

2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation







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The U.S. Department of the Interior protects and manages the Nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated Island Communities.

The mission of the Department's U.S. Fish and Wildlife Service is working with others to conserve, protect, and enhance fish, 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 Wildlife and Sport Fish Restoration Programs. These two 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. Multistate grants from these programs fund the National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

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Foreword

I find duck hunting with friends in a bottomland hardwood swamp or fishing with my kids on an Oregon river bolsters my spirit and reminds me why I care about conservation and our wildlife heritage.

But wildlife-associated and vital recreation—activities such as hunting, fishing, and birding—also provide significant financial support for wildlife conservation in our Nation's economy. According to information from the newest National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, 87.5 million Americans spent more than \$122 billion in 2006 on wildlife-related recreation. And this spending supports hundreds of thousands of jobs in industries and businesses.

The Survey is conducted every five years at the request of State fish and wildlife agencies to measure the importance of wildlife-based recreation to the American people. The 2006 Survey represents the 11th in a series that began in 1955. Developed in collaboration with the States, the Association of Fish and Wildlife Agencies, and national conservation organizations, the Survey has become one of the most important sources of information on fish and wildlife-related recreation in the United States.

In the 75-year history of the Sport Fish and Wildlife Restoration Programs, excise taxes on firearms, ammunition, archery, and angling equipment have generated a cumulative total of more than \$10 billion for wildlife conservation efforts by State and Territorial wildlife agencies for fish and wildlife management.

My thanks go to the men and women who took time to participate in the survey, as well as to the State fish and wildlife agencies for their financial support through the Multistate Conservation Grant Programs. Without that support, the 2006 Survey would never have been possible.

I am comforted to know that my children and all Americans will have the opportunity to appreciate our Nation's rich wildlife tradition. Along with a record number of Americans, we continue to enjoy wildlife. We are laying the foundation for conservation's future.

H. Dale Hall

Director, U.S. Fish and Wildlife Service

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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 Survey collects information on the number of anglers, hunters, and wildlife watchers; how often they participate; and how much they spend on their activities in the United States.

Preparations for the 2006 Survey began in 2004 when the Association of Fish and Wildlife Agencies (AFWA) recommended that the Fish and Wildlife Service conduct the 11th Survey of wildlife-related recreation. Funding came from the Multistate Conservation Grant Programs, authorized by Sport Fish and Wildlife Restoration Acts, as amended.

We consulted with State and Federal agencies and nongovernmental organizations such as the Wildlife Management Institute and American Sportfishing Association to determine survey content. Other sportspersons' organizations and conservation groups, industry representatives, and researchers also provided valuable advice.

Four regional technical committees were set up under the auspices of the AFWA 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.

Data collection for the Survey was carried out by the U.S. Census Bureau in two phases. The first phase was the screen which began in April 2006. During this phase, the Census Bureau interviewed a sample of 85,000 households nationwide to determine who in the household had fished, hunted, or wildlife watched in 2005, and who had engaged or planned to engage in those activities in 2006. In most cases, one adult household member provided information for all members. The screen primarily covered 2005 activities while the next, more in-depth phase covered 2006 activities. For more information on 2005 data, refer to Appendix B.

The second phase of data collection consisted of three detailed interview waves. The first began in April 2006 concurrent with the screen, the second in September 2006, and the last in January 2007. Interviews were conducted with samples of likely anglers, hunters, and wildlife watchers who were identified in the initial screening phase. Interviews were conducted primarily by phone, with in-person interviews for respondents who could not be reached by phone. Respondents in the second survey phase were limited to those who were

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. Information on sampling procedures, sample sizes, and response rates is found in Appendix D.

Comparability With Previous Surveys

The 2006 Survey questions and methodology were similar to those used in the 2001, 1996, and 1991 Surveys. Therefore, the estimates are compa-

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



Introduction

The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation reports results from interviews with U.S. residents about their fishing, hunting, and wildlife watching. This report focuses on 2006 participation and expenditures of persons 16 years of age and older.

The Survey is a snapshot of one year. The information it collected tells us how many people participated and how much they spent on their activities in the State in 2006. It does not tell us how many anglers, hunters, and wildlife watchers there were because many do not participate every year. For example, based on information collected by the Survey's household screen and detailed phase, we can estimate that about 33 percent more anglers and hunters participated nationally in at least 1 of the 4 years prior to the survey year 2006.

In addition to 2006 estimates, we also provide trend information in the Highlights section and Appendix C of the report. The 2006 numbers reported can be compared with those in the 1991, 1996, and 2001 Survey reports because they used similar methodologies. The 2006 estimates should not be directly compared with results from Surveys conducted earlier than 1991 because of changes in methodology to improve accuracy.

The report also provides information on participation in wildlife recreation in 2005, particularly of persons 6 to 15 years of age. The 2005 information is provided in Appendix B. Information about the Survey's scope and coverage is in Appendix D. The remainder of this section defines important terms used in the Survey.

This report does not provide information about the State's wildlife

resources. That, and additional information on wildlife-related recreation, may be obtained from State fish and wildlife agencies. The Association of Fish and Wildlife Agencies can provide the addresses and telephone numbers of those agencies. The Association's Web site is <www.fishwildlife.org>.

Wildlife-Associated Recreation

Wildlife-associated recreation is fishing, hunting, and wildlife-watching activities. These categories are not mutually exclusive because many individuals participated in more than one activity. Wildlife-associated recreation is reported in two major categories: (1) fishing and hunting and (2) wildlife watching, which includes observing, photographing, and feeding fish or wildlife.

Fishing and Hunting

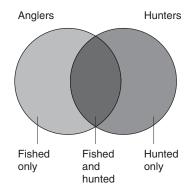
This Survey reports information about residents of the United States who fished or hunted in 2006, regardless of whether they were licensed. The fishing and hunting sections report information for three groups: (1) sportspersons, (2) anglers, and (3) hunters.

Sportspersons

Sportspersons are those who fished or hunted. Individuals who fished or hunted commercially in 2006 are reported as sportspersons only if they also fished or hunted for recreation. The sportspersons group is composed of three subgroups, as shown in the diagram on this page: (1) those that fished and hunted, (2) those that only fished, and (3) those that only hunted.

The total number of sportspersons 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.

Sportspersons



Anglers

Anglers are sportspersons who only fished plus those who fished and hunted. Anglers include 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 participated in 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 sportspersons who only hunted plus those who hunted and fished. Hunters include not only licensed hunters using rifles and shotguns but also those who had no license and those who hunted with a bow and arrow, primitive firearm, or 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 participated in 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 Watchers

Since 1980, the National Survey has included information on wildlifewatching activities in addition to fishing and hunting. The 1991, 1996, 2001, and 2006 Surveys, unlike the 1980 and 1985 Surveys, collected data only for activities where the *primary* purpose was wildlife watching. The 1980 and 1985 Surveys included estimates of unplanned wildlife watching around the home and while on trips taken for another purpose.

The 2006 Survey uses a strict definition of wildlife watching. Participants must either take a "special interest"

in wildlife around their homes or take a trip for the "primary purpose" of wildlife watching. Secondary wildlife watching, such as incidentally observing wildlife while pleasure driving, is not included.

Two types of wildlife watching are reported: (1) away-from-home (formerly nonresidential) activities and (2) around-the-home (formerly residential) activities. Because some people participated in more than one type of wildlife watching, the sum of participants in each type will be greater than the total number of wildlife watchers. The two types of wildlife-watching activity are explained next.

Away-From-Home Wildlife Watching

This group includes persons who took trips or outings of at least 1 mile from home for the primary purpose of observing, feeding, or photographing fish and wildlife. Trips to fish, hunt,

or scout and trips to zoos, circuses, aquariums, and museums are not considered wildlife-watching activities.

Around-the-Home Wildlife Watching

This group includes those who participated within 1 mile of home and involves 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; (4) maintaining natural areas of at least 1/4 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.

2006 New Mexico Summary

Fishing	
Anglers	248,000
Days of fishing	
Average days per angler	
Total expenditures	
Trip-related	
Equipment and other	
Average per angler	
Average trip expenditure per day	\$49
Hunting	
Hunters	99,000
Days of hunting	
Average days per hunter	9
Total expenditures	\$164,308,000
Trip-related	\$93,052,000
Equipment and other	\$71,256,000
Average per hunter	\$1,654
Average trip expenditure per day	\$109
Wildlife Watching	
Total wildlife-watching participant	
Away-from-home participants	507,000
Around-the-home participants	437,000
Days of participation away from hom	ne 5,429,000
Average days of participation	
away from home	11
Total expenditures	\$297,174,000
Trip-related	
Equipment and other	
Equipment and other Average per participant	

Fishing	
Anglers	84,000
Days of fishing	467,000
Average days per angler	
Total expenditures	
Trip-related	
Equipment and other	
Average per angler	
Average trip expenditure per day	\$84
Hunting	
Hunters	32,000
Days of hunting	167,000
Average days per hunter	5
Total expenditures	\$63,151,000
Trip-related	\$58,433,000
Equipment and other	
Average per hunter	
Average trip expenditure per day	\$350
Wildlife Watching	
Total wildlife-watching participants	
Away-from-home participants	
Around-the-home participants	
Days of participation away from hom	e 1,759,000
Average days of participation	
away from home	
Total expenditures	
Trip-related	
Equipment and other	
Average per participant	
Average trip expenditure per day	\$86
(X) Not applicable.	
(A) NOT applicable.	

Activities in New Mexico by Residents

Fishing Total expenditures \$202,031,000 Equipment and other \$112,950,000 Average trip expenditure per day \$42 Hunting Total expenditures \$101,157,000 Equipment and other \$66,538,000 Average trip expenditure per day \$51 Wildlife Watching Total wildlife-watching participants 479,000 Away-from-home participants..... 199,000 Around-the-home participants..... 437,000 Days of participation away from home. 3,670,000 Average days of participation Equipment and other \$87,278,000 Average trip expenditure per day\$16

Activities by New Mexico Residents Both Inside and Outside New Mexico

Fishing
Anglers 190,000 Days of fishing 2,451,000 Average days per angler 13 Total expenditures \$254,023,000 Trip-related \$130,065,000 Equipment and other \$123,958,000 Average per angler \$1,338 Average trip expenditure per day \$53
Hunting
Hunters. 72,000 Days of hunting. 734,000 Average days per hunter 10 Total expenditures \$109,297,000 Trip-related \$38,519,000 Equipment and other \$70,778,000 Average per hunter \$1,528 Average trip expenditure per day \$52
Wildlife Watching
Total wildlife-watching participants

Wildlife-Associated Recreation

Participation in New Mexico

The 2006 Survey found that 947 thousand New Mexico residents and nonresidents 16 years old and older fished, hunted, or wildlife watched in New Mexico. Of the total number of participants, 248 thousand fished, 99 thousand hunted, and 787 thousand participated in wildlife-watching activities, which include observing, feeding, and photographing wildlife. The sum of anglers, hunters, and wildlife watchers exceeds the total number of participants in wildlife-related recreation because many individuals engaged in more than one wildlife-related activity.

Participation by 6-to-15-Year-Old New Mexico Residents

The focus of the National Survey is on the activity of participants 16 years old and older. However, the activity of 6- to 15-year-olds can be calculated using the screening data covering the year 2005. It is assumed for estimation purposes that the relative activity levels of 6-to-15-year-old participants

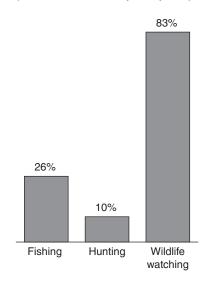
and participants 16 years old and older remained the same in 2005 and 2006. Based on this assumption, in addition to the 190 thousand resident anglers 16 years old and older, there were 54 thousand resident anglers 6 to 15 years old. Also, in addition to the 72 thousand residents 16 years old and older who hunted, there were 5 thousand 6-to-15year-old residents who hunted. Finally, there were 490 thousand New Mexico residents 16 years old and older and 93 thousand 6- to 15-year-olds who wildlife watched. Further information on 6- to 15-year-olds is provided in Appendix B.

Expenditures in New Mexico

In 2006, state residents and nonresidents spent \$823 million on wildlife recreation in New Mexico. Of that total, trip-related expenditures were \$430 million and equipment purchases totaled \$283 million. The remaining \$110 million was spent on licenses, contributions, land ownership and leasing, and other items.

Percent of Total Participants by Activity

(Total: 947 thousand participants)



Participants in Wildlife-Associated Recreation in New Mexico: 2006

(U.S. residents 16 years old and older)

Total	947 thousand	
Sportspersons		
Total	316 thousand	
Anglers	248 thousand	
Hunters	99 thousand	

Wildlife Watchers

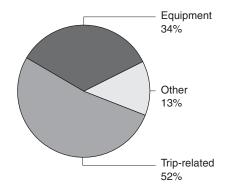
Total	787 thousand
Away from home	507 thousand
Around the home	437 thousand

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

Source: Tables 3, 24, and 39.

Wildlife-Associated Recreation Expenditures in New Mexico

(Total: \$823 million)



Sportspersons

In 2006, 316 thousand state resident and nonresident sportspersons 16 years old and older fished or hunted in New Mexico. This group comprised 248 thousand anglers (78 percent of all

sportspersons) and 99 thousand hunters (31 percent of all sportspersons). Among the 316 thousand sportspersons who fished or hunted in the state, 218 thousand (69 percent) fished but did

not hunt in New Mexico. Another 68 thousand (22 percent) hunted but did not fish there. The remaining 31 thousand (10 percent) fished and hunted in New Mexico in 2006.

(State residents and nonresidents 16 years old and older)	
Sportspersons (fished or hunted)	316 thousand
Anglers	248 thousand
Fished only	218 thousand
Fished and hunted	31 thousand
Hunters	99 thousand
Hunted only	68 thousand
Hunted and fished	31 thousand

Anglers

Participants and Days of Fishing

In 2006, 248 thousand state residents and nonresidents 16 years old and older fished in New Mexico. Of this total, 164 thousand anglers (66 percent) were state residents and 84 thousand anglers (34 percent) were nonresidents. Anglers fished a total of 2.6 million days in New Mexico—an average of 10 days per angler. State residents fished 2.1 million days—82 percent of all fishing days in New Mexico. Nonresidents fished 467 thousand days in

New Mexico—18 percent of all fishing days in the state.

A large majority of New Mexico residents who fished anywhere in the United States did so in their resident state. There were 190 thousand New Mexico residents 16 years old and older who fished in the United States in 2006 for a total of 2.5 million days. An estimated 86 percent of all New Mexico residents who fished did so in their home state. Of all fishing days by New Mexico residents,

87 percent or 2.1 million were in their home state.

Some state residents fished in states other than New Mexico. In 2006, 55 thousand New Mexico residents fished in other states—29 percent of all residents fishing in any state. They fished 346 thousand days as nonresidents, representing 14 percent of all days fished by New Mexico residents. For further details about fishing in New Mexico, see Table 3.

Anglers in New Mexico

(State residents and nonresidents 16 years old and older)

Anglers	248 thousand
Resident	164 thousand
Nonresident	84 thousand

Days of fishing2.6 millionResident2.1 millionNonresident467 thousand

Source: Table 3.

In State/Out of State

(State residents 16 years old and older)

New Mexico anglers	190 thousand
In New Mexico	164 thousand
In other states	55 thousand

Days of fishing2.5 millionIn New Mexico2.1 millionIn other states346 thousand

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

Source: Table 3.

Fishing Expenditures in **New Mexico**

All fishing-related expenditures in New Mexico totaled \$301 million in 2006. Trip-related expenditures, which include food and lodging, transportation, and other trip expenses, totaled \$128 million—43 percent of all fishing expenditures. Expenditures for food and lodging were \$51 million and transportation expenditures were \$49 million. Other trip expenses, such as equipment rental, bait, and cooking fuel, totaled \$29 million. Each angler spent an average of \$518 on trip-related costs during 2006.

Anglers spent \$81 million on equipment in New Mexico in 2006, 27 percent of all fishing expenditures. Fishing equipment (rods, reels, line, etc.) spending totaled \$29 million—36 percent of the equipment total. Auxiliary equipment expenditures (tents, special fishing clothes, etc.) and special equipment expenditures (boats, vans, etc.) amounted to \$52 million-64 percent of the equipment total. Special and auxiliary equipment are items that were purchased for fishing but could be used in activities other than fishing.

The purchase of other items, such as magazines, membership dues, licenses, permits, stamps, and land leasing and ownership, amounted to \$92 million— 31 percent of all fishing expenditures. For more details about fishing expenditures in New Mexico, see Tables 19 and 21 through 23.

Fishing Expenditures in New Mexico

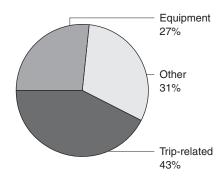
(State residents and nonresidents 16 years old and older)

Total	\$301 million
Trip-related	\$128 million
Equipment	\$81 million
Fishing	\$29 million
Auxiliary and special	\$52 million
Other	\$92 million

Source: Table 19.

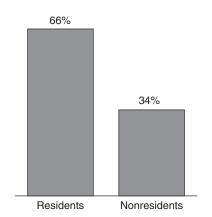
Fishing Expenditures in New Mexico

(Total: \$301 million)



Percent of Anglers by Residence

(Total: 248 thousand participants)



Hunters

Participants and Days of Hunting

In 2006, there were 99 thousand residents and nonresidents 16 years old and older who hunted in New Mexico. Resident hunters numbered 66 thousand, accounting for 67 percent of the hunters in New Mexico. There were 32 thousand nonresidents who hunted in New Mexico-33 percent of the state's hunters. Residents and nonresidents hunted 852 thousand days in 2006, an average of 9 days per hunter. Residents hunted 685 thousand days

in New Mexico or 80 percent of all hunting days, while nonresidents spent 167 thousand days hunting in New Mexico or 20 percent of all hunting days.

There were 72 thousand New Mexico residents 16 years old and older who hunted in the United States in 2006 for a total of 734 thousand days. An estimated 93 percent of all New Mexico residents who hunted did so in their home state. Of all hunting days by

New Mexico residents, 93 percent or 685 thousand were spent pursuing game in their home state.

Some state residents hunted in states other than New Mexico. Altogether, 9 thousand or 13 percent of all New Mexico hunters hunted in other states. Their 58 thousand days of hunting in other states represented 8 percent of all days New Mexico residents spent hunting in 2006. For more information on hunting activities by New Mexico residents, see Table 3.

Hunters in New Mexico

(State residents and nonresidents 16 years old and older)

99 thousand
66 thousand
32 thousand
852 thousand
685 thousand
167 thousand

Source: Table 3.

In State/Out of State

(State residents 16 years old and older)

New Mexico hunters	72 thousand	
In New Mexico	66 thousand	
In other states	9 thousand	

Days of hunting	734 thousand	
In New Mexico	685 thousand	
In other states.	58 thousand	

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

Source: Table 3.

Hunting Expenditures in New Mexico

All hunting-related expenditures in New Mexico totaled \$164 million in 2006. Trip-related expenses, such as food and lodging, transportation, and other trip expenses, totaled \$93 million—57 percent of total expenditures. Expenditures for food and lodging were \$28 million and transportation expenditures were \$25 million. Other trip expenses, such as equipment rental, totaled \$39 million for the year. The average trip-related expenditure per hunter was \$941.

Hunters spent \$62 million on equipment—38 percent of all hunting expenditures. Hunting equipment (guns, ammunition, etc.) totaled \$29 million and made up 47 percent of all equipment costs. Hunters spent \$33 million on auxiliary equipment (tents, special hunting clothes, etc.) and special equipment (boats, vans, etc.), accounting for 53 percent of total equipment expenditures for hunting. Special and auxiliary equipment are items that were purchased for hunting but could be used in activities other than hunting.

The purchase of other items, such as magazines, membership dues, licenses, permits, and land leasing and ownership, cost hunters \$9 million—6 percent of all hunting expenditures. For more details on hunting expenditures in New Mexico, see Tables 20 through 23.

Hunting Expenditures in New Mexico

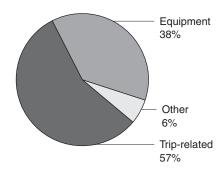
(State residents and nonresidents 16 years old and older)

otal	\$164 million
Trip-related	\$93 million
Equipment	\$62 million
Hunting	\$29 million
Auxiliary and special	\$33 million
Other	\$9 million

Source: Table 20.

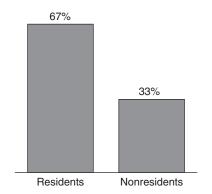
Hunting Expenditures in New Mexico

(Total: \$164 million)



Percent of Hunters by Residence

(Total: 99 thousand participants)



Wildlife Watchers

Participants and Days of Activity

In 2006, 787 thousand U.S. residents 16 years old and older fed, observed,

or photographed wildlife in New Mexico. Of these, 55 percent (437) thousand), enjoyed their activities

Wildlife-Watching Participants in New Mexico

(State residents and nonresidents 16 years old and older)

Total	787 thousand
Around the home	437 thousand
Away from home	507 thousand

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

Source: Table 24

Away-From-Home Wildlife-Watching Participation in New Mexico

(State residents and nonresidents 16 years old and older)

Participants, total	507 thousand
Observe wildlife	506 thousand
Feed wildlife	69 thousand
Photograph wildlife	172 thousand

Days, total	5.4 million
Observe wildlife	4.7 million
Feed wildlife	880 thousand
Photograph wildlife	1.2 million

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

Source: Table 25.

Around-the-Home Wildlife-Watching Participation in New Mexico

(State residents 16 years old and older)

Total	437 thousand
Feed wildlife	342 thousand
Observe wildlife	306 thousand
Photograph wildlife	127 thousand
Maintain natural areas	51 thousand
Maintain plantings	59 thousand
Visit public areas	74 thousand

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

Source: Table 27.

close to home and are called "aroundthe-home" participants. Those persons who enjoyed wildlife at least 1 mile from home are called "away-fromhome" participants. People participating in away-from-home activities in New Mexico in 2006 numbered 507 thousand—64 percent of all wildlife watchers in New Mexico. Of the 507 thousand, 199 thousand were state residents and 308 thousand were nonresidents.

New Mexico residents 16 years old and older who enjoyed away-from-home wildlife watching within their state totaled 199 thousand. Of this group, 198 thousand participants observed wildlife, 43 thousand fed wildlife, and 98 thousand photographed wildlife. Since some individuals engaged in more than 1 of the 3 away-from-home activities during the year, the sum of wildlife observers, feeders, and photographers exceeds the total number of away-from-home participants.

New Mexico residents spent 3.7 million days engaged in away-from-home wildlife-watching activities in their state. They spent 3.1 million days observing wildlife, 880 thousand days feeding wildlife, and 1.0 million days photographing wildlife. The sum of days observing, feeding, and photographing wildlife exceeds the total days of wildlife-watching activity because individuals engaged in more than one activity on some days. For further details about away-from-home activities, see Table 25.

New Mexico residents also took an active interest in wildlife around their homes. In 2006, 437 thousand state residents enjoyed observing, feeding, and photographing wildlife within 1 mile of their homes. Among this around-the-home group, 342 thousand fed, 306 thousand observed, and 127 thousand photographed wildlife around their homes. Another 51 thousand participants maintained natural areas of 1/4 acre or more for wildlife; 59 thousand participants maintained

plantings for the benefit of wildlife; and 74 thousand participants visited public parks within a mile of home because of the wildlife. Summing the number of participants in these six activities results in an estimate that exceeds the total number of around-the-home participants because many people participated in more than one type of around-the-home activity. In addition, 38 percent of resident around-the-home wildlife watchers also enjoyed wildlife away from home. For further details about New Mexico residents participating in around-the-home wildlifewatching activities, see Table 27.

Wild Bird Observers

Bird watching attracted many wildlife enthusiasts in New Mexico. In 2006, 641 thousand people observed birds around the home and on trips in the state. Forty-four percent (285 thousand) observed wild birds around the home while 72 percent (461 thousand) took trips away from home to watch birds.

Wildlife-Watching Expenditures in New Mexico

Wildlife watchers spent \$297 million on wildlife-watching activities in New Mexico in 2006. Trip-related expenditures, including food and lodging (\$125 million), transportation (\$71 million), and other trip expenses (\$12 million), such as equipment rental, amounted to \$208 million. This summation comprised 70 percent of all wildlife-watching expenditures by participants. The average of the triprelated expenditures for away-fromhome participants was \$407 per person in 2006.

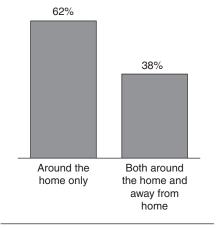
Wildlife-watching participants spent \$82 million on equipment—28 percent of all their expenditures. Specifically, wildlife-watching equipment (binoculars, special clothing, etc.) expenditures totaled \$47 million, 58 percent of the equipment total. Auxiliary equipment expenditures (tents, backpacking equipment, etc.) and special equipment expenditures (campers, trucks, etc.) amounted to \$34 million—42 percent of all equipment costs. Special and

auxiliary equipment are items that were purchased for wildlife-watching recreation but can be used in activities other than wildlife-watching activities.

Other items purchased by wildlifewatching participants, such as magazines, membership dues and contributions, land leasing and ownership, and plantings, totaled \$7 million—2 percent of all wildlifewatching expenditures. For more details about wildlife-watching expenditures in New Mexico, see Table 31.

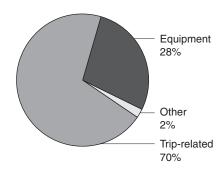
Around-the-Home and Away-From-Home Participation by New Mexico Residents

(Total: 437 thousand participants)



Wildlife-Watching Expenditures in New Mexico

(Total: \$297 million)



Wild Bird Observers in New Mexico

(State residents and nonresidents 16 years old and older)

Participants, total	641 thousand 285 thousand 461 thousand
Days, total Around the home. Away from home.	50.0 million 45.9 million 4.1 million

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

Source: Table 29.

Wildlife-Watching Expenditures in New Mexico

(State residents and nonresidents 16 years old and older)

Total	\$297 million
Trip-related	\$208 million
Equipment	\$82 million
Wildlife watching	\$47 million
Auxiliary and special	\$34 million
Other	\$7 million

Source: Table 31.

1996–2006 *Comparisons*

Comparing the estimates from the 1996, 2001, and 2006 Surveys gives a perspective on the state of wildliferelated recreation in the late 1990s and early-to-mid 2000s in New Mexico. Only the most general recreation comparisons are presented here.

The best way to compare estimates from surveys is not to compare the estimates themselves but to compare the confidence intervals around the

estimates. A 90-percent confidence interval around an estimate gives the range of estimates that 90 percent of all possible representative samples would supply. If the 90-percent confidence intervals of two surveys' estimates overlap, it is not possible to say the two estimates are statistically different.

The state resident estimates cover the participation and expenditure activity of New Mexico residents anywhere in the United States. The in-state estimates cover the participation, day, and expenditure activity of U.S. residents in New Mexico.

The expenditure estimates were made comparable by adjusting the estimates for inflation—all estimates are in 2006 dollars.

	1996	2006	Percent change
Fishing			
Anglers in state	321	248	*
Days in state	2,836	2,596	*
In-state expenditures by U.S. anglers	\$251,214	\$301,101	*
State resident anglers	234	190	-19
Total expenditures by state residents	\$233,473	\$254,023	*
Hunting			
Hunters in state	97	99	*
Days in state	632	852	*
In-state expenditures by U.S. hunters	\$110,471	\$164,308	*
State resident hunters	93	72	*
Total expenditures by state residents	\$111,757	\$109,297	*
Away-From-Home Wildlife Watching			
Participants in state	413	507	*
Days in state	3,326	5,429	*
State resident participants	186	220	*
Around-the-Home Wildlife Watching			
Total participants	326	437	34
Observers	202	306	51
Feeders	271	342	26
Wildlife-Watching Expenditures			
In-state expenditures by U.S. wildlife watchers	\$552,425	\$297,174	*
Total expenditures by state residents	\$394,339	\$177,613	*

New Mexico 2001 and 2006 Comparison

(Numbers in thousands)

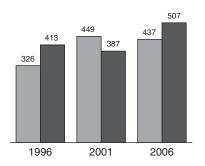
	2001	2006	Percent change
Fishing			
Anglers in state	314	248	*
Days in state	2,485	2,596	*
n-state expenditures by U.S. anglers	\$201,183	\$301,101	*
State resident anglers	215	190	*
Total expenditures by state residents	\$224,194	\$254,023	*
Hunting			
Hunters in state	130	99	*
Days in state	1,667	852	*
n-state expenditures by U.S. hunters	\$174,860	\$164,308	*
State resident hunters	114	72	-37
Total expenditures by state residents	\$195,865	\$109,297	*
Away-From-Home Wildlife Watching			
Participants in state	387	507	*
Days in state	6,381	5,429	*
State resident participants	205	220	*
Around-the-Home Wildlife Watching			
Total participants	449	437	*
Observers	326	306	*
Feeders	387	342	*
Wildlife-Watching Expenditures			
n-state expenditures by U.S. wildlife watchers	\$636,451	\$297,174	-53
Total expenditures by state residents	\$567,532	\$177,613	*
Not different from zero at the 10 percent level of significance.			





Number of People Who Wildlife Watched in New Mexico: 1996-2006 (In thousands)





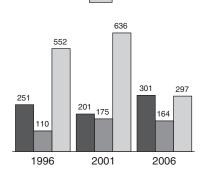
Total Expenditures by Participants in New Mexico: 1996-2006

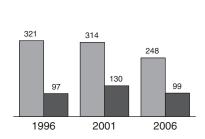
Anglers

Hunters

Wildlife watchers

(In millions of 2006 dollars)





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 wildlife-related recreation. Special terms used in these tables are defined in Appendix A.

The tables are based on responses to the 2006 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 U.S. citizens residing outside the United States.

Comparability With Previous Surveys

The numbers reported can be compared with those in the 1991, 1996, and 2001 Survey Reports. The methodology used in 2006 was similar to that used in those Surveys. These results should not be directly compared to results from Surveys earlier than 1991 since there were major changes in methodology in 1991. These changes were made to improve accuracy in the estimates.

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 2 shows that data about anglers and hunters, their days of participation, and their number of trips are reported by type of activity. By contrast, the title of Table 7 indicates that it contains data on freshwater anglers and the days they fished for different species.

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 2 reports the number of trips taken by big game hunters, those taken by small game hunters, those taken by migratory bird hunters, and those taken by hunters pursuing other animals. These comprise 100 percent because they are exclusive categories.

Percents should not add to 100 when nonexclusive groups are being reported. Using Table 2 as an example again, note that adding the percentages associated with the total number of big game hunters, total small game hunters, total migratory bird hunters, and total hunters of other animals will not yield total hunters because respondents could hunt for more than one type of game.

When the base of the percentage is not apparent in context, it is identified in a footnote. For example, Table 15 reports two percentages with different bases: one base being the number of total participants at the head of the column and the other base being the total population who are described by the row category. 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 sample size of 10-29.
- ... Sample size too small to report data reliably because there were fewer than 10 responses.

W Less than .5 dollars.

Z Less than 0.5 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 12 as an example, those who hunt for big game, small game, migratory birds, and other animals are counted only once as a hunter in the "Total, all hunting" row. Another example is Table 15, where total anglers and hunters add up to more than total sportspersons. Totals will 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 the questions. Totals are greater than the sum of subcategories when nonresponses have occurred. This occurs because some respondents answered the question that provided the category estimate but did not answer the subcategory questions.

Table 1. Fishing and Hunting in New Mexico by Resident and Nonresident Sportspersons: 2006

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

Courtonarrana	Total residents and	, state nonresidents	State re	esidents	Nonresidents		
Sportspersons	Number	Percent of sportspersons	Number	Percent of resident sportspersons	Number	Percent of nonresident sportspersons	
Total sportspersons (fished or hunted)	316	100	201	100	116	100	
Total anglers	248	78	164	82	*84	*73	
Fished only	218	69	134	67	*83	*72	
Fished and hunted	31	10	29	15			
Total hunters	99	31	66	33	*32	*28	
Hunted only	68	22	37	18	*31	*27	
Hunted and fished	31	10	29	15			

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

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

Table 2. Anglers and Hunters, Days of Participation, and Trips in New Mexico by Type of Fishing and Hunting: 2006

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

Tours of finition and house	Partic	ipants	Days of pa	articipation	Trips		
Type of fishing and hunting	Number	Percent	Number	Percent	Number	Percent	
FISHING							
Total, all fishing Total, all freshwater Freshwater, except Great Lakes Great Lakes Saltwater	248 248 248 	100 100 100 	2,596 2,596 2,596	100 100 100 	1,776 1,776 1,776 	100 100 100 	
HUNTING							
Total, all hunting Big game Small game. Migratory bird Other animals	99 81 *23 *8	100 81 *23 *9	852 580 *228 *49	100 68 *27 *6	499 177 *178 *42 	100 35 *36 *8	

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

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

Table 3. Anglers and Hunters, Trips, and Days of Participation: 2006

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

		A	ctivity in I	New Mexi	со		Activ	ity by Ne	w Mexico	residents	in United	States	
Anglers and hunters, trips, and days of participation	Total, resider nonres		State re	State residents		Nonresidents		Total, in state of residence and in other states		In state of residence		In other states	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
FISHING													
Total anglers	248	100	164	66	*84	*34	190	100	164	86	55	29	
Total trips	1,776	100	1,589	89	*187	*11	1,762	100	1,589	90	173	10	
Total days of fishing	2,596	100	2,129	82	*467	*18	2,451	100	2,129	87	346	14	
Average days of fishing	10	(X)	13	(X)	*6	(X)	13	(X)	13	(X)	6	(X)	
HUNTING													
Total hunters	99	100	66	67	*32	*33	72	100	66	93	*9	*13	
Total trips	499	100	455	91	*45	*9	475	100	455	96	*21	*4	
Total days of hunting	852	100	685	80	*167	*20	734	100	685	93	*58	*8	
Average days of hunting	9	(X)	10	(X)	*5	(X)	10	(X)	10	(X)	*6	(X)	

⁽X) Not applicable. * Estimate based on a sample size of 10-29.

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

Table 4. New Mexico Resident Anglers and Hunters by Place Fished or Hunted: 2006

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

Place fished or hunted	Ang	glers	Hunters			
Frace fished of fluffied	Number	Percent	Number	Percent		
Total, all places	190	100	72	100		
In-state only	134	71	62	87		
In-state and other states	29	16	*4	*6		
In other states only	*25	*13				

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

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

Table 5. New Mexico Resident Anglers and Hunters, Days of Participation, and Trips in the United States by Type of Fishing and Hunting: 2006

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

The of Galian and housing	Partic	ipants	Days of pa	articipation	Trips		
Type of fishing and hunting	Number	Percent	Number	Percent	Number	Percent	
FISHING							
Total, all fishing	190	100	2,451	100	1,762	100	
Total, all freshwater	186	98	2,420	99	1,725	98	
Freshwater, except Great Lakes	186	98	2,420	99	1,724	98	
Great Lakes							
Saltwater	*11	*6	*47	*2	*37	*2	
HUNTING							
Total, all hunting	72	100	734	100	475	100	
Big game	53	74	451	61	151	32	
Small game	*23	*32	*239	*33	*182	*38	
Migratory bird	*7	*10	*44	*6	*40	*8	
Other animals							

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

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

Table 6. Freshwater Anglers, Trips, Days of Fishing, and Type of Water Fished: 2006

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

	Activity in New Mexico								
Anglers, trips, and days of fishing	Total, residents and		State re	esidents	Nonresidents				
	Number	Percent	Number	Percent	Number	Percent			
Total anglers	248	100	164	66	*84	*34			
Total trips	1,776	100	1,589	89	*187	*11			
Total days of fishing	2,596	100	2,129	82	*467	*18			
Average days of fishing	10	(X)	13	(X)	*6	(X)			
ANGLERS									
Total, all types of water	248 168 165	100 100 100	164 127 98	66 76 59	* 84 *40 	*34 *24 			
DAYS									
Total, all types of water Ponds, lakes, or reservoirs Rivers or streams	2,596 1,288 1,434	100 100 100	2,129 1,066 1,145	82 83 80	* 467 *222 	*18 *17 			

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably. (X) Not applicable.

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

Table 7. Freshwater Anglers and Days of Fishing in New Mexico by Type of Fish: 2006

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

			Acti	vity in New M	exico		
Anglers and days of fishing	reside	Total, state nts and nonresi	idents	State re	sidents	Nonres	idents
	Number	Percent of total types	Percent of anglers/ days	Number	Percent of anglers/ days	Number	Percent of anglers/
ANGLERS							
Total, all types of fish	248	100	100	164	66	*84	*34
Crappie							
Panfish	*11	*5	*100				
White bass, striped bass, striped bass hybrids	*51	*21	*100	*31	*61		
Black bass	56	23	100	33	59		
Catfish, bullheads	59	24	100	38	64		
Walleye, sauger	*12	*5	*100	*12	*100		
Northern pike, pickerel, muskie, muskie hybrids							
Steelhead							
Trout	184	74	100	130	70	*54	*30
Salmon	*15	*6	*100	*15	*100		50
Anything ¹	*14	*6	*100	*8	*57		•••
Other freshwater fish							
DAYS							
Total, all types of fish	2,596	100	100	2,129	82	*467	*18
Crappie							
Panfish	*131	*5	*100				
White bass, striped bass, striped bass hybrids	*394	*15	*100	*233	*59		
Black bass	446	17	100	278	62		
Catfish, bullheads	430	17	100	268	62		
Walleye, sauger	*83	*3	*100	*83	*100		
Northern pike, pickerel, muskie, muskie hybrids							
Steelhead							
Trout	1.781	69	100	1,503	84	*278	*16
Salmon	*39	*1	*100	*39	*100		
Anything ¹	*90	*3	*100	*82	*91		•••
Other freshwater fish		-					•••
Other meanwater man			•••		•••		•••

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

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

¹ Respondent fished for no specific species and identified "Anything" from a list of categories of fish.

Table 8. Great Lakes Anglers, Trips, and Days of Fishing in New Mexico: 2006

This table does not apply to this state.

Table 9. Great Lakes Anglers and Days of Fishing in New Mexico by Type of Fish: 2006

This table does not apply to this state.

Table 10. Saltwater Anglers, Trips, and Days of Fishing in New Mexico: 2006

This table does not apply to this state.

Table 11. Saltwater Anglers and Days of Fishing in New Mexico by Type of Fish: 2006

This table does not apply to this state.

Table 12. Hunters, Trips, and Days of Hunting in New Mexico by Type of Hunting: 2006

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

			Activity in N	New Mexico			
Hunters, trips, and days of hunting	Total, sta		State res	sidents	Nonresidents		
	Number	Percent	Number	Percent	Number	Percent	
HUNTERS							
Total, all hunting	99	100	66	67	*32	*33	
Big game	81	100	52	65	*28	*35	
Small game	*23	*100	*19	*82			
Migratory bird	*8	*100	*6	*76			
Other animals							
TRIPS							
Total, all hunting	499	100	455	91	*45	*9	
Big game	177	100	146	82	*31	*18	
Small game	*178	*100	*168	*95			
Migratory bird	*42	*100	*38	*90			
Other animals							
DAYS							
Total, all hunting	852	100	685	80	*167	*20	
Big game	580	100	435	75	*146	*25	
Small game	*228	*100	*207	*91			
Migratory bird	*49	*100	*39	*79			
Other animals							

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

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

Table 13. Hunters and Days of Hunting in New Mexico by Type of Game: 2006

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

Type of game	Hunter residents and	*	Days of hunting		
, ,	Number	Percent	Number	Percent	
Total, all types of game	99	100	852	100	
Big game, total	81	81	580	68	
Deer	*31	*31	*95	*11	
Elk	45	46	284	33	
Bear					
Wild turkey	*23	*23	*148	*17	
Other big game	*13	*13	*62	*7	
Small game, total	*23	*23	*228	*27	
Rabbit, hare	*12	*12	*122	*14	
Quail	*13	*13	*79	*9	
Grouse/prairie chicken					
Squirrel					
Pheasant					
Other small game					
Migratory birds, total	*8	*9	*49	*6	
Waterfowl					
Geese					
Duck					
Dove	*6	*6	*32	*4	
Other migratory bird					
Other animals, total 1	•••				

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

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

Table 14. Hunters and Days of Hunting in New Mexico by Type of Land: 2006

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

Hunters and days of hunting	Total, residents and		State re	esidents	Nonresidents		
,	Number	Percent	Number	Percent	Number	Percent	
HUNTERS							
Total, all types of land	99	100	66	100	*32	*100	
Public land, total	65	66	50	76	•••		
Public land only	54	54	41	61			
Public and private land	*11	*11	*9	*14			
Private land, total	*31	*31	*18	*27	•••	•••	
Private land only	*19	*20					
Private and public land	*11	*11	*9	*14			
DAYS							
Total, all types of land	852	100	685	100	*167	*100	
Public land ¹	593	70	520	76			
Private land ²	*226	*26	*141	*21			

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

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

¹ Includes groundhog, raccoon, fox, coyote, crow, prairie dog, etc.

 $^{^1}$ 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.

^{24,5} or naming on private and metades over early spent solely on private and and most spent on private and pass

Table 15. Selected Characteristics of New Mexico Resident Anglers and Hunters: 2006

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

	Popul	ation		oortsperson ned or hun			Anglers			Hunters	
Characteristic	Number	Percent	Number	Percent who partici- pated	Percent of sports- persons	Number	Percent who partici- pated	Percent of anglers	Number	Percent who partici- pated	Percent of hunters
Total persons	1,500	100	224	15	100	190	13	100	72	5	100
Population Density of Residence Urban	1,114 386	74 26	163 61	15 16	73 27	140 50	13 13	74 26	40 *31	4 *8	56 *44
Population Size of Residence Metropolitan statistical area											
(MSA)	1,011	67 	139	14	62	121	12	64	31	3	43
250,000 to 999,999	668 343 488	45 23 33	97 43 84	14 12 17	43 19 38	87 33 69	13 10 14	46 18 36	*18 *12 *41	*3 *4 *8	*26 *17 *57
Sex	400	33	04	17	30	09	14	30	- 41		.37
Male	731 768	49 51	173 51	24 7	77 23	139 51	19 7	73 27	64	9	90
Age 16 to 17 years	49	3									
18 to 24 years	137	9	*13	*9	*6	*10	*7	*5			
25 to 34 years	254	17	42	17	19	39	15	20	*10	*4	*14
35 to 44 years	279	19 19	53 59	19 21	24 27	42	15 18	22 27	*18 *25	*6 *9	*25 *35
45 to 54 years	289 224	15	33	15	15	51 *26	*12	*14			
65 years and older	268	18	*18	*7	*8	*17	*6	*9			
Ethnicity											
Hispanic	567	38	98	17	44	86	15	45	*28	*5	*40
Non-Hispanic	933	62	125	13	56	104	11	55	43	5	60
Race White	1,250	83	194	16	87	165	13	87	61	5	86
Black.	29	2									
All others	221	15	*28	*13	*12	*24	*11	*13			
Annual Household Income											
Under \$10,000	106	7									
\$10,000 to \$19,999	140	9	*22	 +11	*10	*20	*10	*10			
\$20,000 to \$29,999	196 157	13 10	*22 *30	*11 *19	*10 *13	*20 *25	*10 *16	*10 *13			
\$40,000 to \$49,999	126	8	*18	*14	*8	*17	*13	*9			
\$50,000 to \$74,999	163	11	54	33	24	49	30	26	*17	*10	*24
\$75,000 to \$99,999	124	8	33	26	15	28	23	15	*8	*7	*12
\$100,000 or more	151	10	30	20	14	24	16	13	*10	*7	*14
Not reported	336	22	*22	*6	*10	*16	*5	*8			•••
Education	238	14	*15	*6	*7	*15	*6	*8			
11 years or less	498	16 33	74	15	33	57	12	30	*27	 *5	*38
1 to 3 years college	385	26	63	16	28	56	15	30	*17	*4	*24
4 years college or more	379	25	71	19	32	61	16	32	25	6	34

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

Note: Detail does not add to total because of multiple responses. 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, etc.). Remaining percent columns show the percent of each column's participants who are described by the row heading (the percent of anglers who lived in urban areas, etc.).

Table 16. Summary of Expenditures in New Mexico by State Residents and Nonresidents Combined for Fishing and Hunting: 2006

(Population 16 years old and older)

Expenditure item	Amount (thousands of dollars)	Spenders (thousands)	Average per spender (dollars)	Average per sportsperson (dollars)
FISHING AND HUNTING				
Total	525,444	355	1,479	1,474
Food and lodging	79,405	275	289	251
Transportation	74,028	275	269	234
Other trip costs ¹	68,032	237	287	215
Equipment (fishing, hunting)	63,687	207	308	193
Auxiliary equipment ²	31,767	94	340	86
Special equipment ³	*105,225	*16	*6,440	*333
Magazines and books	2,094	40	52	6
Membership dues and contributions	*2,830	*22	*129	*9
Other ⁴	98,377	238	413	148
FISHING				
Total	301,101	273	1,103	998
Food and lodging	51,059	220	232	206
Transportation	48,588	215	226	196
Other trip costs ¹	28,766	203	141	116
Fishing equipment	29,216	175	167	109
Auxiliary equipment ²	7,293	37	195	29
Special equipment ³	*44,220	*9	*5,116	*178
Magazines and books	*958	*16	*59	*4
Membership dues and contributions	*843	*9	*89	*3
Other ⁴	90,157	195	463	157
HUNTING				
Total	164,308	96	1,713	1,654
Food and lodging	28,346	84	338	287
Transportation	25,440	88	290	257
Other trip costs ¹	39,266	51	773	397
Hunting equipment	29,057	53	545	291
Auxiliary equipment ²	11,090	27	412	112
Special equipment ³	*625		*20	
Magazines and books	*635	*17	*38	*6
Membership dues and contributions	*636	*13	*50	*6
Other ⁴	8,219	69	119	78
UNSPECIFIED ⁵				
Total	54,621	52	1,041	158

^{...} Sample size too small to report data reliably. * Estimate based on a sample size of 10-29.

Note: Detail does not add to total because of multiple responses and nonresponse. See Tables 19-20 for a detailed listing of expenditure items.

 ¹ Includes boating costs, equipment rental, guide fees, access fees, heating and cooking fuel, and ice and bait (for fishing only).
 ² Includes tents, special clothing, etc.
 ³ Includes boats, campers, 4x4 vehicles, cabins, etc.
 ⁴ Includes land leasing and ownership, licenses, stamps, tags, and permits.
 ⁵ Respondent could not specify whether expenditure was primarily for either fishing or hunting.

Table 17. Summary of Fishing Trip and Equipment Expenditures in New Mexico by State Residents and Nonresidents Combined by Type of Fishing: 2006

(Population 16 years old and older)

Expenditure item	Amount (thousands of dollars)	Spenders (thousands)	Average per spender (dollars)	Average per angler (dollars)
ALL FISHING				
Total Food and lodging Transportation Other trip costs Equipment	209,143 51,059 48,588 28,766 80,729	261 220 215 203 181	803 232 226 141 445	834 206 196 116 316
ALL FRESHWATER				
Total Food and lodging Transportation Other trip costs Equipment	200,382 51,059 47,259 28,766 73,298	246 220 215 203 162	815 232 220 141 454	799 206 190 116 287
FRESHWATER, EXCEPT GREAT LAKES				
Total Food and lodging Transportation Other trip costs Equipment	200,382 51,059 47,259 28,766 73,298	246 220 215 203 162	815 232 220 141 454	799 206 190 116 287
GREAT LAKES				
Food and lodging	 	 	 	
SALTWATER				
Food and lodging	 	 	 	

^{...} Sample size too small to report data reliably.

Note: Detail does not add to total because of multiple responses and nonresponse. See Table 19 for detailed listing of expenditure items.

Table 18. Summary of Hunting Trip and Equipment Expenditures in New Mexico by State Residents and Nonresidents Combined by Type of Hunting: 2006

(Population 16 years old and older)

Expenditure item	Amount (thousands of dollars)	Spenders (thousands)	Average per spender (dollars)	Average per hunter (dollars)
ALL HUNTING				
Total Food and lodging Transportation Other trip costs Equipment	154,818 28,346 25,440 39,266 61,766	92 84 88 51 60	1,691 338 290 773 1,036	1,563 287 257 397 622
BIG GAME				
Total Food and lodging Transportation Other trip costs Equipment	126,271 24,755 19,822 39,063 42,631	74 67 70 46 42	1,697 370 283 841 1,011	1,551 308 246 485 512
SMALL GAME				
Total Food and lodging Transportation Other trip costs Equipment	17,717 *2,538 *3,280 *11,748	30 *19 *20 *19	585 *135 *162 *616	820 *199 *258 *352
MIGRATORY BIRD				
Total Food and lodging Transportation Other trip costs Equipment	*2,241 *741 *1,085	*10 *7 *4	*233 *102 *250	*402 *248 *16
OTHER ANIMALS				
Total Food and lodging Transportation Other trip costs Equipment	 	 	 	

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

Note: Detail does not add to total because of multiple responses and nonresponse. See Table 20 for detailed listing of expenditure items.

Table 19. Expenditures in New Mexico by State Residents and Nonresidents Combined for Fishing: 2006

	Expend	ditures	Spenders			
Expenditure item	Amount (thousands of dollars)	Average per angler (dollars)	Number (thousands)	Percent of anglers	Average per spender (dollars)	
Total, all items	301,101	998	273	110	1,103	
TRIP-RELATED EXPENDITURES						
Total trip-related	128,413	518	230	93	559	
Food and lodging, total	51,059 38,464 12,595	206 155 51	230 220 71	93 89 28	222 175 179	
Transportation	48,588	196	215	87	226	
Other trip costs, total Privilege and other fees¹ Boating costs² Bait Ice Heating and cooking fuel.	28,766 7,393 *7,253 6,120 4,459 3,542	116 30 *29 25 18 14	203 85 *18 128 153 97	82 34 *7 52 62 39	141 86 *414 48 29 36	
EQUIPMENT AND OTHER EXPENDITURES PRIMARILY FOR FISHING						
Fishing equipment, total Reels, rods, and rod-making components Lines, hooks, sinkers, etc. Artificial lures and flies Creels, stringers, fish bags, landing nets, and gaff hooks. Minnow seines, traps, and bait containers. Other fishing equipment ³	29,216 12,044 6,270 5,027 *857 *173 4,845	109 41 24 20 *3 *1	175 93 132 127 *26 *13 59	71 37 53 51 *11 *5 24	167 130 48 40 *32 *13 82	
Auxiliary equipment ⁴	7,293 *44,220	29 *178	37 *9	15 *3	195 *5,116	
Other fishing costs ⁶	91,958	164	202	82	455	

^{*} Estimate based on a sample size of 10-29.

Note: Detail does not add to total because of multiple responses and nonresponse. Percent of anglers may be greater than 100 because spenders who did not fish in this state are included.

Includes boat or equipment rental and fees for guides, pack trip (party and charter boats, etc.), public land use, and private land use.
 Boat launching, mooring, storage, maintenance, insurance, pumpout fees, and fuel.
 Includes electronic fishing devices (depth finders, fish finders, etc.), tackle boxes, ice fishing equipment, and other fishing equipment.
 Includes tents, special fishing clothing, etc.
 Includes boats, campers, 4x4 vehicles, cabins, etc.
 Includes magazines and books, membership dues and contributions, land leasing and ownership, and licenses, stamps, tags, and permits.

Table 20. Expenditures in New Mexico by State Residents and Nonresidents Combined for Hunting:

	Expend	litures	Spenders				
Expenditure item	Amount (thousands of dollars)	Average per hunter (dollars)	Number (thousands)	Percent of hunters	Average per spender (dollars)		
Total, all items	164,308	1,654	96	97	1,713		
TRIP-RELATED EXPENDITURES							
Total trip-related	93,052	941	90	91	1,038		
Food and lodging, total	28,346 17,072 *11,274	287 173 *114	90 84 *29	91 85 *29	316 204 *391		
Transportation	25,440	257	88	89	290		
Other trip costs, total Privilege and other fees¹ Boating costs Heating and cooking fuel	*39,266 *38,186 	*397 *386 	*51 *28 	*51 *28 	*773 *1,379 		
EQUIPMENT AND OTHER EXPENDITURES PRIMARILY FOR HUNTING							
Hunting equipment, total. Firearms Ammunition Other hunting equipment ²	29,057 *11,754 5,072 12,231	291 *117 51 124	53 *14 46 33	54 *14 46 33	545 *827 111 375		
Auxiliary equipment ³	*11,090 9,490	*112 91	*27 71	*27 72	*412 133		

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

Note: Detail does not add to total because of multiple responses and nonresponse. Percent of hunters may be greater than 100 percent because spenders who did not hunt in this state are included.

Includes guide fees, pack trip or package fees, public and private land use access fees, and rental of equipment such as boats and hunting or camping equipment.
 Includes bows, arrows, archery equipment, telescopic sights, decoys and game calls, handloading equipment and components, hunting dogs and associated costs, hunting knives, and other hunting equipment.
 Includes tents, special hunting clothing, etc.
 Includes boats, campers, 4x4 vehicles, cabins, etc.
 Includes magazines and books, membership dues and contributions, land leasing and ownership, and licenses, stamps, and permits.

Table 21. Trip and Equipment Expenditures in New Mexico for Fishing and Hunting by New Mexico Residents and Nonresidents: 2006

	Amount		Average per	Average per
Expenditure item	(thousands of dollars)	Spenders (thousands)	spender (dollars)	sportsperson (dollars)
STATE RESIDENTS AND NONRESIDENTS				
Trip and equipment expenditures for fishing and hunting,				
total	412,540	339	1,217	1,304
Trip and equipment expenditures for fishing, total	209,143	261	803	843
Food and lodging	51,059	220	232	206
Transportation.	48,588	215	226	196
Boating costs ¹	*7,253	*18	*414	*29
Other trip costs ²	21,514 80,729	203	106	87
Equipment	80,729	181	445	325
Trip and equipment expenditures for hunting, total	154,818	92	1,691	1,566
Food and lodging	28,346	84	338	287
Transportation.	25,440	88	290	257
Boating costs ¹				
Other trip costs ²	39,266	51	773	397
Equipment	61,766	60	1,036	625
Unspecified equipment ³	*48,580	*32	*1,497	*154
STATE RESIDENTS				
Trip and equipment expenditures for fishing and hunting,				
total	303,617	194	1,564	1,513
Trip and equipment expenditures for fishing, total	165,041	160	1,029	1,008
Food and lodging	36,278	145	250	222
Transportation.	33,633	140	240	205
Boating costs ¹	*7,253	*18	*414	*44
Other trip costs ²	11,917	129	92	73
Equipment	75,960	113	671	464
Trip and equipment expenditures for hunting, total	94,378	63	1,500	1,422
Food and lodging	14,824	55	268	223
Transportation	14,136	59	240	213
Boating costs ¹				
Other trip costs ²	5,660	33	174	85
Equipment	59,759	50	1,186	900
Unspecified equipment ³	*44,198	*16	*2,835	*220
NONRESIDENTS				
Trip and equipment expenditures for fishing and hunting,				
total	108,924	145	753	941
Trip and equipment expenditures for fishing, total	*44,102	*100	*440	*523
Food and lodging	*14,781	*75	*197	*175
Transportation.	*14,955	*75	*199	*177
Boating costs ¹	·			
Other trip costs ²	*9,596	*74	*130	*114
Equipment	*4,770	*68	*70	*57
Trip and equipment expenditures for hunting, total	*60,440	*29	*2,109	*1,860
Food and lodging	*13,522	*29	*472	*416
Transportation	*11,304	*29	*394	*348
Boating costs ¹				
Other trip costs ²				
Equipment				
Unspecified equipment ³				•••
		***	***	

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

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

Includes boat launching, mooring, storage, maintenance, insurance, pumpout fees, and fuel.
 Includes equipment rental, guide and access fees, ice and bait for fishing, and heating and cooking oil.
 Respondent could not specify whether item was for hunting or fishing.

Table 22. Summary of New Mexico Residents' Fishing and Hunting Expenditures Both Inside and **Outside New Mexico: 2006**

(State population 16 years old and older)

Average per	Average per		Amount	
sportsperson	spender	Spenders	(thousands	Expenditure item
(dollars)	(dollars)	(thousands)	of dollars)	
				FISHING AND HUNTING
1,981	2,041	217	442,977	Total
317	368	192	70,875	Food and lodging
295	344	192	66,017	Transportation
142	192	165	31,691	Other trip costs ¹
291	441	147	65,022	Equipment (fishing, hunting)
135	401	75	30,117	Auxiliary equipment ²
*581	*7,550	*17	*129,843	Special equipment ³
11	54	44	2,371	Magazines and books
13	129	23	2,954	Membership dues and contributions
197	268	165	44,088	Other ⁴
				FISHING
1,338	1,365	186	254,023	Total
286	325	168	54,386	Food and lodging
265	312	161	50,258	Transportation
134	169	150	25,421	Other trip costs ¹
153	241	120	29,034	Fishing equipment
46	190	46	8,751	Auxiliary equipment ²
*248	*5,161	*9	*47,034	Special equipment ³
*6	*69	*16	*1,107	Magazines and books
*4	*94	*8	*749	Membership dues and contributions
196	271	137	37,283	Other ⁴
				HUNTING
1,528	1,651	66	109,297	Total
230	290	57	16,489	Food and lodging
220	257	61	15,759	Transportation
88	181	35	6,271	Other trip costs ¹
426	605	50	30,450	Hunting equipment
145	486	21	10,338	Auxiliary equipment ²
				Special equipment ³
*11	*37	*21	*762	Magazines and books
*11	*53	*15	*804	Membership dues and contributions
95	128	53	6,805	Other ⁴
				UNSPECIFIED ⁵
331	2,152	34	74,120	Total

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

Note: Detail does not add to total because of multiple responses and nonresponse. See Tables 19-20 for a detailed listing of expenditure items.

Includes boating costs, equipment rental, guide fees, access fees, heating and cooking fuel, and ice and bait (for fishing only).
 Includes tents, special clothing, etc.
 Includes boats, campers, 4x4 vehicles, cabins, etc.
 Includes land leasing and ownership, licenses, stamps, tags, and permits.
 Respondent could not specify whether expenditure was primarily for either fishing or hunting.

Table 23. In-State and Out-of-State Expenditures by New Mexico Residents for Fishing and Hunting:

(State population 16 years old and older)

Expenditure item	Amount (thousands of dollars)	Spenders (thousands)	Average per spender (dollars)	Average per sportsperson (dollars)
IN NEW MEXICO				
Expenditures for fishing and hunting, total	358,712 123,700	198 188	1,810 660	1,788 617
Equipment (fishing and hunting)	58,041	136	428	289
Auxiliary equipment ¹	26,125	66	396	130
Special equipment ² Other ³	*105,225 45,621	*16 154	*6,440 296	*524 227
Expenditures for fishing, total	202,031	164	1,235	1,234
Trip-related expenditures	89,081	155	575	544
Fishing equipment	24,623	107	231	150
Auxiliary equipment ¹	7,117 *44,220	36	196 *5,116	43 *270
Other ³	36,990	122	302	226
Expenditures for hunting, total	101,157	65	1,554	1,524
Trip-related expenditures	34,619	61	568	522
Hunting equipment	28,004	50	556	422
Auxiliary equipment ¹	*10,136	*21	*494	*153
Other ³	6,779	55	124	102
Unspecified expenditures for fishing and hunting, total ⁴	*46,594	*29	*1,631	*232
OUT OF STATE				
Expenditures for fishing and hunting, total	81,311	70	1,154	1,366
Trip-related expenditures	43,228	51	839	726
Equipment (fishing and hunting)	6,981 *3,991	32 *16	215 *254	117 *67
Special equipment ² Other ³	3,779	38		 64
Expenditures for fishing, total	49,371	57	870	905
Trip-related expenditures	38,367	48	793	703
Fishing equipment	*4,412	*22	*196	*81
Auxiliary equipment ¹				
Special equipment ²				
Other ³	2,144	32	67	39
Expenditures for hunting, total	*9,093	*16	*570	*970
Trip-related expenditures	*4,860	*6	*843	*519
Hunting equipment	*2,446	*10	*247	*261
Special equipment ²				
Other ³				
				•
Unspecified expenditures for fishing and hunting, total ⁴	•••	•••	•••	•••

 $[\]ensuremath{^{*}}$ Estimate based on a sample size of 10–29. ... Sample size too small to report data reliably.

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

 ¹ Includes tents, special hunting or fishing clothing, etc.
 ² Includes boats, campers, 4x4 vehicles, cabins, etc.
 ³ Includes magazines, books, membership dues, contributions, land leasing and ownership, stamps, tags, and licenses.
 ⁴ Respondent could not specify whether expenditure was primarily for either fishing or hunting.

Table 24. Wildlife Watching in New Mexico by State Residents and Nonresidents Combined: 2006

Participants	Number	Percent
Total participants	787	100
Away from home		64
Observe wildlife		64
Photograph wildlife	172	22
Feed wildlife		*9
Around the home	437	55
Observe wildlife	306	39
Photograph wildlife	127	16
Feed wildlife	342	43
Visit public parks ¹	*74	*9
Maintain plantings or natural areas	*74	*9

^{*} Estimate based on a sample size of 10-29.

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

Table 25. Participants, Trips, and Days of Participation in Away-From-Home Wildlife Watching in New Mexico: 2006

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

	Activity in New Mexico								
Participants, trips, and days of participation	Total, state resident		Sta resid		Nonre	Nonresidents			
	Number	Percent	Number	Percent	Number	Percent			
PARTICIPANTS									
Total participants Observe wildlife Photograph wildlife Feed wildlife	507 506 172 *69	100 100 34 *14	199 198 98 *43	100 99 49 *22	*308 *308 	*100 *100 			
TRIPS									
Total trips	3,686	100 (X)	2,228 2	100 (X)	*1,458 *1	*100 (X)			
DAYS									
Total days Observing wildlife Photographing wildlife Feeding wildlife	5,429 4,728 1,206 *880	100 87 22 *16	3,670 3,065 1,014 *880	100 84 28 *24	*1,759 *1,664 	*100 *95 			
Average days per participant Observing wildlife Photographing wildlife Feeding wildlife	11 9 7 *13	(X) (X) (X) (X)	18 15 10 *20	(X) (X) (X) (X)	*6 *5 	(X) (X) (X) (X)			

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably. (X) Not applicable.

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

¹ Includes visits only to parks or publicly owned areas within 1 mile of home.

Table 26. Away-From-Home Wildlife-Watching Participants by Wildlife Observed, Photographed, or Fed in New Mexico: 2006

Wildlife observed, photographed, or fed	Total, state residents and nonresidents		State re	esidents	Nonresidents	
, , ,	Number	Percent	Number	Percent	Number	Percent
Total all wildlife	507	100	199	39	*308	*61
Total birds	461	100	169	37	*292	*63
Songbirds (cardinals, robins, warblers, etc.)	198	100	107	54		
Birds of prey (hawks, owls, eagles, etc.)	335	100	121	36	*214	*64
Waterfowl (ducks, geese, swan, etc.)	303	100	116	38		
Other water birds (shorebirds, herons, cranes, etc.)	*124	*100	*55	*44		
Other birds (pheasants, turkeys, road runners, etc.)	303	100	110	36	*193	*64
Total land mammals	358	100	118	33	*240	*67
Large land mammals (bears, bison, etc.)	273	100	79	29		
Small land mammals (prairie dogs, squirrels, etc.)	343	100	104	30	*240	*70
Fish (salmon, shark, etc.).	*122	*100	*52	*43		
Marine mammals (whales, dolphins, etc.)	211	100	 82	39		

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

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

Table 27. Participation in Wildlife-Watching Activities Around the Home in New Mexico: 2006

Around the home	Partic	ipants	Around the home	Particip	pants
Around the nome	Number	Percent	Around the nome	Number	Percent
Total around-the-home participants Observe wildlife	437 306	100 70	11 to 50 days	*38	*12 31
Visit public parks ¹	*74 127	*17 29	201 days or more	116	38
Feed wildlife		78 *12	Participants Visiting Public Parks ¹ Total, 1 day or more	*74	*100
Maintain plantings	*59	*14	1 to 5 days		
Participants Observing Wildlife Total, all wildlife	306	100	Participants Photographing Wildlife	*39	*53
Birds Land mammals	285 209	93 68	Total, 1 day or more	127 *38	100 *30
Large mammals	*84 196	*27 64	4 to 10 days	*50 *35	*40 *27
Amphibians or reptiles	119 153	39 50	Participants Feeding Wildlife		2,
Fish and other wildlife Total, 1 day or more	*38 306	*12 100	Total, all wildlife	342 335	100 98
1 to 10 days		*17	Other wildlife	*60	*17

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

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

Table 28. New Mexico Residents Participating in Wildlife Watching in the United States: 2006

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

Participants	Number	Percent of participants	Percent of population
Total participants	490	100	33
Away from home		45	15
Around the home		89	29
Observe wildlife	306	63	20
Photograph wildlife	127	26	9
Feed wild birds or other wildlife	342	70	23
Maintain plantings or natural areas	*74	*15	*5
Visit public parks	*74	*15	*5

^{*} Estimate based on a sample size of 10-29.

Note: Detail does not add to total because of multiple responses. The column showing percent of participants is based on total participants. The column showing percent of population is based on the state population 16 years old and older, including those who did not participate in wildlife watching.

¹ Includes visits only to parks or publicly owned areas within 1 mile of home.

Table 29. Wild Bird Observers and Days of Observation in New Mexico by State Residents and Nonresidents: 2006

Observers and days of observation	Total, state residents and nonresidents		State re	esidents	Nonresidents		
·	Number	Percent	Number	Percent	Number	Percent	
OBSERVERS							
Total bird observers	641 285 461	100 44 72	349 285 169	100 82 48	* 292 *292	*100 *100	
DAYS							
Total days observing birds	50,034 45,915 4,119	100 92 8	48,326 45,915 2,411	100 95 5	*1,708 *1,708	*100 *100	

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

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

Table 30. Selected Characteristics of New Mexico Residents Participating in Wildlife Watching: 2006

	Popu	lation					Participant	s			
	гори	iation		Total		Awa	ay from ho	ome	Arc	ound the ho	ome
Characteristic	Number	Percent	Number	Percent who partici- pated	Percent	Number	Percent who partici- pated	Percent	Number	Percent who partici- pated	Percent
Total persons	1,500	100	490	33	100	220	15	100	437	29	100
Population Density of Residence											
Urban	1,114	74	343	31	70	165	15	75	298	27	68
Rural	386	26	147	38	30	*55	*14	*25	139	36	32
Population Size of Residence Metropolitan statistical area (MSA)	1,011	67	358	35	73	150	15	68	326	32	75
1,000,000 or more			240								
250,000 to 999,999	668	45 23	248 110	37 32	51 22	104 *46	15 *13	47 *21	229 97	34 28	53 22
Outside MSA	488	33	131	27	27	*70	*14	*32	110	23	25
	100		131	21	27	, ,	1.	32	110	23	23
Sex	721	40	260	26	50	120	1.0	50	220	20	50
Male	731 768	49 51	260 229	36 30	53 47	129 91	18 12	59 41	220 217	30 28	50 50
Female	/08	31	229	30	47	91	12	41	217	20	30
Age											
16 to 17 years	49	3									
18 to 24 years	137 254	9 17	*73	*29	*15	*36	*14	*16	*53	*21	*12
35 to 44 years	279	19	135	48	27	*69	*25	*32	122	44	28
45 to 54 years	289	19	87	30	18	*36	*13	*17	79	27	18
55 to 64 years	224	15	*57	*25	*12	*35	*16	*16	*53	*24	*12
65 years and older	268	18	119	45	24	*30	*11	*14	116	44	27
Ethnicity											
Hispanic	567	38	158	28	32	94	17	43	124	22	28
Non-Hispanic	933	62	332	36	68	126	14	57	312	33	72
Race											
White	1,250	83	452	36	92	200	16	91	402	32	92
Black	29	2									
All others	221	15									
Annual Household Income											
Under \$10,000	106	7	*32	*30	*7						
\$10,000 to \$19,999	140	9	*32	*23	*7				*28	*20	*7
\$20,000 to \$29,999	196	13	*40	*20	*8				*36	*19	*8
\$30,000 to \$39,999	157	10	*72	*46	*15				*54	*34	*12
\$40,000 to \$49,999	126 163	8 11	*69 98	*55 60	*14 20	*23 *54	*18 *33	*10 *25	*65 91	*52 56	*15 21
\$75,000 to \$99,999	124	8	*45	*37	*9				*41	*33	*9
\$100,000 or more	151	10	*64	*42	*13	*26	*18	*12	*62	*41	*14
Not reported	336	22	*37	*11	*8				*33	*10	*8
Education											
11 years or less	238	16									
12 years	498	33	133	27	27	*68	*14	*31	108	22	25
1 to 3 years college	385	26	163	42	33	*66	*17	*30	148	39	34
4 years college or more	379	25	170	45	35	79	21	36	160	42	37

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

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

Table 31. Expenditures in New Mexico by State Residents and Nonresidents Combined for Wildlife Watching: 2006

				Spenders	
Expenditure item	Expenditures (thousands of dollars)	Average per participant (dollars)	Number (thousands)	Percent of wildlife-watching participants ¹	Average per spender (dollars)
Total, all items	297,174	373	714	91	416
TRIP EXPENDITURES					
Total trip-related	208,278	407	441	87	472
Food and lodging	124,779	246	413	82	302
FoodLodging	64,455 *60,324	127 *119	413 *177	82 *35	156 *341
Transportation	71.056	136	427	84	167
Other trip costs ²	12,443	25	109	22	114
EQUIPMENT AND OTHER EXPENDITURES					
Total	88,896	111	377	48	236
Wildlife-watching equipment, total	47,495	58	323	41	147
Binoculars, spotting scopes	*2,864	*3	*43	*5	*66
Film and developing	*2,893	*3	*59	*7	*49
Cameras, special lenses, video cameras, and other		#140			::440
photographic equipment	*14,007	*18	*34 *34	*4	*412 *59
Day packs, carrying cases, and special clothing	*1,990 19.926	25	*34 267	34	*59 75
Food for other wildlife	*530	*1	*27	*3	*20
Nest boxes, bird houses, bird feeders, and bird baths	4.063	5	95	12	43
Other equipment (including field guides)	*1,221	*1	*32	*4	*38
Auxiliary equipment ³	*3,541	*4	*41	*5	*87
Special equipment ⁴					
Magazines and books	*1,252	*2	*43	*6	*29
Membership dues and contributions	*2,776	*4	*34	*4	*82
Land leasing and ownershipPlantings	*1,579	*2	*59	*8	*27

^{...} Sample size too small to report data reliably. * Estimate based on a sample size of 10-29.

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

Percent of wildlife-watching participants column for trip-related expenditures is based on away-from-home participants. For equipment and other expenditures, the percent of wildlife-watching participants column is based on total wildlife-watching participants.
 Includes equipment rental and fees for guides, pack trips, public land use and private land use, boat fuel, other boating costs, and heating and cooking fuel.
 Includes tents, tarps, frame packs and other backpacking equipment, other camping equipment, and other auxiliary equipment.
 Includes travel or tent trailers, off-the-road vehicles, pickups, campers or vans, motor homes, boats, and other special equipment.

Table 32. Trip and Equipment Expenditures in New Mexico for Wildlife Watching by New Mexico Residents and Nonresidents: 2006

Expenditure item	Amount (thousands of dollars)	Spenders (thousands)	Average per spender (dollars)	Average per participant (dollars)
STATE RESIDENTS AND NONRESIDENTS				
Total Food and lodging Transportation Other trip costs¹ Equipment²	290,230 124,779 71,056 12,443 81,952	690 413 427 109 339	421 302 167 114 242	364 246 136 25 102
STATE RESIDENTS				
Total Food and lodging Transportation Other trip costs¹ Equipment²	137,721 20,710 25,125 *11,529 80,357	377 147 169 *61 292	366 141 149 *189 275	283 104 116 *58 168
NONRESIDENTS				
Total. Food and lodging Transportation. Other trip costs ¹ Equipment ²	*152,509 *104,069 *45,932 	*313 *266 *258 	*487 *391 *178 	*490 *338 *149

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

Note: Detail does not add to total because of multiple responses and nonresponse. See Table 33 for a detailed listing of expenditure items.

¹ Includes equipment rental and fees for guides, pack trips, public land use, private land use, boat fuel, other boating costs, and heating and cooking fuel.
² Includes wildlife watching, auxiliary, and special equipment.

Table 33. Wildlife-Watching Expenditures Both Inside and Outside New Mexico by New Mexico Residents: 2006

(State population 16 years old and older)

				Spenders	
Expenditure item	Expenditures (thousands of dollars)	Average per participant (dollars)	Number (thousands)	Percent of wildlife-watching participants ¹	Average per spender (dollars)
Total, all items	177,613	363	399	81	445
TRIP EXPENDITURES					
Total trip-related. Food and lodging Food. Lodging Transportation Other trip costs ²	81,860 29,336 18,770 *10,566 39,054 *13,471	372 133 85 *48 178 *61	185 159 159 *44 182 *70	84 72 72 *20 83 *32	443 184 118 *237 215 *191
EQUIPMENT AND OTHER EXPENDITURES					
Total	95,753	195	327	67	293
Wildlife-watching equipment, total. Binoculars, spotting scopes Film and developing. Cameras, special lenses, videocameras, and other photographic equipment. Day packs, carrying cases, and special clothing. Bird food. Food for other wildlife. Nest boxes, bird houses, bird feeders, and bird baths. Other equipment.	51,865 *3,960 *2,148 *17,655 *2,404 19,831 *530 4,166 *1,170	**************************************	287 *54 *44 *43 *37 248 *27 94 *28	*9 *9 *7 51 *6 19 *6	**181 **73 **49 **414 **66 **80 **20 **44 **42
Auxiliary equipment ³ Special equipment ⁴ Magazines and books Membership dues and contributions. Land leasing and ownership Plantings	*5,482 *1,821 *2,776 *1,579	*11 *4 *6 *3	*46 *49 *34 *59	*9 *10 *7 *12	*120 *37 *82 *27

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

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

Percent of wildlife-watching participants column for trip-related expenditures is based on away-from-home participants. For equipment and other expenditures, the percent of wildlife-watching participants column is based on total wildlife-watching participants.
 Includes equipment rental and fees for guides, pack trips, public land use and private land use, boat fuel, other boating costs, and heating and cooking fuel.
 Includes tents, tarps, frame packs and other backpacking equipment, other camping equipment, and other auxiliary equipment.
 Includes travel or tent trailers, off-the-road vehicles, pickups, campers or vans, motor homes, boats, and other special equipment.

Table 34. In-State and Out-of-State Expenditures by New Mexico Residents for Wildlife Watching: 2006

(State population 16 years old and older)

Expenditure item	Amount (thousands of dollars)	Spenders (thousands)	Average per spender (dollars)	Average per participant (dollars)
IN NEW MEXICO				
Expenditures for wildlife watching, total Trip-related expenditures Wildlife-watching equipment. Auxiliary equipment Special equipment	144,642 57,364 45,900 *3,541	391 175 276 *41	370 327 166 *87	302 288 96 *7
Other	6,921	107	65	14
OUT OF STATE				
Expenditures for wildlife watching, total Trip-related expenditures Wildlife-watching equipment.	*32,971 *24,497 	*56 *39 	*587 *622 	* 663 *515
Auxiliary equipment Special equipment Other	 			

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

Note: See Table 33 for detailed listing of expenditure items.

Table 35. Participation of New Mexico Resident Wildlife-Watching Participants in Fishing and Hunting: 2006

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

	То	tal	Wildlife-watching activity						
Participants	wildlife	watchers	Away fro	om home	Around the home				
	Number	Percent	Number	Percent	Number	Percent			
Total participants	490	100	220	100	437	100			
Wildlife-watching participants who:									
Did not fish or hunt	377	77	146	66	351	80			
Fished or hunted	112	23	74	34	86	20			
Fished	102	21	66	30	78	18			
Hunted	37	7	*27	*12	*27	*6			

^{*} Estimate based on a sample size of 10-29.

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

Table 36. Participation of New Mexico Resident Sportspersons in Wildlife-Watching Activities: 2006

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

Santanana	Sports	persons	Ang	lers	Hunters		
Sportspersons	Number	Percent	Number	Percent	Number	Percent	
Total sportspersons	224	100	190	100	72	100	
Sportspersons who:							
Did not engage in wildlife-watching activities	111	50	88	46	35	49	
Engaged in wildlife-watching activities	112	50	102	54	37	51	
Away from home	74	33	66	35	*27	*38	
Around the home	86	38	78	41	*27	*37	

^{*} Estimate based on a sample size of 10-29.

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

Table 37. Participation in Wildlife-Associated Recreation by State Residents Both Inside and Outside Their Resident State: 2006

Participant's state of residence United States, total	Population 229,245 3,550 499 4,585 2,156 27,299 3,605 2,735 669 14,233	Number 87,465 1,417 288 1,233 1,082 6,804 1,735 1,223	Percent of population 38 40 58 27 50 25	Number 33,916 707 149 418 551	Percent of population 15 20 30 9	Number 71,132 1,006 207	Percent of population
Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware. Florida	3,550 499 4,585 2,156 27,299 3,605 2,735 669	1,417 288 1,233 1,082 6,804 1,735 1,223	40 58 27 50 25	707 149 418	20 30	1,006	
Alaska	499 4,585 2,156 27,299 3,605 2,735 669	288 1,233 1,082 6,804 1,735 1,223	58 27 50 25	149 418	30		20
Alaska	4,585 2,156 27,299 3,605 2,735 669	1,233 1,082 6,804 1,735 1,223	27 50 25	418		207	28
Arkansas	2,156 27,299 3,605 2,735 669	1,082 6,804 1,735 1,223	50 25		0		42
California	27,299 3,605 2,735 669	6,804 1,735 1,223	25	551	2	988	22
Colorado	3,605 2,735 669	1,735 1,223		551	26	859	40
ConnecticutDelawareFlorida	2,735 669	1,223		1,783	7	5,799	21
DelawareFlorida	669		48	593	16	1,459	40
Florida			45	297	11	1,102	40
	14 222	256	38	85	13	212	32
	14,233	4,626	33	2,004	14	3,520	25
	6,910	2,415	35	1,161	17	1,819	26
Hawaii	1,014	227	22	100	10	160	16
Idaho	1,102	564	51	259	24	432	39
Illinois	9,767	2,886	30	1,109	11	2,355	24
Indiana	4,799	2,279	47	822	17	1,825	38
Iowa	2,339	1,306	56	518	22	1,111	48
Kansas	2,110	979	46	425	20	787	37
Kentucky	3,260	1,667	51	670	21	1,341	41
Louisiana	3,433	1,106	32	678	20	712	21
Maine	1,074	717	67	266	25	600	56
Maryland	4,333	1,549	36	521	12	1,334	31
Massachusetts	5,032	1,931	38	472	9	1,725	34
Michigan	7,804	3,651	47	1,371	18	2,947	38
Minnesota	4,021	2,480	62	1,280	32	1,946	48
Mississippi	2,214	896	40	537	24	618	28
Missouri	4,521	2,496	55	1,096	24	2,059	46
Montana	753	510	68	232	31	412	55
Nebraska	1,359	552	41	234	17	438	32
Nevada	1,895	530	28	182	10	420	22
New Hampshire	1,044	527	51	141	14	471	45
New Jersey	6,734	1,826	27	562	8	1,537	23
New Mexico	1,500	601	40	224	15	490	33
New York	14,990	4,103	27	1,236	8	3,548	24
North Carolina	6,719	2,816	42	1,038	15	2,267	34
North Dakota	507	232	46	145	29	134	26
Ohio	8,889	4,022	45	1,488	17	3,379	38
Oklahoma	2,743	1,372	50	602	22	1,082	39
Oregon	2,889	1,531	53	550	19	1,266	44
Pennsylvania	9,793	4,165	43	1,415	14	3,638	37
Rhode Island	842	355	42	86	10	312	37
South Carolina	3,315	1,283	39	595	18	943	28
South Dakota	601	327	54	136	23	266	44
Tennessee	4,699	2,287	49	775	16	1,966	42
Texas	17,076	5,481	32	2,668	16	4,111	24
Utah	1,808	764	42	351	19	574	32
Vermont	506	311	62	91	18	279	55
Virginia	5,893	2,500	42	857	15	2,126	36
Washington	4,980	2,315	46	764	15	2,007	40
West Virginia	1,458	735	50	364	25	585	40
Wisconsin	4,350	2,217	51	1,185	27	1,710	39
Wyoming	405	229	57	113	28	194	48

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 Appendix D.

Table 38. Anglers and Hunters by Sportsperson's State of Residence: 2006

Constant and any and a state		Fished o	r hunted	Fished	donly	Hunte	d only	Fished a	nd hunted
Sportsperson's state of residence	Population	Number	Percent of population	Number	Percent of population	Number	Percent of population	Number	Percent of population
United States, total	229,245	33,916	15	21,406	9	3,964	2	8,546	4
Alabama Alaska Arizona Arkansas California	3,550	707	20	395	11	79	2	233	7
	499	149	30	94	19	*11	*2	44	9
	4,585	418	9	290	6	48	1	81	2
	2,156	551	26	244	11	88	4	220	10
	27,299	1,783	7	1,465	5	*94	*(Z)	223	1
Colorado	3,605	593	16	460	13	*39	*1	94	3
	2,735	297	11	257	9			34	1
	669	85	13	64	10	*9	*1	12	2
	14,233	2,004	14	1,678	12	*54	*(Z)	271	2
	6,910	1,161	17	805	12	*101	*1	255	4
Hawaii Idaho Illinois Indiana Iowa	1,014 1,102 9,767 4,799 2,339	100 259 1,109 822 518	10 24 11 17 22	81 136 837 569 308	8 12 9 12 13	*36 *74 83 70	*3 *1 2 3	*14 88 198 171 141	*1 8 2 4 6
Kansas	2,110	425	20	233	11	56	3	136	6
	3,260	670	21	410	13	*49	*1	212	7
	3,433	678	20	403	12	*81	*2	195	6
	1,074	266	25	120	11	40	4	106	10
	4,333	521	12	370	9	46	1	105	2
Massachusetts	5,032 7,804 4,021 2,214 4,521	472 1,371 1,280 537 1,096	9 18 32 24 24	406 650 745 293 536	8 8 19 13 12	*20 272 *138 *58 165	*(Z) 3 *3 *3 4	46 449 398 186 394	1 6 10 8 9
Montana Nebraska Nevada New Hampshire New Jersey	753	232	31	86	11	53	7	92	12
	1,359	234	17	129	10	42	3	63	5
	1,895	182	10	122	6	26	1	34	2
	1,044	141	14	89	9	*17	*2	35	3
	6,734	562	8	478	7	*32	*(Z)	53	1
New Mexico New York North Carolina North Dakota Ohio	1,500	224	15	152	10	34	2	38	3
	14,990	1,236	8	734	5	207	1	295	2
	6,719	1,038	15	734	11	*74	*1	230	3
	507	145	29	59	12	40	8	47	9
	8,889	1,488	17	1,011	11	195	2	282	3
Oklahoma Oregon Pennsylvania Rhode Island South Carolina	2,743	602	22	370	13	*55	*2	177	6
	2,889	550	19	331	11	67	2	152	5
	9,793	1,415	14	482	5	425	4	508	5
	842	86	10	73	9			*10	*1
	3,315	595	18	429	13	*48	*1	119	4
South Dakota	601	136	23	46	8	41	7	50	8
	4,699	775	16	491	10	*67	*1	217	5
	17,076	2,668	16	1,672	10	324	2	672	4
	1,808	351	19	197	11	38	2	116	6
	506	91	18	34	7	20	4	37	7
Virginia. Washington. West Virginia Wisconsin. Wyoming	5,893	857	15	497	8	127	2	233	4
	4,980	764	15	577	12	74	1	113	2
	1,458	364	25	165	11	58	4	141	10
	4,350	1,185	27	534	12	160	4	492	11
	405	113	28	61	15	*15	*4	37	9

^{...} Sample size too small to report data reliably. * Estimate based on a sample size of 10-29. (Z) Less than 0.5 percent.

Notes: U.S. totals include responses from participants residing in the District of Columbia, as described in Appendix D. Table includes state residents' participation both inside and outside their resident state.

Table 39. Participation in Wildlife-Associated Recreation in Each State by Both Residents and Nonresidents of the State: 2006

Charles and a service has also also a	Total participation	ants	Sportsperso	ns	Wildlife-watching p	participants
State where activity took place	Number	Percent	Number	Percent	Number	Percent
United States, total	87,465	100	33,916	39	71,132	81
Alabama	1,719	100	962	56	1,161	68
Alaska	691	100	315	46	496	72
Arizona	1,546	100	493	32	1,277	83
Arkansas	1,419	100	790	56	1,011	71
California	7,385	100	1,814	25	6,270	85
Colorado	2,234	100	813	36	1,819	81
Connecticut	1,332	100	309	23	1,170	88
Delaware	395	100	189	48	285	72
Florida	5,886	100	2,815	48	4,240	72
Georgia	2,773	100	1,308	47	1,987	72
Hawaii	366	100	162	44	262	72
Idaho	1,005	100	440	44	754	75
Illinois	3,126	100	1,004	32	2,566	82
Indiana	2,610	100	886	34	2,042	78
Iowa	1,455	100	552	38	1,205	83
Kansas	1,107	100	544	49	816	74
Kentucky	1,906	100	820	43	1,475	77
Louisiana	1,221	100	769	63	738	60
Maine	1,007	100	411	41	801	80
Maryland	1,867	100	707	38	1,491	80
Massachusetts	2,205	100	532	24	1,919	87
Michigan	4,217	100	1,685	40	3,227	77
Minnesota	2,970	100	1,571	53	2,093	70
Mississippi	1,138	100	656	58	731	64
Missouri	2,876	100	1,300	45	2,248	78
Montana	950	100	378	40	755	79
Nebraska	650	100	259	40	490	75
Nevada	788	100	177	22	686	87
New Hampshire	839	100	258	31	710	85
New Jersey	2,100	100	696	33	1,713	82
New Mexico	947	100	316	33	787	83
New York	4,595	100	1,428	31	3,852	84
North Carolina	3,412	100	1,361	40	2,641	77
North Dakota	279	100	190	68	148	53
Ohio	4,247	100	1,488	35	3,489	82
Oklahoma	1,472	100	684	46	1,110	75
Oregon	1,837	100	661	36	1,484	81
Pennsylvania	4,663	100	1,520	33	3,947	85
Rhode Island	527	100	163	31	436	83
South Carolina	1,653	100	893	54	1,115	67
South Dakota	572	100	251	44	432	75
Tennessee	2,824	100	969	34	2,362	84
Texas	6,029	100	2,940	49	4,225	70
Utah	1,132	100	437	39	877	77
Vermont	545	100	150	27	468	86
Virginia	2,866	100	1,045	36	2,312	81
Washington	2,739	100	818	30	2,331	85
West Virginia	994	100	488	49	743	75
Wisconsin	2,913	100	1,582	54	2,039	70
Wyoming	762	100	264	35	643	84

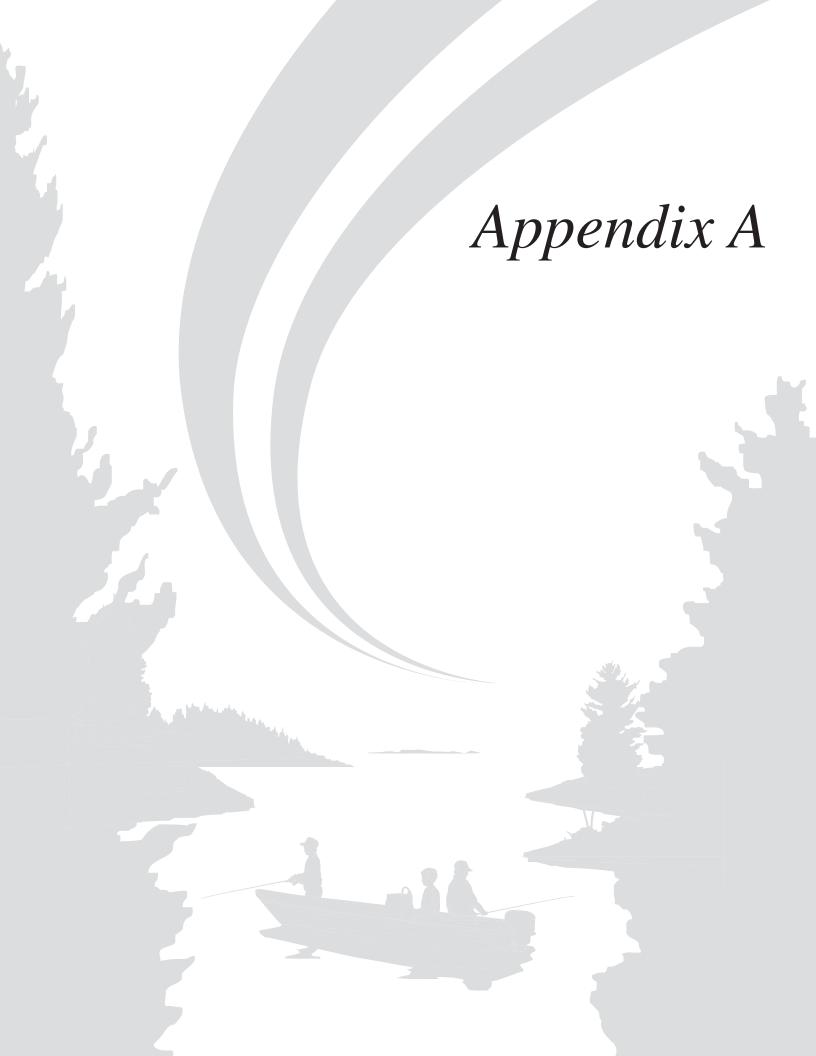
Note: Detail does not add to total because of multiple responses. U.S. totals include responses from participants residing in the District of Columbia, as described in

Table 40. Anglers and Hunters by State Where Fishing or Hunting Took Place: 2006

			Ang	lers					Hui	nters		
State where fishing or hunting took place	Total a resider nonres	nts and	Resid	Residents		sidents	Total h residen nonres	its and	Resid	dents	Nonre	esidents
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
United States, total	29,952	100	27,641	92	6,494	22	12,510	100	11,971	96	1,826	15
Alabama	806	100	600	74	206	26	391	100	310	79	81	21
Alaska	293	100	137	47	156	53	71	100	53	75		
Arizona	422	100	330	78	92	22	159	100	126	79	*33	*21
Arkansas	655	100	430	66	225	34	354	100	301	85	*53	*15
California	1,730	100	1,578	91	152	9	281	100	274	97		
Colorado	660	100	490	74	171	26	259	100	126	49	134	51
Connecticut	302	100	251	83	51	17	38	100	36	96		
Delaware	159	100	66	41	*94	*59	42	100	19	46		
Florida	2,767	100	1,881	68	885	32	236	100	214	91	*22	*9
Georgia	1,107	100	971	88	136	12	481	100	344	72	136	28
Hawaii	157	100	92	58	*65	*42	18	100	18	98		
Idaho	350	100	206	59	144	41	187	100	122	65	65	35
Illinois	873	100	795	91	78	9	316	100	258	82	*58	*18
Indiana	768	100	663	86	106	14	272	100	237	87	*35	*13
Iowa	438	100	397	91	*40	*9	251	100	208	83	*44	*17
Kansas	404	100	319	79	85	21	271	100	183	68	88	32
Kentucky	721	100	580	80	141	20	291	100	241	83	*50	*17
Louisiana	702	100	590	84	112	16	270	100	241	89		
Maine	351	100	220	63	131	37	175	100	146	83	*29	*17
Maryland	645	100	403	62	242	38	161	100	133	83	*28	*17
Massachusetts	497	100	398	80	99	20	73	100	57	79	*16	*21
Michigan	1,394	100	1,077	77	318	23	753	100	721	96	*32	*4
Minnesota	1,427	100	1,108	78	319	22	535	100	509	95	*26	*5
Mississippi	546	100	465	85	80	15	304	100	238	78	*66	*22
Missouri	1,076	100	871	81	206	19	608	100	540	89	69	11
Montana	291	100	172	59	119	41	197	100	145	74	*52	*26
Nebraska	198	100	169	85	*29	*15	118	100	102	86		
Nevada	142	100	114	81	*27	*19	63	100	54	85		
New Hampshire	230	100	108	47	122	53	61	100	51	85	*9	*15
New Jersey	654	100	458	70	197	30	89	100	72	81		
New Mexico	248	100	164	66	*84	*34	99	100	66	67	*32	*33
New York	1,153	100	932	81	221	19	566	100	491	87	75	13
North Carolina	1,263	100	868	69	395	31	304	100	277	91	*27	*9
North Dakota	106	100	88	84			128	100	86	67	*42	*33
Ohio	1,256	100	1,145	91	112	9	500	100	467	93		
Oklahoma	611	100	525	86	86	14	251	100	224	89	*27	*11
Oregon	576	100	455	79	122	21	237	100	218	92		
Pennsylvania	994	100	830	83	164	17	1,044	100	933	89	111	11
Rhode Island	158	100	76	48	82	52	14	100	12	84		
South Carolina	810	100	527	65	283	35	208	100	159	77	*49	*23
South Dakota	135	100	89	66	45	34	171	100	89	52	81	48
Tennessee	871	100	658	75	214	25	329	100	265	81	*64	*19
Texas	2,527	100	2,308	91	218	9	1,101	100	979	89	123	11
Utah	375	100	288	77	87	23	166	100	144	86	*23	*14
Vermont	114	100	64	56	50	44	73	100	56	76	*17	*24
Virginia	858	100	640	75	218	25	413	100	353	86	*60	*14
Washington	736	100	641	87	95	13	182	100	179	98		
West Virginia	376	100	291	77	86	23	269	100	194	72	*75	*28
Wisconsin	1,394	100	1,014	73	381	27	697	100	649	93	*48	*7
Wyoming	203	100	96	47	107	53	102	100	50	49	52	51

^{*} Estimate based on a sample size of 10-29. ... 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 Appendix D.



Appendix A. Definitions

Annual household income—Total 2006 income of household members before taxes and other deductions.

Around-the-home wildlife

watching—Activity within 1 mile of home with one of six primary purposes: (1) taking special interest in or trying to identify birds or other wildlife; (2) photographing wildlife; (3) feeding birds or other wildlife; (4) maintaining natural areas of at least 1/4 acre for the benefit of wildlife; (5) maintaining plantings (such as shrubs and agricultural crops) for the benefit of wildlife; and (6) visiting public land to observe, photograph, or feed wildlife.

Auxiliary equipment—Equipment owned primarily for wildlife-associated recreation. For the sportspersons section, these include sleeping bags, packs, duffel bags, tents, binoculars and field glasses, special fishing and hunting clothing, foul weather gear, boots and waders, maintenance and repair of equipment, and processing and taxidermy costs. For the wildlifewatching section, these include tents, tarps, frame packs, backpacking and other camping equipment, and blinds.

Away-from-home wildlife watching-

Trips or outings at least 1 mile from home for the primary purpose of observing, photographing, or feeding wildlife. Trips to zoos, circuses, aquariums, and museums are not included.

Big game—Bear, deer, elk, moose, wild turkey, and similar large animals that 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 participating in a given activity. For example, if someone hunted two hours one day and three hours another day, it would be reported as two days of hunting. If someone hunted two hours in the morning and three hours in the afternoon of the same day, it would be considered one day of hunting.

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

Expenditures—Money spent in 2006 for wildlife-related recreation trips in the United States, wildlife-related recreational equipment purchased in the United States, and other items. The "other items" were books and magazines, membership dues and contributions, land leasing or owning, hunting and fishing licenses, and plantings, all for the purpose of wildlife-related recreation. Expenditures included both money spent by participants for themselves and the value of gifts they received.

Fishing—The sport of catching or attempting to catch fish with a hook and line, bow and arrow, or spear; it also includes catching or gathering shellfish (clams, crabs, etc.); and 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:

Rods, reels, poles, and rod-making components

Lines and leaders

Artificial lures, flies, baits, and dressing for flies or lines

Hooks, sinkers, swivels, and other items attached to a line, except lures and baits

Tackle boxes

Creels, stringers, fish bags, landing nets, and gaff hooks

Minnow traps, seines, and bait containers

Depth finders, fish finders, and other electronic fishing devices

Ice fishing equipment

Other fishing equipment

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:

Rifles, shotguns, muzzleloaders, and handguns

Archery equipment

Telescopic sights

Decoys and game calls

Ammunition

Hand-loading equipment

Hunting dogs and associated costs Other hunting equipment

Land leasing and owning—Leasing or owning land either singly or in cooperation with others for the primary purpose of fishing, hunting, or wildlife watching on it.

Maintain natural areas—To set aside 1/4 acre or more of natural environment, such as wood lots or open fields, for the primary purpose of benefiting wildlife. This is categorized as a wildlife-watching activity, not fishing or hunting.

Maintain plantings—To introduce or encourage the growth of food and cover plants for the primary purpose of benefiting wildlife. Examples of plantings are butterfly bushes and various sumacs. This is categorized as a wildlife-watching activity, not fishing or hunting.

Metropolitan statistical area

(MSA)—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. See U.S. Census Bureau publication State and Metropolitan Area Data Book; 2006 for more detailed information on MSAs. It can be found at http://www.census.gov /prod/2006pubs/smadb/smadb-06.pdf>.

Migratory birds—Birds that regularly migrate from one region or climate to another such as ducks, geese, and doves and other birds that may be hunted.

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 (one) and elk hunters (one) would overstate the number of big game hunters (one)

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.

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 nonresidential wildlife-watcher in California.

Nonresponse—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. Total hunting expenditure estimates will include 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 can be legally hunted and are not classified as big game, small game, or migratory birds. They may be classified as unprotected or predatory animals by the State in which they are hunted. Feral pigs are classified as "other animals" in all States except Hawaii, where they are considered big game.

Participants—Individuals who engage in fishing, hunting, or a wildlifewatching activity. Unless otherwise stated, a person has to have hunted, fished, or wildlife watched in 2006 to be considered a participant.

Plantings—See "Maintain plantings."

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

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

Public land—Land that is owned by local governments (such as county parks and municipal watersheds), State governments (such as State parks and wildlife management areas), or federal governments (such as National Forests and Wildlife Refuges).

Public parks or areas—See "Public land."

Residents—Individuals who lived in the State being reported. For example, a person who lives in California and watches whales in California is a residential wildlife watcher in California.

Rural—All territory, population, and housing units located outside of urbanized areas and urban clusters, as determined by the Census Bureau.

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

Screening interviews—The first Survey contact with a sample household. Screening interviews are conducted with a household representative to identify respondents who are eligible for in-depth interviews. Screening interviews gather data such as age and sex about individuals in the households. Further information on screening interviews is available on page vii in the "Survey Background and Method" section of this report.

Small game—Grouse, pheasants, quail, rabbits, squirrels, and similar small animals for which States have small game seasons and bag limits.

Special equipment—Big-ticket equipment items that are owned primarily for wildlife-related recreation:

Bass boats

Other types of motorboats

Canoes and other types of nonmotorboats

Boat motors, boat trailer/hitches, and other boat accessories

Pickups, campers, vans, travel or tent trailers, motor homes, house trailers, recreational vehicles (RVs)

Cabins

Off-the-road vehicles such as trail bikes, all terrain vehicles (ATVs), dune buggies, four-wheelers, 4x4 vehicles, and snowmobiles

Other special equipment

Spenders—People who spent money on fishing, hunting, or wildlifewatching activities or equipment.

Sportspersons—Individuals who engage in fishing, hunting, or both.

Trip—An outing involving fishing, hunting, or wildlife watching. 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—There are three types of fishing: (1) freshwater except Great Lakes, (2) Great Lakes, and (3) saltwater.

Type of hunting—There are four types of hunting: (1) big game, (2) small game, (3) migratory bird, and (4) other animal.

Unspecified expenditure—An item that was purchased for use in both fishing and hunting, rather than primarily one or the other. Auxiliary equipment, special equipment, magazines and books, and membership dues and contributions are the items for which a purchase could be categorized as "unspecified."

Urban—All territory, population, and housing units located within boundaries that encompass densely settled territory, consisting of core census block groups or blocks that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile. Under certain conditions, less densely settled territory may be included, as determined by the Census Bureau.

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, and wildlife watching.

Wildlife watching—There are six types of wildlife watching: (1) closely observing, (2) photographing, (3) feeding, (4) visiting public parks or areas, (5) maintaining plantings, and (6) maintaining natural areas. These activities must be the primary purpose of the trip or the around-the-home undertaking.

Wildlife observed, photographed, or **fed**—Examples of species that wildlife watchers observe, photograph, and/or feed are (1) Wild birds—songbirds such as cardinals, robins, warblers, jays, buntings, and sparrows; birds of prey such as hawks, owls, eagles, and falcons; waterfowl such as ducks, geese, and swans; other water birds such as shorebirds, herons, pelicans, and cranes; and other birds such as pheasants, turkeys, road runners, and woodpeckers; (2) Land mammals large land mammals such as bears, bison, deer, moose, and elk; and small land mammals such as squirrels, foxes, prairie dogs, and rabbits; (3) Fish such as salmon, sharks, and groupers; (4) Marine mammals such as whales, dolphins, and manatees; and (5) Other wildlife such as butterflies, turtles, spiders, and snakes.

Wildlife-watching equipment—Items owned primarily for observing, photographing, or feeding wildlife:

Binoculars and spotting scopes

Cameras, video cameras, special lenses, and other photographic equipment

Film and developing

Commercially prepared and packaged wild bird food

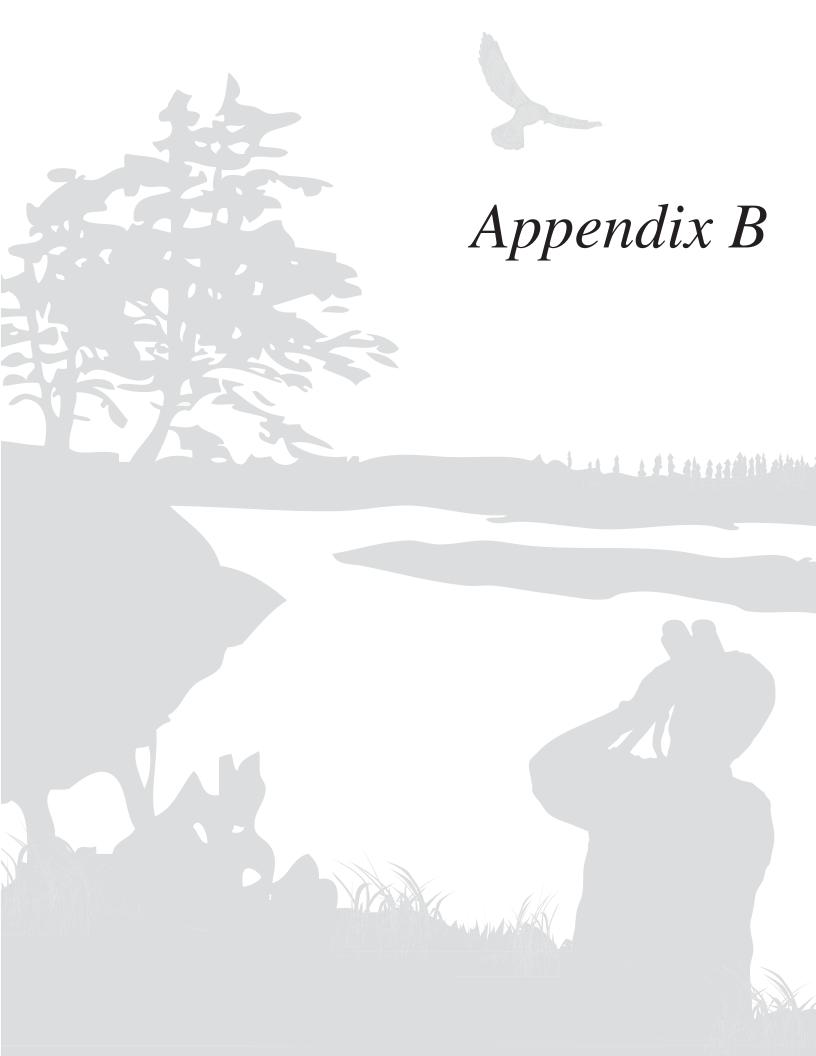
Other bulk food used to feed wild birds

Food for other wildlife

Nest boxes, bird houses, feeders, and baths

Day packs, carrying cases, and special clothing

Other items such as field guides and maps



Appendix B. 2005 Participation of 6- to 15-Year-Olds: Data From Screening Interviews

The 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation was carried out in two phases. The first (or screening) phase began in April 2006. The main purpose of this phase was to collect information about all persons 16 years old and older in order to develop a sample of potential sportspersons and wildlife watchers for the second (or detailed) phase. Also, information was collected on the number of persons 6 to 15 years old who participated in wildlife-related recreation activities in 2005.

It is important to emphasize that the information reported from the 2006 screen relates to activity only up to and including 2005. Also, these data are reported in most cases by one household respondent speaking for all household members rather than the actual participant. In addition, these data are based on long-term recall (at least a 12-month recall), which has been found in Survey research (Investigation of Possible Recall/Reference Period Bias in National Surveys of Fishing, Hunting, and Wildlife-Associated Recreation, December 1989, Westat, Inc.) to add bias to the

resulting estimates. In many cases, longer recall periods result in overestimating participation and expenditures for wildlife-related recreation.

Tables B-1 through B-4 report data on 6-to-15-year-old participants in 2005. Detailed expenditure and recreational activity data were not gathered for the 6-to-15-year-old participants.

Because of differences in methodologies of the screening and the detailed phases of the 2006 Survey, resulting estimates 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 four-month intervals. The screening interviews were one year or more recall. The shorter recall period of the detailed phase had better data accuracy.

Table B-1. New Mexico Residents 6 to 15 Years Old Participating in Fishing and Hunting Both Inside and **Outside New Mexico: 2005**

(State population 6 to 15 years old. Numbers in thousands)

	Sportspersons 6 to 15 years old						
Sportspersons	Number	Percent of sportspersons	Percent of population				
Total sportspersons	83	100	31				
Total anglers Fished only Fished and hunted	83 78	100 94 	31 29 				
Total hunters. Hunted only . Hunted and fished	*5 	*6 	*2 				

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

Note: Detail does not add to total because of multiple responses. Column showing percent of sportspersons is based on the "Total sportspersons" row. Column showing percent of population is based on the state population 6 to 15 years old, including those who did not fish or hunt. 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 state residents who fished or hunted only in other countries.

Table B-2. Selected Characteristics of New Mexico Resident Anglers and Hunters 6 to 15 Years Old: 2005

(State population 6 to 15 years old. Numbers in thousands)

	Popu	lation	(f	Sportspers ished or hu			Anglers			Hunters	
Characteristic	Number	Percent	Number	Percent who partici- pated	Percent	Number	Percent who partici- pated	Percent	Number	Percent who partici- pated	Percent
Total persons	270	100	83	31	100	83	31	100	*5	*2	*100
Population Density of Residence Urban	203	75	58	29	70	58	29	70			
Rural	67	25	*25	*37	*30	*25	*37	*30			
Population Size of Residence Metropolitan statistical areas											
(MSA)	178	66	56	31	67	56	31	67			
1,000,000 or more	108	40	37	34	44	36	34	 44			
Less than 250,000	70	26	*19	*27	*23	*19	*27	*23			
Outside MSA	92	34	*27	*30	*33	*27	*30	*33			
Sex Male Female.	139 131	51 49	51 32	37 24	62 38	51 32	37 24	62 38			
Age 6 to 8 years 9 to 11 years 12 to 15 years	68 82 120	25 30 44	20 31 33	29 38 27	24 37 39	20 31 32	29 38 27	24 37 39		 	
Ethnicity											
Hispanic	134 136	50 50	43 40	32 30	51 49	43 40	32 29	52 48			
Race White	204	75	67	33	81	67	33	81	*5	*3	*100
Black	63	23	*15	*24	*18	*15	*24	*18			
Annual Household Income								10			•••
Less than \$10,000	33	12									
\$10,000 to \$19,999	33	12									
\$20,000 to \$29,999	30	11	*7	*23	*8	*7	*23	*8			
\$30,000 to \$39,999	27	10									
\$40,000 to \$49,999	*18	*7	*8	*43	*9	*8	*43	*9			
\$50,000 to \$74,999	38	14	*16	*42	*19	*16	*42	*19			
\$75,000 or more	49	18	27	55	33	27	55	32			
Not reported	42	16	*9	*22	*11	*9	*22	*11			

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

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, etc.). Remaining percent columns show the percent of each column's participants who are described by the row heading (the percent of anglers who lived in urban areas, etc.). 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 state residents who fished or hunted only in other countries.

Table B-3. New Mexico Residents 6 to 15 Years Old Participating in Wildlife Watching Both Inside and **Outside New Mexico: 2005**

(State population 6 to 15 years old. Numbers in thousands)

Participants	Number	Percent of participants	Percent of population
Total participants	103	100	38
Away from home	53	52	20
Around the home	82	79	30
Observe wildlife	68	65	25
Photograph wildlife	*22	*21	*8
Feed wild birds or other wildlife	46	45	17
Maintain plantings or natural areas	24	23	9

st Estimate based on a sample size of 10-29.

Note: Detail does not add to total because of multiple responses. The column showing percent of participants is based on total participants. The column showing percent of population is based on the state population 6 to 15 years old, including those who did not participate in wildlife watching. 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 state residents who wildlife watched only in other countries.

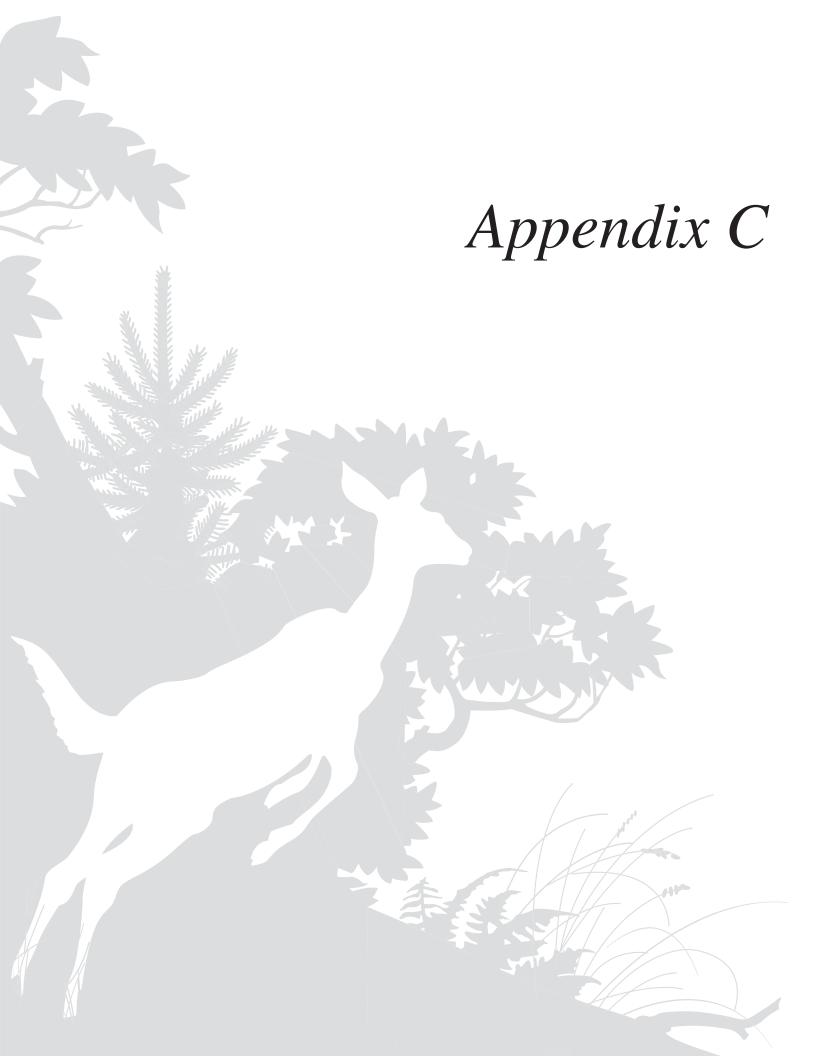
Table B-4. Selected Characteristics of New Mexico Resident Wildlife Watchers 6 to 15 Years Old: 2005

(State population 6 to 15 years old. Numbers in thousands)

	Popul	lation	Tota	l wildlife v	vatchers	Aw	ay from ho	me	Arc	ound the ho	ome
Characteristic	Number	Percent	Number	Percent who partici- pated	Percent	Number	Percent who partici- pated	Percent	Number	Percent who partici- pated	Percent
Total persons	270	100	103	38	100	53	20	100	82	30	100
Population Density of Residence UrbanRural	203 67	75 25	68 *35	34 *52	66 *34	36 *18	18 *26	67 *33	52 *30	26 *44	64 *36
Population Size of Residence Metropolitan statistical areas	07	23	33	32	34	10	20	33	30	7.7	50
(MSA)	178	66	68	38	66	25	14	46	58	33	71
250,000 to 999,999 Less than 250,000 Outside MSA	108 70 92	40 26 34	38 30 35	35 43 38	36 29 34	20 *5 *29	18 *7 *31	37 *9 *54	31 28 *24	29 39 *26	38 34 *29
Sex											
Male Female	139 131	51 49	56 47	41 36	55 45	28 26	20 20	52 48	44 38	32 29	54 46
Age		2.5	2.5	20	2.5	11.4.2	**10			22	
6 to 8 years	68 82 120	25 30 44	26 37 40	38 46 33	25 36 39	*13 *16 24	*19 *19 20	*24 *30 46	22 32 28	32 39 24	26 39 35
Ethnicity Hispanic	134	50	45	34	44	22	17	42	37	28	45
Non-Hispanic	136	50	58	43	56	31	23	58	45	33	55
White	204	75 	83	41	80	44	22	83	67	33	81
All others	63	23	*20	*32	*19				*15	*24	*18
Annual Household Income Less than \$10,000	33	12									
\$10,000 to \$19,999	33	12									
\$20,000 to \$29,999	30	11	*11	*37	*11				*7	*25	*9
\$30,000 to \$39,999 \$40,000 to \$49,999	27 *18	10 *7	*9 *10	*33 *58	*9 *10				*8	*31	*10
\$50,000 to \$74,999	38	14	*20	*52	*19	*11	*29	*21	*16	*43	*20
\$75,000 or more Not reported	49 42	18 16	29 *11	60 *27	28 *11	*10 *9	*20 *22	*19 *17	23	48 *15	28 *8
Not reported	42	10	. 11	. 21	-11	"9		. 1 /	''0	. 13	

^{*} Estimate based on a sample size of 10-29. ... Sample size too small to report data reliably.

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 wildlife watched, etc.). Remaining percent columns show the percent of each column's participants who are described by the row heading (the percent of wildlife watchers who lived in urban areas, etc.). 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 state residents who wildlife watched only in other countries.



Appendix C.

Significant Methodological Changes From Previous Surveys and Regional Trends

This appendix provides a description of data collection changes and national and regional trend information based on the 1991, 1996, 2001, and 2006 Surveys. Since these four surveys used similar methodologies, their published information is directly comparable.

Significant Methodological Differences

The most significant design differences in the four surveys 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, 2001, and 2006 Survey data were collected by the use of computer-assisted interviews. The questionnaires were 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 1991, when the sample households were contacted and a household respondent was interviewed on behalf of the entire household. The screening interviews for the 1996, 2001, and 2006 Surveys were conducted April through June of their survey years in conjunction with the first wave of the detailed interviews. The screening interviews for all four surveys consisted primarily of demographic questions and wildlife-related recreation questions concerning activity in the previous year (1990, 1995, etc.) and intentions for recreating in the survey year.

In the 1991 Survey, an attempt was made to contact every sample person in all three detailed interview waves. In 1996, 2001, and 2006, 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 waves.

Section I. Important Instrument Changes in the 1996 Survey

- 1. The 1991 Survey collected information on all wildlife-related recreation purchases made by participants without reference to where the purchase was made. The 1996 Survey 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 were asked in what states they fished. In 1996, respondents were asked in which states they fished and then were asked what kind of fishing they did. 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 of 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 all 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 sportspersons if they participated as much as they wanted were added in 1996. If the sportspersons 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 asked in 1996.

- 7. The 1996 Survey included guestions 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 questions about the last trip the respondent took. Included were questions about the type of trip, where the activity took place, and the distance and direction to the site visited. These questions were not asked in 1991.
- 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.

Section II. Important Instrument Changes in the 2001 Survey

- 1. The 1991 and 1996 single-race category "Asian or Pacific Islander" was changed to two categories-"Asian" and "Native Hawaiian or Other Pacific Islander." In 1991 and 1996, the respondent was required to pick only one category, while in 2001 the respondent could pick any combination of categories. The next question stipulated that the respondent could only be identified with one category and then asked what that category was.
- 2. The 1991 and 1996 land leasing and ownership sections asked the respondent to combine the two types of land use into one and give total acreage and expenditures. In 2001, the two types of land use were explored separately.
- 3. The 1991 and 1996 wildlifewatching sections included questions on birdwatching for residential users only. The 2001 Survey added a question on birdwatching for nonresidential users. Also, questions on the use of birding life lists

- and how many species the respondent can identify were added.
- "Recreational vehicles" was added to the sportspersons and wildlifewatchers special equipment section. "House trailer" was added to the sportspersons special equipment section.
- 5. Total personal income was asked in the detailed phase of the 1996 Survey. This was changed to total household income in the 2001 Survey.
- 6. A question was added to the triprelated expenditures section to ascertain how much of the total was spent in the respondent's state of residence when the respondent participated in hunting, fishing, or wildlife watching out of state.
- 7. Boating questions were added to the fishing section. The respondent was asked about the extent of boat usage for the three types of fishing.
- The 1996 Survey included questions about the months residential wildlife watchers fed birds. These questions were not repeated in the 2001 Survey.
- 9. The contingent valuation sections of the three types of wildlife-related recreation were altered, using an open-ended question format instead of the dichotomous choice format used in 1996.

Section III. Important Instrument Changes in the 2006 Survey

- 1. A series of boating questions was added. The new questions dealt with anglers using motorboats and/ or non-motorboats, length of boat used most often, distance to boat launch used most often, needed improvements to facilities at the launch, whether or not the respondent completed a boating safety course, who the boater fished with most often, and the source and type of information the boater used for his or her fishing.
- Questions regarding catch and release fishing were added. Whether or not the respondent

- caught and released fish and, if so, the percent of fish released.
- The proportion of hunting done with a rifle or shotgun, as contrasted with muzzleloader or archery equipment, was asked.
- 4. In the contingent valuation section, where the value of wildlife-related recreation was determined, two quality-variable questions were added: the average length of certain fish caught and whether a deer, elk, or moose was killed. Plus, the economic evaluation bid questions were rephrased, from "What is the most your [species] hunting in [State name] could have cost you per trip last year before you would NOT have gone [species] hunting at all in 2001, not even one trip, because it would have been too expensive?," for the hunters, for example, to "What is the cost that would have prevented you from taking even one such trip in 2006? In other words, if the trip cost was below this amount, you would have gone [species] hunting in [State name], but if the trip cost was above this amount, you would not have gone."
- 5. Questions concerning hunting, fishing, or wildlife watching in other countries were taken out of the Survey.
- Questions about the reasons for not going hunting or fishing, or not going as much as expected, were deleted.
- 7. Disability of participants questions were taken out.
- 8. Determination of the types of sites for wildlife watching was discontinued.
- 9. The birding questions regarding the use of birding life lists and the ability to identify birds based on their sight or sounds were deleted.
- 10. Public transportation costs were divided into two sections, "public transportation by airplane" and "other public transportation, including trains, buses, and car rentals, etc."

National and Regional Trends Fishing and Hunting

Comparing national hunting and fishing estimates for 1991 to 2006 finds participation declining over the entire time period. In 1991 and 1996, the number of people who hunted and fished remained essentially unchanged. In 2001, the number of sportspersons fell compared to the two previous survey estimates. In 2006, the number of anglers continued to decline and the number of hunters was stable.

The amount of time people spent fishing and hunting fluctuated between 1991 and 2006. The number of days spent fishing rose 22 percent between 1991 and 1996, fell 11 percent between 1996 and 2001, and fell 7 percent further between 2001 and 2006. Days of hunting followed a similar pattern. Between 1991 and 1996, hunting days

increased 9 percent (although this increase was not statistically significant) but then fell 11 percent between 1996 and 2001 and a further 4 percent (this was not statistically significant either) between 2001 and 2006.

The amount of money spent for fishing and hunting trips and equipment rose from 1991 to 1996, fell from 1996 to 2001, and stayed level from 2001 to 2006. The comparisons are in constant dollars.

Wildlife Watching

There were differing trend lines from 1991 to 2006 for the two major types of wildlife watching. The number of overall wildlife watchers decreased 17 percent from 1991 to 1996, increased 5 percent from 1996 to 2001, and increased 8 percent from 2001 to 2006. Around-the-home wildlife watching,

the most popular type of wildlife watching, led this trend with an 18 percent drop from 1991 to 1996, a 4 percent increase from 1996 to 2001, and an 8 percent increase from 2001 to 2006. Away-from-home wildlife watching, on the other hand, dropped from 1991 to 2001 (21 percent from 1991 to 1996 and 8 percent from 1996 to 2001) and stayed level with a statistically insignificant 5 percent increase from 2001 to 2006. Days afield by away-from-home wildlife watchers were significantly up from 1996 to 2001 and statistically stable the other time periods. Overall expenditures for wildlife watching increased 21 percent from 1991 to 1996 and 16 percent from 1996 to 2001 and decreased a statistically insignificant 7 percent from 2001 to 2006.

Table C-1a. Comparison of Wildlife-Related Recreation in the United States: 1991-1996

(U.S. population 16 years old and older. Numbers in thousands. All expenditures in 2006 dollars. 1996 expenditure categories made comparable to 1991)

Participants, days, and expenditures	1991	1996	1991–1996
	(Number)	(Number)	percent change
Hunting			
Hunters, total	14,063	13,975	-1*
	235,806	256,676	9*
	\$18,282,597	\$26,224,069	43
Fishing			
Anglers, total	35,578	35,246	-1*
	511,329	625,893	22
	\$35,553,365	\$48,598,400	37
Wildlife Watching			
Wildlife watchers, total Around the home Away from home Wildlife-watching days, away from home Wildlife-watching expenditures, total	76,111	62,868	-17
	73,904	60,751	-18
	29,999	23,652	-21
	342,406	313,790	-8*
	\$27,402,180	\$33,093,660	21

^{*} Not different from zero at the 5 percent level of significance.

Table C-1b. Comparison of Wildlife-Related Recreation in the United States: 1996–2001

(U.S. population 16 years old and older. Numbers in thousands. All expenditures in 2006 dollars. 1996 and 2001 expenditure categories made comparable to 1991)

Participants, days, and expenditures	1996	2001	1996–2001
	(Number)	(Number)	percent change
Hunting			
Hunters, total Hunting days, total Hunting expenditures, total	13,975	13,034	-7
	256,676	228,368	-11
	\$26,224,069	\$23,296,904	-11*
Fishing			
Anglers, total	35,246	34,071	-3
	625,893	557,394	-11
	\$48,598,400	\$40,399,711	-17
Wildlife Watching			
Wildlife watchers, total Around the home Away from home Wildlife-watching days, away from home Wildlife-watching expenditures, total	62,868	66,105	5
	60,751	62,928	4
	23,652	21,823	-8
	313,790	372,006	19
	\$33,093,660	\$38,453,190	16

^{*} Not different from zero at the 5 percent level of significance.

Table C-1c. Comparison of Wildlife-Related Recreation in the United States: 2001-2006

(U.S. population 16 years old and older. Numbers in thousands. All expenditures in 2006 dollars. 2001 and 2006 expenditure categories made comparable to 1991)

Participants, days, and expenditures	2001 (Number)	2006 (Number)	2001–2006 percent change
Hunting			
Hunting days, total	13,034 228,368 \$23,296,904	12,510 219,925 \$22,644,048	-4* -4* -3*
Fishing			
Anglers, total	557,394	29,952 516,781 \$42,042,188	-12 -7 4*
Wildlife Watching			
Wildlife watchers, total Around the home Away from home Wildlife-watching days, away from home Wildlife-watching expenditures, total	62,928 21,823 372,006	71,132 67,756 22,977 352,070 \$35,870,403	8 8 5* -5* -7*

^{*} Not different from zero at the 5 percent level of significance.

Table C-1d. Comparison of Wildlife-Related Recreation in the United States: 1991–2006

(U.S. population 16 years old and older. Numbers in thousands. All expenditures in 2006 dollars. 2006 expenditure categories made comparable to 1991)

Participants, days, and expenditures	1991 (Number)	2006 (Number)	1991–2006 percent change
Hunting			
Hunters, total	14,063 235,806 \$18,282,597	12,510 219,925 \$22,644,048	-11 -7* 24
Fishing			
Anglers, total	35,578 511,329 \$35,553,365	29,952 516,781 \$42,042,188	-16 1* 18
Wildlife Watching			
Wildlife watchers, total Around the home Away from home Wildlife-watching days, away from home Wildlife-watching expenditures, total	342,406	71,132 67,756 22,977 352,070 \$35,870,403	-7 -8 -23 3* 31

^{*} Not different from zero at the 5 percent level of significance.

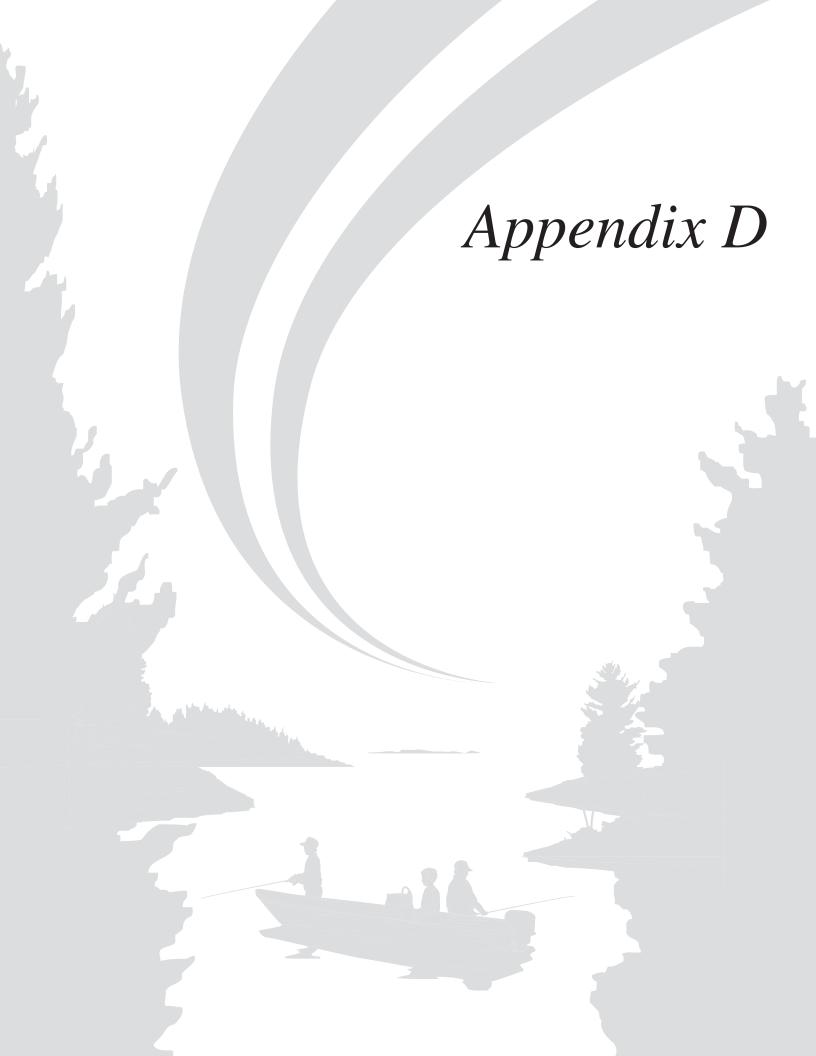
Table C-2. Anglers and Hunters by Census Division: 1991, 1996, 2001, and 2006

A was and amoutanews an	199	1	199	6	2001		2006	
Area and sportsperson	Number	Percent	Number	Percent	Number	Percent	Number	Percent
UNITED STATES								
Total population	189,964 39,979 35,578 14,063	100 21 19 7	201,472 39,694 35,246 13,975	100 20 17 7	212,298 37,805 34,067 13,034	100 18 16 6	229,245 33,916 29,952 12,510	100 15 13 5
New England								
Total population Sportspersons Anglers Hunters	10,180 1,658 1,545 444	100 16 15 4	10,306 1,673 1,520 465	100 16 15 5	10,575 1,504 1,402 386	100 14 13 4	11,233 1,353 1,246 374	100 12 11 3
Middle Atlantic								
Total population Sportspersons Anglers Hunters	29,216 4,508 3,871 1,746	100 15 13 6	29,371 4,192 3,627 1,453	100 14 12 5	29,806 3,810 3,250 1,633	100 13 11 5	31,518 3,214 2,550 1,520	100 10 8 5
East North Central								
Total population	32,188 7,202 6,264 2,789	100 22 19 9	33,121 6,912 6,006 2,712	100 21 18 8	34,082 6,400 5,655 2,421	100 19 17 7	35,609 5,975 5,190 2,376	100 17 15 7
West North Central								
Total population Sportspersons Anglers Hunters	13,504 4,143 3,647 1,709	100 31 27 13	13,875 3,977 3,416 1,917	100 29 25 14	14,430 4,239 3,836 1,710	100 29 27 12	15,458 3,836 3,284 1,779	100 25 21 12
South Atlantic								
Total population	33,682 6,996 6,441 2,083	100 21 19 6	36,776 7,282 6,636 2,050	100 20 18 6	39,286 6,957 6,451 1,875	100 18 16 5	43,965 6,633 6,116 1,884	100 15 14 4
East South Central								
Total population	11,667 2,984 2,635 1,279	100 26 23 11	12,459 2,907 2,514 1,301	100 23 20 10	12,976 2,865 2,543 1,164	100 22 20 9	13,722 2,689 2,436 1,101	100 20 18 8
West South Central								
Total population	19,926 5,125 4,592 1,843	100 26 23 9	21,811 5,093 4,616 1,812	100 23 21 8	23,337 4,924 4,375 1,988	100 21 19 9	25,407 4,499 3,952 1,810	100 18 16 7
Mountain								
Total population	10,092 2,488 2,079 1,069	100 25 21 11	11,966 2,761 2,411 1,061	100 23 20 9	13,308 2,757 2,443 1,020	100 21 18 8	15,651 2,372 2,084 868	100 15 13 6
Pacific								
Total population	29,508 4,875 4,505 1,101	100 17 15 4	31,787 4,897 4,501 1,203	100 15 14 4	34,498 4,349 4,111 837	100 13 12 2	36,681 3,345 3,094 798	100 9 8 2

Table C-3. Wildlife-Watching Participants by Census Division: 1991, 1996, 2001, and 2006

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

A 1 11 11 11 11 11 11 11 11 11 11 11 11	199	1	199	6	200	1	2006	
Area and wildlife watcher	Number	Percent	Number	Percent	Number	Percent	Number	Percent
UNITED STATES								
Total population	189,964	100	201,472	100	212,298	100	229,245	100
Total wildlife watchers	76,111	40	62,868	31	66,105	31	71,132	31
Away from home	29,999	16	23,652	12	21,823	10	22,977	10
Around the home	73,904	39	60,751	30	62,928	30	67,756	30
New England								
Total population	10,180	100	10,306	100	10,575	100	11,233	100
Total wildlife watchers	4,598	45	3,710	36	3,875	37	4,489	40
Away from home	1,856	18	1,443	14	1,155	11	1,340	12
Around the home	4,544	45	3,586	35	3,765	36	4,310	38
Middle Atlantic								
Total population	29,216	100	29,371	100	29,806	100	31,518	100
Total wildlife watchers	10,556	36	8,185	28	8,740	29	8,723	28
Away from home	4,166	14	2,960	10	2,849	10	2,729	9
Around the home	10,282	35	8,023	27	8,452	28	8,451	27
East North Central								
Total population	32,188	100	33,121	100	34,082	100	35,609	100
Total wildlife watchers	14,511	45	11,731	35	11,631	34	12,215	34
Away from home	5,572	17	4,501	14	3,571	10	3,792	11
Around the home	14,175	44	11,297	34	11,196	33	11,845	33
West North Central								
Total population	13,504	100	13,875	100	14,430	100	15,458	100
Total wildlife watchers	6,924	51	5,089	37	6,206	43	6,741	44
Away from home	2,654	20	1,927	14	2,059	14	2,163	14
Around the home	6,722	50	4,900	35	5,938	41	6,447	42
South Atlantic								
Total population	33,682	100	36,776	100	39,286	100	43,965	100
Total wildlife watchers	13,047	39	11,252	31	11,395	29	12,862	29
Away from home	4,450	13	3,992	11	3,469	9	3,208	7
Around the home	12,813	38	10,964	30	10,911	28	12,432	28
East South Central								
Total population	11,667	100	12,459	100	12,976	100	13,722	100
Total wildlife watchers	4,864	42	3,904	31	4,514	35	4,931	36
Away from home	1,592	14	1,118	9	1,086	8	1,758	13
Around the home	4,765	41	3,795	30	4,390	34	4,683	34
West South Central								
Total population	19,926	100	21,811	100	23,337	100	25,407	100
Total wildlife watchers	7,035	35	5,933	27	5,747	25	6,764	27
Away from home	2,459	12	2,096	10	1,822	8	2,127	8
Around the home	6,817	34	5,773	26	5,490	24	6,319	25
Mountain								
Total population	10,092	100	11,966	100	13,308	100	15,651	100
Total wildlife watchers	4,437	44	4,099	34	4,619	35	4,968	32
Away from home	2,215	22	1,967	16	2,019	15	2,004	13
Around the home	4,145	41	3,855	32	4,282	32	4,605	29
Pacific								
Total population	29,508	100	31,787	100	34,498	100	36,681	100
Total wildlife watchers	10,139	34	8,966	28	9,377	27	9,439	26
Away from home	5,035	17	3,648	11	3,793	11	3,856	11
Around the home	9,641	33	8,558	27	8,504	25	8,664	24



Appendix D. Sample Design and Statistical Accuracy

This appendix is presented in two parts. The first part is the U.S. Census Bureau Source and Accuracy Statement. This statement describes the sampling design for the 2006 Survey and highlights the steps taken to produce estimates from the completed questionnaires. The statement explains the use of standard errors and confidence intervals. It also provides comprehensive information about errors characteristic of surveys and formulas and parameters to calculate an approximate standard error or confidence interval for each number published in this report. The second part reports approximate standard errors for selected measures of participation and expenditures for wildlife-related recreation. Tables D-1 to D-3 show common estimates by state with their estimated standard errors. Tables D-4 to D-9 provide parameters for computing standard errors.

Source and Accuracy Statement for the New Mexico State Report of the 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation

SOURCE OF DATA

The estimates in this report are based on data collected in the 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (FHWAR) conducted by the Census Bureau and sponsored by the U.S. Fish and Wildlife Service.

The eligible universe for the FHWAR is the civilian noninstitutionalized and nonbarrack military population living in the United States. The institutionalized population, which is excluded from the population universe, is composed primarily of the population in correctional institutions and nursing homes (91 percent of the 4.1 million institutionalized people in Census 2000).

The 2006 Survey was designed to provide state-level estimates of the number of participants in recreational hunting and fishing and in wildlife-watching activities (e.g., wildlife observation). Information was collected on the number of participants, where and how often they participated, the type of wildlife encountered, and the amounts of money spent on wildlife-related recreation.

The Survey was conducted in two stages: an initial screening of households to identify likely sportspersons and wildlife-watching participants and a series of follow-up interviews of selected persons to collect detailed data about their wildlife-related recreation during 2006.

SAMPLE DESIGN

The 2006 FHWAR sample was selected from the Census Bureau's master address file (MAF) and unused sample of the Current Population Survey (CPS). The CPS sample was used to improve coverage in rural areas of some states.

The FHWAR is a multistage probability sample, with coverage in all 50 states and the District of Columbia. In the first stage of the sampling process, primary sampling units (PSUs) are selected for sample. The PSUs are defined to correspond to the Office of Management and Budget definitions of Core Based Statistical Area definitions and to improve efficiency in field operations. The United States is divided into 2,025 PSUs. These PSUs are grouped into 824 strata. Within each stratum, a single PSU is chosen for the sample, with its probability of selection proportional to its population as of the most recent decennial census. This PSU represents the entire stratum from which it was selected. In the case of strata consisting of only one PSU, the PSU is chosen with certainty.

Within the selected PSUs, the FHWAR sample was selected from the MAF where sufficient coverage of addresses existed. In some rural areas, the sample was selected from unused cases from the CPS to improve coverage.

FHWAR Screening Sample

The total screening sample in New Mexico consisted of 1,809 households. Interviewing for the screen was conducted during April, May, and June 2006. Of all housing units in sample, about 1,511 were determined to be eligible for interview. Interviewers obtained interviews at 1,386 of these units for a state response rate of 92 percent. Local field representatives conducted interviews by telephone when possible, otherwise through a personal visit. The field representatives asked screening questions for all household members 6 years old and older. Noninterviews occur when the occupants are not found at home after repeated calls or are unavailable for some other reason.

Data for the FHWAR sportspersons sample and wildlife-watchers sample were collected in three waves. The first wave started in April 2006, the second in September 2006, and the third in January 2007. In the sportspersons sample, all persons who hunted or fished in 2006 by the time of the screening interview were interviewed in the first wave. The remaining sportspersons in sample were interviewed in the second wave. A subsampling operation was conducted before the third wave of sampling to reduce cost of the Survey, and everyone remaining in sample was interviewed in the third wave.

The reference period was the preceding 4 months for waves 1 and 2. In wave 3, the reference period was either 4, 8, or 12 months depending on when the sample person was first interviewed.

Detailed Samples

Two independent detailed samples were chosen from the FHWAR screening sample. One consisted of sportspersons (people who hunt or fish) and the other of wildlife watchers (people who observe, photograph, or feed wildlife).

A. Sportspersons

The Census Bureau selected the detailed samples based on information reported during the screening phase. Based on information collected from the household respondent, every person 16 years old and older in the FHWAR screening sample was assigned to a sportspersons stratum. The criteria for the strata included time devoted to hunting or fishing in previous years, participation in hunting or fishing in 2006 by the time of the screening interview, and intentions to participate in hunting and fishing activities during the remainder of 2006. The four sportspersons categories were:

- 1. Active—a person who had already participated in hunting or fishing in 2006 at the time of the screener interview.
- 2. *Likely*—a person who had not participated in 2006 at the time of the screener, but had participated in 2005 OR was likely to participate in 2006.
- 3. *Inactive*—a person who had not participated in 2005 or 2006 AND was somewhat unlikely to participate in 2006.
- 4. *Nonparticipant*—a person who had not participated in 2005 or 2006 AND was very unlikely to participate in 2006.

Persons were selected for the detailed phase based on these groupings.

Active sportspersons were given the detailed interview twice—at the time of the screening interview (in April, May, or June 2006) and again in January or February 2007. Likely sportspersons and a subsample of the inactive sportspersons were also interviewed twicefirst in September or October 2006,

then in January or February 2007. If Census Bureau field representatives were not able to obtain the first interview, they attempted to interview the person in the final interviewing period with the reference period being the entire year. Persons in the nonparticipant group were not eligible for a detailed interview.

About 595 persons were designated for interviews in New Mexico. The detailed sportspersons sample sizes varied by state to get reliable state-level estimates. During each interview period, about 23 percent of the designated persons were not found at home or were unavailable for some other reason. Overall, about 457 detailed sportspersons interviews were completed at a response rate of 77 percent.

B. Wildlife Watchers

The wildlife-watching detailed sample was also selected based on information reported during the screening phase. Based on information collected from the household respondent, every person 16 years old and older was assigned to a stratum. The criteria for the strata included time devoted to wildlifewatching activities in previous years, participation in wildlifewatching activities in 2006 by the time of the screening interview, and intentions to participate in wildlife-watching activities during the remainder of 2006. The five wildlife-watching categories were:

- 1. Active—a person who had already participated in 2006 at the time of the screening interview.
- 2. Avid—a person who had not yet participated in 2006, but in 2005 had taken trips to participate in wildlife-watching activities for 21 or more days or had spent \$300 or more.
- 3. Average—a person who had not yet participated in 2006, but in 2005 had taken trips to wildlife watch for less than 21 days and had spent less than \$300 OR had not participated in wildlifewatching activities but was very

- likely to in the remainder of 2006.
- 4. Infrequent—a person who had not participated in 2005 or 2006, but was somewhat likely or somewhat unlikely to participate in the remainder of 2006.
- 5. Nonparticipant—a person who had not participated in 2005 or 2006 AND was very unlikely to participate during the remainder of 2006.

Persons were selected for the detailed sample based on these groupings, but persons in the nonparticipant group were not eligible for a detailed interview. A subsample of each of the other groups was selected to receive a detailed interview with the chance of selection diminishing as the likelihood of participation diminished.

Wildlife-watching participants were given the detailed interview twice. Some received their first detailed interview at the same time as the screening interview (in April, May, or June 2006). The rest received their first detailed interview in September or October 2006. All wildlife-watching participants received their second interview in January or February 2007. If Census Bureau field representatives were not able to obtain the first interview, they attempted to interview the person in the final interviewing period with the reference period being the entire year.

About 301 persons were designated for interviews in New Mexico. The detailed wildlife-watching sample sizes varied by state to get reliable state-level estimates. During each interview period, about 19 percent of the designated persons were not found at home or were unavailable for some other reason. Overall, about 244 detailed wildlife-watcher interviews were completed at a response rate of 81 percent.

ESTIMATION PROCEDURE

Several stages of adjustments were used to derive the final 2006 FHWAR person weights. A brief description of the major components of the weights is given next.

All statistics for the population 6 to 15 years of age were derived from the screening interview. Statistics for the population 16 years old and older come from both the screening and detailed interviews. Estimates that come from the screening sample are presented in Appendix B.

A. Screening Sample

Every interviewed person in the screening sample received a screening 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. Household Noninterview
 Adjustment. The noninterview
 adjustment inflates the weight
 assigned to interviewed households to account for households eligible for interview but
 for which no interview was
 obtained.
- 3. First-Stage Adjustment. The 824 areas designated for our samples were selected from 2,025 such areas of the United States. Some sample areas represent only themselves and are referred to as selfrepresenting. The remaining areas represent other areas similar in selected characteristics and are thus designated non-self-representing. The first-stage factor reduces the component of variation arising from sampling the non-selfrepresenting areas.
- Second-Stage Adjustment. This adjustment brings the estimates of the total population into agreement with census-based estimates of the civilian noninstitutionalized and nonbarrack military populations for each state.

B. Sportspersons Sample

Every interviewed person in the sportspersons detailed sample received a weight that was the product of the following factors:

 Screening Weight. This is the person's final weight from the screening sample.

- Sportspersons Stratum Adjustment. This factor inflates the weights of persons selected for the detailed sample to account for the subsampling done within each sportsperson stratum.
- 3. Sportspersons Noninterview Adjustment. This factor adjusts the weights of the interviewed sportspersons to account for sportspersons selected for the detailed sample for whom no interview was obtained. A person was considered a noninterview if he or she was not interviewed in the third wave of interviewing.
- 4. Sportspersons Ratio Adjustment Factor. This is a ratio adjustment of the detailed sample to the screening sample within the sportspersons sampling stratum. This adjustment brings the population estimates of persons aged 16 years old and older from the detailed sample into agreement with the same estimates from the screening sample, which was a much larger sample.

C. Wildlife-Watchers Sample

Every interviewed person in the wildlife-watchers 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.
- Wildlife-Watchers Stratum
 Adjustment. This factor inflates the weights of persons selected for the detailed sample to account for the subsampling done within each wildlifewatcher stratum.
- 3. Wildlife-Watchers Noninterview Adjustment. This factor adjusts the weights of the interviewed wildlife-watching participants to account for wildlife watchers selected for the detailed sample for which no interview was obtained. A person was considered a noninterview if he or she was not interviewed in the third wave of interviewing.

4. Wildlife-Watchers Ratio Adjustment Factor. This is a ratio adjustment of the detailed sample to the screening sample within wildlife-watchers sampling strata. This adjustment brings the population estimates of persons aged 16 years old and older from the detailed sample into agreement with the same estimates from the screening sample, which was a much larger sample.

ACCURACY OF THE ESTIMATES

A sample survey estimate has two types of error: sampling and nonsampling. The accuracy of an estimate depends on both types of error. The nature of the sampling error is known given the survey design; the full extent of the nonsampling error is unknown.

NONSAMPLING ERROR

For a given estimator, the difference between the estimate that would result if the sample were to include the entire population and the true population value being estimated is known as nonsampling error. There are several sources of nonsampling error that may occur during the development or execution of the survey. It can occur because of circumstances created by the interviewer, the respondent, the survey instrument, or the way the data are collected and processed. For example, errors could occur because:

- The interviewer records the wrong answer, the respondent provides incorrect information, the respondent estimates the requested information, or an unclear survey question is misunderstood by the respondent (measurement error).
- Some individuals who should have been included in the survey frame were missed (coverage error).
- Responses are not collected from all those in the sample or the respondent is unwilling to provide information (nonresponse error).
- Values are estimated imprecisely for missing data (imputation error).
- Forms may be lost, data may be incorrectly keyed, coded, or recoded, etc. (processing error).

The Census Bureau employs quality control procedures throughout the production process, including the overall design of surveys, the wording of questions, the review of the work of interviewers and coders, and the statistical review of reports to minimize these errors.

Two types of nonsampling error that can be examined to a limited extent are nonresponse and undercoverage.

Nonresponse. The effect of nonresponse cannot be measured directly, but one indication of its potential effect is the nonresponse rate. For the FHWAR screener interview in New Mexico, the household-level nonresponse rate was 8 percent. The person-level nonresponse rate for the detailed sportsperson interview in New Mexico was an additional 23 percent and for the wildlife watchers it was 19 percent. Since the screener nonresponse rate is a household-level rate and the detailed interview nonresponse rate is a person-level rate, we cannot combine these rates to derive an overall nonresponse rate. Since it is unlikely the nonresponding households to the FHWAR have the same number of persons as the households successfully interviewed, combining these rates would result in an overestimate of the "true" person-level overall nonresponse rate for the detailed interviews.

Coverage. Overall screener undercoverage is estimated to be about 13 percent. 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 2006 FHWAR and other sources are not entirely comparable. This results from differences in interviewer training and experience and in differing survey processes. This is an example of nonsampling variability not reflected in the standard errors. Therefore, caution should be used when comparing results from different sources. (See Appendix C.)

A Nonsampling Error Warning. Since the full extent of the nonsampling error is unknown, one should be particularly

careful when interpreting results based on small differences between estimates. The Census Bureau recommends that data users incorporate information about nonsampling errors into their analyses, as nonsampling error could impact the conclusions drawn from the results. Caution should also be used when interpreting results based on a relatively small number of cases. Summary measures (such as medians and percentage distributions) probably do not reveal useful information when computed on a subpopulation smaller than 50,000 for screener data, 65,000 for the detailed sportsperson data, and 230,000 for the wildlife-watchers data.

SAMPLING ERROR

Since the FHWAR estimates come from a sample, they may differ from figures from an enumeration of the entire population using the same questionnaires, instructions, and enumerators. For a given estimator, the difference between an estimate based on a sample and the estimate that would result if the sample were to include the entire population is known as sampling error. Standard errors, as calculated by methods described in "Standard Errors and Their Use," are primarily measures of the magnitude of sampling error. However, they may include some nonsampling error.

Standard Errors and Their Use. The sample estimate and its standard error enable one to construct a confidence interval. A confidence interval is a range that has a known probability of including the average result of all possible samples. 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 90 percent of the intervals from 1.645 standard errors below the estimate to 1.645 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. The most 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. A significance level is the probability of concluding that the characteristics are different when, in fact, they are the same. For example, to conclude that two characteristics are different at the 0.1 level of significance, the absolute value of the estimated difference between characteristics must be greater than or equal to 1.645 times the standard error of the difference.

This report uses 90-percent confidence intervals and 0.1 level of significance to determine statistical validity. Consult standard statistical textbooks for alternative criteria.

Estimating Standard Errors. The Census Bureau uses replication methods to estimate the standard errors of FHWAR estimates. These methods primarily measure the magnitude of sampling error. However, they do measure some effects of nonsampling error as well. They do not measure systematic biases in the data associated with nonsampling error. Bias is the average over all possible samples of the differences between the sample estimates and the true value.

Generalized Variance Parameters. While it is possible to compute and present an estimate of the standard error based on the survey data for each estimate in a report, there are a number of reasons why this is not done. A presentation of the individual standard errors would be of limited use, since one could not possibly predict all of the combinations of results that may be of interest to data users. Additionally, data users have access to FHWAR microdata files, and it is impossible to compute in advance the standard error for every estimate one might obtain from those data sets. Moreover, variance estimates are based on sample data and have variances of their own. Therefore, some methods of stabilizing these estimates of variance, for example, by generalizing or averaging over time, may be used to improve their reliability.

Experience has shown that certain groups of estimates have similar relationships between their variances and expected values. Modeling or generalizing may provide more stable variance estimates by taking advantage of these similarities. The generalized variance function is a simple model that expresses the variance as a function of the expected value of the survey estimate. The parameters of the generalized variance function are estimated using direct replicate variances. These generalized variance parameters provide a relatively easy method to obtain approximate standard errors for numerous characteristics. Tables D-4 to D-9 provide the generalized variance parameters for FHWAR data. 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 sportspersons, anglers, and wildlife watchers.

$$s_x = \sqrt{ax^2 + bx} \tag{1}$$

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

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

$$s_x = \sqrt{ax^2 + bx + \frac{cx^2}{y}} \tag{2}$$

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

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

Suppose there were an estimated 33,916,000 persons age 16 years old and older who either fished or hunted in the United States in 2006. Using formula (1) with the parameters a = -0.000027 and b = 6,125 from table D-5, the approximate standard error of the estimated number of 33,916,000 sportspersons age 16 years old and older is

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

The 90-percent confidence interval for the estimated number of sportspersons 16 years old and older is from 33,225,000 to 34,607,000, i.e., $33,916,000 \pm 1.645 \times 420,330$. Therefore, a conclusion that the average estimate derived from all possible samples lies within a range computed in this way would be correct for roughly 90 percent of all possible samples.

Suppose there were an estimated 12,510,000 hunters aged 16 years old and older who engaged in 219,925,000 days of participation in 2006. Using formula (2) with the parameters a = -0.000235, b = -85,241, and c = 22,698 from table D-7, the approximate standard error on 219,925,000 estimated days on an estimated base of 12,510,000 hunters is

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

The 90-percent confidence interval on the estimate of 219,925,000 days is from 207,436,000 to 232,414,000, i.e., $219,925,000 \pm 1.645 \times 7,592,000$. Again, a conclusion that the average estimate derived from all possible samples lies within a range computed in this way would be correct for roughly 90 percent of all possible samples.

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

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

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

Here, x is the total number of sportspersons, hunters, etc., which is the base of the percentage; p is the percentage $(0 \le p \le 100)$; 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

Suppose there were an estimated 12,510,000 hunters aged 16 years old and older of whom 18.3 percent hunted migratory birds. From table D-5, the appropriate b parameter is 5,756. Using formula (3), the approximate standard error on the estimate of 18.3 percent is

$$s_{x,p} = \sqrt{\frac{5,756 \times 18.3 \times (100 - 18.3)}{12,510,000}} = 0.83$$

Consequently, the 90-percent confidence interval for the estimate percentage of migratory bird hunters 16 years old and older is from 16.9 percent to 19.7 percent, i.e., $18.3 \pm 1.645 \times 0.83$.

Standard Error of a Difference. The standard error of the difference between two sample estimates is approximately equal to

$$s_{x-y} = \sqrt{s_x^2 + s_y^2} \tag{4}$$

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

Suppose there were an estimated 11,655,000 females in the age range of 18 to 24 of whom 726,000 or 6.2 percent were sportspersons. Similarly, suppose there were an estimated 11,638,000 males in the same age range of whom 1,929,000 or 16.6 percent were sportspersons. The apparent difference between the percentage of female and male sportspersons is 10.4 percent. Using formula (3) and the appropriate b parameter from table D-5, the approximate standard errors of 6.2 percent and 16.6 percent are 0.55 and 0.85, respectively. Using formula (4), the approximate standard error of the estimated difference of 10.4 percent is

$$s_{x-y} = \sqrt{0.55^2 + 0.85^2} = 1.02$$

The 90-percent confidence interval on the difference between 18-to-24-year-old female and male sportspersons is from 8.7 to 12.1, i.e., $10.4 \pm 1.645 \times 1.02$. Since the interval does not contain zero, we can conclude with 90-percent confidence that the percentage of 18-to-24-year-old female sportspersons is less than the percentage of 18-to-24-year-old male sportspersons.

Standard Errors of Estimated Averages. Certain mean values for sportspersons, 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.

$$S_{x/y} = \frac{x}{y} \sqrt{\left[\frac{S_x}{x}\right]^2 + \left[\frac{S_y}{y}\right]^2 - 2r\frac{S_x S_y}{xy}}$$
 (5)

In formula (5), r represents the correlation coefficient between the numerator and the denominator of the estimate. In the above formula, use 0.7 as an estimate of r.

Illustration of the Computation of the Standard Error of an Estimated Average

Suppose that the estimated number of the average days per angler aged 16 years old and older for all fishing was 17.3 days. Using formulas (1) and (2) above, we compute the standard error on total days, 516,781,000, and total anglers, 29,952,000, to be 15,828,079 and 399,342, respectively. The approximate standard error on the estimated average of 17.3 days is

$$s_{x/y} = \frac{516,781,000}{29,952,000} \sqrt{\left[\frac{158,280,079}{516,781,000}\right]^2 + \left[\frac{399,342}{29,952,000}\right]^2 - 2 \times 0.7 \frac{15,828,079 \times 399,342}{516,781,000 \times 29,952,000}} = 0.40$$

Therefore, the 90-percent confidence interval on the estimated average of 17.3 days is from 16.6 to 18.0, i.e., $17.3 \pm 1.645 \times 0.40$.

Table D-1. Approximate Standard Errors of Resident Anglers, Days of Fishing by State Residents, and Expenditures for Fishing by State Residents

(Numbers in thousands)

Chata	Partici	pation	Da	ıys	Expenditures in dollars	
State	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error
Alabama	628	41	13,164	2,463	791,187	136,335
	138	10	1,965	329	221,328	43,350
	370	32	4,378	1,163	293,510	62,037
	463	38	10,078	1,788	364,528	71,945
	1,689	102	19,649	2,646	2,707,995	428,592
Colorado	554	40	6,737	1,081	1,093,571	147,080
	291	20	6,239	1,239	442,724	95,897
	76	6	1,521	397	138,601	28,408
	1,950	100	43,026	5,370	3,618,499	514,463
	1,060	77	18,449	3,935	1,050,608	183,960
Hawaii Idaho Illinois Indiana Iowa	94	8	1,345	300	82,728	22,551
	223	22	4,126	1,222	234,363	52,127
	1,034	62	21,351	2,579	1,315,192	197,171
	739	50	10,583	1,315	696,389	128,034
	449	34	7,017	1,319	398,654	78,100
Kansas Kentucky Louisiana Maine Maryland	369	27	5,643	916	299,896	63,027
	622	45	9,874	1,600	963,254	239,107
	598	47	11,075	1,337	807,063	153,792
	225	17	3,854	800	147,473	26,410
	475	32	6,571	1,028	661,078	99,475
Massachusetts Michigan Minnesota Mississippi Missouri	452	29	9,309	1,784	954,647	229,603
	1,098	89	23,239	4,004	1,662,875	364,329
	1,143	75	23,025	4,850	2,467,491	483,774
	479	34	7,515	1,198	280,529	55,307
	931	59	16,227	2,889	1,032,407	160,090
Montana Nebraska Nevada New Hampshire New Jersey	179	16	2,455	424	140,895	27,916
	192	15	3,208	532	217,437	36,020
	156	16	1,958	447	304,133	73,096
	124	10	2,488	442	141,041	27,264
	530	33	9,237	1,601	1,167,944	196,789
New Mexico. New York North Carolina North Dakota Ohio	190	18	2,451	838	254,023	76,563
	1,029	81	16,157	3,315	844,153	194,665
	964	63	16,106	2,626	1,039,286	198,626
	106	8	1,150	205	96,908	19,580
	1,293	91	17,583	3,199	1,118,439	226,342
Oklahoma	547	39	10,363	1,487	486,013	88,047
	483	39	8,104	2,308	507,625	101,717
	990	87	20,592	4,258	1,625,022	272,116
	83	6	1,480	207	125,121	25,668
	548	39	11,174	1,814	1,101,128	340,271
South Dakota Tennessee Texas. Utah Vermont	95	9	1,456	254	137,159	28,262
	708	54	13,966	2,025	576,667	110,670
	2,344	172	40,101	5,924	3,883,589	796,872
	313	26	3,841	851	408,986	84,433
	71	7	1,506	279	59,132	12,200
Virginia. Washington. West Virginia Wisconsin Wyoming	731	58	9,932	1,331	669,565	140,722
	690	43	9,111	1,394	967,520	180,668
	306	25	6,967	1,000	335,880	104,458
	1,025	66	17,771	2,431	1,193,390	201,965
	98	10	1,360	282	450,339	133,641

Table D-2. Approximate Standard Errors of Resident Hunters, Days of Hunting by State Residents, and Expenditures for Hunting by State Residents

(Numbers in thousands)

Chata	Partici	pation	Da	ıys	Expenditures in dollars	
State	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error
Alaska	312	30	8,032	1,831	596,485	114,760
	55	7	859	205	111,535	25,306
	129	15	1,535	405	360,537	108,628
	307	31	7,630	1,629	765,599	146,698
	317	43	4,192	1,041	960,932	230,698
Colorado	132	18	1,421	303	219,545	57,088
	40	7	693	181	96,638	38,704
	21	3	512	148	33,836	7,761
	325	40	5,723	1,200	870,391	205,731
	356	42	7,180	1,643	502,017	135,282
Hawaii Idaho Illinois Indiana Iowa	19	4	421	214	24,992	9,869
	123	15	1,187	256	142,708	33,385
	272	32	4,609	938	416,950	80,383
	254	30	4,617	930	243,058	60,232
	210	26	3,734	869	260,147	60,083
Kansas Kentucky Louisiana Maine Maryland	192	23	2,717	723	231,228	58,822
	261	29	5,108	637	507,473	116,274
	275	33	7,155	1,443	618,264	142,285
	146	14	2,042	319	211,434	40,017
	151	17	2,213	399	230,214	44,830
Massachusetts. Michigan. Minnesota Mississippi Missouri	66	11	1,629	562	238,670	98,246
	721	79	11,756	2,256	846,455	202,158
	536	53	6,947	1,571	752,098	171,270
	244	24	6,227	820	446,639	89,602
	560	49	9,685	1,876	1,027,698	167,223
Montana Nebraska Nevada New Hampshire New Jersey	145	14	1,817	315	219,465	46,679
	105	13	1,647	349	176,456	33,615
	60	10	687	249	149,750	51,854
	52	6	1,037	206	77,932	19,911
	84	12	1,621	342	160,737	44,444
New Mexico . New York . North Carolina . North Dakota . Ohio .	72	11	734	240	109,297	35,712
	502	52	9,734	1,927	835,147	258,055
	304	34	5,428	1,059	688,691	160,961
	86	8	1,125	207	92,576	18,993
	477	53	10,728	2,771	863,874	214,994
Oklahoma	232	28	5,556	1,209	463,726	95,364
	219	24	2,768	718	336,278	69,062
	933	92	17,401	2,585	1,581,058	276,321
	13	2	184	45	13,766	4,278
	166	23	4,025	1,294	253,796	115,579
South Dakota Tennessee Texas. Utah Vermont	90	8	1,208	233	87,120	15,955
	284	34	6,318	1,224	481,767	114,181
	996	108	13,896	1,937	2,048,671	462,353
	154	18	1,884	530	332,629	76,446
	57	6	1,068	157	69,059	15,885
Virginia. Washington. West Virginia Wisconsin Wyoming	360	47	6,649	1,156	493,125	110,305
	187	25	2,385	563	389,792	117,244
	200	21	3,602	578	325,688	116,172
	652	53	9,998	1,316	1,329,161	272,105
	52	6	604	149	89,832	29,427

Table D-3. Approximate Standard Errors of Resident Away-From-Home Participants, Days of Away-From-Home Participants by State Residents, and Trip-Related Expenditures for Away-From-Home Activities by State Residents

(Numbers in thousands)

State	Partici	pation	Da	ıys	Expenditures in dollars	
State	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error
Alabama Alaska Arizona Arkansas California	348	50	7,301	3,047	198,132	61,485
	68	13	1,492	520	65,576	27,602
	381	42	4,554	886	301,997	75,465
	304	46	4,253	1,372	70,098	25,680
	2,565	200	46,538	8,681	2,226,634	504,935
Colorado	531	67	7,548	1,984	303,943	83,737
	290	33	4,987	1,043	240,708	61,745
	49	8	811	276	12,490	3,833
	988	119	13,180	3,390	455,521	105,349
	371	71	4,934	1,761	289,920	122,816
Hawaii Idaho. Illinois. Indiana Iowa	55	10	485	124	30,005	10,851
	183	32	2,876	805	87,351	28,403
	756	92	7,366	1,477	431,477	115,300
	611	72	7,894	1,650	234,756	61,310
	344	51	4,233	867	104,542	33,072
Kansas Kentucky Louisiana Maine Maryland	234	31	3,427	1,156	91,838	28,745
	540	68	3,978	835	163,835	45,402
	234	42	3,536	1,038	118,317	49,801
	213	30	3,938	1,066	105,340	28,268
	305	43	4,841	1,310	103,265	25,729
Massachusetts. Michigan. Minnesota Mississippi Missouri	531	50	8,959	1,720	249,979	56,447
	827	127	10,455	3,288	522,877	153,343
	579	92	9,010	2,413	458,934	162,740
	145	35	1,391	421	77,767	27,913
	709	86	14,619	3,543	365,259	103,690
Montana Nebraska Nevada New Hampshire New Jersey	184	23	1,777	498	57,461	20,990
	151	18	1,201	176	55,793	15,941
	168	26	1,912	479	108,053	42,601
	127	16	2,246	561	61,263	14,140
	513	54	8,408	2,189	195,252	44,467
New Mexico. New York North Carolina North Dakota Ohio	220	24	3,803	844	81,860	20,074
	1,178	147	13,927	2,835	887,039	240,941
	402	59	3,544	1,035	324,968	105,504
	30	8	278	120	8,290	3,921
	1,174	125	9,232	1,427	365,635	95,003
Oklahoma Oregon Pennsylvania. Rhode Island South Carolina	414	60	7,930	3,634	291,664	81,739
	481	66	7,455	3,205	177,364	51,932
	1,038	127	13,013	2,727	587,806	168,911
	96	10	1,207	293	44,400	11,412
	332	46	2,222	471	167,464	44,431
South Dakota Tennessee Texas. Utah Vermont	116	17	709	143	46,769	14,583
	725	82	14,819	4,776	242,507	73,041
	1,176	206	31,689	12,769	922,669	360,407
	255	36	3,063	817	116,401	32,391
	82	11	1,803	504	25,689	6,661
Virginia. Washington. West Virginia Wisconsin. Wyoming	603	81	6,888	1,850	154,992	39,913
	686	56	8,918	1,333	314,680	69,667
	129	31	3,205	1,345	83,475	37,348
	424	73	4,367	1,129	188,626	54,452
	82	13	894	223	54,472	19,022

Table D-4. Parameters a and b for Calculating Approximate Standard Errors of Sportspersons, 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 o	lder	6- to 15-year-olds only		
State	a	b	a	b	
United States	-0.000015	4,173	-0.000365	14,798	
Alabama	-0.000523	2,173	-0.014402	8,642	
Alaska	-0.001157	697	-0.024644	2,566	
Arizona	-0.000399	2,178	-0.008468	7,441	
Arkansas	-0.001116	2,820	-0.026111	9,698	
California	-0.000126	4,134	-0.003139	16,914	
Colorado	-0.000573	2,435	-0.019382	12,522	
Connecticut	-0.000313	1,005	-0.008787	4,151	
Delaware	-0.000510	396	-0.014882	1,597	
Florida	-0.000266	4,389	-0.006122	13,852	
Georgia	-0.000568	4,653	-0.012587	16,121	
Hawaii	-0.000437	517	-0.009528	1,602	
Idaho	-0.001346	1,759	-0.042091	8,654	
Illinois	-0.000296	3,416	-0.007029	12,542	
Indiana	-0.000488	2,782	-0.012165	10,911	
Iowa	-0.000762	2,062	-0.020347	7,491	
Kansas	-0.000537	1,329	-0.016690	6,138	
Kentucky	-0.000772	2,935	-0.018308	9,902	
Louisiana	-0.000775	3,143	-0.017795	11,036	
Maine	-0.000773	1,135	-0.030300	4,683	
Maryland	-0.000324	1,821	-0.008162	6,298	
Massachusetts	-0.000261	1,521	-0.007130	5,692	
Michigan.	-0.000201	6,318	-0.018937	26,784	
Minnesota	-0.001009	4,733	-0.029835	20,037	
Missouri	-0.000757 -0.000670	1,982 3,534	-0.016992 -0.018329	6,865 13,847	
Montana	-0.001418	1,227	-0.033110	3,719	
Nebraska	-0.000567	902	-0.014086	3,277	
Nevada	-0.000515	1,159	-0.011577	4,097	
New Hampshire	-0.000535	650	-0.015945	2,744	
New Jersey	-0.000209	1,655	-0.005070	6,099	
New Mexico	-0.000620	1,097	-0.016872	4,557	
New York	-0.000320	5,582	-0.009275	22,967	
North Carolina	-0.000416	3,286	-0.011916	14,068	
North Dakota	-0.001096	637	-0.036240	2,677	
Ohio	-0.000484	5,045	-0.011219	17,172	
Oklahoma	-0.000744	2,389	-0.020948	9,767	
Oregon	-0.000752	2,533	-0.024824	11,839	
Pennsylvania	-0.000544	6,176	-0.014615	22,903	
Rhode Island	-0.000315	308	-0.008710	1,182	
South Carolina	-0.000560	2,174	-0.016004	9,034	
South Dakota	-0.001061	745	-0.025331	2,568	
Tennessee	-0.000565	3,084	-0.015267	11,667	
Texas.	-0.000466	9,557	-0.011141	38,300	
Utah	-0.000700 -0.001053	1,541 611	-0.018090 -0.032724	7,116 2,420	
Virginia	-0.000450	3,102	-0.014313	14,311	
Washington	-0.000349	2,031	-0.010251	8,539	
West Virginia	-0.001092	1,823	-0.042234	8,929	
Wisconsin	-0.000820	4,156	-0.021060	15,086	
Wyoming	-0.001268	592	-0.028116	1,742	

Table D-5. Parameters a and b for Calculating Approximate Standard Errors of Levels for the Detailed Sportspersons Sample

State	Sportspersons and angle	rs 16 years old and older	Hunters 16 year	Hunters 16 years old and older			
State	a	b	a	b			
United States	-0.000027	6,125	-0.000025	5,756			
Alabama	-0.000936	3,324	-0.000921	3,268			
Alaska	-0.002197	1,096	-0.002013	1,004			
Arizona	-0.000641	2,941	-0.000403	1,849			
Arkansas	-0.001833	3,951	-0.001705	3,674			
California	-0.000239	6,523	-0.000213	5,801			
Colorado	-0.000960	3,459	-0.000735	2,650			
Connecticut	-0.000545	1,490	-0.000514	1,407			
Delaware	-0.000758	507	-0.000720	482			
Florida	-0.000415	5,911	-0.000347	4,943			
Georgia	-0.000965	6,668	-0.000752	5,199			
Hawaii	-0.000763	774	-0.000751	761			
Idaho	-0.002486	2,738	-0.001888	2,080			
Illinois	-0.000430	4,201	-0.000388	3,789			
Indiana	-0.000821	3,939	-0.000777	3,729			
Iowa	-0.001383	3,234	-0.001535	3,589			
Kansas	-0.001097	2,315	-0.001433	3,024			
Kentucky	-0.001222	3,983	-0.001048	3,415			
Louisiana	-0.001300	4,464	-0.001271	4,365			
Maine	-0.001560	1,675	-0.001469	1,578			
Maryland	-0.000552	2,392	-0.000456	1,975			
Massachusetts	-0.000412	2,072	-0.000383	1,929			
Michigan	-0.001085	8,470	-0.001214	9,474			
Minnesota	-0.001694	6,812	-0.001504	6,049			
Mississippi	-0.001355	3,000	-0.001169	2,588			
Missouri	-0.001031	4,662	-0.001067	4,825			
Montana	-0.002523	1,899	-0.002383	1,793			
Nebraska	-0.001066	1,449	-0.001236	1,680			
Nevada	-0.000898	1,703	-0.000823	1,561			
New Hampshire	-0.000801	836	-0.000774	808			
New Jersey	-0.000327	2,200	-0.000251	1,690			
New Mexico	-0.001323	1,984	-0.001264	1,895			
New York	-0.000456	6,842	-0.000378	5,671			
North Carolina	-0.000713	4,794	-0.000588	3,951			
North Dakota	-0.001558	791	-0.001754	890			
Ohio	-0.000851	7,569	-0.000697	6,194			
Oklahoma	-0.001278	3,504	-0.001303	3,574			
Oregon	-0.001291	3,730	-0.001024	2,957			
Pennsylvania	-0.000867	8,490	-0.001030	10,089			
Rhode Island	-0.000487	410	-0.000425	358			
South Carolina	-0.000983	3,259	-0.000981	3,251			
South Dakota	-0.001728	1,038	-0.001532	920			
Tennessee	-0.001019	4,790	-0.000929	4,367			
Texas	-0.000859	14,660	-0.000725	12,388			
Utah	-0.001453	2,627	-0.001268	2,292			
Vermont	-0.001514	766	-0.001403	710			
Virginia	-0.000885	5,215	-0.001105	6,510			
Washington	-0.000626	3,116	-0.000676	3,368			
West Virginia	-0.001844	2,688	-0.001712	2,496			
Wisconsin	-0.001281	5,572	-0.001144	4,978			
Wyoming	-0.003226	1,306	-0.002251	911			

Table D-6. Parameters a, b, and c for Calculating Approximate Standard Errors for Expenditures for the **Detailed Sportspersons Sample**

State	Sportspersons and	l anglers 16 yea	rs old and older	Hunters 16 years old and older			
State	a	b	c	a	b	c	
United States	0.000118	-150,479	22,234	0.000918	-401,912	17,005	
Alabama	0.019700	-12,417	5,855	0.016799	-96,800	6,317	
Alaska	0.030420	-2,004	1,057	0.031018	-14,867	1,091	
Arizona	0.036222	-2,002	2,994	0.069395	-74,101	2,742	
Arkansas	0.024408	-27,794	6,433	0.010107	-101,205	7,942	
California	0.018462	-35,800	10,686	0.027550	-58,262	9,255	
Colorado	0.008867	676	5,062	0.034102	-27,935	4,373	
Connecticut	0.036498	-11,421	2,841	0.096937	-60,991	2,564	
Delaware	0.031385	-1,643	734	0.018489	-3,855	719	
Florida	0.014951	-23,048	9,553	0.021932	-407,268	10,425	
Georgia	0.022339	-47,820	8,031	0.051440	-143,590	7,061	
Hawaii	0.065152	-5,771	830	0.123487	-5,097	588	
Idaho	0.034640	9,981	3,224	0.023728	-69,369	3,841	
Illinois	0.017187	6,704	5,219	0.024778	74,958	3,321	
Indiana	0.027022	-16,160	4,558	0.042674	-61,618	4,557	
Iowa	0.033205	22,341	2,171	0.045665	-41,343	1,583	
Kansas	0.034206	-23,245	3,454	0.042600	-116,049	4,343	
Kentucky	0.051496	-17,125	5,942	0.025277	-89,098	6,822	
Louisiana	0.023308	-66,118	7,237	0.027891	135,631	6,412	
Maine	0.022050	-7,457	2,175	0.021630	-12,360	2,038	
Maryland	0.015599	-14,663	3,208	0.018873	-30,982	2,820	
Massachusetts	0.049013	-25,362	3,792	0.138120	-47,649	2,049	
Michigan	0.035078	-148,672	13,535	0.039658	-147,585	12,587	
Minnesota	0.028185	-92,976	11,279	0.027553	-263,285	12,919	
Mississippi	0.026713	-53,218	5,433	0.014058	-97,282	6,390	
Missouri	0.011821	-40,950	10,804	-0.005607	-190,726	17,070	
Montana	0.024760	-9,845	2,520	0.020119	-99,543	3,580	
Nebraska	0.018618	1,031	1,640	0.022265	-22,187	1,472	
Nevada	0.048609	-9,688	1,387	0.102222	-32,513	1,074	
New Hampshire	0.025253	-6,176	1,434	0.037780	-26,900	1,448	
New Jersey	0.019672	-39,093	4,262	0.029909	-90,209	3,910	
New Mexico	0.084483	2,232	1,181	0.096226	20,132	683	
New York	0.039569	-84,193	13,133	0.069695	-128,553	12,761	
North Carolina	0.029775 0.033611	-35,783 596	6,154	0.035333	-15,128	5,717	
North Dakota	0.033611	-586 -41,813	751 11,082	0.032562 0.040646	6,176 -140,259	804 8,710	
	0.023920	-27,206	4,719	0.020041			
Oklahoma	0.023920	-27,206 -11,360	5,033	0.020041	-31,920 -76,401	5,066 4,937	
Oregon		-92,207	15,295		-76,401 -17,951	14,434	
Pennsylvania	0.011981			0.014951			
Rhode Island	0.033545 0.082716	-2,922 -96,641	634 6,922	0.053976 0.191600	-12,463 -23,834	565 2,573	
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South Dakota	0.030933 0.027200	682 67,423	1,071 6,450	0.018421 0.029272	-25,518 -98,688	1,356 7,535	
Texas.	0.027200	-69,604	20,795	0.023272	-146.956	22,831	
Utah	0.032817	-13,369	2,671	0.024396	-195,230	4,439	
Vermont	0.022379	-4,177	1,337	0.026395	-21,534	1,476	
Virginia	0.035897	-28,532	5,705	0.032298	-68,680	6,293	
Washington	0.026464	-45,106	5,612	0.081551	81,860	1,611	
West Virginia	0.086611	-39,384	2,945	0.103915	-184,675	4,610	
Wisconsin	0.017762	-81,329	10,849	0.029543	-54,069	8,015	
Wyoming	0.075474	-5,404	1,197	0.090886	12,235	847	

Table D-7. Parameters a, b, and c for Calculating Approximate Standard Errors for Days or Trips for the Detailed Sportspersons Sample

State	Sportspersons and	l anglers 16 yea	rs old and older	Hunters 16 years old and older			
State	a	b	c	a	b	c	
United States	0.000211	-23,610	23,157	-0.000235	-85,241	22,698	
Alabama	0.027360	-4,011	4,995	0.035544	-6,621	5,383	
Alaska	0.016117	-432	1,681	0.027498	8	1,622	
Arizona	0.065842	-511	1,775	0.053516	-8,367	2,773	
Arkansas	0.013952	-12,325	8,675	0.024038	-5,931	6,861	
California	0.010707	-16,022	13,917	0.028439	-23,877	12,350	
Colorado	0.019267	4,638	3,198	0.017940	128	3,608	
Connecticut	0.034363	-781	1,504	0.024306	-1,047	1,829	
Delaware	0.061308	-234	527	0.058226	-184	529	
Florida	0.010264	-17,862	11,170	0.022310	21,695	5,794	
Georgia	0.040208	-10,805	6,234	0.044845	16,702	1,853	
Hawaii	0.034563	-1,603	1,552	0.212584	-1,169	945	
Idaho	0.069064	-15,482	4,996	0.024568	-5,756	3,301	
Illinois	0.005932	-8,487	9,365	0.001562	-38,372	13,100	
Indiana	0.006553	-5,775	6,973	0.018011	-6,028	6,053	
Iowa	0.026962	-7,704	4,252	0.037766	-10,398	4,032	
Kansas	0.015744	-2,510	4,078	0.046706	-21,946	6,195	
Kentucky	0.015099	-6,026	7,313	-0.014871	-7,130	8,307	
Louisiana	0.004012	-4,767	6,568	0.022152	-3,240	5,213	
Maine	0.030520	-7,661	3,270	0.003096	-10,278	3,842	
Maryland	0.017639	-6,240	3,697	0.011515	-6,512	3,608	
Massachusetts	0.027491	-3,619	4,355	0.044116	-8,700	5,301	
Michigan	0.011920	-23,905	20,643	0.025076	23,642	7,030	
Minnesota	0.035500	-7,447	10,504	0.027723	-23,061	14,333	
Mississippi	0.015625	-10,362	5,357	-0.000218	-2,695	4,394	
Missouri	0.019454	-11,342	12,042	0.010034	-70,146	19,451	
Montana	0.018290	-1,849	2,202	0.013948	-3,887	2,640	
Nebraska	0.009103	-2,063	3,655	-0.005553	-28,329	7,091	
Nevada	0.043203	-1,733	1,536	0.123560	535	425	
New Hampshire	0.019444	-2,643	1,627	0.013722	400	1,313	
New Jersey	0.026108	1,903	1,969	0.013215	-1,967	2,735	
New Mexico	0.112638	-431	817	0.096905	807	610	
New York	0.029022	-22,367	14,881	0.008095	-27,096	17,017	
North Carolina	0.021276	-6,354	5,499	0.012831	-28,563	9,265	
North Dakota	0.019007	-3,002	1,621	0.008541	-5,760	2,617	
Ohio	0.022273	-21,768	15,604	0.044683	-9,949	10,955	
Oklahoma	0.006405	-10,237	8,296	0.013165	-12,426	8,445	
Oregon	0.073495	-1,650	3,786	0.042692	-10,309	6,182	
Pennsylvania	0.027085	-24,417	16,685	-0.014656	-134,270	41,466	
Rhode Island	0.011732 0.014487	-506 -6,537	680 6,823	0.021282 0.086503	-344 1,677	525 2,737	
South Dakota	0.012863	-1,152	1,751	0.019075	-2,901	1,859	
Tennessee	0.005611	-9,561	11,404	-0.011681	-60,797	16,711	
Texas	0.014288 0.041500	-13,795 -1,853	18,462 2,544	-0.003611 0.071790	-31,876 3,964	25,228 792	
Vermont	0.041300	-1,635 -1,485	1,360	-0.006963	-2,952	1,792	
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Virginia	0.008112	-5,920	7,627	0.011922	165	6,590	
Washington	0.017168	-6,558 -2,872	4,800	0.045009	3,663	1,723	
West Virginia	0.006512 0.009197	-2,872 -14,330	4,433 10,587	0.001964 -0.002285	-2,897 -35,565	4,911 15,098	
Wyoming	0.009197	-14,330 -1,835	1,823	0.034258	-3,738	1,705	
wyoning	0.023700	-1,033	1,023	0.034238	-5,756	1,703	

Table D-8. Parameters a and b for Calculating Approximate Standard Errors of Levels of Wildlife-Watching Participants for the Detailed Wildlife-Watching Sample

State -	Away-from-ho	me participants	Wildlife-watching participants ¹		
State	a	b	a	b	
United States	-0.000064	14,628	-0.000058	13,319	
Alabama	-0.002522	8,955	-0.002252	7,994	
Alaska	-0.005091	2,539	-0.005744	2,864	
Arizona	-0.001212	5,555	-0.001128	5,170	
Arkansas	-0.003685	7,943	-0.003787	8,163	
California	-0.000633	17,272	-0.000632	17,247	
Colorado	-0.002818	10,157	-0.002773	9,995	
Connecticut.	-0.001942	5,313	-0.001578	4,317	
Delaware	-0.002431	1,625	-0.002061	1,378	
Florida	-0.001067	15,191	-0.001082	15,396	
Georgia	-0.002273	15,705	-0.002082	14,383	
Hawaii	-0.002169	2,200	-0.002077	2,106	
Idaho	-0.005872	6,469	-0.006027	6,640	
Illinois	-0.001350	13,189	-0.001237	12,083	
Indiana	-0.002090	10,031	-0.002026	9,722	
Iowa	-0.003442	8,051	-0.003725	8,712	
Kansas	-0.002087	4,403	-0.002245	4,737	
Kentucky	-0.003921	12,780	-0.003130	10,201	
Louisiana	-0.002878	9,878	-0.002325	7,980	
Maine	-0.005383	5,779	-0.005003	5,372	
Maryland	-0.001401	6,072	-0.001512	6,552	
Massachusetts	-0.001153	5,803	-0.001045	5,260	
Michigan.	-0.003188	24,879	-0.002805	21,892	
Minnesota	-0.004869	19,579	-0.004257	17,116	
Mississippi	-0.004033	8,929	-0.004149	9,184	
Missouri	-0.003241	14,653	-0.002731	12,349	
Montana	-0.006536	4,919	-0.005006	3,768	
Nebraska	-0.001913	2,600	-0.001770	2,406	
Nevada	-0.003763	7,131	-0.002387	4,524	
New Hampshire	-0.002265	2,364	-0.002070	2,160	
New Jersey	-0.000942	6,346	-0.000899	6,057	
New Mexico	-0.002139	3,207	-0.002023	3,034	
New York	-0.001498	22,454	-0.001320	19,791	
North Carolina	-0.001307	8,785	-0.001368	9,194	
North Dakota	-0.004745	2,408	-0.004900	2,486	
Ohio	-0.001834	16,302	-0.001729	15,365	
Oklahoma	-0.004720	12,946	-0.003724	10,214	
Oregon	-0.004482	12,948	-0.003771	10,895	
Pennsylvania	-0.001862	18,235	-0.001779	17,426	
Rhode Island	-0.001588	1,338	-0.001451	1,222	
South Carolina	-0.002527	8,378	-0.002147	7,118	
South Dakota	-0.005879	3,532	-0.005273	3,168	
Tennessee	-0.002040	9,583	-0.002340	10,996	
Texas.	-0.002981	50,906	-0.002276	38,865	
Utah	-0.002948	5,329	-0.003322	6,007	
Vermont	-0.003834	1,940	-0.003687	1,866	
Virginia	-0.002142	12,625	-0.002049	12,078	
Washington.	-0.002142	5,037	-0.002049	5,361	
West Virginia	-0.005125	7,470	-0.005457	7,954	
Wisconsin	-0.002461	10,707	-0.003232	14,058	
Wyoming	-0.006998	2,833	-0.006562	2,657	
,	0.000770	2,555	0.000302	2,007	

¹ Use these parameters for total wildlife-watching participants and around-the-home participants.

Table D-9. Parameters a, b, and c for Calculating Approximate Standard Errors for Expenditures and Days or Trips for Wildlife-Watching Participants

Ct. 4		Expenditures		Days or trips			
State	a	b	С	a	b	С	
United States	0.000184	-1,140,662	67,137	0.000574	1,457,630	-8,497	
Alabama Alaska Arizona Arkansas California	0.045588	-11,994	16,603	0.188740	-119,343	614	
	0.120206	-27,366	3,041	-0.124071	-135,739	22,893	
	0.030207	-53,304	10,729	-0.012992	48,146	15,350	
	0.099812	14,720	8,751	-0.017705	122,002	28,315	
	0.033850	-512,106	41,075	-0.045068	409,984	182,262	
Colorado	0.027999	-274,128	22,499	-0.048837	-38,813	65,367	
	0.021634	-65,691	10,399	-0.024457	-95,765	25,345	
	0.065106	-1,447	1,138	-0.008505	9,777	5,498	
	0.023886	346,119	21,198	0.008852	367,813	29,038	
	0.074762	-1,010,585	34,617	-0.043108	-269,579	83,544	
Hawaii Idaho. Illinois. Indiana Iowa	0.083826	-21,578	2,574	-0.072050	-22,450	10,110	
	0.062974	-42,113	7,740	-0.034736	-28,632	22,517	
	0.036256	-247,805	22,614	-0.015710	-127,759	55,397	
	0.036663	-31,127	16,250	-0.011371	-60,979	38,357	
	0.079272	54,459	5,841	-0.010582	-64,612	23,312	
Kansas Kentucky Louisiana Maine Maryland	0.065343	2,002	6,423	-0.009647	290,376	9,046	
	0.054215	7,733	10,118	-0.027046	-203,563	66,052	
	0.122208	-20,968	9,262	-0.027645	11,297	25,905	
	0.023874	-51,089	9,384	-0.124695	-361,658	61,734	
	0.014472	-4,594	10,674	0.003905	125,364	13,230	
Massachusetts Michigan Minnesota Mississippi Missouri	0.028723	-178,823	9,836	-0.028071	-151,233	43,446	
	0.034044	-350,268	38,895	-0.189982	-1,478,372	355,858	
	0.074185	-156,337	26,053	-0.037135	-287,075	81,476	
	0.069734	-5,671	8,343	0.007734	-4,828	12,669	
	0.050350	-370,879	19,939	-0.072363	-297,324	107,372	
Montana Nebraska Nevada New Hampshire New Jersey	0.096467	-101,441	7,127	0.021739	75,970	2,590	
	0.057553	-29,126	3,150	-0.037603	-53,492	15,634	
	0.114708	-32,736	5,704	0.007035	8,360	8,647	
	0.014724	-17,918	4,039	-0.004938	74,043	4,376	
	0.022949	-169,333	13,969	-0.040442	238,149	40,992	
New Mexico. New York North Carolina North Dakota Ohio	0.036652	16,768	4,306	-0.023441	72,449	11,803	
	0.042036	-450,788	32,575	-0.019285	-366,511	102,534	
	0.061423	-16,794	13,694	-0.012815	19,657	37,216	
	0.155007	-2,199	1,794	0.150664	6,024	376	
	0.035458	-205,570	28,049	-0.018753	-103,758	63,267	
Oklahoma Oregon Pennsylvania Rhode Island South Carolina	0.036357	-21,977	15,171	-0.000564	1,344,926	16,961	
	0.062814	-65,011	9,965	-0.004734	831,881	37,513	
	0.054585	-176,791	24,331	-0.024636	-296,844	94,825	
	0.037242	-31	2,537	-0.019391	234	7,490	
	0.017341	-52,304	14,141	-0.021836	-45,588	28,960	
South Dakota Tennessee Texas. Utah Vermont	0.058011	-16,346	3,878	-0.063876	-12,873	14,245	
	0.058962	-19,581	19,197	-0.067979	539,487	98,190	
	0.107126	268,978	41,639	-0.115263	-2,660,430	425,213	
	0.056246	-5,750	4,842	-0.002938	-77,345	25,347	
	0.005556	-22,018	4,065	-0.014449	33,588	6,073	
Virginia Washington West Virginia Wisconsin Wyoming	0.043764	-51,970	12,817	-0.046070	-227,508	91,189	
	0.030615	-16,210	11,199	-0.000250	36,174	12,719	
	0.118586	-4,653	8,819	-0.073404	38,459	30,640	
	0.009997	-400,732	26,411	-0.015178	-125,383	46,927	
	0.083907	-31,350	3,012	-0.062286	-29,913	12,976	

Notes

