washington	4,207	1,621	39	664	16	1,564	37
West Virginia	1,467	452	31	127	9	446	30
Wisconsin	3,897	1,651	42	691	18	1,592	41
Wyoming	366	143	39	86	23	131	36

Note: Detail does not add to total because of multiple responses. U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix.

Table 62. **Participants in Nonresidential Wildlife-Watching Activities, by State Where Activity Took Place: 1996**

(Population 16 years old and older. Numbers in thousands)

State where activity took place	Total participants		Residents		Nonresidents	
	Number	Percent	Number	Percent	Number	Percent
U.S., total	**23,652**	**100**	**20,656**	**87**	**7,502**	**32**
Alabama	336	100	236	70	*100	*30
Alaska	407	100	122	30	285	70
Arizona	745	100	401	54	344	46
Arkansas	327	100	187	57	*140	*43
California	2,362	100	2,005	85	356	15
Colorado	1,042	100	558	54	484	46
Connecticut	254	100	186	73	*67	*27
Delaware	108	100	55	51	...	...
Florida	1,846	100	1,050	57	796	43
Georgia	639	100	464	73	175	27
Hawaii	255	100	51	20	*204	*80
Idaho	305	100	145	47	160	53
Illinois	1,247	100	1,144	92	*102	*8
Indiana	565	100	370	65	*195	*35
Iowa	500	100	334	67	166	33
Kansas	250	100	160	64	*89	*36
Kentucky	463	100	326	70	*137	*30
Louisiana	260	100	239	92	...	...
Maine	454	100	133	29	321	71
Maryland	662	100	396	60	266	40
Massachusetts	834	100	595	71	240	29
Michigan	1,117	100	931	83	*186	*17
Minnesota	646	100	432	67	214	33
Mississippi	162	100	87	53	*76	*47
Missouri	791	100	501	63	289	37
Montana	394	100	155	39	239	61
Nebraska	216	100	158	73	*57	*27
Nevada	271	100	96	35	*175	*65
New Hampshire	420	100	162	38	258	62
New Jersey	612	100	505	83	*106	*17
New Mexico	413	100	167	40	246	60
New York	1,173	100	884	75	289	25
North Carolina	932	100	512	55	420	45
North Dakota	63	100	34	54	...	...
Ohio	953	100	808	85	*145	*15
Oklahoma	347	100	260	75	*87	*25
Oregon	715	100	395	55	320	45
Pennsylvania	1,559	100	1,226	79	333	21
Rhode Island	139	100	63	46	...	...
South Carolina	408	100	237	58	171	42
South Dakota	318	100	62	19	257	81
Tennessee	655	100	333	51	322	49
Texas	1,439	100	1,164	81	275	19
Utah	433	100	201	47	231	53
Vermont	249	100	87	35	161	65
Virginia	942	100	631	67	311	33
Washington	850	100	579	68	271	32
West Virginia	372	100	113	31	*258	*69
Wisconsin	1,045	100	622	60	423	40
Wyoming	583	100	74	13	509	87

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

Note: Detail does not add to total because of multiple responses. U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix.

Table 63. **Days of Nonresidential Wildlife-Watching Activity, by State Where Activity Took Place and Participant's State of Residence: 1996**

(Population 16 years old and older. Numbers in thousands)

State	Days of activity in state						Days of activity by state residents					
	Total days, residents and nonresidents		Days by residents		Days by nonresidents		Total days, in state of residence and other states		Days in state of residence		Days in other states	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
U.S., total	**313,790**	**100**	**248,020**	**79**	**65,771**	**21**	**313,790**	**100**	**248,020**	**79**	**65,771**	**21**
Alabama	3,105	100	2,702	87	*403	*13	3,187	100	2,702	85	485	15
Alaska	5,689	100	2,391	42	3,297	58	2,531	100	2,391	94	*140	*6
Arizona	9,447	100	6,617	70	2,830	30	7,405	100	6,617	89	788	11
Arkansas	4,589	100	3,559	78	*1,030	*22	3,734	100	3,559	95	*176	*5
California	24,587	100	22,872	93	1,715	7	31,795	100	22,872	72	8,924	28
Colorado	11,328	100	8,282	73	3,046	27	9,754	100	8,282	85	1,472	15
Connecticut	1,887	100	1,702	90	*185	*10	3,089	100	1,702	55	1,388	45
Delaware	958	100	767	80	...	...	1,082	100	767	71	315	29
Florida	14,658	100	10,111	69	4,547	31	12,760	100	10,111	79	*2,649	*21
Georgia	5,108	100	4,293	84	815	16	5,788	100	4,293	74	1,495	26
Hawaii	2,407	100	941	39	*1,465	*61	1,045	100	941	90	104	10
Idaho	2,107	100	1,515	72	592	28	1,824	100	1,515	83	*310	*17
Illinois	9,416	100	9,100	97	*316	*3	15,203	100	9,100	60	6,103	40
Indiana	5,912	100	5,228	88	*684	*12	6,233	100	5,228	84	1,005	16
Iowa	4,816	100	3,936	82	880	18	4,768	100	3,936	83	832	17
Kansas	2,960	100	2,710	92	*250	*8	3,740	100	2,710	72	1,030	28
Kentucky	5,811	100	5,326	92	*484	*8	6,007	100	5,326	89	680	11
Louisiana	2,713	100	2,565	95	...	...	3,661	100	2,565	70	1,097	30
Maine	2,942	100	1,181	40	1,761	60	1,297	100	1,181	91	*116	*9
Maryland	5,717	100	4,861	85	856	15	7,554	100	4,861	64	2,693	36
Massachusetts	9,193	100	8,147	89	1,046	11	10,581	100	8,147	77	2,434	23
Michigan	16,162	100	15,370	95	*792	*5	16,765	100	15,370	92	1,395	8
Minnesota	6,807	100	5,194	76	1,612	24	6,572	100	5,194	79	1,377	21
Mississippi	1,914	100	1,630	85	*283	*15	1,812	100	1,630	90	182	10
Missouri	8,598	100	6,909	80	1,689	20	8,410	100	6,909	82	*1,501	*18
Montana	2,697	100	1,558	58	1,139	42	1,898	100	1,558	82	339	18
Nebraska	1,866	100	1,772	95	*94	*5	2,170	100	1,772	82	398	18
Nevada	1,394	100	938	67	*456	*33	1,585	100	938	59	648	41
New Hampshire	4,191	100	3,031	72	1,160	28	3,501	100	3,031	87	470	13
New Jersey	7,363	100	4,521	61	*2,842	*39	8,357	100	4,521	54	3,835	46
New Mexico	3,326	100	2,459	74	867	26	2,732	100	2,459	90	273	10
New York	9,457	100	8,619	91	837	9	10,731	100	8,619	80	2,111	20
North Carolina	10,334	100	8,661	84	1,673	16	10,693	100	8,661	81	*2032	*19
North Dakota	411	100	308	75	...	...	422	100	308	73	114	27
Ohio	11,418	100	10,809	95	*608	*5	11,716	100	10,809	92	*906	*8
Oklahoma	5,129	100	4,857	95	*272	*5	6,079	100	4,857	80	1,222	20
Oregon	6,579	100	4,604	70	1,976	30	5,511	100	4,604	84	907	16
Pennsylvania	13,123	100	11,359	87	1,764	13	15,369	100	11,359	74	*4009	*26
Rhode Island	1,202	100	1,015	84	...	...	1,352	100	1,015	75	336	25
South Carolina	3,791	100	2,734	72	1,057	28	3,369	100	2,734	81	634	19
South Dakota	2,338	100	1,368	59	970	41	1,500	100	1,368	91	133	9
Tennessee	4,452	100	2,932	66	1,520	34	3,683	100	2,932	80	750	20
Texas	14,838	100	13,383	90	1,454	10	15,280	100	13,383	88	*1,897	*12
Utah	2,802	100	1,384	49	1,417	51	1,787	100	1,384	77	402	23
Vermont	2,340	100	1,824	78	516	22	2,087	100	1,824	87	263	13
Virginia	5,422	100	3,885	72	1,537	28	5,857	100	3,885	66	1,972	34
Washington	12,418	100	6,477	52	5,941	48	8,645	100	6,477	75	2,167	25
West Virginia	2,452	100	1,555	63	*896	*37	1,760	100	1,555	88	205	12
Wisconsin	12,154	100	8,706	72	3,448	28	9,511	100	8,706	92	*805	*8
Wyoming	2,875	100	757	26	2,118	74	925	100	757	82	168	18

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

Note: U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix.

Table 64. Expenditures for Wildlife-Watching Activities, by State Where Spending Took Place: 1996

(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[1]
		Total trip-related	Food and lodging	Transportation	Other trip costs	Total equipment	Wildlife-watching equipment	Auxiliary equipment	Special equipment	
U.S., total	**29,227,888**	**9,443,808**	**5,351,596**	**2,942,525**	**1,149,687**	**16,652,571**	**8,229,736**	**858,348**	**7,564,487**	**3,131,509**
Alabama	278,944	82,263	32,554	22,821	26,888	159,053	87,376	*3,141	...	37,628
Alaska	780,531	652,346	310,972	162,692	178,682	122,793	60,665	9,925	...	5,393
Arizona	787,484	273,987	161,161	98,187	14,640	461,524	92,039	9,003	...	51,973
Arkansas	191,386	61,476	31,337	22,915	7,224	99,664	87,003	*5,173	...	30,246
California	2,396,809	1,084,506	680,642	301,322	102,541	1,072,740	745,660	60,995	...	239,563
Colorado	792,115	426,201	247,137	153,979	25,084	247,453	195,902	45,726	...	118,462
Connecticut	453,347	45,357	22,936	15,056	7,365	376,985	110,046	*12,619	...	31,005
Delaware	63,880	12,278	8,285	2,837	1,156	37,644	31,311	*1,627	...	13,958
Florida	1,677,170	754,739	439,692	189,431	125,617	767,633	286,911	65,381	...	154,798
Georgia	834,547	117,175	73,324	28,414	15,437	303,716	241,401	22,373	...	413,656
Hawaii	295,429	269,767	159,716	101,222	8,828	21,753	12,055	*582	...	3,910
Idaho	146,105	61,192	29,970	22,937	8,285	55,092	26,605	*2,805	...	29,821
Illinois	710,456	125,529	54,417	51,916	19,196	515,435	430,823	*45,701	...	69,492
Indiana	285,665	65,801	36,024	19,826	9,950	192,748	164,512	*6,416	...	27,115
Iowa	190,718	53,664	24,606	25,352	3,706	113,213	76,936	*19,895	...	23,841
Kansas	105,292	21,210	12,695	7,663	*852	61,974	51,915	7,195	...	22,108
Kentucky	336,522	70,759	39,289	21,811	9,658	243,638	85,460	*3,414	...	22,125
Louisiana	198,679	61,429	38,589	12,891	9,949	117,721	95,166	*9,485	...	19,529
Maine	220,158	125,692	71,648	42,552	11,492	77,993	56,306	14,474	...	16,474
Maryland	505,512	95,487	59,358	25,650	10,479	328,334	183,986	12,860	...	81,691
Massachusetts	595,300	158,179	113,650	34,825	9,705	378,000	234,491	17,097	...	59,121
Michigan	1,271,330	266,873	122,540	130,343	13,990	946,009	347,528	*51,552	...	58,448
Minnesota	383,237	123,425	65,050	50,266	8,110	213,468	162,228	28,048	...	46,344
Mississippi	299,336	22,693	9,048	8,279	5,366	248,359	59,125	7,836	...	28,284
Missouri	507,926	192,837	113,478	58,647	20,712	295,246	168,132	14,510	...	19,844
Montana	218,864	130,841	77,045	46,168	7,629	56,053	45,437	4,381	...	31,970
Nebraska	92,474	17,150	8,700	7,934	*515	63,484	49,230	*2,623	...	11,840
Nevada	262,798	86,114	47,919	28,542	9,653	168,082	42,157	*6,731	...	8,602
New Hampshire	282,377	79,883	50,009	23,585	6,289	68,513	65,544	*1,934	...	133,981
New Jersey	1,800,691	220,608	140,332	50,146	30,130	1,524,409	360,149	*9,922	...	55,674
New Mexico	428,835	165,481	91,214	62,047	12,219	250,738	42,484	*2,658	...	12,617
New York	1,262,616	139,722	72,050	46,295	21,377	1,002,653	580,907	*28,803	...	120,241
North Carolina	509,725	169,856	110,025	44,306	15,525	281,517	264,314	10,549	...	58,352
North Dakota	35,984	18,755	11,704	6,199	*852	14,791	11,556	*390	...	2,438
Ohio	454,910	136,398	62,463	28,518	45,417	262,279	252,487	*9,791	...	56,233
Oklahoma	201,797	35,246	21,510	10,627	3,109	144,848	134,177	10,302	...	21,703
Oregon	692,734	261,852	122,798	111,274	27,780	404,532	109,150	*9,719	...	26,350
Pennsylvania	858,355	259,476	176,029	71,175	12,272	552,471	365,087	*17,985	...	46,408
Rhode Island	124,362	18,429	13,429	4,054	*946	99,905	23,354	*568	...	6,028
South Carolina	298,701	112,435	58,368	40,633	13,434	159,761	101,889	6,947	...	26,505
South Dakota	151,172	110,451	81,449	24,374	4,629	28,380	14,480	*613	...	12,341
Tennessee	439,583	192,964	125,973	47,820	19,172	203,215	184,470	*18,543	...	43,403
Texas	1,175,239	501,913	214,242	249,096	38,574	609,913	488,067	*59,703	...	63,413
Utah	236,626	125,477	75,333	27,769	22,376	83,397	56,015	16,552	...	27,752
Vermont	92,932	53,700	37,914	14,620	1,166	34,163	30,817	*1,349	...	5,068
Virginia	698,245	196,745	117,051	60,326	19,369	419,016	271,472	33,151	...	82,483
Washington	959,805	508,634	277,754	124,466	106,414	392,486	228,200	80,598	...	58,686
West Virginia	113,030	57,976	32,880	23,299	1,797	49,682	44,318	*5,364	...	5,372
Wisconsin	912,597	436,347	261,280	123,639	51,428	392,553	304,056	*26,672	...	83,697
Wyoming	234,616	182,487	106,006	53,780	22,701	46,551	19,875	*9,642	...	5,577

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

[1] Includes expenditures for magazine subscriptions, membership dues, and contributions.

Note: U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix.

Appendix A

Appendix A: Definitions

Annual household income - Total 1995 income of household members before taxes and other deductions.

Auxiliary equipment - Items of equipment such as camping gear that are owned primarily for wildlife-associated recreation. Items of auxiliary equipment are listed in Table 12 (fishing), Table 17 (hunting) and Table 40 (wildlife watching).

Big game - Antelope, bear, deer, elk, moose, wild turkey, and similar large animals which are hunted.

Census Divisions:

East North Central:

Illinois
Indiana
Michigan
Ohio
Wisconsin

East South Central:

Alabama
Kentucky
Mississippi
Tennessee

Middle Atlantic:

New Jersey
New York
Pennsylvania

Mountain:

Arizona
Colorado
Idaho
Montana
Nevada
New Mexico
Utah
Wyoming

New England:

Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

Pacific:

Alaska
California
Hawaii
Oregon
Washington

South Atlantic:

Delaware
District of Columbia
Florida
Georgia
Maryland
North Carolina
South Carolina
Virginia
West Virginia

West North Central:

Kansas
Iowa
Minnesota
Missouri
Nebraska
North Dakota
South Dakota

West South Central:

Arkansas
Louisiana
Oklahoma
Texas

Day - Any part of a day spent in a given activity. For example, if someone hunted 2 hours one day and 3 hours another day, it would be recorded as 2 days of hunting. If someone hunted 2 hours in the morning and 3 hours in the evening of the same day, it would be considered 1 day of hunting.

Education - The highest completed grade of school or year of college.

Expenditures - Money spent in 1996 for wildlife-related recreation trips in the U.S., or wildlife-related recreational equipment purchased in the U.S. (and Canada where specified). Expenditures include both money spent by participants for themselves and the value of gifts they received.

Federal land - Public land owned by the Federal government such as National Forests and National Wildlife Refuges.

Fishing - The sport of catching or attempting to catch fish with a hook, line, net, bow and arrow, or spear, fishing equipment, also catching or gathering shellfish (clams, crabs, etc,). The noncommercial seining or netting of fish, unless the fish are for use as bait. For example, seining for smelt is fishing, but seining for bait minnows is not included as fishing.

Fishing equipment - Items owned primarily for fishing. These items are listed in Table 12.

Freshwater - Reservoirs, lakes, ponds, and the nontidal portions of rivers and streams.

Great Lakes fishing - Fishing in Lakes Superior, Michigan, Huron, St. Clair, Erie, and Ontario, their connecting waters such as the St. Mary's River system, Detroit River, St. Clair River, and the Niagara River, and the St. Lawrence River south of the bridge at Cornwall, New York. Great Lakes fishing includes fishing in tributaries of the Great Lakes for smelt, steelhead, and salmon.

Home - The starting point of a wildlife-related recreational trip. It may be a permanent residence, or a temporary or seasonal residence such as a cabin.

Hunting - The sport of shooting or attempting to shoot wildlife with firearms or archery equipment.

Hunting equipment - Items owned primarily for hunting. These items are listed in Table 17.

Local land - Public land owned by local government such as county parks or municipal watersheds.

Maintain natural areas - To set aside one-quarter acre or more of natural environment such as wood lots or open fields for the primary purpose of benefiting wildlife.

Maintain plantings - To introduce or encourage the growth of food and cover plants for the primary purpose of benefiting wildlife.

Migratory birds - Birds that regularly migrate from one region or climate to another. The survey focuses on migratory birds which may be hunted, including bandtailed pigeons, coots, ducks, doves, gallinules, geese, rails, and woodcocks.

Multiple responses - The term used to reflect the fact that individuals or their characteristics fall into more than one reporting category. An example of a big game hunter who hunted for deer and elk demonstrates the effect of multiple responses. In this case, adding the number of deer hunters (1) and elk hunters (1) would overstate the number of big game hunters (1) because deer and elk hunters are not mutually exclusive categories. In contrast, total participants is the sum of male and female participants, because male and female are mutually exclusive categories.

Nonresidential activity - Trips or outings at least one mile from home for the primary purpose of observing, photographing, or feeding wildlife. Trips to zoos, circuses, aquariums, and museums are not included.

Nonresidents - Individuals who do not live in the state being reported. For example, a person living in Texas who watches whales in California is a nonresident participant in California.

Nonresponse - Nonresponse is a term used to reflect the fact that some survey respondents provide incomplete sets of information. For example, a survey respondent may have been unable to identify the primary type of hunting for which a gun was bought. Hunting expenditures will reflect the gun purchase, but it will not appear as spending for big game or any other type of hunting. Nonresponses result in reported totals that are greater than the sum of their parts.

Observe - To take special interest in or try to identify birds, fish, or other wildlife.

Other animals - Coyotes, crows, foxes, groundhogs, prairie dogs, raccoons, and similar animals that are often regarded as varmints or pests. Other animals may be classified as unprotected or nongame animals by the state in which they are hunted.

Participants - Individuals who engaged in fishing, hunting, or a wildlife-watching activity.

Primary purpose - The principal motivation for an activity, trip, or expenditure.

Public areas - Public lands owned by local, state, or Federal governments.

Public land - Land that is owned by the local, state, or Federal government.

Private land - Land that is owned by a private individual, group of individuals, or nongovernmental organization.

Residential activity - Activity within 1 mile of home with a primary purpose that is wildlife-related: (1) closely observing or trying to identify birds or other wildlife, (2) photographing wildlife, (3) feeding birds or other wildlife on a regular basis, (4) maintaining natural areas of at least one-quarter acre for which benefit to wildlife is the primary purpose, (5) maintaining

plantings (shrubs, agricultural crops, etc.) for which benefit to wildlife is the primary purpose, or (6) visiting public parks within 1 mile of home for the purpose of observing, photographing, or feeding wildlife.

Residents - Individuals who lived in the state being reported. For example, persons who live in California and watch whales in California are resident participants in California.

Rural - Respondent identified that he/she lived in a rural, nonfarm, or rural, farm area when given the following choices: urban; rural, nonfarm; rural, farm.

Saltwater - Oceans, tidal bays and sounds, and the tidal portions of rivers and streams.

Screening interviews - The first survey contact with a household. Screening interviews use brief conversations with either the respondent or a household representative in each household to identify respondents who are eligible for in-depth interviews. In addition, screening interviews are used to gather some data about the individuals in the households, such as their age and sex. Screening interviews are discussed in the Survey Background and Method section of this report.

Small game - Grouse, partridge, pheasants, quail, rabbits, squirrels, and similar small animals and birds for which many states have small game seasons and bag limits.

(MSA) - Metropolitan Statistical Area - Except in the New England States, an MSA is a county or group of contiguous counties containing at least one city of 50,000 or more inhabitants, or twin cities (i.e., cities with contiguous boundaries and constituting, for general social and economic purposes, a single community) with a combined population of at least 50,000. Also included in an MSA are contiguous counties that are socially and economically integrated with the central city. In the New England States, an MSA consists of towns and cities instead of counties. Each MSA must include at least one central city.

Special equipment - Items of equipment including boats and pickup trucks that are owned primarily for wildlife-related recreation. Special equipment items are listed in Table 22 (fishing and hunting) and Table 40 (wildlife watching).

Spenders - Individuals who reported an expenditure value for fishing, hunting, or wildlife-watching activities or equipment.

Sportsmen - Individuals who engaged in fishing, hunting, or both.

State Land - Public land owned by a state such as state parks or state wildlife management areas.

Trip - An outing involving fishing, hunting, or wildlife-watching activities. In the context of this survey, a trip may begin from an individual's principal residence or from another place, such as a vacation home or the home of a relative. A trip may last an hour, a day, or many days.

Type of fishing - Three types of fishing are reported: Fishing in (1) freshwater, except Great Lakes, (2) Great Lakes, and (3) saltwater.

Type of hunting - Four types of hunting are reported: Hunting for (1) big game, (2) small game, (3) migratory bird, and (4) other animals.

Urban - Respondent identified that he/she lived in a rural, nonfarm; or rural, farm area when given the following choices: urban; rural, nonfarm; rural, farm.

Wildlife - Animals such as birds, fish, insects, mammals, amphibians, and reptiles that are living in natural or wild environments. Wildlife does not include animals living in aquariums, zoos, and other artificial surroundings, or domestic animals such as farm animals or pets.

Wildlife-Associated Recreation - Recreational fishing, hunting, or wildlife watching.

Wildlife-watching activity -An activity engaged in primarily for the purpose of feeding, photographing, or observing fish or other wildlife. In previous years this was termed wildlife watching activity. (See also residential and nonresidential activities.)

Wildlife-watching equipment - Items owned primarily for observing, photographing, or feeding wildlife. These items are listed in Table 40.

Appendix B

Appendix B: Comparability With Previous Surveys

The 1996 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (FHWAR) was designed to continue the data collection of the 1955 to 1991 Surveys. While complete comparability between any two surveys cannot be achieved, this Appendix compares the major findings of all the surveys and presents trends for the major categories of wildlife-related recreation. The trends presented in this Appendix were developed to adjust for the differences in the surveys' methodologies and definitions of categories of data collected. The differences are discussed in the following sections under the headings of the year that each survey was conducted.

Trend information is provided in three sections. The first section presents trends in hunting and fishing from 1955 to 1985. The second section presents trends in hunting, fishing, and wildlife watching (formerly called nonconsumptive wildlife-related recreation) from 1980 to 1990. The third section presents trends in hunting, fishing and wildlife watching from 1991 to 1996.

The trend information for the period 1955 to 1985 is based on data from the detailed phases of the seven surveys conducted during that time period. Each had the same recall period, 12 months, for the detailed phase of its data collection. Their data are comparable after definitional differences are reconciled.

The second section presents trends from 1980 to 1990. This trend information is based on data from the screening phases rather than the detailed phases of the three surveys because there was a significant change in methodology used in the detailed phase of the 1991 Survey. The recall period in 1991 was changed from 12 months to 4 months to improve the accuracy of the data collected. Because of this change it is not possible to accurately compare data collected in the detailed phase of the 1991 Survey with that of previous surveys. Instead, trend information for 1980 to 1990 is based on data collected in the screening phases of the 1980, 1985, and 1991 Surveys. The information is comparable because the same methodology was used. It should be noted that the screening phase information of each survey differs from the information collected in its detailed interview phase and should not be compared. The information from the screening interviews is used to show the relative level of activity from survey to survey and not to provide accurate estimates of actual participation for a particular year. Estimates based on the detailed survey interviews serve that purpose.

The third section compares the information from the 1991 and 1996 Surveys. The two surveys had similar designs, and all estimates are directly comparable.

The principal characteristics of the 1955 to 1996 Surveys are summarized in Table B-1. This table shows the scope and design of all the surveys.

Table B-1. **Major Characteristics of Surveys: 1955 to 1996**

Characteristic	1955	1960	1965	1970	1975	1980	1985	1991	1996
Survey design:									
Screening interview mode and population of interest	Combined with detailed phase	Personal interview, 12 years old and older	Personal interview, 9 years old and older	Mail questionnaire, 9 years old and older	Telephone interview, 6 years old and older	Telephone/ personal interview, 6 years old and older	Telephone/ personal interview, 6 years old and older	Telephone/ personal interview, 6 years old and older	Telephone/ personal interview, 6 years old and older
Detailed interview mode and population of interest	Personal interview, 12 years old and older	Personal interview, 12 years old and older. Substantial participants[1]	Personal interview, 12 years old and older. Substantial participants[1]	Personal interview, 12 years old and older. Substantial participants[2]	Mail questionnaire, 9 years old and older	Personal interview, 16 years old and older	Personal interview, 16 years old and older	Telephone/ personal interview, 16 years old and older.	Telephone/ personal interview, 16 years old and older.
Respondent's recall period	One year	One year	One year	One year	One year	One year	One year	4 months	4-8 months
Sample sizes:									
Screening phase (households)	20,000	18,000	16,000	24,000	106,294	116,025	102,694	102,804	77,144
Detailed phase (individuals):									
Fishing and hunting	9,328	10,300	6,400	8,700	20,211	30,291	28,011	23,179	28,192
Wildlife watching[3]	(X)	(X)	(X)	(X)	(X)	5,997	26,671	22,723	14,414
Response rates:									
Screening phase	(NA)	(NA)	(NA)	(NA)	95 percent	95 percent	93 percent	95 percent	71 percent
Detailed phase:									
Fishing and hunting	(NA)	93 percent	(NA)	(NA)	37 percent	90 percent	92 percent	95 percent	80 percent
Wildlife watching[3]	(X)	(X)	(X)	(X)	(X)	95 percent	94 percent	95 percent	82 percent
Level of reporting	National	National	National	National	State and National	State and National	State and National	State and National	State and National
Data collection agent	Private contractor	Bureau of the Census	Bureau of the Census	Bureau of the Census	Private contractor	Bureau of the Census	Bureau of the Census	Bureau of the Census	Bureau of the Census

(NA) Not available. (X) Not applicable; nonconsumptive interviews were not conducted prior to 1980.

[1] Spent $5.00 or more or participated 3 days or more during the year.
[2] Spent $7.50 or more or participated 3 days or more during the year.
[3] Termed "nonconsumptive" in 1980, 1985, and 1991 Surveys.

Section I.
Trends from 1955 to 1985

1955 to 1970 Surveys

The 1955 to 1970 National Surveys included only "substantial participants." Substantial participants were defined as those participants who participated at least 3 days and/or spent at least $5 (the 1955-1965 Surveys) or $7.50 (the 1970 Survey) during the surveyed year. Under most circumstances, the surveys may be compared for totals, but the effects of differences should be considered when comparing the details of the surveys. The 1960, 1965, and 1970 National Surveys differed from the 1955 National Survey in classification of expenditures as outlined below.

1. Alaska and Hawaii were not included in the 1955 Survey.

2. Expenditure categories were more detailed in 1970 than they were in earlier surveys.

3. The 1960 to 1970 classification of some expenditures differs from the 1955 Survey in the following respects:

   a. "Boats and boat motors" shown under "auxiliary equipment" were included in "equipment, other" in 1955.

   b. "Entrance and other privilege fees" shown separately were included in "trip expenditures, other" in 1955.

   c. "Snacks and refreshments" not included with "food" expenditures in the 1960 to 1970 reports were under "trip expenditures, other" in 1955.

   d. Expenditures on equipment, magazines, club dues, licenses, and other similar items were classified by the one sport activity for which expenditures were chiefly made. In 1955, these expenditures were evenly divided among all the activities in which the sportsman took part.

   e. Compared with 1955, the 1960 to 1970 Surveys reported fewer expenditures within the "other" category because selected items were transferred to more appropriate categories.

   f. Expenditures on alcoholic beverages were reported separately in the 1970 Survey.

   g. In 1970, definition of a "substantial participant" was changed from one who spent at least $5 during the year or spent 3 days fishing or hunting to one who spent $7.50 for the year or spent 3 days fishing or hunting.

4. The number of waterfowl hunters in the 1970 Survey is not comparable with those reported in the 1960 and 1965 Surveys. In 1960 and 1965, respondent sportsmen were not included in the waterfowl hunter total if they reported that they went waterfowl hunting but did not take the trip chiefly to hunt waterfowl. In 1970, all respondents who reported that they had hunted waterfowl during 1970, regardless of trip purpose, were included in the total. The number of hunters who did not take trips chiefly to hunt waterfowl in 1970 was 1,054,000.

1975 Survey

In contrast to previous surveys which covered substantial participants 12 years old and older, the 1975 Survey based all the estimates on responses from individuals 9 years of age and older and did not select respondents based upon substantial participation as defined above. As a result, individuals who participated fewer than 3 days or spent less than $7.50 on hunting or fishing were included in the estimates of participants, days of activity, and expenditures.

Categories of hunting and fishing expenditures differed from the previous four surveys in that only major categories were reported. For example, hunting equipment expenditures were not further delineated by subcategory. Similarly, no detail was provided within the category of fishing equipment expenditures. Expenses for "other" items such as daily entrance fees, magazines, club dues, and dogs were categorized as "other" in the 1975 report.

In addition to the above differences the 1975 Survey gathered data on species sought for the favorite hunting and fishing activity. These data replaced the "chiefly" category where hunting or fishing was the primary purpose of the trip or day of activity. Data omitted in the 1975 Survey that were included in previous surveys include the respondents' population density of residence, occupation, and level of education.

1980 to 1985 Surveys

The 1980 and 1985 Surveys were similar. Each measured participants, rather than substantial participants. Questions were incorporated into the 1980 and 1985 Survey questionnaires to facilitate the construction of

categories of data for comparisons with earlier surveys. The use of "chiefly" to delimit primary purpose appeared in the 1970 and prior surveys and its use was continued in the 1980 and 1985 Surveys. The expenditure categories in 1980 and 1985 are similar to the 1970 categories with the addition of fish finders, motor homes, and camper trucks as separate categories. The definition of fishing included the use of nets or seines and spearfishing.

As in the 1970 and 1975 Surveys, the 1980 and 1985 Surveys used a two-phase process to gather information from households and individuals. In the first phase, household respondents were asked to identify each participant 6 years of age and older who resided in their household. In comparison, the 1975 and 1970 Surveys screened households for participants who were 9 years of age and older. In the second phase, the detailed interview phase, conducted in person in 1985, 1980 and 1970 and by mail in 1975, participants were eligible if they were at least 12 years old in 1970, 9 years old for the 1975 Survey, and 16 years old for the 1980 and 1985 Surveys. As a result, the population of hunters and anglers is more narrowly defined in 1980 and 1985 to include individuals 6 years old and older. However, estimates of sportsmen 6 years old and over, 9 years old and over, and 12 years old and over are available for comparison with past surveys. Detailed expenditures data were not gathered for the 6-15 year-old category in 1980 and 1985.

Trends From Tables B-2 and B-3

Tables B-2 and B-3 show major findings from the first seven national surveys for the number of participants who hunted and fished, the days they spent doing the activities, and their expenditures in 1990 dollars. Where data are available, these tables can be used to assess trends in fishing and hunting from 1955 to 1985. For the purposes of the tables, the estimates for 1975, 1980, and 1985 were adjusted to conform as closely as possible to past definitions. Therefore, totals in these tables may be different from results in the 1985 report, the 1980 report, or the 1975 report because of the exclusion here of individuals who participated for 2 days or less or spent less than $11 on fishing or hunting in 1975 and $15 in 1980 and 1985. Individuals who were younger than 12 years old are also excluded.

The 1975 Survey data were further adjusted in the following ways. Those who fished for anadromous species were divided into freshwater and saltwater participants by counting all individuals who indicated anadromous fishing only in freshwater as freshwater anglers and counting similarly for saltwater anglers. An individual could be counted in both categories. Expenditures were designated as either freshwater or saltwater when the respondent indicated that the activity took place in only one kind of water. For those individuals who fished for anadromous species in both freshwater and saltwater, expenditures were apportioned according to the ratio of the days spent in each type of water.

The categories for small game, migratory bird, and other hunting in the 1975 Survey were redefined as small game and waterfowl. All species except ducks and geese were included in small game. Participants, days, and expenditures were determined as follows for waterfowl, and all residual migratory bird participants, days, and expenditures were added to small game. If an individual only hunted for ducks or geese in the migratory bird category, the days and expenditures were tallied as waterfowl. If an individual hunted both ducks and geese, the greater number of days was used as waterfowl hunting days. It was assumed that both ducks and geese were hunted on the same day. If both waterfowl and other migratory birds were hunted by the same individual, expenditures were divided by the ratio of the days.

The 1975 Survey also included waterfowl hunting and days under a separate category of favorite and second favorite activity. The estimate of waterfowl hunting days derived above was subtracted from respondents' answers indicating that waterfowl hunting was either their favorite or second favorite activity. The distribution of the differences was normal with 61 percent being zero. Thus, minimal bias is introduced into the estimated waterfowl hunters or the days of waterfowl hunting by the procedures used to evaluate these data.

The 1980 and 1985 data that needed adjustment were the categories of small game, migratory bird, and other hunting. Expenditures for small game hunting were calculated as the sum of expenditures for small game, other hunting, and nonwaterfowl hunters who hunted for migratory birds. Expenditures for waterfowl hunting were estimated to be that portion of the migratory bird hunting expenditures that was spent by those who went waterfowl hunting.

The 1980 detailed estimates of participants, days, and expenditures were adjusted to account

for the exclusion of the 12- to 15-year-old age group from the detailed interview phase of the 1980 Survey. That age group had been included in previous surveys. Screening information on the 12- to 15-year-old age group was available. The proportion of 12- to 15-year-old sportsmen in 1970 participating in the various types of fishing and hunting was used to allocate 1980 12- to 15-year-old sportsmen between the various activities. Days of participation were handled in an identical manner. The 1980 estimates of expenditures were increased using the proportion of total expenditures in 1970 that were accounted for by the 12- to 15-year-old age category. Adjustments were also made to account for the change between 1970 and 1980 in the percentage of the sportsmen between the ages of 12 and 15. The 1970 Survey was used for making the adjustments because of the similarities between the 1970 and 1980 Survey designs.

Since the 1985 Survey closely followed the 1980 Survey design, adjustments to 1985 estimates paralleled the 1980 adjustments. Small game hunting expenditures were calculated as in 1980. Expenditures for waterfowl hunting were calculated using the percentage of expenditures for migratory bird hunting that was accounted for by waterfowl hunting in 1980. Other adjustments were the same as in 1980.

Table B-2. **Comparison of Major Findings of the National Surveys: 1955 to 1985**

(U.S. population 12 years old and older. Numbers in thousands)

Sportsmen	1955	1960	1965	1970	1975	1980	1985
Total sportsmen	**24,917**	**30,435**	**32,881**	**36,277**	**45,773**	**46,966**	**49,827**
Anglers	20,813	25,323	28,348	33,158	41,299	41,873	45,345
Freshwater	18,420	21,677	23,962	29,363	36,599	35,782	39,122
Saltwater	4,557	6,292	8,305	9,460	13,738	11,972	12,893
Hunters	11,784	14,637	13,583	14,336	17,094	16,758	16,340
Small game	9,822	12,105	10,576	11,671	14,182	12,496	11,130
Big game	4,414	6,277	6,566	7,774	11,037	11,047	12,576
Waterfowl	1,986	1,955	1,650	2,894	4,284	3,177	3,201
Expenditures[1]	**13,904,225**	**17,010,944**	**18,282,320**	**23,925,058**	**40,730,094**	**42,094,416**	**51,101,515**
Anglers	9,336,002	11,882,891	12,137,086	16,706,477	28,656,715	28,521,304	34,731,608
Freshwater	6,951,447	9,117,627	8,819,330	12,580,446	21,138,064	20,321,023	23,014,603
Saltwater	2,384,556	2,765,259	3,317,773	4,126,031	7,518,651	6,807,288	8,737,535
Hunters	4,568,222	5,128,045	4,651,589	7,218,581	12,073,379	13,185,436	12,461,852
Small game	2,409,399	3,206,537	2,552,606	3,185,841	5,519,441	4,068,112	2,846,575
Big game	1,579,704	1,526,585	1,737,452	3,209,185	5,168,708	6,876,092	6,494,911
Waterfowl	579,119	394,927	361,527	823,555	1,385,230	934,186	951,728
Days	**566,870**	**658,308**	**708,578**	**909,876**	**1,459,551**	**1,300,983**	**1,415,379**
Fishing	397,447	465,769	522,759	706,187	1,058,075	952,420	1,064,986
Freshwater	338,826	385,167	426,922	592,494	890,576	788,392	895,027
Saltwater	58,621	80,602	95,837	113,694	167,499	164,040	171,055
Hunting	169,423	192,539	185,819	203,689	401,476	348,543	350,393
Small game	118,630	138,192	128,448	124,041	269,653	225,793	214,544
Big game	30,834	39,190	43,845	54,536	100,600	117,406	135,447
Waterfowl	19,959	15,158	13,526	25,113	31,223	26,179	25,933

[1] In 1990 dollars.

Note: These estimates are based on the detailed phases of the seven National Surveys and should not be compared with the estimates from the screening phases which are used for Tables B-4 and B-5.

Table B-3. **Anglers and Hunters, by Census Division: 1955 to 1985**

(U.S. population 12 years old and older. Numbers in thousands)

Year	Population		Sportsmen, fished or hunted		Anglers		Hunters	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
UNITED STATES, TOTAL								
1955	118,366	100	24,917	21.1	20,813	17.6	11,784	10.0
1960	131,226	100	30,435	23.2	25,323	19.3	14,637	11.2
1965	141,928	100	32,881	23.2	28,348	20.0	13,585	9.6
1970	155,230	100	36,277	23.4	33,158	21.4	14,336	9.2
1975	171,860	100	45,773	26.6	41,299	24.0	17,094	9.9
1980	184,691	100	46,966	25.4	41,873	22.7	16,758	9.1
1985	195,659	100	49,827	25.5	45,345	23.2	16,340	8.4
New England								
1955	7,919	100	1,224	15.4	1,002	12.7	589	7.4
1960	8,349	100	1,368	16.4	1,205	14.4	517	6.2
1965	9,256	100	1,650	17.8	1,488	16.0	583	6.3
1970	8,652	100	1,579	18.3	1,430	16.5	582	6.7
1975	9,910	100	2,004	20.2	1,861	18.8	566	5.7
1980	10,205	100	1,974	19.3	1,788	17.5	572	5.6
1985	10,554	100	2,058	19.5	1,914	18.1	552	5.2
Middle Atlantic								
1955	24,869	100	3,539	14.2	2,811	11.3	1,608	6.5
1960	26,493	100	3,432	13.0	2,569	9.7	1,723	6.5
1965	27,346	100	3,602	13.2	2,760	10.1	1,631	6.0
1970	28,244	100	4,539	16.1	4,504	14.4	1,731	6.1
1975	30,449	100	5,919	19.4	5,097	16.7	2,096	6.9
1980	30,256	100	5,181	17.1	4,332	14.3	2,001	6.6
1985	31,099	100	5,565	17.9	4,820	15.5	1,972	6.3
East North Central								
1955	25,733	100	5,489	21.3	4,583	17.8	2,538	9.9
1960	26,833	100	6,316	32.5	5,317	19.8	2,985	11.1
1965	28,124	100	6,214	22.1	5,336	19.0	2,563	9.1
1970	31,550	100	7,284	23.1	6,699	21.2	2,812	8.9
1975	32,796	100	9,049	27.6	8,181	24.9	3,392	10.3
1980	33,526	100	8,725	26.0	7,891	23.5	2,955	8.8
1985	33,747	100	8,973	26.6	8,270	24.5	2,814	8.3
West North Central								
1955	9,201	100	2,913	31.7	2,346	25.5	1,534	16.7
1960	10,149	100	3,383	33.3	2,855	28.1	1,709	16.8
1965	11,681	100	3,678	31.5	3,226	27.6	1,620	13.9
1970	12,904	100	4,000	31.0	3,579	27.7	1,783	13.8
1975	13,564	100	4,524	33.3	4,089	30.1	1,863	13.7
1980	13,826	100	4,770	34.5	4,220	30.5	1,965	14.2
1985	14,137	100	5,140	36.4	4,681	33.1	1,971	13.9
South Atlantic								
1955	14,336	100	3,223	22.5	2,805	19.6	1,449	10.1
1960	17,798	100	4,423	24.9	3,695	20.8	2,045	11.5
1965	20,593	100	5,626	27.3	5,054	24.5	1,900	9.2
1970	23,539	100	5,461	23.2	5,129	21.8	1,904	8.1
1975	27,127	100	7,110	26.2	6,479	23.9	2,494	9.2
1980	30,512	100	7,769	25.5	7,086	23.2	2,444	8.0
1985	33,636	100	8,721	25.9	8,056	24.0	2,467	7.3
East South Central								
1955	7,959	100	1,963	24.7	1,665	20.9	989	12.4
1960	9,277	100	2,778	29.9	2,207	23.8	1,510	16.3
1965	9,652	100	2,587	26.8	2,201	22.8	1,294	13.4
1970	9,862	100	2,660	27.0	2,464	25.0	1,162	11.8
1975	10,798	100	3,007	27.8	2,689	24.9	1,355	12.5
1980	11,771	100	3,614	30.7	3,173	27.0	1,567	13.3
1985	12,364	100	3,671	29.7	3,308	26.8	1,441	11.7

See footnotes at end of table.

Table B-3. **Anglers and Hunters, by Census Division: 1955 to 1985**—Continued

(U.S. population 12 years old and older. Numbers in thousands)

Year	Population		Sportsmen, fished or hunted		Anglers		Hunters	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
West South Central								
1955	10,250	100	2,560	25.0	2,237	21.8	1,165	11.4
1960	11,837	100	3,666	31.0	3,133	26.5	1,750	14.8
1965	12,724	100	3,713	29.2	3,278	25.8	1,571	12.3
1970	14,624	100	4,380	30.0	4,006	27.4	1,918	13.1
1975	16,628	100	5,781	34.8	5,267	31.7	2,563	15.4
1980	19,136	100	5,862	30.6	5,136	26.8	2,456	12.8
1985	21,184	100	6,418	30.3	5,704	26.9	2,572	12.1
Mountain								
1955	4,529	100	1,369	30.2	1,112	24.6	796	17.6
1960	5,222	100	1,646	31.5	1,372	26.3	1,120	21.4
1965	5,029	100	1,565	31.1	1,261	25.1	988	19.6
1970	5,656	100	2,044	36.1	1,769	31.3	980	17.3
1975	7,576	100	2,570	33.9	2,252	29.7	1,159	15.3
1980	9,160	100	2,903	31.7	2,500	27.3	1,268	13.8
1985	10,215	100	3,128	30.6	2,765	27.1	1,241	12.1
Pacific								
1955	13,570	100	2,637	19.4	2,252	16.6	1,116	8.2
1960	15,268	100	3,422	22.4	2,971	19.5	1,279	8.4
1965	17,523	100	4,246	24.2	3,744	21.4	1,433	8.2
1970	20,199	100	4,332	21.4	4,030	20.0	1,466	7.3
1975	23,012	100	5,811	25.2	5,386	23.4	1,607	7.0
1980	26,299	100	6,168	23.5	5,747	21.9	1,531	5.0
1985	38,725	100	6,154	21.4	5,829	20.3	1,310	4.6

Note: These estimates are based on the detailed phases of the seven National Surveys and should not be compared with the estimates from the screening phases which are used for Tables B-4 and B-5.

Section II.

Trends for 1980 to 1990

This trends section covers the period from 1980 to 1990. The information is based primarily on the data collected in the screening phases of the 1980, 1985 and 1991 Surveys. These surveys used similar methodologies for screening purposes and collected comparable information. The screening phases were conducted in January 1981, January 1986, and January 1991. Respondents were asked to report wildlife-associated recreation participation for the previous 12 months. The types of activities covered were the same for all Surveys with one difference. The 1991 Survey covered wildlife-watching participation and did not include secondary wildlife-watching participation. Therefore, the trend information is only for participation in wildlife-watching activities. An example of a secondary wildlife-watching activity is incidentally observing wildlife while pleasure driving.

A description of the population covered, information collected, and the method of developing trend information for the period from 1980 to 1990 is presented below.

1980-1991 Surveys

The first trends section covered the survey years 1955-1985 and uses the participation definitions from the initial surveys, i.e., participants that are "substantial" and 12 years of age and older. The last three surveys have focused on participants 16 years of age and older who participated any number of days and spent any amount of money on wildlife-related recreation. Also, the earlier surveys used different categories for the types of fishing and hunting: freshwater and saltwater fishing, big game, small game, and waterfowl hunting. In the 1980, 1985, and 1991 Surveys, the fishing categories were divided into Great Lakes, other freshwater, and saltwater fishing, and the hunting categories were divided into big game, small game, migratory bird and other animals. Rather than continue with the older participant and type of activity definitions in the trends tables, the more up-to-date definitions are used in Tables B-4 through B-6 for the years 1980 through 1990.

The 1991 Survey sportsmen's questionnaire was based on the 1985 questionnaire, with most of the questions the same for the two surveys. Expenditure and day averages from the detailed phases were used in the trends computations, and the differences between the 1985 and 1991 questionnaires that bear on these calculations are outlined below.

1. The 1985 respondents were asked to estimate their days of hunting and fishing participation by sub-state region, while the 1991 respondents gave their estimates by state.

2. The 1985 respondents estimated their total annual trip-related expenditures, then divided the total among the states they visited. The 1991 respondents estimated their trimester trip-related expenditures by individual state.

3. The 1985 hunting equipment expenditure list differed from the 1991 list in that it included special hunting clothes, cases and carriers for equipment or game, and hunting knives, while the 1991 list included these categories in "other."

4. The 1985 fishing trip-related expenditure list differed from the 1991 list in that it included live bait, cut bait, and prepared baits as separate categories and the 1991 list lumped them together. The 1991 list included boat insurance while the 1985 list did not.

5. The 1985 fishing equipment expenditure list included, among other things, fly rods, other rods and fishing poles, rod making component parts, fly reels, other reels, lines (not over 130 pound test) and fly lines, lines over 130 pound test, artificial lures and baits, artificial flies and dressing for flies or lines, cast nets, minnow traps and seines and other seines or nets, minnow buckets and other portable bait containers, fishing hook disgorgers, scales and knives, depth finders and fish finders and other sonar devices with flasher display only, other depth finders with graph or meter or digital or other display, other electronic fishing devices, rod holders and rod belts, ice fishing tip-ups and tilts, other ice fishing equipment items, spearfishing spears and spear guns and spear tips, other spearfishing equipment, fish fighting chairs and outriggers and downriggers, and fishing vests and other. The 1991 fishing equipment expenditure list did not go into similar detail, asking for rods and poles and rod making components, reels, lines, artificial lures and flies and baits and dressing for flies or lines, minnow traps and seines and bait containers, depth finders and other electronic fishing devices, ice fishing equipment, spearfishing equipment, and all other. All other items on the two lists were identical.

6. The special hunting and fishing equipment expenditure lists for the 2 survey years also differed. The 1985 Survey asked for, among other things, inboard boat, outboard boat, outboard motor, electric trolling motor, other boat accessories, boat trailer or hitch, travel or tent trailer, pickup or camper or van, motor home, trail bike or dune buggy or 4x4 vehicle or 3-wheeler,

snowmobile, ice chest, and other. The 1991 Survey questionnaire included bass boat, other type of motor boat, boat motor or boat trailer or hitch or other boat accessories, pickup or camper or van or travel or tent trailer or motor home, trail bike or dune buggy or 4x4 vehicle or 3-wheeler or snowmobile, and other including ice chest. The rest of the two lists were identical.

7. The auxiliary hunting and fishing equipment expenditure lists for the two survey years had different entries. The 1985 list included, among other things, snowshoes or skis, foul weather gear, other special fishing or hunting clothes such as jackets, rubber boots or waders, maintenance and repair of equipment not including boats or vehicles, fishing or hunting boots, and other. The 1991 list included special fishing or hunting clothing or foul weather gear or boots or waders and all other.

Trends From Tables B-4, B-5, and B-6

The 1980 and 1985 Surveys required respondents to remember their recreation activities for the past year; the 1991 Survey went back to the respondents three times during the year to get their activity information. This change in the recall period was due to a study of the effect of the respondent recall length on survey estimates. The FHWAR Survey's recall study showed that there are significant differences in survey results between annual recall surveys and shorter recall surveys. Even if everything else is held constant, such as questionnaire content and sample design, just changing the respondents' recall period results in different estimates fo the same phenomenon. A straight comparison without any adjustment of estimates from surveys with different recall requirements gives misleading trends data.

The 1991 FHWAR Survey's recall study also reveals that the level of recall bias varies for different types of fishing and hunting participation and expenditure. For example, annual recall respondents in the FHWAR recall study gave an estimate of average annual days of saltwater fishing that was 46 percent higher than the trimester recall estimate, while the annual recall estimate of average annual saltwater fishing trips was 30 percent higher than the trimester recall estimate. This is evidence against a single "correction factor" for all survey estimates when calculating trends data from surveys using different recall periods. Applying a correction factor to estimates from surveys with different recall requirements is not feasible.

The above demonstrates that a reliable trends analysis needs to use data compiled from surveys in which the important elements (e.g., the sample design, the questions asked, the data weighting procedure, and the recall period) vary little. For the 1980, 1985, and 1991 Surveys, the screening interviews asked an adult household respondent (except for 20 percent of the 1991 sample, in which every member of the household 16 years old and older answered for himself or herself and an adult household respondent answered for members of the household 6-15 years of age) the past year's wildlife-related recreation activity of all household members 6 years old and older. These data bases supply information that was similarly gathered and compiled. The presentation of trends data in Tables B-4 through B-6 uses the screening interviews of the three surveys to arrive at estimates of recreation participation.

The strength of using the past three survey's screening interviews for the trends analysis is that they were all done in approximately the same way, making the data comparable. One significant difference, however, is that the 1980 and 1985 screening surveys cover the years 1980 and 1985, while the 1991 screening survey covers the year 1990. This is because the annual recall of the 1980 and 1985 Surveys allowed the respondents to be screened into the detailed phase after the year was over, while the 1991 trimester interviews required respondents to be screened into the detailed phase during the first part of the year 1991 before their activity took place. The data from the screening interviews are subject to similar biases such as (1) the data come from household respondents rather than the self-response of participants and (2) annual recall was used in each screening interview. These biases mean the resulting estimates are not as accurate as the estimates from the second (detailed) phase of each survey, in which the hunters, anglers, and wildlife-watching participants themselves were interviewed about their activity over the surveyed year (with trimester recall, in the case of the 1991 Survey). However, the screening interview estimates are good indicators of relative levels of activity, while not being as accurate as the estimates for that year's activity which were derived from the detailed phase of the surveys.

The hunting, fishing, nonresidential, and residential wildlife-watching total participation estimates came directly from the 1980, 1985, and 1991 screening data files. The type of hunting and fishing participation (e.g., big game, small game, freshwater, etc.) estimates were calculated by using their proportions of total hunting and fishing observed in the detailed phases of the 1980, 1985, and 1991 Surveys.

Table B-4. **Comparison of Major Findings of the National Surveys: 1980 to 1990**

(Participants 6 years old and older. Numbers in thousands)

Participants	1980	1985	1990
Total sportsmen	**59,354**	**63,390**	**69,491**
Anglers	54,235	58,889	65,128
Great Lakes	3,796	4,711	4,559
Other freshwater	45,557	48,878	55,359
Saltwater	15,728	17,667	16,282
Hunters	18,761	18,237	18,783
Big game	12,757	13,678	14,463
Small game	13,320	11,854	10,143
Migratory birds	5,628	5,471	3,944
Other animals	2,814	3,100	1,878
Total nonconsumptive participants	**121,125**	**115,269**	**109,472**
Residential	115,788	107,022	100,750
Nonresidential	22,972	34,200	37,545

Note: These estimates come from the screening phases of the three National Surveys, and are only for use as trends measures. Estimates from the screening interviews are not as accurate as estimates from the detailed interviews in measuring the surveyed year's wildlife-associated recreation activity.

Table B-5. **Anglers and Hunters, by Census Division: 1980 to 1990**

(U.S. population 6 years old and older. Numbers in thousands)

Year	Total population	Sportsmen	Anglers	Hunters
UNITED STATES, TOTAL				
1980	205,255	59,354	54,235	18,761
1985	216,318	63,390	58,889	18,237
1990	225,494	69,491	65,128	18,783
New England				
1980	11,230	2,551	2,364	630
1985	11,528	2,660	2,518	582
1990	11,826	2,963	2,859	581
Middle Atlantic				
1980	33,362	6,579	5,699	2,188
1985	34,021	7,105	6,368	2,091
1990	34,110	7,690	6,997	2,119
East North Central				
1980	37,439	11,228	10,409	3,249
1985	37,531	11,453	10,737	3,083
1990	38,276	12,416	11,601	3,530
West North Central				
1980	15,384	6,048	5,494	2,223
1985	15,717	6,429	5,964	2,211
1990	16,115	6,641	6,191	2,181
South Atlantic				
1980	33,795	9,863	9,175	2,786
1985	36,849	10,944	10,277	2,787
1990	39,587	12,159	11,558	2,794
East South Central				
1980	13,207	4,556	4,109	1,815
1985	13,734	4,585	4,199	1,641
1990	13,974	5,234	4,859	1,788
West South Central				
1980	21,495	7,213	6,492	2,815
1985	23,817	8,063	7,352	2,981
1990	24,184	8,810	8,268	2,750
Mountain				
1980	10,273	3,566	3,160	1,392
1985	11,464	3,974	3,599	1,408
1990	12,288	4,288	3,903	1,398
Pacific				
1980	29,072	7,750	7,333	1,663
1985	31,659	8,177	7,873	1,452
1990	35,134	9,291	8,890	1,641

Note: These estimates come from the screening phases of the three National Surveys, and are only for use as trends measures. Estimates from the screening interviews are not as accurate as estimates from the detailed interviews in measuring the surveyed year's wildlife-associated recreation activity.

Table B-6. **Nonconsumptive Participants, by Census Division: 1980 to 1990**

(U.S. population 6 years old and older. Numbers in thousands)

Year	Total population	Total nonconsumptive	Residential	Nonresidential
UNITED STATES				
1980	205,255	121,125	115,788	22,972
1985	216,318	115,269	107,022	34,200
1990	225,494	109,472	100,750	37,545
New England				
1980	11,230	7,557	7,355	1,166
1985	11,528	6,909	6,557	1,842
1990	11,826	6,367	5,968	2,113
Middle Atlantic				
1980	33,362	19,732	19,166	3,410
1985	34,021	16,578	15,498	4,803
1990	34,110	14,831	13,820	4,784
East North Central				
1980	37,439	25,107	24,202	4,567
1985	37,531	22,769	21,245	6,853
1990	38,276	21,030	19,701	6,915
West North Central				
1980	15,384	9,787	9,334	2,025
1985	15,717	9,459	8,724	3,131
1990	16,115	9,534	8,806	3,381
South Atlantic				
1980	33,795	19,925	19,273	3,147
1985	36,849	19,146	18,179	4,592
1990	39,587	19,103	17,830	5,881
East South Central				
1980	13,207	7,628	7,417	987
1985	13,734	7,100	6,729	1,558
1990	13,974	6,904	6,451	2,053
West South Central				
1980	21,495	11,375	10,833	1,981
1985	23,817	11,386	10,612	3,081
1990	24,184	10,526	9,687	3,185
Mountain				
1980	10,273	5,640	5,062	1,715
1985	11,464	6,592	5,791	2,813
1990	12,288	6,471	5,603	3,021
Pacific				
1980	29,072	14,374	13,147	3,974
1985	31,659	15,330	13,686	5,529
1990	35,134	14,705	12,882	6,211

Note: These estimates come from the screening phases of the three National Surveys, and are only for use as trends measures. Estimates from the screening interviews are not as accurate as estimates from the detailed interviews in measuring the surveyed year's wildlife-associated recreation activity.

Section III.

Trends for 1991 to 1996

This trends section covers the period from 1991 to 1996. The 1991 and 1996 Surveys used similar methodologies and all published information for the two Surveys is directly comparable.

The most significant survey design differences between the 1991 Survey and the 1996 Survey are as follows:

(1) The 1991 Survey data were collected by interviewers filling out paper questionnaires. The data entries were keyed in a separate operation after the interview. The 1996 Survey data were collected by the use of computer-assisted interviews, where the questionnaire was programmed into computers and the interviewer keyed in the responses at the time of the interview.

(2) The 1991 Survey screening phase was conducted in January and February of 1991, when the sample households were contacted and a household respondent was interviewed on behalf of the entire household. The 1991 screening interview primarily consisted of socio-demographic questions and wildlife-related recreation questions concerning activity in the year 1990 and intentions for the year 1991. The 1996 Survey screening phase was conducted April through June of 1996 in conjunction with the first wave of the detailed phase. The 1996 screening interview primarily consisted of socio-demographic questions and wildlife-related recreation questions concerning activity in the year 1995 and intentions for the year 1996.

(3) In the 1991 Survey an attempt was made to contact every sample person in all three detailed interview waves. In the 1996 Survey the respondents who were interviewed in the first detailed interview wave were not contacted again until the third wave. Also, all interviews in the second wave were conducted by telephone. In-person interviews were only conducted in the first and third wave.

Important instrument changes:

(1) The 1991 Survey instrument expenditure section collected information on all wildlife-related recreation purchases made by participants without reference to where the purchase was made. The 1996 Survey instrument expenditure section included a question for each purchase that asked in which state the purchase was made.

(2) In 1991 respondents were asked what kind of fishing they did, i.e., Great Lakes, other freshwater, or saltwater, and then asked what states they did it in. In 1996 respondents were asked in which states they fished, and then were asked the pertinent kind of fishing questions. This method had the advantage of not asking about, for example, saltwater fishing when they only fished in a noncoastal state.

(3) In 1991 respondents were asked how many days they "actually" hunted or fished for a particular type of game or fish, and then how many days they "chiefly" hunted or fished for the same type of game or fish rather than another type of game or fish. To get total days of hunting or fishing for a particular type of game or fish, the "actually" day response was used, while to get the sum of all days hunting or fishing the "chiefly" days were summed. In 1996 respondents were asked their total days of hunting or fishing in the country and each state, then how many days they hunted or fished for a particular type of game or fish.

(4) Trip-related and equipment expenditure categories were not the same for both Surveys. "Guide fee" and "Pack trip or package fee" were two separate trip-related expenditure items in 1991, while they were combined into one category in the 1996 Survey. "Boating costs" was added to the 1996 hunting and wildlife-watching trip-related expenditure sections. "Heating and cooking fuel" was added to all of the trip-related expenditure sections. "Spearfishing equipment" was moved from a separate category, to the "other" list. "Rods" and "Reels" were two separate categories in 1991, but were combined in 1996. "Lines, hooks, sinkers, etc." was one category in 1991, but split into "Lines" and "Hooks, sinkers, etc." in 1996. "Food used to feed other wildlife" was added to the wildlife-watching equipment section, "Boats" and "Cabins" were added to the wildlife-watching special equipment section, and "Land leasing and ownership" was added to the wildlife-watching expenditures section.

(5) Questions asking sportsmen if they participated as much as they wanted were added to the 1996 Survey instrument. If the sportsman said no, they were asked why not.

(6) The 1991 Survey included questions about participation in organized fishing competitions, anglers using bows and arrows, nets or seines, or spearfishing, hunters using pistols or handguns, and target shooting in preparation for hunting. These questions were not included in the 1996 Survey.

(7) The 1996 Survey included questions about catch and release fishing and persons with disabilities participating in wildlife-related recreation, These questions were not part of the 1991 Survey.

(8) The 1991 Survey included questions about average distance traveled to recreation sites. These questions were not included in the 1996 Survey.

(9) The 1996 Survey included some questions about the last trip the respondent took during the interview. These included information of the type of trip, where the activity took place, and the distance and direction to the site visited.

(10) The 1991 Survey collected data on hunting, fishing, and wildlife watching by U.S. residents in Canada. The 1996 Survey collected data on fishing and wildlife-watching by U.S. residents in Canada.

Table B-7. **Anglers and Hunters, by Census Division: 1991 and 1996**

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

Sportsmen	1991		1996	
	Number	Percent	Number	Percent
UNITED STATES				
Total population	189,964	100	201,472	100
Sportsmen	39,979	21	39,694	20
Anglers	35,578	19	35,246	17
Hunters	14,063	7	13,975	7
New England				
Total population	10,180	100	10,306	100
Sportsmen	1,658	16	1,673	16
Anglers	1,545	15	1,520	15
Hunters	444	4	465	5
Middle Atlantic				
Total population	29,216	100	29,371	100
Sportsmen	4,508	15	4,192	14
Anglers	3,871	13	3,627	12
Hunters	1,746	6	1,453	5
East North Central				
Total population	32,188	100	33,121	100
Sportsmen	7,202	22	6,912	21
Anglers	6,264	19	6,006	18
Hunters	2,789	9	2,712	8
West North Central				
Total population	13,504	100	13,875	100
Sportsmen	4,143	31	3,977	29
Anglers	3,647	27	3,416	25
Hunters	1,709	13	1,917	14
South Atlantic				
Total population	33,682	100	36,776	100
Sportsmen	6,996	21	7,282	20
Anglers	6,441	19	6,636	18
Hunters	2,083	6	2,050	6
East South Central				
Total population	11,667	100	12,459	100
Sportsmen	2,984	26	2,907	23
Anglers	2,635	23	2,514	20
Hunters	1,279	11	1,301	10
West South Central				
Total population	19,926	100	21,811	100
Sportsmen	5,125	26	5,093	23
Anglers	4,592	23	4,616	21
Hunters	1,843	9	1,812	8
Mountain				
Total population	10,092	100	11,966	100
Sportsmen	2,488	25	2,761	23
Anglers	2,079	21	2,411	20
Hunters	1,069	11	1,061	9
Pacific				
Total population	29,508	100	31,787	100
Sportsmen	4,875	17	4,897	15
Anglers	4,505	15	4,501	14
Hunters	1,101	4	1,203	4

Table B-8. **Wildlife-Watching Participants, by Census Division: 1991 and 1996**

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

Wildlife watching	1991		1996	
	Number	Percent	Number	Percent
UNITED STATES				
Total population	189,964	100	201,472	100
Wildlife-watching participants	76,111	40	62,868	31
Nonresidential	29,999	16	23,652	12
Residential	73,904	39	60,751	30
New England				
Total population	10,180	100	10,306	100
Wildlife-watching participants	4,598	45	3,710	36
Nonresidential	1,856	18	1,443	14
Residential	4,544	45	3,586	35
Middle Atlantic				
Total population	29,216	100	29,371	100
Wildlife-watching participants	10,556	36	8,185	28
Nonresidential	4,166	14	2,960	10
Residential	10,282	35	8,023	27
East North Central				
Total population	32,188	100	33,121	100
Wildlife-watching participants	14,511	45	11,731	35
Nonresidential	5,572	17	4,501	14
Residential	14,175	44	11,297	34
West North Central				
Total population	13,504	100	13,875	100
Wildlife-watching participants	6,924	51	5,089	37
Nonresidential	2,654	20	1,927	14
Residential	6,722	50	4,900	35
South Atlantic				
Total population	33,682	100	36,776	100
Wildlife-watching participants	13,047	39	11,252	31
Nonresidential	4,450	13	3,992	11
Residential	12,813	38	10,964	30
East South Central				
Total population	11,667	100	12,459	100
Wildlife-watching participants	4,864	42	3,904	31
Nonresidential	1,592	14	1,118	9
Residential	4,765	41	3,795	30
West South Central				
Total population	19,926	100	21,811	100
Wildlife-watching participants	7,035	35	5,933	27
Nonresidential	2,459	12	2,096	10
Residential	6,817	34	5,773	26
Mountain				
Total population	10,092	100	11,966	100
Wildlife-watching participants	4,437	44	4,099	34
Nonresidential	2,215	22	1,967	16
Residential	4,145	41	3,855	32
Pacific				
Total population	29,508	100	31,787	100
Wildlife-watching participants	10,139	34	8,966	28
Nonresidential	5,035	17	3,648	11
Residential	9,641	33	8,558	27

Appendix C

Appendix C: Selected Data From Screening Interviews

The 1996 National Survey of Fishing , Hunting, and Wildlife-Associated Recreation was carried out in two phases. The first (or screening) phase began in April 1996. The main purpose of this phase was to collect information about persons 16 years old and older in order to develop a sample of potential sportsmen and wildlife-watching participants for the second (or detailed) phase. Information was also collected on the number of persons 6 to 15 years old who participated in wildlife-related recreation activities in 1995. These data are reported here in order to include the recreation activity of 6- to 15-year-olds in this report.

It is important to emphasize that the information reported here from the 1996 screening questionnaires relates to activity only up to and including 1995. Also, these data were based on long-term recall (at least 12-month recall was required for most of these tables) and were reported in most cases, by one household respondent speaking for all household members rather than the shorter term recall of the actual participant, as in the case of the 1996 detailed phase.

Tables C-1, C-2, and C-3 report data on participants 6 years old and older for the most recent year an individual hunted, sportsmen 6 years old and older who participated for the first time in 1995, and sportsmen 6 years and older who participated in 1994 but not in 1996. The remainder of the Tables, C-4 thru C-11, report data specifically on 6- to 15-year-old participants in 1995. Detailed expenditures and recreational activity data were not gathered for the 6- to 15-year-old participants.

Because of the difference in methodologies of the screening phase and the detailed phase of the 1996 Survey, the data are not comparable. Only participants 16-years-old and older were eligible for the detailed phase. The detailed phase was a series of three interviews conducted at 4-month intervals. The screening interviews were 1-year recall. The shorter recall period of the detailed phase had better data accuracy. It has been found in Survey studies that in many cases, longer recall periods result in over-estimating participation in and expenditures on wildlife-related recreation activities.

Table C-1. **Anglers and Hunters Participating for the First Time in 1995, by Age Group**

(Population 6 years old and older. Numbers in thousands)

Age group	Total anglers in 1995	Fishing for first time		Total hunters in 1995	Hunting for first time	
		Number	Percent of anglers in age group		Number	Percent of hunters in age group
Total, all ages	**62,823**	**4,516**	**7**	**17,303**	**1,348**	**8**
6 to 8 years	4,114	1,147	28	117	*58	*50
9 to 11 years	4,760	708	15	314	175	56
12 to 15 years	5,934	500	8	1,289	465	36
16 to 17 years	2,086	166	8	777	125	16
18 to 24 years	5,258	360	7	1,826	163	9
25 to 34 years	10,405	576	6	3,206	184	6
35 to 44 years	12,948	581	4	4,014	87	2
45 to 54 years	8,766	251	3	3,039	*44	*1
55 to 64 years	4,532	126	3	1,602	*33	*2
65 years or older	4,020	100	2	1,121	...	...

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

Note: Data reported on this table are from screening interviews in which one adult household member responded for all household members. The screening interview required the respondent to recall 12 months worth of activity.

Table C-2. **Anglers and Hunters Participating in 1994 but not in 1995, by Age Group**

(Population 6 years old and older. Numbers in thousands)

Age group	Anglers		Hunters	
	Number	Percent	Number	Percent
Total, all ages	**11,937**	**100**	**3,509**	**100**
6 to 8 years	396	3	(NA)	(NA)
9 to 11 years	552	5	(NA)	(NA)
12 to 15 years	934	8	(NA)	(NA)
16 to 17 years	510	4	126	4
18 to 24 years	1,021	9	469	13
25 to 34 years	1,970	16	722	21
35 to 44 years	2,769	23	1,024	29
45 to 54 years	1,910	16	588	17
55 to 64 years	928	8	317	9
65 years or older	948	8	263	7

(NA) Not available.

Note: Data reported on this table are from screening interviews in which one adult household member responded for all household members. The screening interview required the respondent to recall 12 months worth of activity. Includes persons who fished or hunted only in other countries. Hunters 6 to 15 years old were not asked this question.

Table C-3. **Most Recent Year of Hunting, by Age Group**

(Population 16 years old and older. Numbers in thousands)

Age group	Total, all persons who hunted in 1995 or earlier year		Most recent year of hunting					
			1995		1994		1993	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total, all ages	**48,492**	**100**	**17,291**	**36**	**3,504**	**7**	**1,712**	**4**
6 to 11 years	680	100	431	63	(NA)	(NA)	(NA)	(NA)
12 to 15 years	1,680	100	1,288	77	(NA)	(NA)	(NA)	(NA)
16 to 17 years	1,045	100	777	74	126	12	*32	*3
18 to 24 years	3,439	100	1,824	53	469	14	252	7
25 to 34 years	7,338	100	3,205	44	722	10	407	6
35 to 44 years	10,677	100	4,011	38	1,022	10	351	3
45 to 54 years	9,210	100	3,036	33	586	6	284	3
55 to 64 years	6,212	100	1,599	26	317	5	153	2
65 years or older	8,211	100	1,121	14	261	3	234	3

	Most recent year of hunting							
	1992		1991		1990		Before 1990	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total, all ages	**1,285**	**3**	**1,097**	**2**	**1,269**	**3**	**21,400**	**44**
6 to 11 years	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
12 to 15 years	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
16 to 17 years	*15	*1	...	...	...	...	*70	*7
18 to 24 years	119	3	149	4	142	4	442	13
25 to 34 years	282	4	172	2	290	4	2,187	30
35 to 44 years	359	3	278	3	271	3	4,329	41
45 to 54 years	237	3	202	2	217	2	4,619	50
55 to 64 years	135	2	117	2	120	2	3,738	60
65 years or older	137	2	176	2	214	3	6,015	73

* Estimate based on a small sample size. ... Sample size too small to report data reliably. (NA) Not available.

Note: Data reported on this table are from screening interviews in which one adult household member responded for all household members. The screening interview required the respondent to recall 12 months worth of activity.

Table C-4. **Most Recent Year of Fishing, by Age Group**

(Population 6 years old and older. Numbers in thousands)

Age group	Total, all persons who fished in 1995 or earlier year		Most recent year of fishing					
			1995		1994		1993	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total, all ages	**113,590**	**100**	**62,741**	**55**	**11,917**	**10**	**5,669**	**5**
6 to 11 years	10,825	100	8,873	82	945	9	271	3
12 to 15 years	8,314	100	5,930	71	934	11	352	4
16 to 17 years	3,684	100	2,086	57	510	14	223	6
18 to 24 years	10,024	100	5,251	52	1,019	10	615	6
25 to 34 years	19,168	100	10,384	54	1,968	10	970	5
35 to 44 years	25,051	100	12,935	52	2,766	11	1,369	5
45 to 54 years	19,408	100	8,755	45	1,907	10	769	4
55 to 64 years	11,719	100	4,530	39	927	8	505	4
65 years or older	15,516	100	3,996	26	940	6	595	4

	Most recent year of fishing							
	1992		1991		1990		Before 1990	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total, all ages	**3,773**	**3**	**3,240**	**3**	**3,031**	**3**	**31,829**	**28**
6 to 11 years	198	2	76	1	77	1	107	1
12 to 15 years	262	3	180	2	128	2	426	5
16 to 17 years	147	4	171	5	96	3	400	11
18 to 24 years	395	4	357	4	310	3	1,771	18
25 to 34 years	675	4	462	2	496	3	3,924	20
35 to 44 years	788	3	653	3	653	3	5,681	23
45 to 54 years	617	3	504	3	561	3	6,179	32
55 to 64 years	287	2	354	3	320	3	4,723	40
65 years or older	403	3	482	3	390	3	8,618	56

Note: Data reported on this table are from screening interviews in which one adult household member responded for all household members. The screening interview required the respondent to recall 12 months worth of activity.

Table C-5. **Anglers and Hunters 6 to 15 Years Old: 1995**

(Population 6 to 15 years old. Numbers in thousands)

Sportsmen	Total, 6 to 15 years old		12 to 15 years old		9 to 11 years old		6 to 8 years old	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total sportsmen, fished or hunted	**15,019**	**100**	**6,110**	**100**	**4,790**	**100**	**4,120**	**100**
Total anglers	**14,808**	**99**	**5,934**	**97**	**4,760**	**99**	**4,114**	**100**
Fished only	13,299	89	4,821	79	4,476	93	4,003	97
Fished and hunted	1,509	10	1,113	18	284	6	112	3
Total hunters	**1,720**	**11**	**1,289**	**21**	**314**	**7**	**117**	**3**
Hunted only	211	1	176	3	*30	*1	...	...
Hunted and fished	1,509	10	1,113	18	284	6	112	3

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

Note: Detail does not add to total because of multiple responses. Data reported on this table are from screening interviews in which one adult household member responded for all household members 6 to 15 years old. The screening interview required the respondent to recall 12 months worth of activity. Includes persons who fished or hunted only in other countries.

Table C-6. **Wildlife-Watching Participants 6 to 15 Years Old, by Wildlife-Watching Activity: 1995**

(Population 6 to 15 years old. Numbers in thousands)

Activity	Total, 6 to 15 years old			12 to 15 years old			9 to 11 years old			6 to 8 years old		
	Number	Percent of participants	Percent of population	Number	Percent of participants	Percent of population	Number	Percent of participants	Percent of population	Number	Percent of participants	Percent of population
Total participants	**17,449**	**100**	**45**	**6,375**	**100**	**41**	**5,475**	**100**	**48**	**5,600**	**100**	**47**
Nonresidential	8,314	48	21	2,855	45	18	2,602	48	23	2,857	51	24
Residential	15,425	88	40	5,578	88	36	4,896	89	43	4,951	88	42
Observe wildlife	11,762	67	30	4,112	64	26	3,783	69	33	3,867	69	33
Photograph wildlife	2,141	12	5	920	14	6	729	13	6	492	9	4
Feed wild birds or other wildlife	10,536	60	27	3,718	58	24	3,308	60	29	3,509	63	29
Maintain plantings or natural areas	2,651	15	7	1,021	16	7	883	16	8	747	13	6

Note: Detail does not add to total because of multiple responses. Columns showing percent of participants are based on the first row of each column. Columns showing percent of population in age group are based on the U.S. population in each age category, including those who did not participate in wildlife-watching activities. Data reported on this table are from screening interviews in which one adult household member responded for household members 6 to 15 years old. The screening interview required the respondent to recall 12 months worth of activity. Includes persons who participated only in other countries.

Table C-7. **Selected Characteristics of Anglers and Hunters 6 to 15 Years Old: 1995**

(Population 6 to 15 years old. Numbers in thousands)

Characteristic	U.S. population		Sportsmen, fished or hunted			Fished only		
	Number	Percent	Number	Percent who participated	Percent	Number	Percent who participated	Percent
Total persons	**38,989**	**100**	**15,019**	**39**	**100**	**13,299**	**34**	**100**
Population density of residence								
Urban	27,380	70	9,071	33	60	8,366	31	63
Rural	11,608	30	5,948	51	40	4,934	43	37
Population size of residence								
MSA	30,507	78	10,672	35	71	9,773	32	73
1,000,000 or more	19,319	50	6,305	33	42	5,930	31	45
250,000 to 999,999	7,685	20	2,870	37	19	2,548	33	19
50,000 to 249,999	3,503	9	1,497	43	10	1,295	37	10
Outside MSA	8,482	22	4,347	51	29	3,527	42	27
Census geographic division								
New England	1,824	5	741	41	5	706	39	5
Middle Atlantic	5,272	14	1,846	35	12	1,698	32	13
East North Central	6,456	17	2,590	40	17	2,338	36	18
West North Central	2,840	7	1,616	57	11	1,343	47	10
South Atlantic	6,632	17	2,415	36	16	2,166	33	16
East South Central	2,385	6	902	38	6	720	30	5
West South Central	4,615	12	1,906	41	13	1,539	33	12
Mountain	2,572	7	1,107	43	7	1,010	39	8
Pacific	6,393	16	1,896	30	13	1,780	28	13
Age								
6 to 8 years	11,898	31	4,120	35	27	4,003	34	30
9 to 11 years	11,458	29	4,790	42	32	4,476	39	34
12 to 15 years	15,633	40	6,110	39	41	4,821	31	36
Sex								
Male, total	20,060	51	9,569	48	64	8,063	40	61
6 to 8 years	6,179	16	2,452	40	16	2,358	38	18
9 to 11 years	6,054	16	3,018	50	20	2,749	45	21
12 to 15 years	7,826	20	4,100	52	27	2,956	38	22
Female, total	18,929	49	5,450	29	36	5,237	28	39
6 to 8 years	5,719	15	1,668	29	11	1,645	29	12
9 to 11 years	5,404	14	1,772	33	12	1,727	32	13
12 to 15 years	7,806	20	2,010	26	13	1,865	24	14
Race								
White	30,782	79	13,611	44	91	11,988	39	90
Black	4,519	12	565	12	4	548	12	4
All others	3,688	9	844	23	6	763	21	6
Annual household income								
Under $10,000	2,636	7	520	20	3	468	18	4
$10,000 to $19,999	4,033	10	1,211	30	8	1,111	28	8
$20,000 to $24,999	2,550	7	785	31	5	697	27	5
$25,000 to $29,999	2,471	6	966	39	6	830	34	6
$30,000 to $34,999	2,559	7	997	39	7	863	34	6
$35,000 to $39,999	2,314	6	941	41	6	862	37	6
$40,000 to $49,999	3,987	10	1,883	47	13	1,694	42	13
$50,000 to $74,999	7,246	19	3,344	46	22	2,856	39	21
$75,000 to $99,999	3,320	9	1,611	49	11	1,485	45	11
$100,000 or more	2,764	7	1,249	45	8	1,097	40	8
Not reported	5,108	13	1,512	30	10	1,335	26	10

See footnotes at end of table.

Table C-7. **Selected Characteristics of Anglers and Hunters 6 to 15 Years Old: 1995**--Continued

(Population 6 to 15 years old. Numbers in thousands)

Characteristic	Hunted only			Fished and hunted		
	Number	Percent who participated	Percent	Number	Percent who participated	Percent
Total persons	**211**	**1**	**100**	**1,509**	**4**	**100**
Population density of residence						
Urban	103	(Z)	49	602	2	40
Rural	107	1	51	907	8	60
Population size of residence						
MSA	100	(Z)	48	799	3	53
1,000,000 or more	*58	*(Z)	*27	316	2	21
250,000 to 999,999	*24	*(Z)	*11	299	4	20
50,000 to 249,999	*19	*1	*9	184	5	12
Outside MSA	110	1	52	710	8	47
Census geographic division						
New England	...	...	...	32	2	2
Middle Atlantic	...	...	...	*113	*2	*8
East North Central	...	...	...	230	4	15
West North Central	*41	*1	*19	232	8	15
South Atlantic	...	...	...	227	3	15
East South Central	*22	*1	*10	161	7	11
West South Central	*41	*1	*20	326	7	22
Mountain	*15	*1	*7	83	3	5
Pacific	...	...	...	106	2	7
Age						
6 to 8 years	...	...	...	112	1	7
9 to 11 years	*30	*(Z)	*14	284	2	19
12 to 15 years	176	1	84	1,113	7	74
Sex						
Male, total	182	1	86	1,324	7	88
6 to 8 years	...	...	...	89	1	6
9 to 11 years	*24	*(Z)	*12	245	4	16
12 to 15 years	152	2	72	991	13	66
Female, total	*29	*(Z)	*14	184	1	12
6 to 8 years	...	...	...	...	...	...
9 to 11 years	...	...	...	*40	*1	*3
12 to 15 years	*24	*(Z)	*11	122	2	8
Race						
White	194	1	92	1,428	5	95
Black	...	...	...	...	...	...
All others	...	...	...	76	2	5
Annual household income						
Under $10,000	...	...	...	*34	*1	*2
$10,000 to $19,999	...	...	...	96	2	6
$20,000 to $24,999	...	...	...	79	3	5
$25,000 to $29,999	...	...	...	129	5	9
$30,000 to $34,999	...	...	...	121	5	8
$35,000 to $39,999	...	...	...	73	3	5
$40,000 to $49,999	*25	*1	*12	163	4	11
$50,000 to $74,999	*48	*1	*23	439	6	29
$75,000 to $99,999	...	...	...	109	3	7
$100,000 or more	*11	*(Z)	*5	140	5	9
Not reported	*52	*1	*25	125	2	8

* Estimate based on a small sample size. ... Sample size too small to report data reliably. (Z) Less than 0.5 percent.

Note: Percent who participated columns show the percent of each row's population who participated in the activity named by the column (the percent of those living in urban areas who fished only, etc.). Percent columns show the percent of each column's participants who are described by the row heading (the percent of those who fished only who lived in urban areas, etc.). Data reported on this table are from screening interviews in which one adult household member responded for all household members. The screening interview required the respondent to recall 12 months worth of activity.

Table C-8. **Selected Characteristics of Wildlife-Watching Participants 6 to 15 Years Old: 1995**
(Population 6 to 15 years old. Numbers in thousands)

Characteristic	U.S. population		Participants								
			Total			Nonresidential			Residential		
	Number	Percent	Number	Percent who participated	Percent	Number	Percent who participated	Percent	Number	Percent who participated	Percent
Total persons	**38,989**	**100**	**17,449**	**45**	**100**	**8,314**	**21**	**100**	**15,425**	**40**	**100**
Population density of residence											
Urban	27,380	70	11,213	41	64	5,525	20	66	9,774	36	63
Rural	11,608	30	6,236	54	36	2,790	24	34	5,651	49	37
Population size of residence											
MSA	30,507	78	13,250	43	76	6,352	21	76	11,613	38	75
1,000,000 or more	19,319	50	8,158	42	47	4,004	21	48	7,090	37	46
250,000 to 999,999	7,685	20	3,496	45	20	1,554	20	19	3,090	40	20
50,000 to 249,999	3,503	9	1,595	46	9	794	23	10	1,433	41	9
Outside MSA	8,482	22	4,200	50	24	1,963	23	24	3,812	45	25
Census geographic division											
New England	1,824	5	888	49	5	436	24	5	796	44	5
Middle Atlantic	5,272	14	2,285	43	13	1,095	21	13	2,072	39	13
East North Central	6,456	17	3,250	50	19	1,487	23	18	2,987	46	19
West North Central	2,840	7	1,495	53	9	764	27	9	1,343	47	9
South Atlantic	6,632	17	2,971	45	17	1,247	19	15	2,667	40	17
East South Central	2,385	6	1,062	45	6	397	17	5	988	41	6
West South Central	4,615	12	1,699	37	10	772	17	9	1,445	31	9
Mountain	2,572	7	1,258	49	7	702	27	8	1,061	41	7
Pacific	6,393	16	2,541	40	15	1,415	22	17	2,067	32	13
Age											
6 to 8 years	11,898	31	5,600	47	32	2,857	24	34	4,951	42	32
9 to 11 years	11,458	29	5,475	48	31	2,602	23	31	4,896	43	32
12 to 15 years	15,633	40	6,375	41	37	2,855	18	34	5,578	36	36
Sex											
Male, total	20,060	51	9,072	45	52	4,353	22	52	7,991	40	52
6 to 8 years	6,179	16	2,928	47	17	1,464	24	18	2,588	42	17
9 to 11 years	6,054	16	2,945	49	17	1,413	23	17	2,621	43	17
12 to 15 years	7,826	20	3,199	41	18	1,476	19	18	2,782	36	18
Female, total	18,929	49	8,377	44	48	3,961	21	48	7434	39	48
6 to 8 years	5,719	15	2,672	47	15	1,393	24	17	2,363	41	15
9 to 11 years	5,404	14	2,530	47	14	1,189	22	14	2,275	42	15
12 to 15 years	7,806	20	3,176	41	18	1,379	18	17	2,796	36	18
Race											
White	30,782	79	15,355	50	88	7,454	24	90	13,661	44	89
Black	4,519	12	941	21	5	277	6	3	857	19	6
All others	3,688	9	1,154	31	7	584	16	7	907	25	6
Annual household income											
Under $10,000	2,636	7	765	29	4	249	9	3	714	27	5
$10,000 to $19,999	4,033	10	1,401	35	8	643	16	8	1,233	31	8
$20,000 to $24,999	2,550	7	900	35	5	397	16	5	788	31	5
$25,000 to $29,999	2,471	6	1,108	45	6	554	22	7	969	39	6
$30,000 to $34,999	2,559	7	1,132	44	6	576	23	7	975	38	6
$35,000 to $39,999	2,314	6	1,153	50	7	542	23	7	965	42	6
$40,000 to $49,999	3,987	10	2,119	53	12	1,134	28	14	1,867	47	12
$50,000 to $74,999	7,246	19	3,839	53	22	1,905	26	23	3,422	47	22
$75,000 to $99,999	3,320	9	1,836	55	11	880	27	11	1,613	49	10
$100,000 or more	2,764	7	1,504	54	9	781	28	9	1,320	48	9
Not reported	5,108	13	1,693	33	10	653	13	8	1,561	31	10

Note: Detail does not add to total because of multiple responses. Percent who participated columns show the percent of each row's population who participated in the activity named by the column (the percent of those living in urban areas who were residential participants, etc.). Percent columns show the percent of each column's participants who are described by the row heading (the percent of those who were residential participants who lived in urban areas, etc.). Data reported on this table are from screening interviews in which one adult household member responded for all household members 6 to 15 years old. The screening interview required the respondent to recall 12 months worth of activity. Includes persons who participated in wildlife-watching activities only in other countries.

Table C-9. **Participants in Wildlife-Related Recreation 6 to 15 Years Old, by Participant's State of Residence: 1995**

(Population 6 to 15 years old. Numbers in thousands)

Participant's state of residence	Population	Total participants		Sportsmen		Wildlife-watching participants	
		Number	Percent of population	Number	Percent of population	Number	Percent of population
U.S., total	**38,989**	**22,881**	**59**	**15,019**	**39**	**17,449**	**45**
Alabama	619	333	54	221	36	231	37
Alaska	109	85	78	64	59	67	62
Arizona	673	398	59	231	34	297	44
Arkansas	383	256	67	209	55	176	46
California	4,813	2,218	46	1,146	24	1,713	36
Colorado	565	405	72	300	53	330	58
Connecticut	449	267	59	167	37	220	49
Delaware	102	61	60	42	41	46	45
Florida	1,907	971	51	602	32	692	36
Georgia	1,097	592	54	358	33	470	43
Hawaii	170	76	45	50	30	46	27
Idaho	205	155	76	115	56	123	60
Illinois	1,729	959	55	646	37	747	43
Indiana	840	541	64	325	39	447	53
Iowa	422	321	76	233	55	250	59
Kansas	403	265	66	216	54	149	37
Kentucky	566	350	62	251	44	295	52
Louisiana	733	434	59	355	48	282	38
Maine	181	139	77	95	52	101	56
Maryland	731	428	58	253	35	362	49
Massachusetts	801	473	59	298	37	365	46
Michigan	1,445	957	66	647	45	740	51
Minnesota	734	621	85	481	66	453	62
Mississippi	447	247	55	188	42	176	39
Missouri	798	551	69	430	54	433	54
Montana	145	107	74	64	44	85	59
Nebraska	258	166	64	127	49	114	44
Nevada	224	124	55	81	36	93	42
New Hampshire	173	122	71	85	49	93	54
New Jersey	1,087	564	52	348	32	428	39
New Mexico	290	177	61	117	40	121	42
New York	2,508	1,258	50	780	31	973	39
North Carolina	1,019	603	59	361	35	500	49
North Dakota	102	75	73	55	54	46	45
Ohio	1,647	1,044	63	589	36	831	50
Oklahoma	520	368	71	290	56	253	49
Oregon	471	343	73	227	48	264	56
Pennsylvania	1,677	1,073	64	719	43	884	53
Rhode Island	133	77	58	50	38	57	43
South Carolina	546	305	56	218	40	212	39
South Dakota	122	84	69	73	60	50	41
Tennessee	753	466	62	242	32	360	48
Texas	2,979	1,409	47	1,052	35	989	33
Utah	386	222	57	150	39	164	43
Vermont	87	62	71	45	52	52	59
Virginia	921	638	69	388	42	510	55
Washington	831	601	72	410	49	451	54
West Virginia	248	174	70	131	53	129	52
Wisconsin	796	593	74	383	48	485	61
Wyoming	83	63	76	50	60	45	54

Note: Detail does not add to total because of multiple responses. U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix. Data reported on this table are from screening interviews in which one adult household member responded for household members 6 to 15 years old. The screening interview required the respondent to recall 12 months worth of activity. Includes persons who participated only in other countries.

Table C-10. **Anglers and Hunters 6 to 15 Years Old, by Sportsman's State of Residence: 1995**

(Population 6 to 15 years old. Numbers in thousands)

Sportsman's state of residence	Population	Fished or hunted		Fished only		Hunted only		Fished and hunted	
		Number	Percent of population	Number	Percent of population	Number	Percent of population	Number	Percent of population
U.S., total	**38,989**	**15,019**	**39**	**13,299**	**34**	**211**	**1**	**1,509**	**4**
Alabama	619	221	36	191	31	...	...	*22	*4
Alaska	109	64	59	56	51	...	...	*8	*7
Arizona	673	231	34	217	32	...	...	...	...
Arkansas	383	209	55	139	36	...	...	*48	*13
California	4,813	1,146	24	1,099	23	...	...	...	...
Colorado	565	300	53	284	50	...	...	...	...
Connecticut	449	167	37	163	36	...	...	...	...
Delaware	102	42	41	39	38	...	...	*3	*3
Florida	1,907	602	32	552	29	...	...	...	...
Georgia	1,097	358	33	325	30	...	...	...	...
Hawaii	170	50	30	49	29	...	...	...	...
Idaho	205	115	56	98	48	...	...	*14	*7
Illinois	1,729	646	37	605	35	...	...	*41	*2
Indiana	840	325	39	269	32	...	...	*46	*5
Iowa	422	233	55	193	46	...	...	*32	*8
Kansas	403	216	54	201	50	...	...	...	...
Kentucky	566	251	44	200	35	...	...	*38	*7
Louisiana	733	355	48	250	34	...	...	101	14
Maine	181	95	52	86	47	...	...	...	...
Maryland	731	253	35	240	33	...	...	...	...
Massachusetts	801	298	37	294	37	...	...	...	...
Michigan	1,445	647	45	597	41	...	...	...	...
Minnesota	734	481	66	416	57	...	...	*51	*7
Mississippi	447	188	42	121	27	...	...	66	15
Missouri	798	430	54	322	40	...	...	*101	*13
Montana	145	64	44	49	34	...	...	*10	*7
Nebraska	258	127	49	106	41	...	...	*17	*7
Nevada	224	81	36	70	31	...	...	*9	*4
New Hampshire	173	85	49	79	46	...	...	*6	*3
New Jersey	1,087	348	32	339	31	...	...	...	...
New Mexico	290	117	40	103	35	...	...	*13	*5
New York	2,508	780	31	715	29	...	...	*53	*2
North Carolina	1,019	361	35	329	32	...	...	...	...
North Dakota	102	55	54	46	45	...	...	*8	*8
Ohio	1,647	589	36	556	34	...	...	...	...
Oklahoma	520	290	56	242	47	...	...	*48	*9
Oregon	471	227	48	205	44	...	...	*18	*4
Pennsylvania	1,677	719	43	643	38	...	...	*52	*3
Rhode Island	133	50	38	50	38	...	...	...	...
South Carolina	546	218	40	181	33	...	...	*35	*6
South Dakota	122	73	60	59	48	...	...	*9	*7
Tennessee	753	242	32	207	28	...	...	*35	*5
Texas	2,979	1,052	35	908	30	...	...	*128	*4
Utah	386	150	39	143	37	...	...	...	...
Vermont	87	45	52	34	39	...	...	*10	*12
Virginia	921	388	42	348	38	...	...	*34	*4
Washington	831	410	49	372	45	...	...	*33	*4
West Virginia	248	131	53	90	36	...	...	*38	*15
Wisconsin	796	383	48	310	39	...	...	*64	*8
Wyoming	83	50	60	46	55	...	...	...	...

* Estimate based on a small sample size. ... Sample size too small to report data reliably.

Note: U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix. Data reported on this table are from screening interviews in which one adult household member responded for household members 6 to 15 years old. The screening interviews required the respondent to recall 12 months worth of activity. Includes persons who participated only in other countries.

Table C-11. **Participants in Wildlife-Watching Activities 6 to 15 Years Old, by Participant's State of Residence: 1995**

(Population 6 to 15 years old. Numbers in thousands)

Participant's state of residence	Population	Participants					
		Total		Nonresidential		Residential	
		Number	Percent of population	Number	Percent of population	Number	Percent of population
U.S., total	**38,989**	**17,449**	**45**	**8,314**	**21**	**15,425**	**40**
Alabama	619	231	37	58	9	220	36
Alaska	109	67	62	43	39	52	48
Arizona	673	297	44	138	21	267	40
Arkansas	383	176	46	61	16	166	43
California	4,813	1,713	36	986	20	1,356	28
Colorado	565	330	58	165	29	286	51
Connecticut	449	220	49	115	26	196	44
Delaware	102	46	45	25	25	42	42
Florida	1,907	692	36	335	18	565	30
Georgia	1,097	470	43	179	16	415	38
Hawaii	170	46	27	22	13	38	22
Idaho	205	123	60	88	43	89	44
Illinois	1,729	747	43	383	22	682	39
Indiana	840	447	53	201	24	415	49
Iowa	422	250	59	144	34	215	51
Kansas	403	149	37	55	14	126	31
Kentucky	566	295	52	137	24	274	48
Louisiana	733	282	38	105	14	247	34
Maine	181	101	56	57	32	95	52
Maryland	731	362	49	191	26	313	43
Massachusetts	801	365	46	162	20	333	42
Michigan	1,445	740	51	330	23	667	46
Minnesota	734	453	62	240	33	441	60
Mississippi	447	176	39	57	13	165	37
Missouri	798	433	54	226	28	371	47
Montana	145	85	59	69	47	70	48
Nebraska	258	114	44	57	22	100	39
Nevada	224	93	42	56	25	78	35
New Hampshire	173	93	54	50	29	77	44
New Jersey	1,087	428	39	180	17	386	36
New Mexico	290	121	42	63	22	102	35
New York	2,508	973	39	495	20	873	35
North Carolina	1,019	500	49	185	18	500	49
North Dakota	102	46	45	*17	*16	43	43
Ohio	1,647	831	50	337	20	790	48
Oklahoma	520	253	49	116	22	209	40
Oregon	471	264	56	126	27	224	48
Pennsylvania	1,677	884	53	420	25	813	48
Rhode Island	133	57	43	25	19	52	39
South Carolina	546	212	39	87	16	186	34
South Dakota	122	50	41	26	22	45	37
Tennessee	753	360	48	145	19	329	44
Texas	2,979	989	33	490	16	824	28
Utah	386	164	43	99	26	129	34
Vermont	87	52	59	27	31	45	51
Virginia	921	510	55	193	21	472	51
Washington	831	451	54	239	29	397	48
West Virginia	248	129	52	40	16	123	50
Wisconsin	796	485	61	235	30	433	54
Wyoming	83	45	54	25	30	39	47

* Estimate based on a small sample size.

Note: Detail does not add to total because of multiple responses. U.S. totals include responses from participants residing in the District of Columbia, as described in the statistical reliability appendix. Data reported on this table are from screening interviews in which one adult household member responded for all household members 6 to 15 years old. The screening interview required the respondent to recall 12 months worth of activity. Includes persons who participated only in other countries.

Appendix D

Appendix D: Sample Design and Statistical Accuracy

This Appendix is partitioned into two parts. The second part, tables D-1 to D-4, reports approximate standard errors and 95-percent confidence intervals for selected measures of participation and expenditures for wildlife-related recreation.

Except for minor style changes, the first part of this Appendix is the U.S. Bureau of the Census 'Source and Accuracy Statement' for the Survey. This statement describes the sampling design for the 1996 Survey and highlights the steps that were taken to produce estimates from the completed questionnaires. The statement explains the use of standard errors and confidence intervals. Finally, it provides comprehensive information about errors that are characteristic of surveys, and it provides the formulas and parameters that can be used to calculate an approximate standard error or confidence interval for each number published in this report.

Source and Accuracy Statement for the 1996 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation

Source of Data

The estimates shown in this report are based on the data collected in the *1996 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* (FHWAR).

The 1996 FHWAR Survey was designed to provide state-level estimates of the number of people who participated in recreational hunting and fishing, and other forms of wildlife-related activities (e.g., wildlife observation) referred to as wildlife-watching use. Information was collected on the number of people engaged in the activities, where and how often they went to pursue them, the type of wildlife encountered, and the amounts of money spent for these activities.

The survey was conducted in two stages: an initial screening of households to identify likely sportsmen and wildlife-watching participants, and a series of follow-up interviews of selected persons to collect detailed data about their wildlife-related recreation during 1996.

The 1996 FHWAR sample was selected primarily from the 1991 FHWAR Survey sample. The 1991 sample was selected from expired samples from the Current Population Survey (CPS). The 1996 sample was supplemented with a panel of newly constructed housing units to account for housing units built after the 1991 sample selection, and a supplemental sample in South Carolina to enhance the sample size of that state.

Sample Design

A. CPS - Current Population Survey

The expired CPS samples used for the 1991 FHWAR Survey, and subsequently the 1996 FHWAR Survey, had been selected initially from the 1980 census files with coverage in all 50 states and the District of Columbia. The samples, while active, had been continually updated to reflect new construction. The sample addresses were located in more than 729 areas comprising more than 1,973 counties, independent cities, and minor civil divisions in the nation.

To save interviewing costs, sample was reduced in some sample areas, and other areas were dropped entirely. The 1996 FHWAR old construction sample addresses were located in 574 areas comprising 1,013 counties, independent cities, and minor civil divisions.

B. Supplemental New Construction Sample

To account for housing units built since the 1991 FHWAR sample was selected, a new construction panel was selected

from expired CPS new construction files. These units were last interviewed between March 1994 and June 1995. This sample was added in the same areas that were retained for the 1996 FHWAR old construction sample.

C. Supplemental South Carolina Sample

To improve the estimates' precision, primarily for saltwater anglers, a panel was added from two coastal counties in South Carolina. This sample was selected from a reserve sample selected for the National Health Interview Survey (NHIS). This sample was never interviewed in NHIS.

D. The FHWAR Screening Sample

The total screening sample consisted of 77,100 households identified from the above sources - approximately 69,100 from the old construction frame, 7,900 from the new construction frame, and 100 from the South Carolina supplemental frame. Of these, roughly 14.5 percent were found to be vacant or otherwise not to be enumerated. About 7.9 percent were not completed in the telephone centers and were not assigned personal visit interviews due to cost constraints. Of the remaining households, roughly 28.6 percent could not be enumerated because the occupants were not found at home after repeated calls or were unavailable for some other reason.

Overall, about 44,000 completed household interviews were obtained for a national response rate of approximately 71.4 percent. Roughly 70 percent of the interviewed households were contacted by telephone and the remaining interviewed households were contacted by personal visit. The field representatives asked the screening questions for all household members 6 years old and older. Interviewing for the screening sample was conducted during April, May, and June of 1996.

E. The Detailed Samples

1. Sportsmen

The sportsmen detailed sample was selected based on information reported during the screening phase. Every person 16 years of age and older was assigned to a category based on time devoted to hunting/fishing in previous years, participation in hunting/fishing in 1996 by the time of the screening interview, and intentions to fish or hunt during the remainder of 1996.

Each person was placed into one of the following six groups based on their past participation in fishing/hunting activities:

Active - a person who had already participated in 1996 at the time of the screening interview.

Avid - a person who hunted or fished at least 30 days or spent at least $600 on either hunting or fishing in 1995.

Average - a person who hunted or fished at least 4 days but not more than 29 days or spent between $26 and $599 on hunting or fishing in 1995.

Infrequent - a person who hunted or fished at least 1 day but not more than 3 days and spent less than $26 on hunting or fishing in 1995.

Inactive - a person who did not participate in hunting/fishing in 1995, but did participate in 1991-1994.

Nonparticipant - a person who did not participate in hunting/fishing in 1991-1995.

Each person not in the Active group was asked their likelihood of going hunting/fishing in 1996:

- Very Likely
- Somewhat Likely
- Somewhat Unlikely
- Very Unlikely

Persons were selected for the detailed phase based on a combination of these two groupings. All Active and Avid sportsmen, and all persons who said they were 'Very Likely' to fish/hunt in 1996 were interviewed. Nonparticipants who said they were 'Somewhat Unlikely' or 'Very Unlikely' to participate in 1996 were not eligible for a detailed interview. All other persons were subsampled to yield the desired number of sportsmen in each state.

Active sportsmen were given the detailed interview twice - at the same time as the screening interview (April-June 1996) and again in January/February 1997. All other sportsmen were also interviewed twice - first in August/September 1996, then in January/February 1997. If we were not able to obtain the first interview, we attempted to interview the person in the final interviewing period with the reference period being the entire year.

About 28,200 persons were designated for interviews. The detailed sportsmen sample sizes varied considerably by state, ranging from 8 persons for the District of Columbia to 874 persons for California. During each interview period, about 20 percent of the designated people were not found at home or were unavailable for some other reason. Overall, about 22,600 detailed sportsmen interviews were completed for a national response rate of 80 percent.

2. Wildlife-Watching Participants

The wildlife-watching user detailed sample was also selected based on information

reported during the screening phase. Every person 16 years of age and older was assigned to a category based on time devoted to wildlife-watching activities in previous years, participation in 1996 by the time of the screening interview, and intentions to participate in activities during the remainder of 1996.

Each person was placed into one of the following six groups based on their past participation in wildlife-watching activities:

Active - a person who had already participated in 1996 at the time of the screening interview.

Avid - a person who participated at least 21 days or spent at least $300 on wildlife-watching activities in 1995.

Average - a person who participated at least 4 days but not more than 20 days or spent between $26 and $299 on wildlife-watching activities in 1995.

Infrequent - a person who participated at least 1 day but not more than 3 days and spent less than $26 on wildlife-watching activities in 1995.

Residential - a person who participated in wildlife-watching activities in 1995 around the home, but did not take any trips to participate in wildlife-watching activities.

Nonparticipant - a person who did not participate in wildlife-watching activities in 1991-1995.

Each person not in the Active group was asked their likelihood of participating in wildlife-watching activities in 1996:

- Very Likely
- Somewhat Likely
- Somewhat Unlikely
- Very Unlikely

Persons were selected for the detailed phase based on a combination of these two groupings. Nonparticipants who said they were 'Very Unlikely' to participate in 1996 were not eligible for a detailed interview. All other persons were subsampled to yield the desired number of wildlife-watching participants in each state.

Wildlife-watching participants were given the detailed interview twice. Some received their first detailed interview at the same time as the screening interview (April-June 1996). The rest received their first interview in August/September 1996. All wildlife-watching participants received their second interview in January/February 1997. If we were not able to obtain the first interview, we attempted to interview the person in the final interviewing period with the reference period being the entire year.

About 14,400 persons were designated for interviews. The detailed wildlife-watching participants sample sizes varied considerably by state, ranging from 14 persons for the District of Columbia to 603 persons for South Carolina. During each interview period, about 18 percent of the designated people were not found at home or were unavailable for some other reason. Overall, about 11,800 detailed wildlife-watching participants interviews were completed for a national response rate of 82 percent.

Estimation Procedure

Several stages of adjustments were involved in the estimation procedure used to derive the final 1996 FHWAR person weights. A brief description of the major components of the weights is given below.

All statistics for the population 6 to 15 years of age were derived from the screening interview. Statistics for the population 16 and over come from both the screening and detailed interviews. Estimates which come from the screening sample are presented in Appendix C.

A. Screening Sample

Every interviewed person in the screening sample received a weight that was the product of the following factors:

1. **Base Weight.** The base weight is the inverse of the household's probability of selection.
2. **Personal Visit Subsampling Factor.** Some households could not be interviewed by telephone because there was not a good telephone number or address for the unit. Due to budget constraints, not all of these cases could be followed up with a personal visit. This factor inflates the weights of those cases which were selected for personal visits to account for those similar cases which were not selected.
3. **Household Noninterview Adjustment.** The noninterview adjustment inflated the weight assigned to interviewed households to account for households eligible for interview but for which no interview was obtained.
4. **First-Stage Adjustment.** The 574+ areas designated for our samples were selected from roughly 1,900 such areas of the United States. Some of our sample areas represent only themselves, and are referred to as self-representing. The remaining areas represent other areas similar in selected characteristics, and are thus designated nonself-representing. The first-stage factor reduces the component of variation arising out of sampling the nonself-representing areas.

5. **Second-Stage Adjustment.** This adjustment brings the estimates of the total population in each state into agreement with census-based estimates of the civilian noninstitutional and nonbarrack military populations for each state.

B. Sportsmen Sample

Every interviewed person in the sportsmen detailed sample received a weight that was the product of the following factors:

1. **Screening Weight.** This is the person's final weight from the screening sample.
2. **Sportsmen Stratum Adjustment.** This factor inflated the weights of persons selected for the detail sample to account for the subsampling done within each sportsmen stratum.
3. **Sportsmen Noninterview Adjustment.** This factor adjusts the weights of the interviewed sportsmen to account for sportsmen selected for the detailed sample for which no interview was obtained. A person was considered a noninterview if he/she was not interviewed in the third wave of interviewing.
4. **Sportsmen Ratio Adjustment Factor.** This is a ratio adjustment of the detailed sample to the screening sample within sportsmen sampling strata. This adjustment brings the population estimates of persons age 16 or older from the detailed sample into agreement with the same estimates from the screening sample, which was a much larger sample.

C. Wildlife-Watching Participant Sample

Every interviewed person in the wildlife-watching participant detailed sample received a weight that was the product of the following factors:

1. **Screening Weight.** This is the person's final weight from the screening sample.
2. **Wildlife-Watching Participant Stratum Adjustment.** This factor inflated the weights of persons selected for the detailed sample to account for the subsampling done within each wildlife-watching participant stratum.
3. **Wildlife-Watching Participant .** This factor adjusts the weights of the interviewed wildlife-watching participants to account for wildlife-watching participants selected information for the detailed sample for which no interview was obtained. A person was considered a noninterview if he/she was not interviewed in the third wave of interviewing.
4. **Wildlife-Watching Participant Ratio Adjustment Factor.** This is a ratio adjustment of the detailed sample to the screening sample within the wildlife-watching participant sampling strata. This adjustment brings the population estimates of persons age 16 or older from the detail sample into agreement with the same estimates from the screening sample, which was a much larger sample.

Accuracy of the Estimates

Since the 1996 estimates came from a sample, they may differ from figures from a complete census using the same questionnaires, instructions, and enumerators. A sample survey estimate has two possible types of error: sampling and nonsampling. The accuracy of an estimate depends on both types of error, but the full extent of the nonsampling error is unknown. Consequently, one should be particularly careful when interpreting results based on a relatively small number of cases or on small differences between estimates. The standard errors for the 1996 FHWAR estimates primarily indicate the magnitude of sampling error. They also partially measure the effect of some nonsampling errors in responses and enumeration, but do not measure systematic biases in the data. (Bias is the average over all possible samples of the differences between the sample estimates and the actual value.)

Nonsampling Variability

Let us suppose that a comparable complete enumeration was conducted, that is, an interview is attempted for every person 16 years old and over in the United States. Chances are we will not correctly estimate every parameter (for example, the proportion of people who fished) under consideration. In this instance, the difference is due solely to nonsampling errors.

Nonsampling errors also occur in sample surveys and can be attributed to several sources including the following:

- The inability to obtain information about all cases in the sample.
- Definitional difficulties.
- Differences in the interpretation of questions.
- Respondents' inability or unwillingness to provide correct information.
- Respondents' inability to recall information.
- Errors made in data collection such as in recording or coding the data.
- Errors made in the processing of data.
- Errors made in estimating values for missing data.
- Failure to represent all units with the sample (undercoverage).

Overall CPS undercoverage is estimated to be about 8 percent. Generally, undercoverage is larger for males than for females and larger for Blacks and other races combined than for Whites. Ratio estimation to independent population controls as described previously, partially corrects for the bias due to survey undercoverage. However, biases exist in the estimates to the extent that missed persons in missed households or missed persons in interviewed households have different characteristics from those of interviewed persons in the same age group.

Comparability of Data. Data obtained from the 1996 FHWAR and other sources are not entirely comparable. This results from differences in field interviewer training and experience and in differing survey processes. This is an example of nonsampling variability not reflected in the standard errors. Use caution when comparing results from different sources. (See Appendix B).

Note When Using Small Estimates. Because of the large standard errors involved, summary measures (such as medians and percentage distributions) would probably not reveal useful information when computed on a base smaller than 100,000. Take care in the interpretation of small differences. For instance, even a small amount of nonsampling error can cause a borderline difference to appear significant or not, thus distorting a seemingly valid hypothesis test.

Sampling Variability

The particular sample used for the 1996 FHWAR survey is one of a large number of all possible samples of the same size that could have been selected using the same sample design. Estimates derived from the different sample would differ from each other. This sample-to-sample variability is referred to as sampling variability and is generally measured by the standard error. The exact sampling error is unknown. However, guides to the potential size of the sampling error are provided by the standard error of the estimate.

Since the standard error of a survey estimate attempts to provide a measure of the variation among the estimates from the possible samples, it is a measure of the precision with which an estimate from a particular sample approximates the average result of all possible samples. Standard errors, as calculated by methods described next in "Standard Errors and Their Use," are primarily measures of sampling variability, although they may include some nonsampling error.

The sample estimate and its standard error enable one to construct a confidence interval, a range that would include the average result of all possible samples with a known probability. For example, if all possible samples were surveyed under essentially the same general conditions and using the same sample design, and if an estimate and its standard error were calculated from each sample, then approximately 95 percent of the intervals from 1.96 standard errors below the estimate to 1.96 standard errors above the estimate would include the average result of all possible samples.

A particular confidence interval may or may not contain the average estimate derived from all possible samples. However, one can say with specified confidence that the interval includes the average estimate calculated from all possible samples.

Standard errors may also be used to perform hypothesis testing, a procedure for distinguishing between population parameters using sample estimates. One common type of hypothesis is that the population parameters are different. An example would be comparing the proportion of anglers to the proportion of hunters.

Tests may be performed at various levels of significance, where a significance level is the probability of concluding that the characteristics are different when, in fact, they are the same. To conclude that two characteristics are different at the 0.05 level of significance, for example, the absolute value of the estimated difference between characteristics must be greater than or equal to 1.96 times the standard error of the difference.

This report uses 95-percent confidence intervals and 0.05 levels of significance to determine statistical validity. Consult standard statistical textbooks for alternative criteria.

Standard Errors and Their Use. A number of approximations are required to derive, at a moderate cost, standard errors applicable to all the estimates in this report. Instead of providing an individual standard error for each estimate, parameters are provided to calculate standard errors for each type of characteristic. These parameters are listed in Tables D-5 - D-10. Methods for using the parameters to calculate standard errors of various estimates are given in the next sections.

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 sportsmen, anglers, and wildlife-watching participants.

$$s_x = \sqrt{ax^2 + bx}$$

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.

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

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 39,694,000 persons 16+ either fished or hunted in the United States in 1996. Using formula (1) with the parameters a = -0.00004 and b = 7,950 from table D-6, the approximate standard error of the estimated number of 39,694,000 sportsmen 16+ is

$$s_x = \sqrt{-0.00004x39,694,000^2 + 7,950x39,694,000} = 502,100$$

The 95-percent confidence interval for the estimated number of sportsmen 16+ is from 38,709,900 to 40,678,100, ie., 39,694,000 ± 1.96x502,100. 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 13,975,000 hunters 16+ engaged in 256,676,000 days of participation in 1996. Using formula 2 with the parameters a = 0.000284, b = -64,721, and c = 20,674 from Table D-8, the approximate standard error on 256,676,000 estimated days on an estimated base of 13,975,000 hunters is

$$s_x = \sqrt{0.000284x256,676,000^2 + (-64,721)x256,676,000 + \frac{20,674x256,676,000^2}{13,975,000}} = 9,978,100$$

The 95-percent confidence interval on the estimate of 256,676,000 days is from 237,118,900 to 276,233,100, ie., 256,676,000 ± 1.96x9,978,100. 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_{xp}, can be obtained by use of the formula

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

Here, x is the total number of sportsmen, 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 13,975,000 hunters 16+, 22.0 percent hunted migratory birds. From Table D-6, the appropriate b parameter is 5,818. Using formula (3), the approximate standard error on the estimate of 22.0 percent is

$$s_{x,p} = \sqrt{\frac{5,818x22.0x78.0}{13,975,000}} = 0.85$$

Consequently, the 95-percent confidence interval for the estimated percentage of migratory bird hunters 16+ is from 20.3 percent to 23.7 percent, ie. 22.0 ± 1.96x0.85.

Standard Error of a Difference. The standard error of the difference between two sample estimates is approximately equal to

$$s_{x-y} = \sqrt{s_x^2 + s_y^2}$$

where s_x and s_y are the standard errors of the estimates x and y. The estimates can be numbers, percentages, ratios; etc. This will represent the actual standard error quite accurately for the difference between estimates of the same characteristic in two different areas, or for the difference between separate and uncorrelated characteristics in the same area. However, if there is a high positive (negative) correlation between the two characteristics, the formula will overestimate (underestimate) the true standard error.

Illustration of the Computation of the Standard Error of a Difference

Table 10 shows that of the 13,975,000 hunters, 2,783,000 were in the age group 25-34, and 3,819,000 were in the age group 35 to 44. The corresponding percentages are 19.9 percent and 27.3 percent, respectively. The apparent difference between the percent of hunters 25 to 34 and hunters 35 to 44 is 7.4 percent. Using formula (3) and the appropriate b parameter from Table D-6, the approximate standard errors of 19.9 percent and 27.3 percent are 0.81 and 0.91, respectively. Using formula (4), the approximate standard error of the estimated difference of 7.4 percent is

$$s_{x-y} = \sqrt{0.81^2 + 0.91^2} = 1.22$$

The 95-percent confidence interval on the difference between hunters aged 25 to 34 and hunters aged 35 to 44 is from 5.0 to 9.8 percent, i.e., 7.4 ± 1.96x1.22. Since the interval does not contain zero, we can conclude with 95 percent confidence that the percentage of hunters aged 25 to 34 is smaller than the percentage of hunters aged 35 to 44.

Standard Errors of Estimated Averages. Certain mean values for sportsmen, anglers; etc., shown in the report were calculated as the ratio of two numbers. For example, average days per angler is calculated as:

$$\frac{x}{y} = \frac{total\ \ days}{total\ \ anglers}$$

Standard errors for these averages may be approximated by the use of formula (5) below.

$$s_{x/y} = \frac{x}{y}\sqrt{\left[\frac{s_x}{x}\right]^2 + \left[\frac{s_y}{y}\right]^2 - 2r\frac{s_x s_y}{xy}}$$

In formula (5), r represents the correlation coefficient between the numerator and the denominator of the estimate. In the above formula, always use 0.7 as an estimate of r.

Illustration of the Computation of the Standard Error of an Estimated Average

Table 2 shows that the average days per angler 16+ for all fishing was 17.8 days. Using formulas (1) and (2) above, we compute the standard error on total days, 625,893,000, and total anglers, 35,246,000, to be 19,183,000 and 480,000, respectively. The approximate standard error on the estimated average of 17.8 days is

$$s_{x/y} = \frac{625,893,000}{35,246,000}\sqrt{\left[\frac{19,183,000}{625,893,000}\right]^2 + \left[\frac{480,000}{35,246,000}\right]^2 - 2x0.7x\frac{19,183,000x480,000}{625,893,000x35,246,000}} = 0.41$$

Therefore, the 95-percent confidence interval on the estimated average of 17.8 days is from 17.0 to 18.6; i.e., 17.8 ± 1.96x0.41.

Table D-1. **Approximate Standard Errors and 95-Percent Confidence Intervals for Selected Fishing Estimates: 1996**

Anglers, days, and expenditures	Estimate	Standard error	Lower 95 percent	Upper 95 percent
ANGLERS (thousands)				
Total	**35,246**	**480**	**34,306**	**36,186**
Freshwater	29,734	448	28,856	30,612
Freshwater, except Great Lakes	28,921	443	28,053	29,789
Great Lakes	2,039	127	1,791	2,287
Saltwater	9,438	267	8,914	9,962
DAYS OF FISHING (thousands)				
Total	**625,893**	**19,183**	**588,295**	**663,491**
Freshwater	515,115	17,757	480,311	549,919
Freshwater, except Great Lakes	485,474	16,920	452,310	518,638
Great Lakes	20,095	2,619	14,961	25,229
Saltwater	103,034	6,206	90,871	115,197
Average Days per Angler				
Total	**17.8**	**0.41**	**16.9**	**18.6**
Freshwater	17.3	0.45	16.4	18.2
Freshwater, except Great Lakes	16.8	0.44	15.9	17.7
Great Lakes	9.9	0.96	8.0	11.7
Saltwater	10.9	0.49	10.0	11.9
FISHING EXPENDITURES (thousands)				
Total	**$37,797,061**	**$1,284,850**	**$35,278,755**	**$40,315,367**
Freshwater	$24,482,439	$900,877	$22,716,720	$26,248,158
Freshwater, except Great Lakes	$22,445,123	$836,302	$20,805,971	$24,084,275
Great Lakes	$1,404,885	$186,328	$1,039,682	$1,770,088
Saltwater	$8,081,276	$511,854	$7,078,042	$9,084,510
Average Expenditure per Angler				
Total	**$1,072**	**$28**	**$1,017**	**$1,128**
Freshwater	$823	$23	$778	$869
Freshwater, except Great Lakes	$776	$22	$732	$820
Great Lakes	$689	$69	$555	$823
Saltwater	$856	$41	$776	$937

Table D-2. **Approximate Standard Errors and 95-Percent Confidence Intervals for Selected Hunting Estimates: 1996**

Hunters, days, and expenditures	Estimate	Standard error	Lower 95 percent	Upper 95 percent
HUNTERS (thousands)				
Total	**13,975**	**280**	**13,426**	**14,524**
Big game	11,288	253	10,793	11,783
Small game	6,945	199	6,554	7,336
Migratory bird	3,073	133	2,812	3,334
Other animals	1,521	94	1,337	1,705
DAYS OF HUNTING (thousands)				
Total	**256,676**	**9,978**	**237,119**	**276,233**
Big game	153,784	6,331	141,376	166,192
Small game	75,117	3,679	67,905	82,329
Migratory bird	26,501	1,791	22,990	30,012
Other animals	24,522	2,599	19,427	29,617
Average Days per Hunter				
Total	**18.4**	**0.53**	**17.3**	**19.4**
Big game	13.6	0.41	12.8	14.4
Small game	10.8	0.38	10.1	11.6
Migratory bird	8.6	0.42	7.8	9.4
Other animals	16.1	1.24	13.7	18.5
HUNTING EXPENDITURES (thousands)				
Total	**$20,613,412**	**$1,071,469**	**$18,513,332**	**$22,713,492**
Big game	$9,712,735	$561,942	$8,611,328	$10,814,142
Small game	$2,481,385	$183,473	$2,121,778	$2,840,992
Migratory bird	$1,296,322	$142,071	$1,017,862	$1,574,782
Other animals	$432,593	$72,554	$290,387	$574,799
Average Expenditures per Hunter				
Total	**$1,475**	**$60**	**$1,358**	**$1,592**
Big game	$860	$39	$784	$937
Small game	$357	$21	$317	$398
Migratory bird	$422	$36	$351	$492
Other animals	$284	$38	$211	$358

Table D-3. **Approximate Standard Errors and 95-Percent Confidence Intervals for Selected Fishing and Hunting Expenditure Estimates: 1996**

(Numbers in thousands)

Expenditures	Estimate	Standard error	Lower 95 percent	Upper 95 percent
FISHING AND HUNTING EXPENDITURES				
Total	**$71,934,242**	**$2,317,291**	**$67,392,352**	**$76,476,132**
Trip-related	$20,536,537	$675,185	$19,213,174	$21,859,900
Food and Lodging	$8,501,787	$292,554	$7,928,380	$9,075,194
Transportation	$5,509,805	$186,509	$5,144,248	$5,875,362
Other trip costs	$6,524,944	$233,022	$6,068,222	$6,981,666
Equipment	$43,743,250	$1,547,226	$40,710,686	$46,775,814
Fishing/hunting	$11,818,230	$424,361	$10,986,482	$12,649,978
Auxiliary	$3,179,314	$160,557	$2,864,622	$3,494,006
Special	$28,745,706	$2,314,196	$24,209,882	$33,281,530
Other	$7,654,455	$276,019	$7,113,458	$8,195,452
Magazine subscriptions	$434,083	$23,274	$388,467	$479,699
Membership dues and contributions	$605,748	$42,567	$522,317	$689,179
Land leasing and ownership	$5,519,279	$728,060	$4,092,282	$6,946,276
Licenses, stamps, tags, and permits	$1,095,345	$39,206	$1,018,501	$1,172,189
Fishing Expenditures				
Total	**$37,797,061**	**$1,284,850**	**$35,278,755**	**$40,315,367**
Trip-related	$15,381,217	$534,006	$14,334,565	$16,427,869
Food and Lodging	$5,989,666	$218,079	$5,562,231	$6,417,101
Transportation	$3,730,245	$134,185	$3,467,242	$3,993,248
Other trip costs	$5,661,306	$206,157	$5,257,238	$6,065,374
Equipment	$19,173,753	$739,629	$17,724,080	$20,623,426
Fishing	$5,308,674	$205,844	$4,905,219	$5,712,129
Auxiliary	$1,036,761	$78,176	$883,535	$1,189,987
Special	$12,828,318	$1,262,348	$10,354,116	$15,302,520
Other	$3,242,091	$128,627	$2,989,982	$3,494,200
Magazines subscriptions	$169,546	$13,267	$143,543	$195,549
Membership dues and contributions	$152,448	$19,051	$115,108	$189,788
Land leasing and ownership	$2,340,344	$528,016	$1,305,432	$3,375,256
Licenses, stamps, tags, and permits	$579,753	$21,918	$536,794	$622,712
Hunting Expenditures				
Total	**$20,613,412**	**$1,071,469**	**$18,513,332**	**$22,713,492**
Trip-related	$5,155,319	$274,443	$4,617,410	$5,693,228
Food and Lodging	$2,512,121	$140,561	$2,236,622	$2,787,620
Transportation	$1,779,560	$94,369	$1,594,598	$1,964,522
Other trip costs	$863,638	$74,406	$717,802	$1,009,474
Equipment	$11,272,769	$629,460	$10,039,028	$12,506,510
Hunting	$5,519,137	$311,189	$4,909,207	$6,129,067
Auxiliary	$1,233,118	$93,683	$1,049,500	$1,416,736
Special	$4,520,514	$926,907	$2,703,777	$6,337,251
Other	$4,185,324	$227,529	$3,739,368	$4,631,280
Magazines subscriptions	$109,666	$10,482	$89,122	$130,210
Membership dues and contributions	$244,905	$27,059	$191,870	$297,940
Land leasing and ownership	$3,178,935	$487,172	$2,224,078	$4,133,792
Licenses, stamps, tags, and permits	$651,818	$32,273	$588,563	$715,073

Table D-4. **Approximate Standard Errors and 95-Percent Confidence Intervals for Selected Wildlife-Watching Estimates: 1996**

Participants and expenditures	Estimate	Standard error	Lower 95 percent	Upper 95 percent
WILDLIFE-WATCHING PARTICIPANTS (thousands)				
Total participants	**62,868**	**751**	**61,396**	**64,340**
Nonresidential	23,652	704	22,272	25,032
Observe wildlife	22,878	696	21,514	24,242
Photograph wildlife	12,038	543	10,974	13,102
Feed wildlife	9,976	501	8,995	10,957
Residential	60,751	746	59,289	62,213
Observe wildlife	44,063	779	42,537	45,589
Photograph wildlife	16,021	587	14,870	17,172
Feed wildlife	54,122	771	52,611	55,633
Maintain natural areas or plantings	11,011	502	10,027	11,995
Visit public parks	13,401	546	12,331	14,471
DAYS OF PARTICIPATION IN NONRESIDENTIAL ACTIVITIES (thousands)				
Total	**313,790**	**24,167**	**266,422**	**361,158**
Observe wildlife	278,683	21,544	236,456	320,910
Photograph wildlife	79,342	6,763	66,086	92,598
Feed wildlife	89,606	8,001	73,923	105,289
Average Days of Participation in Nonresidential Activities				
Total	**13.3**	**0.80**	**11.7**	**14.8**
Observe wildlife	12.2	0.73	10.7	13.6
Photograph wildlife	6.6	0.41	5.8	7.4
Feed wildlife	9.0	0.58	7.8	10.1
EXPENDITURES (thousands)				
Total	**$29,227,888**	**$1,690,452**	**$25,914,603**	**$32,541,173**
Trip-related	$9,443,808	$649,376	$8,171,032	$10,716,584
Food and lodging	$5,351,596	$385,582	$4,595,854	$6,107,338
Transportation	$2,942,525	$205,521	$2,539,704	$3,345,346
Other trip costs	$1,149,687	$101,451	$950,843	$1,348,531
Equipment	$16,652,571	$977,324	$14,737,016	$18,568,126
Wildlife watching	$8,229,736	$483,897	$7,281,297	$9,178,175
Auxiliary	$858,348	$97,626	$667,000	$1,049,696
Special	$7,564,487	$1,657,489	$4,315,808	$10,813,166
Magazines	$394,987	$32,539	$331,210	$458,764
Membership dues and contributions	$861,762	$43,248	$776,997	$946,527

Table D-5. **Parameters a and b for Calculating Approximate Standard Errors of Sportsmen, Anglers, Hunters, and Wildlife-Watching Participants**

(These parameters are to be used only to calculate estimates of standard errors for characteristics developed from the screening sample)

State	6 years old and over		6 to 15 year olds only	
	a	b	a	b
United States	**-0.0000293**	**7,036**	**-0.0001730**	**6,802**
Alabama	-0.0007658	3,006	-0.0045721	2,853
Alaska	-0.0016494	891	-0.0078073	851
Arizona	-0.0007435	2,905	-0.0035985	2,429
Arkansas	-0.0015613	3,586	-0.0093159	3,568
California	-0.0004437	12,684	-0.0021696	10,501
Colorado	-0.0010526	3,678	-0.0054729	3,136
Connecticut	-0.0004624	1,370	-0.0030619	1,384
Delaware	-0.0007495	496	-0.0048252	497
Florida	-0.0008158	10,724	-0.0052840	10,288
Georgia	-0.0008276	5,497	-0.0046706	5,161
Hawaii	-0.0007649	818	-0.0036491	624
Idaho	-0.0019908	2,158	-0.0107087	2,206
Illinois	-0.0005554	5,947	-0.0030051	5,259
Indiana	-0.0007461	3,951	-0.0043700	3,697
Iowa	-0.0011081	2,877	-0.0055425	2,350
Kansas	-0.0014181	3,289	-0.0095877	3,883
Kentucky	-0.0008677	3,095	-0.0050246	2,854
Louisiana	-0.0013993	5,541	-0.0067735	4,965
Maine	-0.0013646	1,565	-0.0089672	1,641
Maryland	-0.0006731	3,125	-0.0038993	2,866
Massachusetts	-0.0004201	2,322	-0.0025174	2,024
Michigan	-0.0011076	9,650	-0.0065555	9,512
Minnesota	-0.0018230	7,669	-0.0113093	8,301
Mississippi	-0.0011869	2,942	-0.0063244	2,827
Missouri	-0.0011350	5,510	-0.0071610	5,736
Montana	-0.0016020	1,309	-0.0107517	1,559
Nebraska	-0.0010324	1,539	-0.0059077	1,536
Nevada	-0.0007191	1,034	-0.0045759	1,025
New Hampshire	-0.0007429	787	-0.0041897	729
New Jersey	-0.0004586	3,309	-0.0027233	2,982
New Mexico	-0.0008985	1,407	-0.0042457	1,244
New York	-0.0004135	6,802	-0.0024510	6,179
North Carolina	-0.0009739	6,451	-0.0077718	8,005
North Dakota	-0.0013156	769	-0.0105784	1,079
Ohio	-0.0006359	6,467	-0.0040206	6,638
Oklahoma	-0.0017508	5,258	-0.0086514	4,542
Oregon	-0.0010579	3,113	-0.0057919	2,728
Pennsylvania	-0.0006440	7,068	-0.0045985	7,730
Rhode Island	-0.0004340	387	-0.0027388	367
South Carolina	-0.0007407	2,510	-0.0039015	2,138
South Dakota	-0.0013538	898	-0.0093934	1,146
Tennessee	-0.0009665	4,710	-0.0063386	4,792
Texas	-0.0009775	16,780	-0.0049099	15,196
Utah	-0.0010417	1,856	-0.0033747	1,306
Vermont	-0.0013854	751	-0.0099425	865
Virginia	-0.0007734	4,710	-0.0040605	3,760
Washington	-0.0010698	5,389	-0.0060313	5,012
West Virginia	-0.0012417	2,129	-0.0084177	2,096
Wisconsin	-0.0015108	7,090	-0.0085200	6,833
Wyoming	-0.0018715	840	-0.0090238	758

Table D-6. **Parameters a and b for Calculating Approximate Standard Errors of Levels for the Detail Sportsmen Sample**

State	Sportsmen and anglers 16+		Hunters 16+	
	a	b	a	b
United States	**-0.000040**	**7,950**	**-0.000015**	**5,818**
Alabama	-0.001402	3,972	-0.000628	2,797
Alaska	-0.001751	923	-0.001244	764
Arizona	-0.001249	3,555	-0.000187	2,190
Arkansas	-0.002147	4,216	-0.001824	3,869
California	-0.000733	14,753	-0.000529	13,292
Colorado	-0.000886	3,430	-0.001837	4,844
Connecticut	-0.000783	1,637	-0.000336	1,265
Delaware	-0.000931	539	-0.001384	646
Florida	-0.000784	10,579	-0.000594	9,725
Georgia	-0.000936	5,750	-0.000267	4,186
Hawaii	-0.000829	837	-0.000660	787
Idaho	-0.001461	1,852	-0.001478	1,862
Illinois	-0.001269	8,507	-0.000549	5,923
Indiana	-0.000783	4,024	-0.000375	3,209
Iowa	-0.001202	2,989	-0.000220	1,823
Kansas	-0.001474	3,340	-0.001195	3,086
Kentucky	-0.001453	3,935	-0.001783	4,408
Louisiana	-0.001338	5,444	-0.000572	4,229
Maine	-0.001160	1,465	-0.001046	1,409
Maryland	-0.000587	3,004	-0.000126	2,354
Massachusetts	-0.001367	3,732	-0.000390	2,277
Michigan	-0.000980	9,209	-0.000615	7,944
Minnesota	-0.001842	7,710	-0.000917	5,755
Mississippi	-0.001589	3,357	-0.000709	2,449
Missouri	-0.001327	5,904	-0.000891	5,010
Montana	-0.000963	1,048	-0.000961	1,047
Nebraska	-0.001551	1,835	-0.001693	1,916
Nevada	-0.001152	1,247	-0.000461	907
New Hampshire	-0.001313	996	-0.000508	701
New Jersey	-0.000993	4,319	-0.000417	3,230
New Mexico	-0.000960	1,443	-0.000661	1,267
New York	-0.000449	6,946	-0.000244	6,109
North Carolina	-0.001480	7,686	-0.000462	5,203
North Dakota	-0.001258	753	-0.000784	621
Ohio	-0.000479	5,945	-0.000206	5,040
Oklahoma	-0.001628	5,086	-0.002761	6,678
Oregon	-0.001539	3,735	-0.001882	4,179
Pennsylvania	-0.000913	7,956	-0.000262	5,806
Rhode Island	-0.000950	513	-0.000664	443
South Carolina	-0.001246	3,184	-0.000530	2,229
South Dakota	-0.002456	1,262	-0.001127	823
Tennessee	-0.000148	3,323	-0.000304	3,587
Texas	-0.001283	18,641	-0.000320	12,769
Utah	-0.000729	1,629	-0.001987	2,542
Vermont	-0.001324	738	-0.000788	625
Virginia	-0.000551	4,219	-0.000324	3,719
Washington	-0.003472	10,616	-0.002192	7,830
West Virginia	-0.000612	1,688	-0.001310	2,177
Wisconsin	-0.000735	5,548	-0.001007	6,088
Wyoming	-0.001124	653	-0.002247	934

Table D-7. **Parameters a, b, and c for Calculating Approximate Standard Errors for Expenditures for the Detail Sportsmen Sample**

State	Sportsmen and anglers 16+			Hunters 16+		
	a	b	c	a	b	c
United States	**0.000150**	**-192,623**	**34,364**	**0.000277**	**-478,142**	**33,707**
Alabama	0.022140	-31,979	7,632	0.041030	-34,071	5,795
Alaska	0.023245	-15,072	1,467	0.043010	-17,754	1,016
Arizona	0.025451	-1,413	4,134	0.073680	-289,994	5,746
Arkansas	0.046100	-35,277	6,033	0.128750	-223,947	4,961
California	0.020212	-180,816	28,097	0.121120	-136,518	11,478
Colorado	0.027113	-31,215	6,499	0.126930	-19,131	3,212
Connecticut	0.014369	-20,672	3,246	0.051520	30,475	1,407
Delaware	0.019906	-3,294	842	0.035500	-5,858	785
Florida	0.018422	-54,019	21,952	0.051760	-276,536	15,998
Georgia	0.017194	38,491	10,236	0.077200	-264,814	8,387
Hawaii	0.019313	-3,794	1,361	0.086390	-1,253	797
Idaho	0.016458	-19,925	3,682	0.026210	-102,915	3,831
Illinois	0.023997	-118,822	16,341	0.027055	-235,002	10,288
Indiana	0.008054	-37,770	7,805	0.044360	-113,025	5,115
Iowa	0.016916	-4,999	3,458	0.005885	-88,869	4,861
Kansas	0.033115	-5,365	2,597	0.094000	-144,269	3,670
Kentucky	0.033294	-35,489	6,480	0.031030	-211,390	9,091
Louisiana	0.012738	-6,921	10,247	0.077410	-178,559	8,417
Maine	0.051020	-11,191	2,468	0.118050	-62,158	3,145
Maryland	0.043650	-36,620	5,657	0.068670	-9,067	2,690
Massachusetts	0.022765	-70,099	6,656	0.011280	-40,800	5,986
Michigan	0.017766	-94,006	17,933	0.021460	-386,383	27,458
Minnesota	0.016251	-2,890	10,828	0.045130	-194,991	11,809
Mississippi	0.016620	-34,650	7,371	-0.001980	-78,252	7,986
Missouri	0.031920	-38,417	8,626	0.023030	-171,746	14,407
Montana	0.012655	-4,035	1,384	0.009135	1,629	2,229
Nebraska	0.019808	-3,439	1,803	0.015060	21,116	2,870
Nevada	0.006082	-11,623	2,767	0.073300	-57,009	1,223
New Hampshire	0.060070	-13,210	1,758	0.020440	-20,168	1,638
New Jersey	0.019375	-108,500	10,322	0.089840	-152,277	5,197
New Mexico	0.029329	-4,702	1,937	0.055030	-40,824	1,474
New York	0.013940	-128,454	20,807	0.028680	-107,377	14,284
North Carolina	0.038160	-174,985	18,106	0.046780	1,355	8,152
North Dakota	0.021979	-777	752	0.024171	-23,882	1,149
Ohio	0.018212	-76,116	14,481	0.011040	-360,018	17,181
Oklahoma	0.043300	-88,548	10,547	0.098030	-41,671	6,498
Oregon	0.008560	-61,773	11,911	0.054460	-223,614	6,661
Pennsylvania	0.009523	-138,047	20,372	0.053860	-155,572	10,311
Rhode Island	0.048180	-10,693	1,055	0.126010	-18,309	422
South Carolina	0.032550	-49,811	6,362	0.019070	185,472	6,243
South Dakota	0.008600	-27,856	3,357	0.014299	574	1,458
Tennessee	0.022255	-24,179	6,024	0.047520	-469,509	13,865
Texas	0.032800	-300,879	38,595	0.019380	-347,416	29,092
Utah	0.009578	-16,645	3,479	0.112610	-242,080	3,839
Vermont	0.007530	-20,073	2,991	0.012590	39,217	1,230
Virginia	0.007276	-173,725	16,133	0.089620	-203,860	6,212
Washington	0.033116	-38,664	8,578	0.105180	-41,288	6,989
West Virginia	0.018591	-28,940	4,606	0.012360	-42,917	4,494
Wisconsin	0.011515	-92,109	11,387	0.013420	-129,738	10,352
Wyoming	0.022142	-1,139	914	0.070790	-32,872	1,042

Table D-8. **Parameters a, b, and c for Calculating Approximate Standard Errors for Days or Trips for the Detail Sportsmen Sample**

State	Sportsmen and anglers 16+			Hunters 16+		
	a	b	c	a	b	c
United States	**-0.000487**	**-324,198**	**68,529**	**0.000284**	**-64,721**	**20,674**
Alabama	-0.011070	-11,692	13,572	0.056950	-1,149	4,361
Alaska	0.033200	-490	902	0.011283	-2,292	1,633
Arizona	0.056570	4,289	1,496	0.092450	-2,138	2,510
Arkansas	0.013786	2,864	3,940	0.104810	-7,656	5,216
California	0.029946	-4,196	10,727	0.126460	-18,167	11,833
Colorado	0.005428	-2,711	5,203	0.073060	-15,717	7,066
Connecticut	0.003347	-2,052	3,505	0.043562	-1,460	1,594
Delaware	0.007255	-490	812	0.107830	-1,125	758
Florida	0.013367	-24,334	31,352	0.050630	-11,393	12,144
Georgia	-0.002390	-20,940	25,606	0.009602	-4,615	8,856
Hawaii	0.030060	-1,400	1,521	0.031530	-464	1,088
Idaho	-0.004433	-18,648	8,978	0.012581	-5,338	3,657
Illinois	0.001066	-31,929	21,399	0.010252	-13,269	10,598
Indiana	-0.005908	-10,895	13,612	0.043800	-5,762	4,346
Iowa	-0.006627	-4,499	6,572	-0.005814	-6,150	5,151
Kansas	0.072300	-1,103	2,570	0.075350	-3,708	3,786
Kentucky	-0.000490	-4,426	6,283	0.005267	-9,012	6,791
Louisiana	0.027440	-12,750	15,168	-0.008006	-11,412	9,108
Maine	0.009860	-5,593	3,254	0.055710	-5,057	2,588
Maryland	0.050010	-3,282	5,469	0.022913	-2,192	3,737
Massachusetts	0.026976	-1,916	3,299	0.026656	-1,886	3,137
Michigan	0.013471	-64,347	26,902	0.024363	-8,048	15,439
Minnesota	0.067180	-14,162	13,867	0.003570	-3,330	10,044
Mississippi	0.002499	-3,774	5,306	-0.006274	-3,468	4,651
Missouri	-0.013391	-20,814	23,469	0.032758	-3,368	7,531
Montana	0.007369	-729	1,403	0.002089	-3,220	2,255
Nebraska	-0.001529	-2,946	3,633	0.052340	-617	1,483
Nevada	0.008313	-1,068	1,857	0.032699	-1,208	1,338
New Hampshire	0.021018	-749	1,202	0.011513	-764	1,264
New Jersey	0.006822	-20,863	12,441	0.040160	-7,095	4,902
New Mexico	0.058190	-319	1,665	-0.006373	507	1,618
New York	0.006621	-75,595	25,019	0.005049	-13,667	10,969
North Carolina	0.026990	-7,929	13,144	0.026400	-5,933	10,903
North Dakota	0.000737	-1,235	1,770	0.030689	-488	875
Ohio	-0.008811	-17,533	22,138	0.006268	-4,917	9,261
Oklahoma	-0.004210	-22,761	23,462	0.022440	-12,402	10,113
Oregon	-0.003514	-13,057	12,352	0.047340	-8,303	5,034
Pennsylvania	-0.004771	-29,038	20,722	0.005890	-13,456	11,579
Rhode Island	0.035533	-488	716	0.055023	16	418
South Carolina	0.016055	-1,772	3,332	0.012010	-7,443	5,606
South Dakota	-0.012421	-2,325	3,881	0.006947	264	1,520
Tennessee	-0.010925	-15,873	20,791	0.043900	-14,556	7,158
Texas	0.064330	-20,030	28,511	0.093890	-7,271	15,821
Utah	-0.010885	-7,389	6,213	0.061040	-6,144	3,385
Vermont	-0.011266	-3,627	2,815	-0.002376	-458	1,235
Virginia	0.035180	125,224	-9,283	0.072310	388	6,109
Washington	0.036450	61,568	6,373	0.053870	-15,132	10,384
West Virginia	0.014927	-1,405	2,899	0.033992	-1,412	3,115
Wisconsin	-0.002327	-13,236	11,393	0.044300	-29,411	12,437
Wyoming	0.002976	-753	1,220	0.003873	-1,048	1,592

Table D-9. **Parameters a and b for Calculating Approximate Standard Errors of Levels of Wildlife-Watching Participants for the Detail Wildlife-Watching Participant Sample**

State	Nonresidential users		Wildlife-watching participants[1]	
	a	b	a	b
United States	**-0.000276**	**25,931**	**-0.000305**	**28,168**
Alabama	-0.001433	3,758	-0.002465	4,921
Alaska	-0.014534	4,139	-0.015101	4,282
Arizona	-0.005141	8,512	-0.004974	8,299
Arkansas	-0.003210	4,887	-0.004132	5,615
California	-0.006775	59,801	-0.008521	72,793
Colorado	-0.005938	10,978	-0.013074	21,640
Connecticut	-0.005230	5,813	-0.007233	7,680
Delaware	-0.009246	2,459	-0.008584	2,306
Florida	-0.003500	20,728	-0.006692	32,623
Georgia	-0.001243	6,315	-0.001948	7,705
Hawaii	-0.000145	693	-0.000308	726
Idaho	-0.007455	4,802	-0.008880	5,492
Illinois	-0.005391	22,958	-0.007053	28,807
Indiana	-0.003253	8,771	-0.005209	12,532
Iowa	-0.007071	9,220	-0.006115	8,203
Kansas	-0.001433	3,300	-0.003303	4,700
Kentucky	-0.004163	6,866	-0.003590	6,210
Louisiana	-0.002342	6,532	-0.003035	7,261
Maine	-0.007341	4,524	-0.007111	4,410
Maryland	-0.004920	9,619	-0.005532	10,555
Massachusetts	-0.017685	32,902	-0.012769	24,195
Michigan	-0.005775	24,896	-0.007232	29,654
Minnesota	-0.007326	16,496	-0.005645	13,799
Mississippi	-0.000510	2,528	-0.001380	3,060
Missouri	-0.003803	10,811	-0.005533	14,250
Montana	-0.006528	3,155	-0.009016	4,087
Nebraska	-0.004063	3,104	-0.005025	3,601
Nevada	-0.005595	2,961	-0.006091	3,157
New Hampshire	-0.007437	3,782	-0.010707	5,245
New Jersey	-0.005500	13,386	-0.008007	18,395
New Mexico	-0.004430	3,118	-0.005759	3,762
New York	-0.003815	20,825	-0.007202	34,790
North Carolina	-0.001502	7,617	-0.002002	8,721
North Dakota	-0.001385	781	-0.002006	888
Ohio	-0.005364	22,355	-0.007372	29,104
Oklahoma	-0.003454	7,195	-0.001870	5,394
Oregon	-0.007073	10,056	-0.011343	14,985
Pennsylvania	-0.011110	45,226	-0.014233	56,614
Rhode Island	-0.007440	2,262	-0.009585	2,836
South Carolina	-0.001651	3,399	-0.001422	3,176
South Dakota	-0.005296	1,781	-0.004510	1,605
Tennessee	-0.003042	8,360	-0.004086	10,197
Texas	-0.004424	32,407	-0.004044	30,685
Utah	-0.005642	4,613	-0.006619	5,198
Vermont	-0.009714	2,822	-0.010510	3,020
Virginia	-0.006274	17,138	-0.006328	17,260
Washington	-0.006308	16,668	-0.007175	18,535
West Virginia	-0.000729	1,840	-0.001846	2,470
Wisconsin	-0.007849	19,480	-0.008227	20,218
Wyoming	-0.009622	2,285	-0.007294	1,851

[1]Use these parameters for total wildlife-watching participants and residential participants.

Table D-10. **Parameters a, b, and c for Calculating Approximate Standard Errors for Expenditures and Days or Trips for Wildlife-Watching Participants**

State	Expenditures			Days or trips		
	a	b	c	a	b	c
United States	**0.002397**	**54,854**	**59,894**	**0.004371**	**-26,991**	**38,946**
Alabama	0.036681	-18,572	3,935	0.011362	-3,080	6,929
Alaska	0.033200	-489	902	0.033200	-490	902
Arizona	0.085600	-24,154	3,865	0.232510	-7,261	4,855
Arkansas	0.039340	-17,237	7,682	0.126590	-6,938	4,442
California	0.035321	1,067,697	50,145	0.052960	-492,479	107,684
Colorado	0.048110	-591,648	39,405	0.017830	-20,910	22,425
Connecticut	0.032120	-21,061	5,992	0.042120	-5,381	6,004
Delaware	0.027760	-22,636	2,973	0.003640	-10,483	5,591
Florida	0.031830	-262,997	42,131	0.017280	-64,794	47,008
Georgia	0.013884	-70,051	15,019	0.031240	-23,045	14,502
Hawaii	0.064090	-15,686	1,341	0.038060	-2,779	1,738
Idaho	0.074700	-41,520	4,112	0.052940	-2,501	4,439
Illinois	0.032820	-136,223	32,872	0.027820	58,516	15,204
Indiana	0.006691	-40,890	16,403	0.122280	615	4,192
Iowa	0.042340	2,565	9,634	0.019080	-25,174	20,514
Kansas	0.049730	28,458	2,682	0.046990	-3,368	5,621
Kentucky	0.057270	-82,495	7,466	0.190170	-34,160	7,178
Louisiana	0.015699	-56,977	11,140	0.057300	-3,617	5,930
Maine	0.014378	32,335	3,270	0.051680	15,634	175
Maryland	0.030510	-305,840	24,949	0.024640	-17,150	12,820
Massachusetts	0.037380	-61,675	20,522	-0.005400	-76,328	43,555
Michigan	0.061770	-196,154	22,084	0.029460	-37,292	38,827
Minnesota	0.037860	-560,903	26,760	0.112360	-726	8,805
Mississippi	0.097820	-25,306	3,928	0.147200	-4,425	3,214
Missouri	0.051350	-307,535	14,174	0.138350	-83,740	29,824
Montana	0.060400	-10,180	3,130	0.025541	-6,368	4,142
Nebraska	0.022050	-40,731	6,287	0.038910	7,544	6,580
Nevada	0.068910	-18,553	2,740	0.059320	-4,583	3,379
New Hampshire	0.073310	-15,254	5,644	0.020010	-11,117	12,021
New Jersey	0.149260	-108,166	14,765	0.127580	-3,798	11,031
New Mexico	0.071300	-19,200	3,055	0.219380	659	3,498
New York	0.067090	264,223	15,441	0.033550	-33,800	37,645
North Carolina	0.023769	-75,748	15,550	0.049300	-20,978	13,008
North Dakota	0.032330	-1,750	1,453	0.020354	-1,274	1,794
Ohio	0.032960	-396,988	40,707	0.041190	22,105	16,194
Oklahoma	0.069700	-20,480	5,997	0.204660	-13,045	9,633
Oregon	0.059410	-49,805	9,458	0.020200	-30,808	18,514
Pennsylvania	0.082590	295,032	21,758	0.039050	-55,252	59,257
Rhode Island	0.110000	-26,416	2,010	0.166510	-285	1,206
South Carolina	0.040330	-19,536	4,583	0.029840	-26,641	9,633
South Dakota	0.030560	16,289	974	0.144230	-15,927	2,616
Tennessee	0.106240	-192,365	13,204	0.045640	-19,985	16,505
Texas	0.130150	-261,303	31,449	0.207090	5,535	15,119
Utah	0.051580	-4,059	5,598	-0.003608	-2,355	7,127
Vermont	0.096280	-1,490	1,518	0.035450	10,053	2,920
Virginia	0.063470	4,565	14,349	0.054850	-13,451	16,263
Washington	0.100400	15,783	22,301	-0.004180	-17,728	27,976
West Virginia	0.031242	-12,231	3,829	0.037480	-9,680	4,534
Wisconsin	0.197550	360,528	-1,524	0.159790	-15,203	11,080
Wyoming	0.056740	-26,047	2,288	0.020139	-13,601	3,552