

U.S. Fish & Wildlife Service

Deer Hunting in the United States: Demographics and Trends

*Addendum to the 2006 National
Survey of Fishing, Hunting, and
Wildlife-Associated Recreation*

Report 2006-10



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This report is intended to complement the National and State Reports for the 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. The conclusions in this report are the authors' and do not represent official positions of the U.S. Fish and Wildlife Service

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Introduction

Deer hunting is unquestionably the most popular type of hunting in the U.S. According to the **2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (FHWAR)**, there were 10.1 million deer hunters in 2006, which is nearly four times greater than the second most hunted species: turkey. For people over 16 years of age, about 1 in every 25 Americans and 8 in 10 hunters hunted deer in 2006. Their total hunting-related trip and equipment expenditures while seeking deer totaled \$8.9 billion.

This report provides information about deer hunter demographic characteristics, spending pattern, trends, and bag rate. It is intended to be used as an informational tool by resource managers, academics, product manufacturers, and other interested parties.

The report is organized into three parts:

Part One: The “Participation and Demographics” section examines the size and geographic dispersion of the deer hunting population. Additionally, widely used demographic features such as income, age, gender, education, and geographic location are included.

Part Two: The “Trends” section describes the trends in expenditures and days of deer hunting.

Part Three: The “Bag Rate” section uses average days afield and trend data for analysis.

Appendix: Trend and Participation rate estimates are tabulated for the nation and each state.



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Most reported data contained herein are from the *2006 FHWAR*¹. The exceptions are trends data obtained from previous FHWAR Surveys. All non-trend participation, dollar expenditures, and hunting behavior statistics are representative of 2006. All data stems from persons age 16 years and older.

¹ FHWAR documents are available on the U.S. Fish and Wildlife Service webpage: <http://wsfrprograms.fws.gov/Subpages/NationalSurvey/NatSurveyIndex.htm>

Part One – Participation and Demographics

Deer Hunting Participation

Deer is clearly the species of choice for the majority of hunters in the U.S. Table 1 indicates that 80% or 10.1 million of the 12.5 million hunters in the U.S. hunted for deer in 2006. Turkey is the second most hunted species at 2.6 million. Squirrel and rabbit follow at around 1.9 million hunters each and then several bird species at 1 to 1.6 million.

The third and the fourth columns of Table 1 provide additional information on other hunting activities of deer hunters. The third column entitled “Hunters Who also Hunted Deer” indicates the number of deer hunters that sought different species. For example, of the 799 thousand elk hunters in the U.S., 598 thousand also hunted deer. The fourth column entitled “Percent Deer Hunters” indicates the percent of other species hunters that hunted deer. For example, 75% of the 598 thousand elk hunters hunted deer in 2006.

The biggest overlap was for bear and deer hunting. The smallest was for moose hunting. The largest and the smallest overlaps were both big game species. The fact that something that requires different types of weapon and/or hunting skills, like quail or raccoon hunting, was not the smallest overlap is interesting.

The “Percent Deer Hunters” column reveals that most other species hunters were also active deer hunters. With the exception of moose and wolf at 33%, at least 57% of hunters for other species were also deer hunters. As seen in Table 1, at least 67% of the elk, bear, turkey, and other big game (excluding moose) hunters hunted deer. Bear hunters were the most likely to also be deer hunters. With few exceptions, migratory bird hunters typically had the lowest crossover into deer hunting. Nevertheless, 64% to 69% of migratory bird (geese, duck, dove, and other migratory bird) hunters also hunted deer in 2006.

Table 1. All Hunters and Deer Hunters by Species Type: 2006

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

	<i>Number of Hunters</i>	<i>Percent of All Hunters</i>	<i>Hunters Who also Hunted Deer</i>	<i>Percent Deer Hunters</i>
All Hunters	12,510	100		
Big Game				
Deer	10,062	80	10,062	100
Turkey	2,569	21	2,293	89
Elk	799	6	598	75
Any unlisted big game	536	4	393	73
Bear	399	3	375	94
Moose	45	(Z)	15	33
Feral pig	29	(Z)	23	79
Wild sheep/feral goat	6	(Z)	4	67
Small Game				
Rabbit	1,923	15	1,549	81
Squirrel	1,845	15	1,561	85
Pheasant	1,632	13	938	57
Quail	1,046	8	630	60
Grouse/prairie chicken	800	6	612	77
Any unlisted small game	323	3	226	70
Ptarmigan	3	(Z)	...	...
Migratory Birds				
Dove	1,238	10	812	66
Duck	1,147	9	740	65
Geese	700	6	486	69
Any unlisted migratory bird	150	1	96	64
Other Animals				
Coyote	665	5	567	85
Raccoon	305	2	211	69
Groundhog	248	2	196	79
Fox	194	2	173	89
Any unlisted other animals	153	1	106	69
Wolf	3	(Z)	1	33
Mongoose	...	...	...	...

(Z) Less than 0.5 percent.

... Sample size too small to report data reliably.

There is an additional question of interest with respect to the other species hunting activity of deer hunters. Given the ample crossover of other species hunters into deer hunting, one might ask the question: how many hunters sought deer and nothing else? About 4.7 million or 46% of deer hunters hunted deer and nothing else. Furthermore, 2.4 million hunters did not hunt deer at all. The remaining 5.4 million hunters sought deer and other animals.

Tables 2 and 3 contain state-by-state estimates of deer hunting participation in 2006. Table 2 contains the number of all hunters and deer hunters by state of residence as well as the percent of hunters who hunted deer. Table 3 contains the total days of deer hunting that occurred within each state, along with the total of all hunting days, and percent of all hunting days spent hunting deer.

Among other things, Table 2 reveals that deer hunting was a prominent activity in nearly every state. At least 50% of hunters in all but seven states hunted deer. The deer hunting participation in nine states was 90% or higher (Maine, Massachusetts, Michigan, Mississippi, New York, Pennsylvania, Vermont, West Virginia, and Wisconsin). Michigan had the highest proportion of deer hunters (96%) while Pennsylvania had the largest number (889 thousand). Conversely, Alaska and Arizona had the lowest proportion of deer hunters while Hawaii had the fewest number.

Table 2. In-State All Hunting and Deer Hunting, by State of Residence: 2006
(Numbers in thousands. Population 16 years old and older.)

	<i>Total Resident Hunters</i>	<i>Total Resident Deer Hunters</i>	<i>Percent</i>
Total in U.S.	12,510	10,062	80
Alabama	310	269	87
Alaska	53	*16	30
Arizona	216	65	30
Arkansas	301	260	86
California	274	*105	38
Colorado	126	*41	33
Connecticut	36	*21	58
Delaware	19	16	84
Florida	214	162	76
Georgia	344	298	87
Hawaii	18	*8	44
Idaho	122	91	74
Illinois	258	160	62
Indiana	237	200	84
Iowa	208	159	76
Kansas	183	85	47
Kentucky	241	206	85
Louisiana	241	178	74
Maine	146	137	94
Maryland	133	112	84
Massachusetts	57	53	93
Michigan	721	696	96
Minnesota	509	407	80
Mississippi	238	222	93
Missouri	540	447	83
Montana	145	125	86
Nebraska	102	61	60
Nevada	54	*22	41
New Hampshire	51	43	85
New Jersey	72	51	71
New Mexico	66	*25	38
New York	491	452	92
North Carolina	277	199	72
North Dakota	86	71	83
Ohio	467	399	86
Oklahoma	224	175	78
Oregon	218	159	73
Pennsylvania	933	889	95
Rhode Island	12	*10	83
South Carolina	159	131	82
South Dakota	89	53	60
Tennessee	265	214	81
Texas	979	757	77
Utah	144	87	61
Vermont	56	53	94
Virginia	353	307	87
Washington	179	150	84
West Virginia	194	179	92
Wisconsin	649	594	92
Wyoming	50	30	61

*Estimate based on a sample size of 10–29

Nationally, the percent of deer hunters in Table 2 (80%) and the percent of deer hunting days in Table 3 (60%) indicate that deer hunting was less prominent as a proportion of all hunting days than deer hunters was of all hunters. Table 3 shows that deer hunting makes up the majority of hunting activity in 34 states and represents more than 75% of all hunting day activity in 5 states (Alabama, Massachusetts, Michigan, Mississippi, and New Jersey).



Stephen Robertson ©

Table 3. In-State All Hunting and Deer Hunting Days, by State of Residence: 2006
(Numbers in thousands. Population 16 years old and older.)

	<i>Total Hunting Days</i>	<i>Total Deer Hunting Days</i>	<i>Percent</i>
Total in U.S.	203,319	122,980	60
Alabama	7,609	6,234	82
Alaska	758	*120	16
Arizona	1,388	490	35
Arkansas	7,219	4,634	64
California	3,339	*746	22
Colorado	1,224	*198	16
Connecticut	500	*248	50
Delaware	462	307	67
Florida	3,699	2,356	64
Georgia	6,783	4,448	66
Hawaii	*418	*79	19
Idaho	1,125	737	66
Illinois	4,238	2,019	48
Indiana	4,184	2,726	65
Iowa	3,627	2,043	56
Kansas	2,574	762	30
Kentucky	4,886	3,012	62
Louisiana	5,847	3,370	58
Maine	2,004	1,506	75
Maryland	1,813	1,353	75
Massachusetts	1,083	885	82
Michigan	11,735	8,919	76
Minnesota	6,346	3,715	59
Mississippi	6,050	4,631	77
Missouri	9,171	5,556	61
Montana	1,783	1,198	67
Nebraska	1,559	432	28
Nevada	578	*161	28
New Hampshire	969	643	66
New Jersey	1,343	1,062	79
New Mexico	685	*86	13
New York	9,462	5,712	60
North Carolina	4,653	2,526	54
North Dakota	1,081	493	46
Ohio	10,419	6,106	59
Oklahoma	5,339	2,708	51
Oregon	2,658	1,500	56
Pennsylvania	16,157	10,513	65
Rhode Island	140	*89	64
South Carolina	3,893	2,112	54
South Dakota	1,190	416	35
Tennessee	5,343	2,669	50
Texas	13,400	7,962	59
Utah	1,624	733	45
Vermont	922	632	68
Virginia	6,280	4,246	68
Washington	2,124	1,175	55
West Virginia	3,376	2,047	61
Wisconsin	9,679	6,483	67
Wyoming	580	179	31

*Estimate based on a sample size of 10–29

General Demographic Characteristics

Tables 4 to 11 address the distribution of the U.S. and deer and non-deer hunter² populations among widely used demographic characteristics such as income, age, gender, education, and geographic location. All tables follow a similar format. The first two columns present the distribution of the U.S. population in 2006 among the demographic variables of interest. The first column “Number” indicates the distribution in quantity, and the second column “Percent” presents the proportion of total individuals that appear in each respective category of the demographic variable. Thus, in Table 4, the second column indicates that 4% of the U.S. population 16 years or older was either 16 or 17. The “Number” and “Percent” columns within the Deer

² A “deer hunter” hunted for deer in 2006 and could have hunted another type of wild game. A “Non-deer hunter” hunted for anything *except* deer.

Hunter and Non-deer Hunters categories are handled similarly. The “Percent of U.S. Population” indicates the proportion of the U.S. population that participated in deer hunting. For example, row two of Table 4 reveals that 5% of the U.S. population age 16 and 17 hunted deer.

Age

The age category with the greatest number of participants and proportional level of participation was 35–44 years. Likewise the age category with the least number of participants and percent of participation was also the same: 16–17 years.

Only 9% of deer hunters were over the age of 65, whereas 17% of Americans 65 years old and older were in this cohort. As baby boomers increasingly surpass 65, this alone indicates an impending change in deer hunting participation. The aging of the baby boomers is not as pronounced for non-deer hunters where 12% of non-deer hunters are 65 years old or older.

However, the “Percent of the U.S. Population” columns are even more telling for deer hunters. The percent of the U.S. population 55 to 64 years old that deer hunted is 4%, but it falls to 2% for those over 65. This represents a 50% decline in the participation rate. The obvious implication, provided that this pattern persists, is that deer hunting will likely experience declines in participation as the Baby Boomers get older.

Population Size of Residence

Ten percent of the U.S. population living outside an MSA went deer hunting in 2006 (Table 5)³. Non-deer hunters were more likely to live inside an MSA (71%) compared to deer hunters (60%).

³ A Metropolitan Statistical Area (MSA) is a county or group of contiguous counties containing at least one city of 50,000 or more inhabitants or twin cities with a combined population of at least 50,000 (except in New England, which includes both towns and cities instead of counties).

Table 4. Age of Deer and non-Deer Hunters: 2006

(Population 16 years of age or older. Numbers in thousands)

Age	U.S. Population		Deer Hunters		Percent of U.S. Population	Non-Deer Hunters	
	Number	Percent	Number	Percent		Number	Percent
U.S. Total	229,245	100	10,062	100	4	2,448	100
16 to 17 years	8,272	4	422	4	5	79	3
18 to 24 years	23,292	10	769	8	3	199	8
25 to 34 years	37,468	16	1,780	18	5	278	11
35 to 44 years	45,112	20	2,498	25	6	576	24
45 to 54 years	44,209	19	2,264	23	5	606	25
55 to 64 years	32,867	14	1,425	14	4	427	17
65 years and older	38,024	17	904	9	2	282	12

Table 5. Population Density of Deer and non-Deer Hunters: 2006

(Population 16 years of age or older. Numbers in thousands)

Population Size of Residence	U.S. Population		Deer Hunters		Percent of U.S. Population	Non-Deer Hunters	
	Number	Percent	Number	Percent		Number	Percent
U.S. Total	229,245	100	10,062	100	4	2,448	100
Inside MSA	190,425	83	6,029	60	3	1,729	71
Outside MSA	38,820	17	4,003	40	10	718	29

Gender

Table 6 reveals that over 90% of deer and non-deer hunters were male and almost 10% were female. There were a significant number of female hunters. Over 900 thousand females hunted for deer and another 200 thousand hunted for another type of game in 2006.

Figure 1. Gender of Deer and non-Deer Hunters: 2006

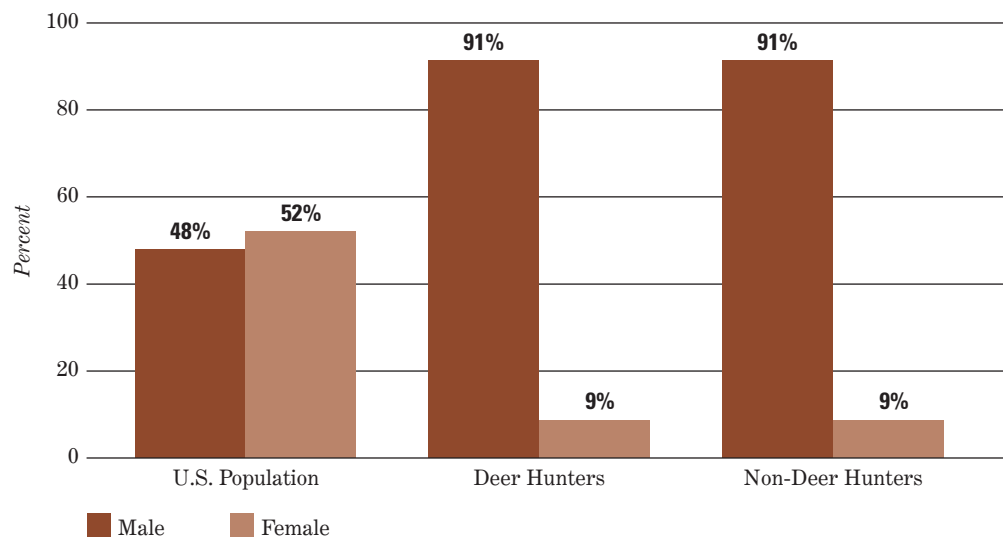


Table 6. Gender of Deer and non-Deer Hunters: 2006

(Population 16 years of age or older. Numbers in thousands)

Gender	U.S. Population		Deer Hunters			Non-Deer Hunters	
	Number	Percent	Number	Percent	Percent of U.S. Population	Number	Percent
U.S. Total	229,245	100	10,062	100	4	2,448	100
Male	110,273	48	9,113	91	8	2,238	91
Female	118,972	52	949	9	1	210	9



Joe Kosack/PGC Photo ©

Marital Status

Over half of the U.S. population 16 years old or older was married and for hunters, the marriage rate was over 70%. Married deer hunters accounted for 6% of the U.S. population while only 3% of unmarried persons deer hunted.

Race

While people of all races went hunting in 2006, the large majority was White. Five percent of the nation's White population,

1% of the Black population, and 6% of those identified as races other than Black or White went deer hunting in 2006. The race distribution of non-deer hunters was almost identical to that of deer hunters.

Ethnicity

Hispanics made up 13% of the U.S. population and 1% of them participated in deer hunting. While the percent of the Hispanic population participating in deer hunting was small, there were almost

300 thousand Hispanic deer hunters and another 126 thousand Hispanics hunted for something other than deer (Table 9).

Non-deer hunting had a higher proportion of Hispanic hunters compared to deer hunting. In 2006, 5% of non-deer hunters were Hispanic compared to 3% of deer hunters.

Table 7. Marital Status of Deer and non-Deer Hunters: 2006

(Population 16 years of age or older. Numbers in thousands)

<i>Marital Status</i>	<i>U.S. Population</i>		<i>Deer Hunters</i>			<i>Non-Deer Hunters</i>	
	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Percent of U.S. Population</i>	<i>Number</i>	<i>Percent</i>
U.S. Total	229,245	100	10,062	100	4	2,448	100
Married	120,840	53	7,300	73	6	1,764	72
Not Married	108,405	47	2,762	27	3	684	28

Table 8. Race of Deer and non-Deer Hunters: 2006

(Population 16 years of age or older. Numbers in thousands)

<i>Race</i>	<i>U.S. Population</i>		<i>Deer Hunters</i>			<i>Non-Deer Hunters</i>	
	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Percent of U.S. Population</i>	<i>Number</i>	<i>Percent</i>
U.S. Total	229,245	100	10,062	100	4	2,448	100
White	189,255	83	9,679	96	5	2,341	96
Black	25,925	11	143	1	1	42	2
Asian	10,104	4	*24	(Z)	(Z)	...	...
All Others	3,960	2	216	2	5	56	2

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

Table 9. Ethnicity of Deer and non-Deer Hunters: 2006

(Population 16 years of age or older. Numbers in thousands)

<i>Ethnicity</i>	<i>U.S. Population</i>		<i>Deer Hunters</i>			<i>Non-Deer Hunters</i>	
	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Percent of U.S. Population</i>	<i>Number</i>	<i>Percent</i>
U.S. Total	229,245	100	10,062	100	4	2,448	100
Non-Hispanic	200,027	87	9,764	97	5	2,321	95
Hispanic	29,218	13	298	3	1	126	5

Education

Deer hunting was a popular activity among hunters of all educational backgrounds, as shown in Table 10. 4.4 million deer hunters had at least some college. Another 4.2 million had a high school education, and 1.5 million deer hunters had less than a high school education.

The percent of the U.S. population that hunted deer increased as years of schooling increased to 1–3 years of college, then the rate dipped downward. Hunters pursuing something other than deer were more likely to have completed 4 years of college or more compared to deer hunters and the U.S. population. The proportion of non-deer

hunters continuing beyond a bachelor’s degree was double the proportion of deer hunters. As more Americans obtain advanced degrees could this promote non-deer hunting more than it does deer hunting?

Figure 2. Education of Deer and non-Deer Hunters: 2006

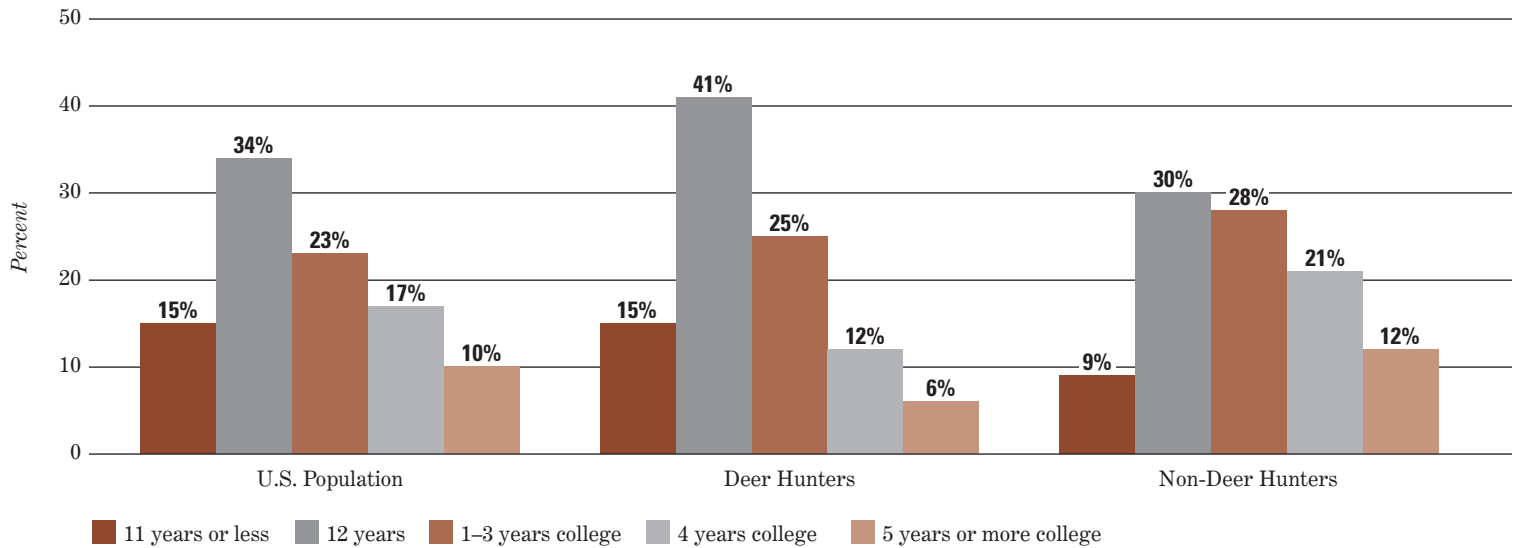


Table 10. Education of Deer and non-Deer Hunters: 2006

(Population 16 years of age or older. Numbers in thousands)

Education	U.S. Population		Deer Hunters		Percent of U.S. Population	Non-Deer Hunters	
	Number	Percent	Number	Percent		Number	Percent
U.S. Total	229,245	100	10,062	100	4	2,448	100
11 years or less	34,621	15	1,492	15	4	232	9
12 years	78,073	34	4,161	41	5	735	30
1 to 3 years college	53,019	23	2,553	25	5	682	28
4 years college	39,506	17	1,242	12	3	508	21
5 years or more college	24,025	10	614	6	3	290	12

Household Income

For much of the income spectrum, the percent of the U.S. population that hunted deer increased as household income increased (Table 11). For the high end of the income spectrum, \$75,000 or more, the participation rate dipped. Despite this dip, in general deer hunting participation was positively correlated

with income. At 7%, the participation rate for deer hunting was highest for individuals with household incomes from \$50,000 to \$74,999.

The income of non-deer hunters tells a different story. The largest proportion of non-deer hunters earned \$100,000 or more in 2006. Non-deer hunter

participation was positively correlated with household income, similar to deer hunters, except there was no dip in the high income spectrum.

Table 11. Annual Household Income of Deer and non-Deer Hunters: 2006

(Population 16 years of age or older. Numbers in thousands)

Annual Household Income	U.S. Population		Deer Hunters		Percent of U.S. Population	Non-Deer Hunters	
	Number	Percent	Number	Percent		Number	Percent
U.S. Total	229,245	100	10,062	100	4	2,448	100
Under \$10,000	10,673	5	175	2	2	48	2
\$10,000 to \$19,999	15,373	7	504	5	3	76	3
\$20,000 to \$24,999	11,374	5	424	4	4	62	3
\$25,000 to \$29,999	10,524	5	481	5	5	86	4
\$30,000 to \$34,999	11,161	5	629	6	6	108	4
\$35,000 to \$39,999	10,349	5	546	5	5	124	5
\$40,000 to \$49,999	17,699	8	993	10	6	216	9
\$50,000 to \$74,999	33,434	15	2,263	22	7	491	20
\$75,000 to \$99,999	21,519	9	1,343	13	6	396	16
\$100,000 or more	29,159	13	1,411	14	5	566	23
Not reported	57,981	25	1,294	13	2	274	11



USFWS/Richard Aiken

Geographic Regions

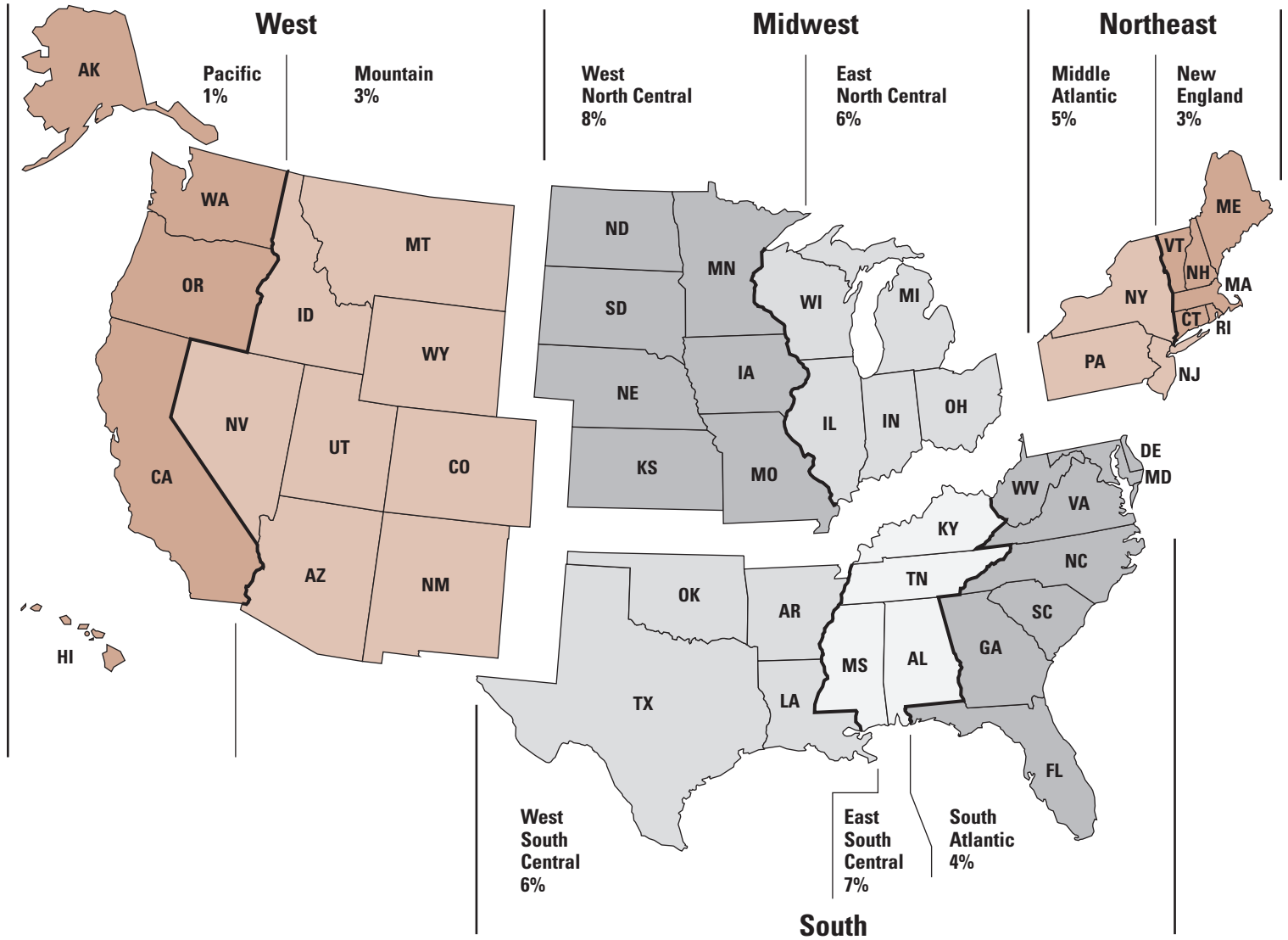
Figure 3 displays the distribution of deer hunters by the U.S. Census Bureau's geographic regions. As a percent of the U.S. population, the West North Central region had the highest percent of deer hunters (8%). The percent of the regional populations that went deer hunting in 2006 was highest in the Central regions.

The East North Central region had the most deer hunters with over 2 million participants and the largest hunting proportion (21%). The Middle and South Atlantic were also popular deer hunting regions with almost 30% of the nation's hunters residing there. For non-deer hunters, almost 20% reside in the West North Central region. The West South

Central and Mountain regions both have a high proportion of non-deer hunters (15%).

Figure 3. Deer Hunters as a Percent of the U.S. Population

National Participation Rate 4%



Wildlife Watching Patterns

In 2006 over 5.8 million deer hunters watched wildlife in addition to hunting. Wildlife watching is defined as closely observing, feeding, and photographing wildlife, maintaining plantings and natural areas around the home for the benefit of wildlife, and visiting public parks within a mile of home to wildlife

watch. These wildlife-watching activities are split into around-the-home (within a mile of home) and away-from-home (at least one mile from home) categories.

Fifty-eight percent of all deer hunters watched wildlife compared to 52% of non-deer hunters (and 31% of the general population). Around-the-home

wildlife watching was more popular with nearly two-thirds of hunters feeding, photographing, or watching wildlife around their home. Over 3 million deer hunters took trips of a distance at least one mile from their home for the primary purpose of watching wildlife.

Figure 4. Deer Hunters Participation in Wildlife Watching: 2006

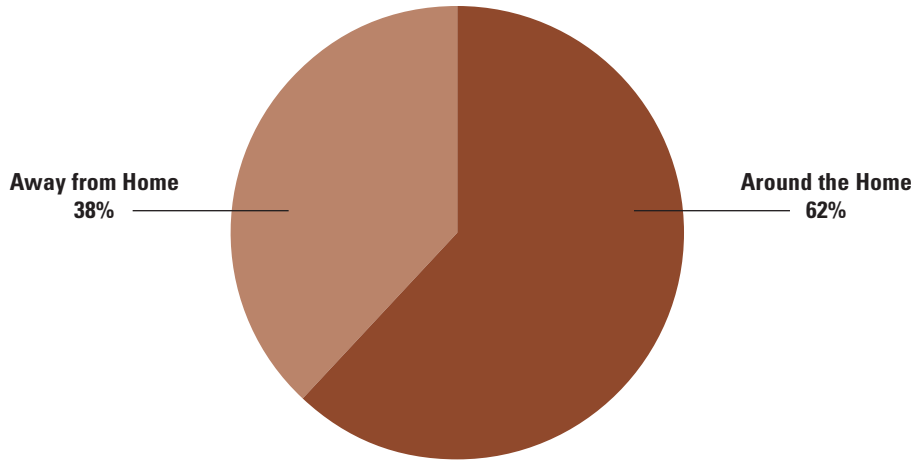


Table 12. Deer Hunters Participation in Wildlife Watching

(Population 16 years of age or older. Numbers in thousands)

	<i>Deer Hunters</i>		<i>Non-Deer Hunters</i>	
	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>
Total Hunters	10,062	100	2,448	100
Total Participants	5,864	58	1,285	52
Around the Home	5,049	62	1,146	66
Away from Home	3,111	38	594	34

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



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Part Two – Trends in Participation, Expenditures and Days

A basic summary of hunting participation, days, and trip and equipment expenditure trends is shown in Table 13. Trip expenditures were directly related to hunting trips. They included but were not limited to food, drink, lodging, and transportation fees. Equipment expenditures included both hunting equipment such as rifles, ammunition, and hunting dogs, and auxiliary equipment used primarily for hunting (that is camping equipment, clothing, and taxidermy costs). Special equipment primarily included purchases of big ticket items such as boats, campers, trucks, and cabins that were used primarily for hunting. Some highlights of Table 13 include the following.

Participation

In 2006, 5% of the U.S. population 16 years old and older enjoyed hunting a variety of animals. Big game hunting was the most popular type. An estimated 10.7 million hunters pursued big game, such as deer and elk. Deer was the

most popular type of big game and over 10 million hunters sought deer in 2006. Hunting declined by 11% from 1991 to 2006. Big game hunting had no significant differences in participation from 1991 to 2006. The same was true for deer hunting.

Days

In the outdoor recreation arena days afield often bounce around over time. Total days are subject to weather, economic conditions, and other factors. Given that, it is remarkable how unvarying deer hunting day totals have been. After a 16% increase in days from 1991 to 1996, the days total has been very steady at about 132 million. The average number of deer hunting days was 13 in 2006. This is up from an average of 11 days deer hunting in 1991.

Expenditures

In 2006 total trip and equipment expenditures of deer and non-deer hunters was \$17.4 billion. Deer hunters

were responsible for \$8.9 billion, or 51% of the total. Per person spending of deer hunters was \$885 for trip and equipment expenditures.

There was a hefty 60% increase in deer hunting trip and equipment expenditures from 1991 to 1996. Since 1996 these expenditures have leveled off. There is no statistically significant difference between the 1996 and 2001 estimates and the 2001 and 2006 estimates. The averages also have not varied significantly since 1996. (See appendix for state level participation trends)

The afore-mentioned stability of deer hunting participation trends applies not just to the number of participants, but extends emphatically to expenditures and days.

Table 13. Trends in Expenditures and Days for Hunting

(Participants 16 years old and older. Numbers in thousands, except averages.)

	1991	1996	2001	2006
Total Hunting Participation	14,063	13,975	13,034	12,510
Big Game Participation	10,745	11,288	10,911	10,682
Deer Hunting Participation	10,277	10,722	10,272	10,062
Total Hunting Days	235,806	256,676	228,368	219,925
Big Game Hunting Days	137,501	165,411	171,368	174,492
Deer Hunting Days	112,853	131,345	133,457	132,194
Average Deer Hunting Days	11	12	13	13
Total Hunting Trip and Equipment Expenditures	\$12,758,728	\$21,162,663	\$17,799,831	\$17,410,115
Big Game Trip and Equipment Expenditures	\$7,544,037	\$12,511,945	\$11,500,240	\$11,754,122
Deer Trip and Equipment Expenditures	\$6,183,360	\$9,871,898	\$8,956,092	\$8,904,846
Average Deer Trip and Equipment Expenditures	\$602	\$921	\$872	\$885

Note: Estimates are in 2006 dollars.

Part Three – Bag Rate

Bag questions for selected species hunting were included in the 1991, 1996, and 2006 FHWAR Surveys. Deer hunters were asked if they had killed one or more deer. In 1991 and 1996 deer hunters were also asked if they got a buck.

In 1991 47% of deer hunters (4.8 million hunters) killed at least one deer. Of those, 71% killed at least one buck (3.4 million). 5.5 million deer hunters did not kill a deer. These estimates apply to deer hunters hunting anywhere in the U.S.

In 1996, 44% of all deer hunters hunting in their state of residence killed one or more deer. The estimate itself is 3.9 million out of 8.9 million. Of those hunters, 72% killed a buck. The estimate itself is 2.8 million out of 3.9 million deer hunters. For hunters going to other states, 42% killed a deer (375,000 out of 885,000 hunters). Of those successful hunters, 79% killed a buck (297,000 out of 375,000 hunters).

In 2006, 47% of all deer hunters hunting in their resident state killed at least one deer. That was 3.8 million out of 8.3 million resident state deer hunters. As for deer hunters going to another state, 340 thousand out of 743 thousand (46%) got at least one deer.

The constancy of the rate of bagging a deer is noteworthy. The success rate for each survey was between 44 and 47 percent. Furthermore, the percent of hunters who killed one or more bucks was 33 percent in 1991 and 31 percent in 1996. Perhaps this constancy is due to the various state agencies' game management goals, or in some general way a hunter expectation pattern.

Table 14. 1991 Deer Hunter Bag Rate
(Participants 16 years old and older. Numbers in millions.)

	1991	
	Number	Percent
All deer hunters	10.3	100
Successful deer hunters	4.8	47
Got a buck	3.4	33
Unsuccessful deer hunters	5.5	53

Note: "Successful" means killed one or more deer.

Table 15. 1996 Deer Hunter Bag Rate
(Participants 16 years old and older. Numbers in millions.)

	1996	
	Number	Percent
All deer hunters	10.7	100
All deer hunters hunting in their state of residence	8.9	100
Successful deer hunters in state of residence	3.9	44
Got a buck	2.8	31
Unsuccessful deer hunters in their state of residence	5.0	56
All deer hunters hunting in nonresident states	0.9	100
Successful deer hunters in nonresident states	0.4	42
Got a buck	0.3	34
Unsuccessful deer hunters in nonresident states	0.5	58

Note: "Successful" means killed one or more deer.

Table 16. 2006 Deer Hunter Bag Rate
(Participants 16 years old and older. Numbers in millions.)

	2006	
	Number	Percent
All deer hunters	10.1	100
All deer hunters hunting in their state of residence	8.3	100
Successful deer hunters in state of residence	3.8	47
Got a buck	N.A.	N.A.
Unsuccessful deer hunters in their state of residence	4.5	53
All deer hunters hunting in nonresident states	0.7	100
Successful deer hunters in nonresident states	0.3	46
Got a buck	N.A.	N.A.
Unsuccessful deer hunters in nonresident states	0.4	54

Note: "Successful" means killed one or more deer.

N.A. Not available

Deer Hunters Resident State Success Rates

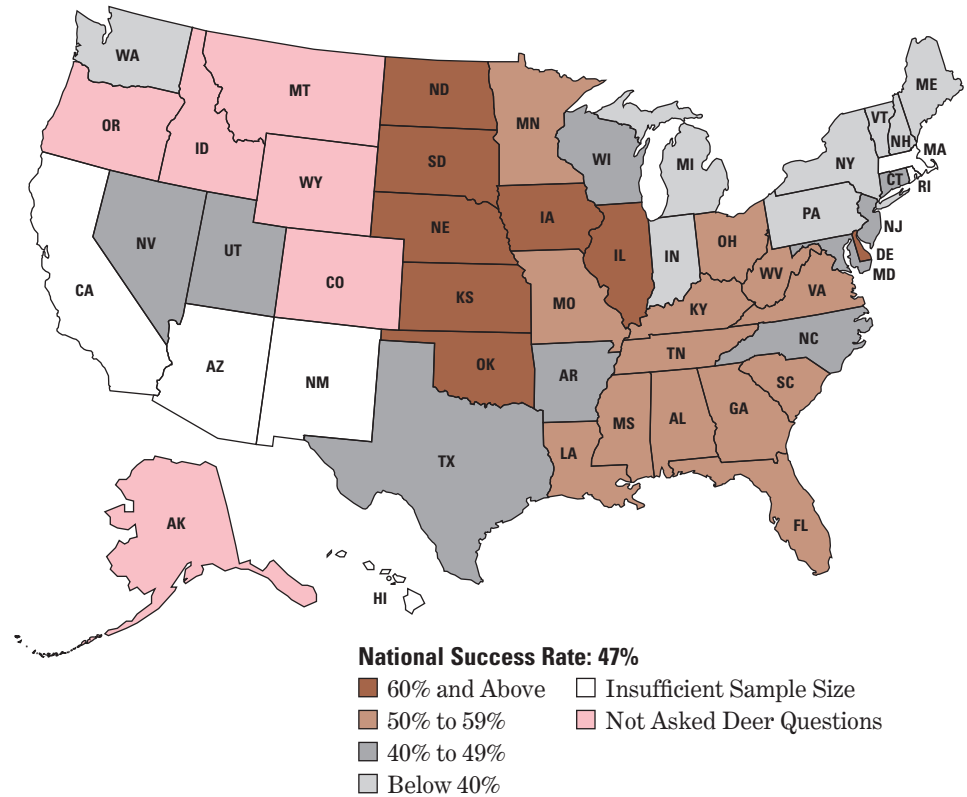
Throughout the U.S. deer hunters were successful with almost 50% bagging a deer in their resident state in 2006. Figure 5 provides a more detailed look at resident state deer hunters who bagged at least one deer. Hunters in the Midwest (North Dakota, South Dakota, Iowa, Nebraska, Kansas, Oklahoma, and Illinois) had a high success rate with over 60% of hunters bagging a deer. Delaware was the only Northeast state with a success rate over 60%.

A number of states in the South had a success rate above the national average too. This included Louisiana, West Virginia, Alabama, Kentucky, Virginia, Tennessee, Mississippi, South Carolina, Georgia, and Florida. Three other states that had success rates between 50% and 59% were: Missouri, Ohio, and Minnesota.

47% of all deer hunters in the U.S. had a successful hunt in 2006. The nine states with success rates close to the national average, between 40% and 49%, were Nevada, Wisconsin, New Jersey, North Carolina, Arkansas, Maryland, Utah, Texas and Connecticut.

States with success rates under 40% were Michigan, Pennsylvania, New York, Indiana, Maine, Vermont, New Hampshire, and Washington. It is interesting to note that Michigan, Pennsylvania, and New York are three of the top five states with the highest number of state resident deer hunters.

Figure 5. State Resident Success Rates for Bagging a Deer



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Average Days for Successful Hunters

The days afield are another key to how successful a hunt was. Does increased avidity lead to a successful hunt? On average, regardless of success, deer hunters spent 13 days in their resident state hunting for deer. Alabama deer hunters had the highest average with 23 days afield followed by Mississippi and New Jersey with an average of 21 days.

Deer hunters who bagged a deer in 2006 spent an average of 18 days afield, twice as much time afield compared to the 9 days of those who did not harvest a deer. As a rule successful deer hunters spent more time in the woods compared to hunters who did not successfully bag a deer. Hunters in Alabama and Louisiana who successfully bagged a deer spent, on average, over 30 days afield in 2006.

These results may provide useful information for state agencies responsible for deer management and the deer hunting season. Hunters who spend more days afield will ultimately have more opportunities to bag a deer. More opportunities mean more chances of having a successful deer hunt. Some states require a one deer limit while others allow multiple deer to be taken. The three states with the highest success rates had a one-deer limit during their 2006 season. But this result is misleading because ten out of the twelve states with the lowest success rates also had a one-deer limit. State agencies that manage deer and hunters who take to the field in pursuit of their game know it is more than a take-limit that results in a successful hunt.

Table 17. State Resident Average Days for Deer Hunting, In State of Residence: 2006

	<i>Average Days Deer Hunting</i>	<i>Average Days for Hunters Who Bagged A Deer</i>	<i>Average Days for Hunters Who Did Not Bag a Deer</i>
U.S. Total	13	18	9
Alabama	23	33	13
Arizona	8	...	...
Arkansas	18	29	10
California	*7	...	...
Connecticut	12	*15	*9
Delaware	19	*18	*13
Florida	15	*18	*12
Georgia	15	22	*9
Hawaii	*10	...	...
Illinois	13	17	*7
Indiana	14	18	11
Iowa	13	15	*8
Kansas	9	10	*9
Kentucky	15	21	*7
Louisiana	19	31	*9
Maine	11	*17	9
Maryland	12	16	7
Massachusetts	17	...	*15
Michigan	13	17	11
Minnesota	9	10	8
Mississippi	21	29	13
Missouri	12	17	7
Nebraska	7	7	*7
Nevada	*22	*10	*5
New Hampshire	*15	*23	...
New Jersey	21	*27	*18
New Mexico	3	...	*4
New York	13	17	11
North Carolina	13	*16	*11
North Dakota	7	7	*7
Ohio	15	*22	*10
Oklahoma	15	19	10
Pennsylvania	12	16	10
Rhode Island	*9	...	*7
South Carolina	16	22	*9
South Dakota	8	8	*9
Tennessee	12	16	*10
Texas	11	14	8
Utah	8	*9	7
Vermont	12	*16	10
Virginia	14	19	8
Washington	8	*10	7
West Virginia	11	14	8
Wisconsin	11	16	7

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

Note: This table only includes states asked about deer hunting in their contingent valuation questions. Those excluded include Colorado, Idaho, Montana, Oregon, Wyoming, and Alaska.

Conclusion

This report has presented a wide array of information on deer hunter behavior and demographic patterns, from general participation levels to bag rates.

In 2006, over 10 million hunters spent 123 million days hunting deer. This is by far the most popular type of hunting, representing 80% of all hunters in the U.S. and 60% of all days afield. The average days of deer hunting nationally in 2006 was 13, but at the state level it varied from 3 to 23. Michigan had the highest proportion of deer hunters while Pennsylvania had the largest number.

The average deer hunter is a married white man between the ages of thirty-five and forty-four. Most deer hunters have completed high school and a large proportion went to college. They reside all over the country, with the highest regional proportion living in the East North Central area of the United States.

Since 1991 wildlife-related recreation participation as a whole has declined by 20%, from 108.7 million participants in 1991 to 87.5 million in 2006. Deer hunting has bucked this trend staying rock steady at over 10 million participants. The days afield and expenditures for deer hunting have also stayed constant from 1991 to 2006.

Forty-seven percent of all hunters bagged a deer in their resident state in 2006. More time out hunting will very likely lead to a successful hunt. Hunters who successfully bagged a deer in 2006 spent an average of 18 days afield while those who were unsuccessful spent half as much time in the field (9 days).

Deer are the most popular game species for hunters because they are numerous throughout the United States, provide challenging sport, and are a good source of nutritional protein. These reasons for hunting them are not diminishing, so the number of people who respond to these influences may not diminish either.



Joe Kosack/PGC Photo ©

Appendix Tables



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Appendix A. Trend in number of deer hunters, by state of activity: 1991–2006

<i>(in 000's)</i>	1991	1996	2001	2006	2006–1991 Ratio	2006–2001 Ratio
U.S. Total	10,277	10,722	10,272	10,062	1.0	1.0
Alabama	249	269	379	334	1.3	0.9
Alaska	9	15	19	17	1.9	0.9
Arizona	90	74	63	76	0.8	1.2
Arkansas	243	296	314	277	1.1	0.9
California	186	239	85	107	0.6	1.3
Colorado	208	243	99	66	0.3	0.7
Connecticut	30	42	27	21	0.7	0.8
Delaware	16	28	11	24	1.5	2.2
Florida	180	130	156	168	0.9	1.1
Georgia	323	322	332	405	1.3	1.2
Hawaii	5	11	7	9	1.8	1.3
Idaho	149	183	125	119	0.8	1.0
Illinois	248	256	238	204	0.8	0.9
Indiana	204	262	215	231	1.1	1.1
Iowa	149	187	133	165	1.1	1.2
Kansas	63	100	140	118	1.9	0.8
Kentucky	205	271	231	238	1.2	1.0
Louisiana	199	228	207	202	1.0	1.0
Maine	154	169	145	160	1.0	1.1
Maryland	97	109	126	125	1.3	1.0
Massachusetts	82	76	56	57	0.7	1.0
Michigan	742	839	667	713	1.0	1.1
Minnesota	335	473	475	415	1.2	0.9
Mississippi	295	345	288	276	0.9	1.0
Missouri	364	416	373	492	1.4	1.3
Montana	178	135	154	162	0.9	1.1
Nebraska	63	74	78	63	1.0	0.8
Nevada	27	28	25	26	1.0	1.0
New Hampshire	60	65	67	52	0.9	0.8
New Jersey	101	75	111	67	0.7	0.6
New Mexico	62	56	75	31	0.5	0.4
New York	651	576	651	506	0.8	0.8
North Carolina	280	259	207	215	0.8	1.0
North Dakota	57	58	74	74	1.3	1.0
Ohio	386	312	417	426	1.1	1.0
Oklahoma	125	224	199	181	1.4	0.9
Oregon	195	221	183	164	0.8	0.9
Pennsylvania	937	810	932	978	1.0	1.0
Rhode Island	15	20	6	11	0.7	1.8
South Carolina	177	228	207	161	0.9	0.8
South Dakota	66	68	68	57	0.9	0.8
Tennessee	220	266	228	242	1.1	1.1
Texas	722	752	860	814	1.1	0.9
Utah	147	109	139	102	0.7	0.7
Vermont	90	89	92	63	0.7	0.7
Virginia	309	326	313	345	1.1	1.1
Washington	177	214	156	150	0.8	1.0
West Virginia	294	343	259	244	0.8	0.9
Wisconsin	665	552	596	620	0.9	1.0
Wyoming	88	62	66	55	0.6	0.8

Appendix B. Trend in number of deer hunters, by state of residence: 1991–2006

(Numbers in thousands)

	<i>Number of participants</i>				<i>Participation rates</i>			
	<i>1991</i>	<i>1996</i>	<i>2001</i>	<i>2006</i>	<i>1991</i>	<i>1996</i>	<i>2001</i>	<i>2006</i>
U.S. Total	10,277	10,722	10,272	10,062	5	5	5	4
Alabama	219	212	293	284	7	6	9	8
Alaska	9	17	18	20	2	4	4	4
Arizona	94	72	65	70	3	2	2	2
Arkansas	217	268	278	268	12	14	14	12
California	235	298	93	131	1	1	(Z)	(Z)
Colorado	108	144	72	41	4	5	2	1
Connecticut	36	51	34	29	1	2	1	1
Delaware	17	27	12	17	3	5	2	3
Florida	265	161	242	252	3	1	2	2
Georgia	259	299	307	305	5	5	5	4
Hawaii	7	11	8	9	1	1	1	1
Idaho	132	152	108	92	18	17	11	8
Illinois	277	286	252	176	3	3	3	2
Indiana	200	263	200	208	5	6	4	4
Iowa	141	178	131	164	7	8	6	7
Kansas	67	97	111	88	4	5	6	4
Kentucky	184	255	201	215	7	8	6	7
Louisiana	213	254	214	211	7	8	6	6
Maine	117	135	115	138	12	14	11	13
Maryland	114	97	106	127	3	2	3	3
Massachusetts	97	82	68	59	2	2	1	1
Michigan	713	800	640	696	10	11	8	9
Minnesota	332	463	467	410	10	13	13	10
Mississippi	248	257	221	234	13	13	10	11
Missouri	352	406	339	453	9	10	8	10
Montana	134	117	132	125	22	17	19	17
Nebraska	61	75	73	61	5	6	6	4
Nevada	32	29	24	26	4	2	2	1
New Hampshire	57	54	46	45	7	6	5	4
New Jersey	106	78	112	61	2	1	2	1
New Mexico	58	56	62	26	5	4	5	2
New York	613	552	578	464	4	4	4	3
North Carolina	289	258	221	226	6	5	4	3
North Dakota	60	61	77	72	13	13	16	14
Ohio	379	296	417	404	5	3	5	5
Oklahoma	127	218	192	180	5	9	7	7
Oregon	190	215	177	159	9	9	7	6
Pennsylvania	836	703	825	892	9	8	9	9
Rhode Island	13	16	8	11	2	2	1	1
South Carolina	139	200	191	135	5	7	6	4
South Dakota	60	56	51	54	11	10	9	9
Tennessee	214	236	201	223	6	6	5	5
Texas	713	703	857	774	6	5	6	5
Utah	137	90	128	95	12	6	8	5
Vermont	65	65	70	54	15	14	15	11
Virginia	293	324	270	310	6	6	5	5
Washington	180	210	169	156	5	5	4	3
West Virginia	237	236	208	186	17	16	14	13
Wisconsin	599	527	547	594	16	14	13	14
Wyoming	49	44	40	31	14	12	11	8

(Z) Less than 0.5 percent.

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