

Fishing and Hunting 1991-2001: Avid, Casual, and Intermediate Participation Trends

*Addendum to the 2001 National
Survey of Fishing, Hunting, and
Wildlife-Associated Recreation*

Report 2001-5



Fishing and Hunting 1991-2001: Avid, Casual, and Intermediate Participation Trends

*Addendum to the 2001 National
Survey of Fishing, Hunting, and
Wildlife-Associated Recreation*

Report 2001-5



July 2004

Richard Aiken
U.S. Fish and Wildlife Service
Division of Federal Aid
Arlington VA

This report complements the National and State reports from the 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. The conclusions are the author's and do not represent official positions of the U.S. Fish and Wildlife Service.

The author wishes to thank Sylvia Cabrera and Genevieve Pullis La Rouche for their valuable input into the analysis.

Contents

| | |
|--|-----------|
| Introduction | 3 |
| Part One – National Trends | 4 |
| Highlights | 4 |
| <i>Fishing</i> | 4 |
| <i>Hunting</i> | 5 |
| Trends in Avid Fishing and Hunting | 5 |
| <i>Avid Anglers</i> | 8 |
| <i>Avid Hunters</i> | 11 |
| Trends in Intermediate Fishing and Hunting | 13 |
| <i>Intermediate Anglers</i> | 13 |
| <i>Intermediate Hunters</i> | 16 |
| Trends in Casual Fishing and Hunting | 19 |
| <i>Casual Anglers</i> | 20 |
| <i>Casual Hunters</i> | 23 |
| Comparison of Avids, Intermediates, and Casual Participants | 26 |
| Part Two – State Trends | 32 |
| Number of In-State Anglers and Hunters | 32 |
| Number of Fishing and Hunting Days | 36 |
| Trends in State Fishing and Hunting Expenditures | 39 |
| Fishing Trip-Related and Total Expenditures by State | 40 |
| Hunting Trip-Related and Total Expenditures by State | 42 |
| Summary | 44 |
| Appendix I – FHWAR Survey Methodology | 46 |
| Appendix II – Sources of Comparable 1955-2001 Estimates | 48 |

Introduction

Long-term trends of fishing and hunting in the United States interest different people for different reasons. State fish and game agencies want to know the number and demographics of their constituents, with an eye toward knowing what to expect in the future from them. Also, managers of fish and game populations want to know not only how many people are participating but also how often, since a drop-off (or increase) in the numbers of participants may not mean a decrease (or increase) of the pressure on the resource if the hunters and anglers that remain increase (or decrease) their days afield. Marketers want to know the state of the industry and where to put their efforts. Academics want to better understand the culture of hunting and angling. The ordinary hunter and angler wants to know how the culture that gives him or her so much enjoyment is evolving.

Americans' participation in angling and hunting in 1991, 1996, and 2001 is the focus of this analysis. In addition to changes in the number of participants and their days afield, avid, intermediate, and casual hunters and anglers are defined and analyzed. Trends in overall fishing and hunting can be better understood by examining important subgroups. Trends in days of participation and expenditures at the state level are presented also. The source of the information is the U.S. Fish and Wildlife Service's 1991, 1996, and 2001 National Surveys of Fishing, Hunting, and Wildlife-Associated Recreation (FHWAR).¹ See Appendix I for details of the FHWAR Survey methodology.

¹ These Surveys covered activity by Americans 16 years old and older participating in the U.S. It is important to note that the FHWAR Surveys measure the activity of every fifth year only. The intervening years' activity is not included. Those hunters and anglers who participated in the intervening years but not the surveyed years are not part of this analysis.

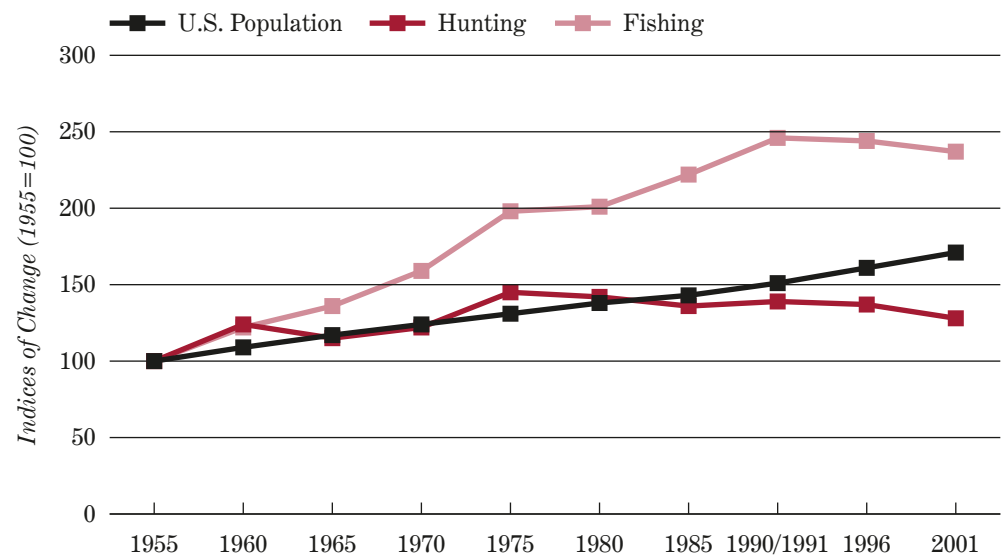
Long Term Context of Trends

Figure 1 shows the trends in the number of all Americans, anglers, and hunters since 1955, the year of the first FHWAR survey. Indices of change are used, in which the 1955 estimates are set to 100 and the succeeding years' estimates are presented as the percent change. This makes it easier to compare the changes of the three groups.

Participation in fishing grew from 1955 to 1990, both in absolute numbers and relative to the underlying trend of the U.S. population. Since 1990 there has been a downturn in the number of anglers.

Participation in hunting grew until 1975 at a rate slightly greater than U.S. population growth. Since 1975 hunting has undergone a gradual decline.

Figure 1. 1955-2001 Trend



Note: Due to methodological changes over the 46 years of this survey, assumptions and approximations were made to make the results comparable. See Appendix II for the assumptions.

Part One – National Trends

Highlights

From 1991 to 2001 the number of Americans who hunted and/or fished in the U.S. decreased 5 percent, with the number of anglers decreasing 4 percent and the number of hunters decreasing 7 percent. The drops for both fishing and hunting occurred primarily during the second half of the 1990's.

Fishing

The number of anglers was stable from 1991 to 1996 (the 1% drop is not statistically significant at the 90% level²), then fell 3 percent from 1996 to 2001. Freshwater fishing fell 8% from 1991 to 2001, while saltwater fishing held roughly constant (the 2% increase is not statistically significant). Breaking the freshwater trend number into its coldwater and warmwater components, coldwater fishing participation fell 12%, led by the 15% drop in trout fishing. Similarly, warmwater fishing dropped 13%, largely due to the 17% decline in black bass fishing.

While there was a decline in the number of anglers, their days on the water increased. The average days of fishing increased from 14 days in 1991 to 16 days in 2001, and fishing days for both freshwater and saltwater increased significantly. This raises the question of how the increase in days is distributed. Did all anglers increase their angling days, or did an avid core of anglers increase their high level of participation? We will return to this subject later in this report.

² All statistical significance tests will be at the 90% level. Statistical significance at the 90% level means that for 90% of all possible samples, the estimate for one survey year cannot be shown to be different from the estimate for the other survey year.

Table 1. Sportsperson Participation 1991-2001

(Numbers in thousands)

| | 1991 | 1996 | 1991-1996 | 2001 | 1996-2001 | 1991-2001 |
|---------------|--------|--------|----------------|--------|----------------|----------------|
| | Number | Number | Percent Change | Number | Percent Change | Percent Change |
| Sportspersons | 39,979 | 39,694 | -1 | 37,805 | -5 | -5 |
| Anglers | 35,578 | 35,246 | -1 | 34,070 | -3 | -4 |
| Hunters | 14,063 | 13,975 | -1 | 13,034 | -7 | -7 |

Table 2. National Fishing Participation Trends

(Numbers in thousands)

| | 1991 | 1996 | 1991-1996 | 2001 | 1996-2001 | 1991-2001 |
|-----------------------|--------|--------|----------------|--------|----------------|----------------|
| | Number | Number | Percent Change | Number | Percent Change | Percent Change |
| Fishing, total | 35,578 | 35,246 | -1 | 34,070 | -3 | -4 |
| Freshwater | 31,041 | 29,734 | -4 | 28,439 | -4 | -8 |
| Coldwater | 10,158 | 9,994 | -2 | 8,989 | -10 | -12 |
| Trout | 9,497 | 9,290 | -2 | 8,118 | -13 | -15 |
| Warmwater | 23,971 | 22,030 | -8 | 20,882 | -5 | -13 |
| Black Bass | 13,139 | 12,972 | -1 | 10,956 | -16 | -17 |
| Saltwater | 8,885 | 9,438 | 6 | 9,051 | -4 | 2 |

Table 3. National Fishing Days Participation Trends

(Numbers in thousands)

| | 1991 | 1996 | 1991-1996 | 2001 | 1996-2001 | 1991-2001 |
|----------------------------|---------|---------|----------------|---------|----------------|----------------|
| | Number | Number | Percent Change | Number | Percent Change | Percent Change |
| Fishing Days, total | 511,329 | 625,893 | 22 | 557,394 | -11 | 9 |
| Freshwater | 439,536 | 515,115 | 17 | 466,984 | -9 | 6 |
| Trout | 86,626 | 97,978 | 13 | 89,285 | -9 | 3 |
| Black Bass | 162,595 | 196,385 | 21 | 166,202 | -15 | 2 |
| Saltwater | 74,696 | 103,034 | 38 | 90,838 | -12 | 22 |

Hunting

The number of Americans who hunted was roughly level from 1991 to 1996 (the 1 percent drop is not statistically significant) and fell 7 percent from 1996 to 2001. From 1991 to 2001 small game and other animal (fox, raccoon, groundhog, and other nongame) hunting participation dropped by over a quarter (29% for small game, 26% for other animals), while big game and migratory bird hunting participation has not dropped significantly (the +/-2% changes are not statistically significant).

As for the hunting of individual species, deer hunting was the single most popular hunting activity. It held steady at 10.3 million hunters in both 1991 and 2001. From 1991 to 2001 turkey hunters increased 46% and duck hunters increased 37%. Elk hunters increased 33%. Goose hunters increased 13% over the same time period. Species hunting that declined from 1991 to 2001 include dove hunting which decreased by 22%, pheasant hunting by 25%, squirrel hunting by 41%, and rabbit hunting by 47%.

The disparity in participation trends between big game and migratory bird hunters and small game and other animal hunters is also seen in days afield. Big game and migratory bird hunting days increased significantly from 1991 to 2001 (19% for big game, 32% for migratory birds). Small game hunting days decreased 22%. Overall, the increasing days hunting group (big game, migratory bird) compensated for the decreasing days group (small game, other animals) in the total hunting days trend (the 3% drop is not statistically significant). Hunters as a whole hunted more days per capita over time. In 1991 the average hunter went out 17 days and in 2001 it was 18 days. The same question arises as for fishing. Did all hunters increase their hunting days, or did a particular subgroup increase their participation? We will return to this subject later in this report.

Trends in Avid Fishing and Hunting

There are several ways of defining avidity, e.g., days afield, dollars spent, variety of animals sought, years spent hunting and fishing. Each has its pros and cons. After examining each, days afield was chosen. People can spend money on equipment without participating in hunting or fishing, a person can be an avid deer hunter and not hunt any other game, a young person can be avid without a long history of hunting or fishing behind him/her. But participating in an

Table 4. National Hunting Participation Trends

(Numbers in thousands)

| | 1991 Number | 1996 Number | 1991-1996 Percent Change | 2001 Number | 1996-2001 Percent Change | 1991-2001 Percent Change |
|-----------------------|----------------|----------------|--------------------------------|----------------|--------------------------------|--------------------------------|
| Hunting, total | 14,063 | 13,975 | -1 | 13,034 | -7 | -7 |
| Big Game | 10,745 | 11,288 | 5 | 10,911 | -3 | 2 |
| Deer | 10,277 | 10,722 | 4 | 10,272 | -4 | (Z) |
| Elk | 682 | 959 | 41 | 910 | -5 | 33 |
| Turkey | 1,720 | 2,189 | 27 | 2,504 | 14 | 46 |
| Small Game | 7,642 | 6,945 | -9 | 5,434 | -22 | -29 |
| Rabbit | 3,980 | 3,146 | -21 | 2,099 | -33 | -47 |
| Squirrel | 3,569 | 3,207 | -10 | 2,119 | -34 | -41 |
| Pheasant | 2,285 | 2,261 | -1 | 1,723 | -24 | -25 |
| Migratory Bird | 3,009 | 3,073 | 2 | 2,956 | -4 | -2 |
| Duck | 1,164 | 1,596 | 37 | 1,589 | (Z) | 37 |
| Geese | 882 | 915 | 4 | 1,000 | 9 | 13 |
| Dove | 1,851 | 1,581 | -15 | 1,450 | -8 | -22 |
| Other Animals | 1,411 | 1,521 | 8 | 1047 | -31 | -26 |

(Z) Less than 0.5 percent.

Table 5. National Hunting Days Trends

(Numbers in thousands)

| | 1991 Number | 1996 Number | 1991-1996 Percent Change | 2001 Number | 1996-2001 Percent Change | 1991-2001 Percent Change |
|----------------------------|----------------|----------------|--------------------------------|----------------|--------------------------------|--------------------------------|
| Hunting Days, total | 235,806 | 256,676 | 9 | 228,368 | -11 | -3 |
| Big Game | 128,411 | 153,784 | 20 | 153,191 | (Z) | 19 |
| Deer | 112,853 | 131,345 | 16 | 133,457 | 2 | 18 |
| Elk | 5,048 | 7,174 | 42 | 6,402 | -11 | 27 |
| Turkey | 13,483 | 18,532 | 37 | 23,165 | 25 | 72 |
| Small Game | 77,132 | 75,117 | -3 | 60,142 | -20 | -22 |
| Rabbit | 35,624 | 28,873 | -19 | 22,768 | -21 | -36 |
| Squirrel | 29,602 | 25,401 | -14 | 22,333 | -12 | -25 |
| Pheasant | 16,136 | 17,336 | 7 | 12,769 | -26 | -21 |
| Migratory Bird | 22,235 | 26,501 | 19 | 29,310 | 11 | 32 |
| Duck | 8,800 | 13,800 | 57 | 18,290 | 33 | 108 |
| Geese | 6,584 | 8,451 | 28 | 10,508 | 24 | 60 |
| Dove | 9,480 | 8,141 | -14 | 9,041 | 11 | -5 |
| Other Animals | 19,340 | 24,522 | 27 | 19,207 | -22 | -1 |

(Z) Less than 0.5 percent.

activity many times in a year requires commitment, which is a criterion of avidity.

See Figure 2 for a bar chart of the distribution of hunting days in 2001. 736,000 people hunted one day, increasing to 936,000 people hunting two days. It drops off then, with the number of people hunting at each increment of days decreasing rapidly (with spikes at the numbers of days that respondents typically round to, such as 10, 20, and 25) to about 100 days, more than which only 153,000 people hunted.

Figure 3 is a bar chart of how many days were contributed by hunters in 2001, in order of how many days each person hunted. This is an important perspective because if the determination of the most influential hunting group is those who hunted the most days, that information cannot be obtained from Figure 2, in which the hunters who hunted 2 days is the single biggest group. But as can be seen in Figure 3, they contributed a very low number of total days, while hunters who hunted 30 days in 2001 had by far the most days afield. Here is a more detailed example: 878,000 Americans hunted 10 days (see Figure 2), so they accounted for 8,780,000 hunting days (see Figure 3). The 736,000 people who hunted one day accounted for only 736,000 days, compared to the 33,000 people (4% of the people who hunted one day) who hunted 100 days accounting for 3.3 million hunting days (nearly five times the total days of people who hunted one day). The sum of days increases from 736,000 days by one-day hunters to 11.8 million days by people who hunted 30 days. The sum of days trend then falls steadily to the 6,000 hunters who hunted 150 days (who alone account for 873,000 days!), after which the line bumps along the x-axis.

Examination of Figures 2 and 3 demonstrates that the top 10% of hunters in 2001, who hunted 41 days or more, can be considered avid,³ and the number of hunters who hunt one or two days, 13% of total hunters, can be considered casual. Examination of the data from the 1991 and 1996 Surveys finds the same percentage of hunters can be defined to be avid, 10%, and 11% in 1996 and 16% in 1991 of hunters qualify as casual, i.e., hunt one or two days. The top 10% of

³ Robert Southwick came to the same conclusion for the designation of avidity in his study *Today's Angler, A Statistical Profile of America's Angler*, Southwick, Inc., 2003.

anglers can be defined to be avid as well, while anglers who fish only one day (11% of total anglers in 2001, 11% in 1996, and 14% in 1991) qualify as casual. The criteria for avid and casual participants used for all three surveys: avids are the top 10% of total participants based on their days afield, casual angling is made up of anglers who fished one day in the year, and casual hunting consists of hunters who hunted one or two days in the year. Everyone between these two extremes is considered intermediate.

Based on their total days participating in 2001, the top 10% of anglers and hunters accounted for 45% of all fishing and hunting days. The avid angler fished an

average of 73 days per year, compared to the average angler's 16 days. Similarly, the average avid hunter in 2001 hunted 70 days and the average hunter 18 days. Tables 3 and 4 present the trend in avid fishing and hunting over the past three surveys.

Looking at the avid trends, the number of avid anglers was 3.7 million in 1991, 3.4 million in 1996, and 3.5 million in 2001, compared to all anglers (35.6 million, 35.2 million, and 34.1 million, respectively). The number of avid hunters was relatively steady, with 1.4 million in 1991 and 1996 and 1.3 million in 2001, compared to all hunters (14.1 million, 14.0 million, and 13.0 million, respectively).

Figure 2. 2001 Hunting Days: The Number of Hunters, by Number of Days Spent Hunting
(Number of People in thousands)

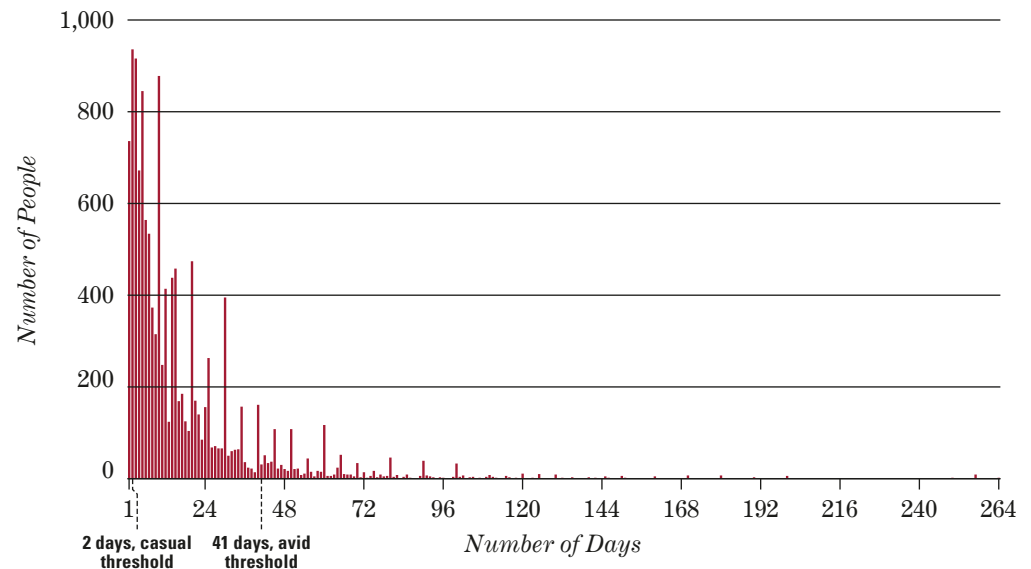


Figure 3. 2001 Hunting Days: The Contribution to Total Days by Casual, Intermediate, and Avid Hunters
(Sum of Days in thousands)

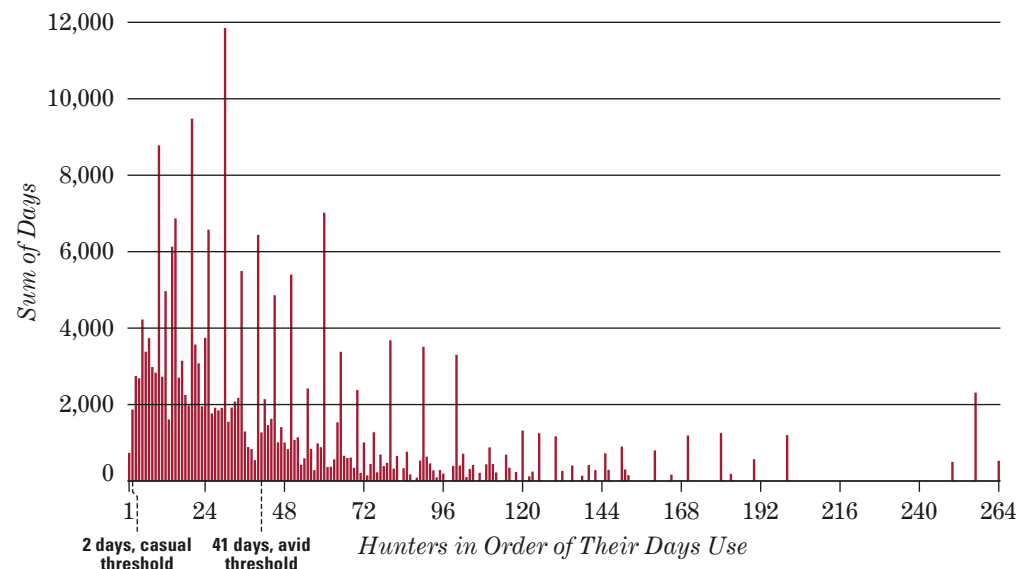


Table 6. Avid Fishing Trends

(Numbers in thousands)

| Fishing, total | <i>Total Participants</i> | <i>Avid Participants</i> | <i>Percent of Participants</i> | <i>Total Days</i> | <i>Avid Days</i> | <i>Percent of Days</i> | <i>Avid Mean Days</i> |
|-----------------------------------|---------------------------|--------------------------|--------------------------------|-------------------|------------------|------------------------|-----------------------|
| 2001 | 34,070 | 3,542 | 10 | 557,394 | 259,388 | 47 | 73 |
| 1996 | 35,246 | 3,362 | 10 | 625,893 | 286,388 | 46 | 85 |
| 1991 | 35,578 | 3,706 | 10 | 511,329 | 250,988 | 49 | 68 |
| Non-Great Lakes Freshwater | | | | | | | |
| 2001 | 27,913 | 3,206 | 11 | 443,247 | 208,547 | 47 | 66 |
| 1996 | 28,921 | 3,060 | 11 | 485,474 | 223,090 | 46 | 73 |
| 1991 | 30,186 | 3,443 | 11 | 430,922 | 212,828 | 49 | 62 |
| Great Lakes | | | | | | | |
| 2001 | 1,847 | 343 | 19 | 23,138 | 12,634 | 55 | 37 |
| 1996 | 2,039 | 299 | 15 | 20,095 | 9,247 | 46 | 32 |
| 1991 | 2,552 | 456 | 18 | 25,335 | 12,759 | 50 | 28 |
| Saltwater | | | | | | | |
| 2001 | 9,051 | 1,036 | 11 | 90,838 | 39,038 | 43 | 38 |
| 1996 | 9,438 | 1,012 | 11 | 103,034 | 43,067 | 42 | 43 |
| 1991 | 8,885 | 1,088 | 12 | 74,696 | 33,255 | 45 | 31 |

Note: Avids determined by total days, not type of fishing days (e.g., Great Lakes days).

Table 7. Avid Hunting Trends

(Numbers in thousands)

| Hunting | <i>Total Participants</i> | <i>Avid Participants</i> | <i>Percent of Participants</i> | <i>Total Days</i> | <i>Avid Days</i> | <i>Percent of Days</i> | <i>Avid Mean Days</i> |
|------------------------|---------------------------|--------------------------|--------------------------------|-------------------|------------------|------------------------|-----------------------|
| 2001 | 13,034 | 1,298 | 10 | 228,368 | 91,032 | 40 | 70 |
| 1996 | 13,975 | 1,384 | 10 | 256,676 | 99,190 | 39 | 72 |
| 1991 | 14,063 | 1,412 | 10 | 235,806 | 98,096 | 42 | 69 |
| Big Game | | | | | | | |
| 2001 | 10,911 | 1,225 | 11 | 153,191 | 56,613 | 37 | 46 |
| 1996 | 11,288 | 1,284 | 11 | 153,784 | 53,731 | 35 | 42 |
| 1991 | 10,745 | 1,317 | 12 | 128,411 | 45,339 | 35 | 34 |
| Small Game | | | | | | | |
| 2001 | 5,434 | 871 | 16 | 60,142 | 26,332 | 44 | 30 |
| 1996 | 6,945 | 1,094 | 16 | 75,117 | 28,413 | 38 | 26 |
| 1991 | 7,642 | 1,228 | 16 | 77,132 | 34,099 | 44 | 28 |
| Migratory Birds | | | | | | | |
| 2001 | 2,956 | 447 | 15 | 29,310 | 11,399 | 39 | 25 |
| 1996 | 3,073 | 521 | 17 | 26,501 | 8,585 | 32 | 18 |
| 1991 | 3,009 | 603 | 20 | 22,235 | 8,894 | 40 | 15 |
| Other Animals | | | | | | | |
| 2001 | 1,047 | 356 | 34 | 19,207 | 13,666 | 71 | 39 |
| 1996 | 1,521 | 465 | 31 | 24,522 | 15,945 | 65 | 38 |
| 1991 | 1,411 | 532 | 38 | 19,340 | 13,280 | 69 | 25 |

Note: Avids determined by total days, not type of hunting days (e.g., Small Game days).

Avid Anglers

In 2001 avid anglers made up 11% of both non-Great Lakes freshwater anglers and saltwater anglers. This means that avid anglers as a group do not specialize in freshwater or saltwater angling, but distribute themselves equally between the two activities. This pattern held for 1991 and 1996. This finding is borne out in the days data as well. In 2001 47% of all fishing days were provided by avid anglers. 47% of all freshwater days and 43% of all saltwater days were provided by avid anglers. The observation that avids as a group do not specialize in freshwater or saltwater can be made for 1991 and 1996 as well.

Avid anglers are an important subgroup of anglers as a whole, both economically and in terms of effort. Studying their sociodemographics gives us insight into who they are.

A majority, 56%, of avid anglers resided in urban areas in 2001. This is not surprising, since a majority of all anglers, 61%, resided in urban areas. The tendency of avid anglers to not be as urban-based as anglers as a whole has held steady over the past three surveys. In 2001 67% of avid anglers lived in Metropolitan Statistical Areas⁴ (MSA) of 50,000 or more residents, compared to 72% of all anglers. Viewed another way,

9% of urban anglers (8% in 1996) and 12% of rural anglers were avid. Rural anglers are more likely to be avid than urban anglers.

In 2001 the age group that had the most avid anglers was 35-44 year olds. This was also true for all anglers. After combining 16-17 and 18-24 year olds into one age group for the purpose of comparison the age group that had the fewest avids was 65 years old and older, as was the case with all anglers.

As with anglers as a whole, avid anglers have become an older age group. Comparing 2001 and 1991 data, 16-34 year olds made up more of the avid angler population in 1991 than in 2001 (45% compared to 32%). Conversely, 45 year old and older anglers were 47% of all avid anglers in 2001, 43% in 1996, and 34% in 1991.

⁴ A Metropolitan Statistical Area is a town, county, or group of towns or counties with a population of at least 50,000. Each MSA must contain a central city. These areas are determined by the Census Bureau, unlike the urban/rural designation, which is determined by each respondent independently. MSA's are included here because they remove the subjective element from the respondent's urban/rural determination.

Angling is a recreational commodity, and economic theory suggests that as income increases people will be more likely to purchase "angling," i.e., the angler with higher income will more likely be avid. And indeed, in 2001 60% of all avid anglers had a household income above national median income and 40% of all avid anglers had below median income. However, comparing that data to income data of anglers as a whole presents a different story. In 2001 60% of avid anglers had above median income, compared to 66% of all anglers. Nonavid anglers tended to have higher income than avid anglers. Higher income is not the indicator of avidity as predicted. Similarly, in 1991 53% of avid anglers had above median income, compared to 59% of all anglers. Although avid anglers tend to have an above median income, anglers as a whole show a stronger tendency for an above median income.

Another way of looking at income's effect on avidity is the percent of anglers with above median income who are avid. In 2001 9% of all anglers with above median income were avid anglers, compared to 10% of all anglers being avid. Conversely, 12% of all below median anglers were avid. A similar relationship held in 1991 and 1996. Avid anglers are more likely to have below median income than the average angler.

Table 8. Avid Anglers by Urban/Rural Residence (With Percent of Totals)

(Numbers in thousands)

| Urban/Rural Cohorts | 1991 | | | | 1996 | | | | 2001 | | | |
|---------------------|------------------|------------------|--------------|------------------|------------------|------------------|--------------|------------------|------------------|------------------|--------------|------------------|
| | All Participants | Percent of Total | Percent Avid | Percent of Total | All Participants | Percent of Total | Percent Avid | Percent of Total | All Participants | Percent of Total | Percent Avid | Percent of Total |
| Total | 35,578 | 100 | 3,706 | 100 | 35,246 | 100 | 3,362 | 100 | 34,070 | 100 | 3,542 | 100 |
| Urban | 22,368 | 63 | 2,081 | 56 | 21,618 | 61 | 1,776 | 53 | 20,924 | 61 | 1,981 | 56 |
| Rural | 13,210 | 37 | 1,625 | 44 | 13,628 | 39 | 1,586 | 47 | 13,146 | 39 | 1,561 | 44 |

Metropolitan Statistical Area (MSA)⁽¹⁾

| | | | | | | | | | | | | |
|----------------------------|------|------|------|------|--------|-----|-------|-----|--------|-----|-------|-----|
| Total | N.A. | N.A. | N.A. | N.A. | 35,246 | 100 | 3,362 | 100 | 34,070 | 100 | 3,542 | 100 |
| In MSA in Central City | N.A. | N.A. | N.A. | N.A. | 7,637 | 22 | 711 | 21 | 6,676 | 20 | 502 | 14 |
| In MSA not in Central City | N.A. | N.A. | N.A. | N.A. | 17,012 | 48 | 1,530 | 46 | 17,714 | 52 | 1,865 | 53 |
| Not MSA | N.A. | N.A. | N.A. | N.A. | 10,584 | 30 | 1,121 | 33 | 9,680 | 28 | 1,175 | 33 |

⁽¹⁾ A town, county, or group of towns or counties with a population of at least 50,000. Each MSA must contain a central city. MSA's are determined by the Bureau of Census, unlike the urban/rural designation, which is determined by each respondent independently.

N.A. Not available

Table 9. Avid Anglers by Urban/Rural Residence (With Percent of Participants)

(Numbers in thousands)

| Urban/Rural Cohorts | 1991 | | | 1996 | | | 2001 | | |
|---------------------|------------------|-------|-------------------------|------------------|-------|-------------------------|------------------|-------|-------------------------|
| | All Participants | Avid | Percent of Participants | All Participants | Avid | Percent of Participants | All Participants | Avid | Percent of Participants |
| Total | 35,578 | 3,706 | 10 | 35,246 | 3,362 | 10 | 34,070 | 3,542 | 10 |
| Urban | 22,368 | 2,081 | 9 | 21,618 | 1,776 | 8 | 20,924 | 1,981 | 9 |
| Rural | 13,210 | 1,625 | 12 | 13,628 | 1,586 | 12 | 13,146 | 1,561 | 12 |

Metropolitan Statistical Area (MSA)⁽¹⁾

| | | | | | | | | | |
|----------------------------|------|------|------|--------|-------|----|--------|-------|----|
| Total | N.A. | N.A. | N.A. | 35,246 | 3,362 | 10 | 34,070 | 3,542 | 10 |
| In MSA in Central City | N.A. | N.A. | N.A. | 7,637 | 711 | 9 | 6,676 | 502 | 8 |
| In MSA not in Central City | N.A. | N.A. | N.A. | 17,012 | 1,530 | 9 | 17,714 | 1,865 | 11 |
| Not MSA | N.A. | N.A. | N.A. | 10,584 | 1,121 | 11 | 9,680 | 1,175 | 12 |

⁽¹⁾ A town, county, or group of towns or counties with a population of at least 50,000. Each MSA must contain a central city. MSA's are determined by the Bureau of Census, unlike the urban/rural designation, which is determined by each respondent independently.

N.A. Not available

Table 10. Avid Anglers by Age Groups (With Percent of Totals)

(Numbers in thousands)

| Age Cohorts | 1991 | | | | 1996 | | | | 2001 | | | |
|--------------|------------------|------------------|-------|------------------|------------------|------------------|-------|------------------|------------------|------------------|-------|------------------|
| | All Participants | Percent of Total | Avid | Percent of Total | All Participants | Percent of Total | Avid | Percent of Total | All Participants | Percent of Total | Avid | Percent of Total |
| Total | 35,578 | 100 | 3,705 | 100 | 35,246 | 100 | 3,361 | 100 | 34,070 | 100 | 3,544 | 100 |
| 16-17 | 1,481 | 4 | 146 | 4 | 1,406 | 4 | 145 | 4 | 1,319 | 4 | 140 | 4 |
| 18-24 | 4,589 | 13 | 564 | 15 | 3,321 | 9 | 309 | 9 | 2,931 | 9 | 319 | 9 |
| 25-34 | 9,927 | 28 | 955 | 26 | 7,175 | 20 | 765 | 23 | 6,578 | 19 | 672 | 19 |
| 35-44 | 8,583 | 24 | 824 | 22 | 9,673 | 27 | 682 | 20 | 9,047 | 27 | 772 | 22 |
| 45-54 | 4,891 | 14 | 501 | 14 | 7,020 | 20 | 767 | 23 | 6,940 | 20 | 696 | 20 |
| 55-64 | 3,270 | 9 | 397 | 11 | 3,537 | 10 | 352 | 10 | 4,168 | 12 | 566 | 16 |
| 65 and older | 2,827 | 8 | 318 | 9 | 3,092 | 9 | 341 | 10 | 3,090 | 9 | 379 | 11 |

Table 11. Avid Anglers by Age Groups (With Percent of Participants)

(Numbers in thousands)

| Age Cohorts | 1991 | | | 1996 | | | 2001 | | |
|--------------|------------------|-------|-------------------------|------------------|-------|-------------------------|------------------|-------|-------------------------|
| | All Participants | Avid | Percent of Participants | All Participants | Avid | Percent of Participants | All Participants | Avid | Percent of Participants |
| Total | 35,578 | 3,705 | 10 | 35,246 | 3,361 | 10 | 34,070 | 3,544 | 10 |
| 16-17 | 1,481 | 146 | 10 | 1,406 | 145 | 10 | 1,319 | 140 | 11 |
| 18-24 | 4,589 | 564 | 12 | 3,321 | 309 | 9 | 2,931 | 319 | 11 |
| 25-34 | 9,927 | 955 | 10 | 7,175 | 765 | 11 | 6,578 | 672 | 10 |
| 35-44 | 8,583 | 824 | 10 | 9,673 | 682 | 7 | 9,047 | 772 | 9 |
| 45-54 | 4,891 | 501 | 10 | 7,020 | 767 | 11 | 6,940 | 696 | 10 |
| 55-64 | 3,270 | 397 | 12 | 3,537 | 352 | 10 | 4,168 | 566 | 14 |
| 65 and older | 2,827 | 318 | 11 | 3,092 | 341 | 11 | 3,090 | 379 | 12 |

Table 12. Avid Anglers by Median Income (With Percent of Totals)

(Numbers in thousands)

| Household income | 1991 | | | | 1996 | | | | 2001 | | | |
|------------------|------------------|------------------|-------------------|------------------|------------------|------------------|-------------------|------------------|------------------|------------------|-------------------|------------------|
| | All Participants | Percent of total | Avid Participants | Percent of total | All Participants | Percent of total | Avid Participants | Percent of total | All Participants | Percent of total | Avid Participants | Percent of total |
| Total | 32,351 | 100 | 3,385 | 100 | 30,980 | 100 | 3,025 | 100 | 28,851 | 100 | 3,013 | 100 |
| Below median | 13,301 | 41 | 1,607 | 47 | 13,516 | 44 | 1,649 | 55 | 9,793 | 34 | 1,216 | 40 |
| Above median | 19,050 | 59 | 1,778 | 53 | 17,464 | 56 | 1,376 | 45 | 19,058 | 66 | 1,797 | 60 |

Note: "All Participants" totals do not match totals from other non-income tables because all respondents did not report their income.

Table 13. Avid Anglers by Median Income (With Percent of Participants)

(Numbers in thousands)

| Household income | 1991 | | | 1996 | | | 2001 | | |
|------------------|------------------|-------------------|-------------------------|------------------|-------------------|-------------------------|------------------|-------------------|-------------------------|
| | All Participants | Avid Participants | Percent of Participants | All Participants | Avid Participants | Percent of Participants | All Participants | Avid Participants | Percent of Participants |
| Total | 32,351 | 3,385 | 10 | 30,980 | 3,025 | 10 | 28,851 | 3,013 | 10 |
| Below median | 13,301 | 1,607 | 12 | 13,516 | 1,649 | 12 | 9,793 | 1,216 | 12 |
| Above median | 19,050 | 1,778 | 9 | 17,464 | 1,376 | 8 | 19,058 | 1,797 | 9 |

Note: "All Participants" totals do not match totals from other non-income tables because all respondents did not report their income.



Pat Hagan/USFWS

Avid Hunters

In 2001 avid hunters constituted 11% of big game hunters, 15% of migratory bird hunters, 16% of small game hunters, and 34% of other animal hunters. Migratory bird, small game, and particularly other animal hunters tended to be more avid than big game hunters. This was true for 1991 and 1996 as well.

Looking at the days data for 2001, avid hunters accounted for 40% of all hunting days: 37% of big game days, 39% of migratory bird days, 44% of small game days, and a startling 71% of other animal (nongame) hunting effort was supplied by avid hunters, compared to approximately one-third of big game hunting effort.

Sociodemographic characteristics of avid hunters help explain participation. In 2001 72% of all avid hunters resided in rural areas, compared to 55% of all hunters living in rural areas. A similar relationship held for 1991 and 1996. Rural hunters are twice as likely to be avid as urban hunters. In both 1991 and 2001 13% of all rural hunters were avid, compared to 6%-7% of urban hunters (6% in 2001, 7% in 1991). Perhaps the easier access to hunting areas that rural residents have is a strong factor in the avidity level of hunters. The traditional rural culture is almost certainly a factor as well.

Age also is a significant factor in avidity levels. When the 16-17 and 18-24 year old age cohorts are combined, the age group with the fewest number of avid hunters in

2001 was the 65 year old and older cohort. The age group with the most avid hunters was the 35-44 year olds. Compared to 1991, when the age group with the most avid hunters was the 25-34 year olds, avid hunters in 2001 tended to be older. This is also true with hunters as a whole.

Avid hunters have a tendency toward having higher income, but not as strong a tendency as that of hunters as a whole. In 2001 42% of avid hunters had below median household income, compared to 34% of all hunters. This pattern held in 1991 and 1996. Avid hunter income tends to be lower than the income of hunters as a whole. The trend from 1991 to 2001 was toward a bigger gap between the numbers of below median and above median income hunters.

Table 14. Avid Hunters by Urban/Rural Residence (With Percent of Totals)

(Numbers in thousands)

| Urban/Rural Cohorts | 1991 | | | | 1996 | | | | 2001 | | | |
|---------------------|------------------|------------------|-------|------------------|------------------|------------------|-------|------------------|------------------|------------------|-------|------------------|
| | All Participants | Percent of Total | Avid | Percent of Total | All Participants | Percent of Total | Avid | Percent of Total | All Participants | Percent of Total | Avid | Percent of Total |
| Total | 14,063 | 100 | 1,412 | 100 | 13,975 | 100 | 1,385 | 100 | 13,034 | 100 | 1,298 | 100 |
| Urban | 6,631 | 47 | 443 | 31 | 6,402 | 46 | 467 | 34 | 5,873 | 45 | 363 | 28 |
| Rural | 7,432 | 53 | 969 | 69 | 7,574 | 54 | 918 | 66 | 7,161 | 55 | 935 | 72 |

Metropolitan Statistical Area (MSA) ⁽¹⁾

| | | | | | | | | | | | | |
|----------------------------|------|------|------|------|--------|-----|-------|-----|--------|-----|-------|-----|
| Total | N.A. | N.A. | N.A. | N.A. | 13,975 | 100 | 1,384 | 100 | 13,034 | 100 | 1,298 | 100 |
| In MSA in Central City | N.A. | N.A. | N.A. | N.A. | 2,123 | 15 | 78 | 6 | 1,803 | 14 | 88 | 7 |
| In MSA not in Central City | N.A. | N.A. | N.A. | N.A. | 5,660 | 41 | 558 | 40 | 5,946 | 46 | 513 | 40 |
| Not MSA | N.A. | N.A. | N.A. | N.A. | 6,192 | 44 | 748 | 54 | 5,285 | 41 | 697 | 54 |

⁽¹⁾ A town, county, or group of towns or counties with a population of at least 50,000. Each MSA must contain a central city. MSA's are determined by the Bureau of Census, unlike the urban/rural designation, which is determined by each respondent independently.

N.A. Not available

Table 15. Avid Hunters by Urban/Rural Residence (With Percent of Participants)

(Numbers in thousands)

| Urban/Rural Cohorts | 1991 | | | 1996 | | | 2001 | | |
|---------------------|------------------|-------|-------------------------|------------------|-------|-------------------------|------------------|-------|-------------------------|
| | All Participants | Avid | Percent of Participants | All Participants | Avid | Percent of Participants | All Participants | Avid | Percent of Participants |
| Total | 14,063 | 1,412 | 10 | 13,975 | 1,385 | 10 | 13,034 | 1,298 | 10 |
| Urban | 6,631 | 443 | 7 | 6,402 | 467 | 7 | 5,873 | 363 | 6 |
| Rural | 7,432 | 969 | 13 | 7,574 | 918 | 12 | 7,161 | 935 | 13 |

Metropolitan Statistical Area (MSA) ⁽¹⁾

| | | | | | | | | | |
|----------------------------|------|------|------|--------|-------|----|--------|-------|----|
| Total | N.A. | N.A. | N.A. | 13,975 | 1,384 | 10 | 13,034 | 1,298 | 10 |
| In MSA in Central City | N.A. | N.A. | N.A. | 2,123 | 78 | 4 | 1,803 | 88 | 5 |
| In MSA not in Central City | N.A. | N.A. | N.A. | 5,660 | 558 | 10 | 5,946 | 513 | 9 |
| Not MSA | N.A. | N.A. | N.A. | 6,192 | 748 | 12 | 5,285 | 697 | 13 |

⁽¹⁾ A town, county, or group of towns or counties with a population of at least 50,000. Each MSA must contain a central city. MSA's are determined by the Bureau of Census, unlike the urban/rural designation, which is determined by each respondent independently.

N.A. Not available

Table 16. Avid Hunters by Age Groups (With Percent of Totals)

(Numbers in thousands)

| Age Cohorts | 1991 | | | | 1996 | | | | 2001 | | | |
|--------------|------------------|------------------|-------|------------------|------------------|------------------|-------|------------------|------------------|------------------|-------|------------------|
| | All Participants | Percent of Total | Avid | Percent of Total | All Participants | Percent of Total | Avid | Percent of Total | All Participants | Percent of Total | Avid | Percent of Total |
| Total | 14,063 | 100 | 1,412 | 100 | 13,975 | 100 | 1,385 | 100 | 13,034 | 100 | 1,299 | 100 |
| 16-17 | 662 | 5 | 61 | 4 | 672 | 5 | 62 | 4 | 584 | 4 | 69 | 5 |
| 18-24 | 2,008 | 14 | 262 | 19 | 1,397 | 10 | 170 | 12 | 1,251 | 10 | 155 | 12 |
| 25-34 | 3,928 | 28 | 431 | 31 | 2,783 | 20 | 374 | 27 | 2,413 | 19 | 280 | 22 |
| 35-44 | 3,363 | 24 | 348 | 25 | 3,819 | 27 | 372 | 27 | 3,551 | 27 | 307 | 24 |
| 45-54 | 2,071 | 15 | 191 | 14 | 2,851 | 20 | 277 | 20 | 2,821 | 22 | 261 | 20 |
| 55-64 | 1,177 | 8 | 68 | 5 | 1,487 | 11 | 87 | 6 | 1,449 | 11 | 156 | 12 |
| 65 and older | 836 | 6 | 51 | 4 | 967 | 7 | 43 | 3 | 965 | 7 | 71 | 5 |

Table 17. Avid Hunters by Age Groups (With Percent of Participants)

(Numbers in thousands)

| Age Cohorts | 1991 | | | 1996 | | | 2001 | | |
|--------------|------------------|-------|-------------------------|------------------|-------|-------------------------|------------------|-------|-------------------------|
| | All Participants | Avid | Percent of Participants | All Participants | Avid | Percent of Participants | All Participants | Avid | Percent of Participants |
| Total | 14,063 | 1,412 | 10 | 13,975 | 1,385 | 10 | 13,034 | 1,299 | 10 |
| 16-17 | 662 | 61 | 9 | 672 | 62 | 9 | 584 | 69 | 12 |
| 18-24 | 2,008 | 262 | 13 | 1,397 | 170 | 12 | 1,251 | 155 | 12 |
| 25-34 | 3,928 | 431 | 11 | 2,783 | 374 | 13 | 2,413 | 280 | 12 |
| 35-44 | 3,363 | 348 | 10 | 3,819 | 372 | 10 | 3,551 | 307 | 9 |
| 45-54 | 2,071 | 191 | 9 | 2,851 | 277 | 10 | 2,821 | 261 | 9 |
| 55-64 | 1,177 | 68 | 6 | 1,487 | 87 | 6 | 1,449 | 156 | 11 |
| 65 and older | 836 | 51 | 6 | 967 | 43 | 4 | 965 | 71 | 7 |

Table 18. Avid Hunters by Median Income (With Percent of Totals)

(Numbers in thousands)

| Household income | 1991 | | | | 1996 | | | | 2001 | | | |
|------------------|------------------|------------------|-------|------------------|------------------|------------------|-------|------------------|------------------|------------------|-------|------------------|
| | All Participants | Percent of Total | Avid | Percent of Total | All Participants | Percent of Total | Avid | Percent of Total | All Participants | Percent of Total | Avid | Percent of Total |
| Total | 12,714 | 100 | 1,290 | 100 | 12,219 | 100 | 1,228 | 100 | 10,979 | 100 | 1,084 | 100 |
| Below median | 5,424 | 43 | 602 | 47 | 5,272 | 43 | 603 | 49 | 3,703 | 34 | 460 | 42 |
| Above median | 7,290 | 57 | 688 | 53 | 6,947 | 57 | 625 | 51 | 7,276 | 66 | 624 | 58 |

Note: "All Participants" totals do not match totals from other non-income tables because all respondents did not report their income.

Table 19. Avid Hunters by Median Income (With Percent of Participants)

(Numbers in thousands)

| Household income | 1991 | | | 1996 | | | 2001 | | |
|------------------|------------------|-----------|-------------------------|------------------|-----------|-------------------------|------------------|-----------|-------------------------|
| | All Participants | 1991 Avid | Percent of Participants | All Participants | 1996 Avid | Percent of Participants | All Participants | 2001 Avid | Percent of Participants |
| Total | 12,714 | 1,290 | 10 | 12,219 | 1,228 | 10 | 10,979 | 1,084 | 10 |
| Below median | 5,424 | 602 | 11 | 5,272 | 603 | 11 | 3,703 | 460 | 12 |
| Above median | 7,290 | 688 | 9 | 6,947 | 625 | 9 | 7,276 | 624 | 9 |

Note: "All Participants" totals do not match totals from other non-income tables because all respondents did not report their income.

Trends in Intermediate Fishing and Hunting

The largest subgroup of anglers and hunters is the intermediates, those people who participate more than once or twice a year but less than the avid threshold (i.e., between 35 and 45 days per year, depending on the activity and year). Intermediates make up approximately 75% of participants and contribute about half of all angling and hunting days. What are their participation and sociodemographic characteristics?

Intermediate participants in 2001 were 78% of all anglers. They provided 53% of all fishing days — an average of

11 days per angler, compared to 10 days in 1991. Hunting is a similar picture. Intermediate hunters were 76% of all hunters in 2001 and provided a total of 59% of all hunting days — an average of 14 days per hunter, compared to 13 days in 1991.

Intermediate anglers numbered 26.8 million in 1991, 27.7 million in 1996, and 26.6 million in 2001, compared to all anglers (35.6 million, 35.2 million, and 34.1 million, successively). Intermediate hunters numbered 10.3 million, 10.9 million, and 10.0 million, compared to all hunters (14.1 million to 14.0 million to 13.0 million) in the three survey years.

Intermediate Anglers

In 2001 intermediate anglers made up 79% of non-Great Lakes freshwater anglers and 78% of saltwater anglers. Intermediate anglers as a group did not specialize in one type of fishing, but as a group participated in freshwater and saltwater roughly equally. 52% of all freshwater days were provided by intermediate anglers, while slightly more, 56%, of all saltwater days were provided by intermediate anglers. The intermediate angler contributed nearly the same proportion of all fishing days for both freshwater and saltwater fisheries. The data for 1991 and 1996 show similar patterns.

Table 20. Intermediate Angler Trends

(Numbers in thousands)

| | <i>Total Participants</i> | <i>Intermediate Participants</i> | <i>Percent of Participants</i> | <i>Total Days</i> | <i>Intermediate Days</i> | <i>Percent of Days</i> | <i>Intermediate Mean Days</i> |
|-----------------------------------|---------------------------|----------------------------------|--------------------------------|-------------------|--------------------------|------------------------|-------------------------------|
| Fishing | | | | | | | |
| 2001 | 34,070 | 26,588 | 78 | 557,394 | 294,411 | 53 | 11 |
| 1996 | 35,246 | 27,724 | 79 | 625,893 | 335,690 | 54 | 12 |
| 1991 | 35,578 | 26,835 | 75 | 511,329 | 255,478 | 50 | 10 |
| Non-Great Lakes Freshwater | | | | | | | |
| 2001 | 27,913 | 22,153 | 79 | 443,247 | 232,297 | 52 | 10 |
| 1996 | 28,921 | 23,143 | 80 | 485,474 | 259,748 | 54 | 11 |
| 1991 | 30,186 | 23,067 | 76 | 430,922 | 213,409 | 50 | 9 |
| Great Lakes | | | | | | | |
| 2001 | 1,847 | 1,374 | 74 | 23,138 | 10,405 | 45 | 8 |
| 1996 | 2,039 | 1,553 | 76 | 20,095 | 10,710 | 53 | 7 |
| 1991 | 2,552 | 1,894 | 74 | 25,335 | 12,360 | 49 | 7 |
| Saltwater | | | | | | | |
| 2001 | 9,051 | 7,104 | 78 | 90,838 | 50,948 | 56 | 7 |
| 1996 | 9,438 | 7,392 | 78 | 103,034 | 58,961 | 57 | 8 |
| 1991 | 8,885 | 6,632 | 75 | 74,696 | 40,043 | 54 | 6 |

Note: Intermediate anglers determined by all fishing days, not type of fishing days (e.g., Great Lakes days).

A majority of intermediate anglers resided in urban areas (63% in 1991 and 62% in 1996 and 2001). All demographic findings for intermediates closely follow those of all anglers. Focusing on urban areas, in 2001 19.1 million intermediate anglers, 72% of all intermediate anglers, lived in a Metropolitan Statistical Area, compared to 24.4 million total anglers, 72% of anglers as a whole, living in a MSA.

In 2001 the age group that had the most intermediate anglers was 35-44 year olds. This was also true for all anglers. The age

group (after combining 16-17 and 18-24 year olds into one age group) that had the fewest intermediates was 65 years old and older, as was the case with all anglers.

The average age of intermediate anglers has increased from 1991 to 2001. Comparing 2001 and 1991 data, 16-34 year olds made up more of the intermediate angler population in 1991 than in 2001 (44% compared to 32%). Conversely, 45 year olds and older were 42% of all intermediate anglers in 2001, 39% in 1996, and 31% in 1991.

Intermediate anglers had nearly the same proportion of below median income anglers and above median income anglers as the general angling population for all three surveys. Above median income anglers were slightly more likely to be intermediate anglers — 76% of all below median income anglers and 80% of all above median income anglers were intermediate anglers in 2001.

Table 21. Intermediate Anglers by Urban/Rural Residence (With Percent of Totals)

(Numbers in thousands)

| Urban/Rural Cohorts | 1991 | | | | 1996 | | | | 2001 | | | |
|---------------------|------------------|------------------|--------------|------------------|------------------|------------------|--------------|------------------|------------------|------------------|--------------|------------------|
| | All Participants | Percent of Total | Intermediate | Percent of Total | All Participants | Percent of Total | Intermediate | Percent of Total | All Participants | Percent of Total | Intermediate | Percent of Total |
| Total | 35,578 | 100 | 26,836 | 100 | 35,246 | 100 | 27,725 | 100 | 34,070 | 100 | 26,588 | 100 |
| Urban | 22,368 | 63 | 16,968 | 63 | 21,618 | 61 | 17,112 | 62 | 20,924 | 61 | 16,407 | 62 |
| Rural | 13,210 | 37 | 9,868 | 37 | 13,628 | 39 | 10,613 | 38 | 13,146 | 39 | 10,181 | 38 |

Metropolitan Statistical Area (MSA) ⁽¹⁾

| | | | | | | | | | | | | |
|----------------------------|------|------|------|------|--------|-----|--------|-----|--------|-----|--------|-----|
| Total | N.A. | N.A. | N.A. | N.A. | 35,246 | 100 | 27,725 | 100 | 34,070 | 100 | 26,588 | 100 |
| In MSA in Central City | N.A. | N.A. | N.A. | N.A. | 7,637 | 22 | 5,747 | 21 | 6,676 | 20 | 5,456 | 21 |
| In MSA not in Central City | N.A. | N.A. | N.A. | N.A. | 17,012 | 48 | 13,736 | 50 | 17,714 | 52 | 13,617 | 51 |
| Not MSA | N.A. | N.A. | N.A. | N.A. | 10,584 | 30 | 8,242 | 30 | 9,680 | 28 | 7,515 | 28 |

⁽¹⁾ A town, county, or group of towns or counties with a population of at least 50,000. Each MSA must contain a central city. MSA's are determined by the Bureau of Census, unlike the urban/rural designation, which is determined by each respondent independently.

N.A. Not available

Table 22. Intermediate Anglers by Urban/Rural Residence (With Percent of Participants)

(Numbers in thousands)

| Urban/Rural Cohorts | 1991 | | | 1996 | | | 2001 | | |
|---------------------|------------------|--------------|-------------------------|------------------|--------------|-------------------------|------------------|--------------|-------------------------|
| | All Participants | Intermediate | Percent of Participants | All Participants | Intermediate | Percent of Participants | All Participants | Intermediate | Percent of Participants |
| Total | 35,578 | 26,836 | 75 | 35,246 | 27,725 | 79 | 34,070 | 26,588 | 78 |
| Urban | 22,368 | 16,968 | 76 | 21,618 | 17,112 | 79 | 20,924 | 16,407 | 78 |
| Rural | 13,210 | 9,868 | 75 | 13,628 | 10,613 | 78 | 13,146 | 10,181 | 77 |

Metropolitan Statistical Area (MSA) ⁽¹⁾

| | | | | | | | | | |
|----------------------------|------|------|------|--------|--------|----|--------|--------|----|
| Total | N.A. | N.A. | N.A. | 35,246 | 27,725 | 79 | 34,070 | 26,588 | 78 |
| In MSA in Central City | N.A. | N.A. | N.A. | 7,637 | 5,747 | 75 | 6,676 | 5,456 | 82 |
| In MSA not in Central City | N.A. | N.A. | N.A. | 17,012 | 13,736 | 81 | 17,714 | 13,617 | 77 |
| Not MSA | N.A. | N.A. | N.A. | 10,584 | 8,242 | 78 | 9,680 | 7,515 | 78 |

⁽¹⁾ A town, county, or group of towns or counties with a population of at least 50,000. Each MSA must contain a central city. MSA's are determined by the Bureau of Census, unlike the urban/rural designation, which is determined by each respondent independently.

N.A. Not available

Table 23. Intermediate Anglers by Age Group (With Percent of Totals)

(Numbers in thousands)

| Age Cohorts | 1991 | | | | 1996 | | | | 2001 | | | |
|--------------|------------------|------------------|--------------|------------------|------------------|------------------|--------------|------------------|------------------|------------------|--------------|------------------|
| | All Participants | Percent of Total | Intermediate | Percent of Total | All Participants | Percent of Total | Intermediate | Percent of Total | All Participants | Percent of Total | Intermediate | Percent of Total |
| Total | 35,578 | 100 | 26,835 | 100 | 35,246 | 100 | 27,724 | 100 | 34,070 | 100 | 26,589 | 100 |
| 16-17 | 1,481 | 4 | 1,127 | 4 | 1,406 | 4 | 1,100 | 4 | 1,319 | 4 | 1,028 | 4 |
| 18-24 | 4,589 | 13 | 3,338 | 12 | 3,321 | 9 | 2,594 | 9 | 2,931 | 9 | 2,319 | 9 |
| 25-34 | 9,927 | 28 | 7,442 | 28 | 7,175 | 20 | 5,636 | 20 | 6,578 | 19 | 5,112 | 19 |
| 35-44 | 8,583 | 24 | 6,560 | 24 | 9,673 | 27 | 7,735 | 28 | 9,047 | 27 | 7,147 | 27 |
| 45-54 | 4,891 | 14 | 3,870 | 14 | 7,020 | 20 | 5,460 | 20 | 6,940 | 20 | 5,495 | 21 |
| 55-64 | 3,270 | 9 | 2,449 | 9 | 3,537 | 10 | 2,763 | 10 | 4,168 | 12 | 3,113 | 12 |
| 65 and older | 2,827 | 8 | 2,049 | 8 | 3,092 | 9 | 2,436 | 9 | 3,090 | 9 | 2,375 | 9 |

Table 24. Intermediate Anglers by Age Group (With Percent of Participants)

(Numbers in thousands)

| Age Cohorts | 1991 | | | 1996 | | | 2001 | | |
|--------------|------------------|--------------|-------------------------|------------------|--------------|-------------------------|------------------|--------------|-------------------------|
| | All Participants | Intermediate | Percent of Participants | All Participants | Intermediate | Percent of Participants | All Participants | Intermediate | Percent of Participants |
| Total | 35,578 | 26,835 | 75 | 35,246 | 27,724 | 79 | 34,070 | 26,589 | 78 |
| 16-17 | 1,481 | 1,127 | 76 | 1,406 | 1,100 | 78 | 1,319 | 1,028 | 78 |
| 18-24 | 4,589 | 3,338 | 73 | 3,321 | 2,594 | 78 | 2,931 | 2,319 | 79 |
| 25-34 | 9,927 | 7,442 | 75 | 7,175 | 5,636 | 79 | 6,578 | 5,112 | 78 |
| 35-44 | 8,583 | 6,560 | 76 | 9,673 | 7,735 | 80 | 9,047 | 7,147 | 79 |
| 45-54 | 4,891 | 3,870 | 79 | 7,020 | 5,460 | 78 | 6,940 | 5,495 | 79 |
| 55-64 | 3,270 | 2,449 | 75 | 3,537 | 2,763 | 78 | 4,168 | 3,113 | 75 |
| 65 and older | 2,827 | 2,049 | 72 | 3,092 | 2,436 | 79 | 3,090 | 2,375 | 77 |

Table 25. Intermediate Anglers by Median Income (With Percent of Totals)

(Numbers in thousands)

| Household income | 1991 | | | | 1996 | | | | 2001 | | | |
|------------------|------------------|------------------|--------------|------------------|------------------|------------------|--------------|------------------|------------------|------------------|--------------|------------------|
| | All Participants | Percent of total | Intermediate | Percent of total | All Participants | Percent of total | Intermediate | Percent of total | All Participants | Percent of total | Intermediate | Percent of total |
| Total | 32,351 | 100 | 24,424 | 100 | 30,980 | 100 | 24,452 | 100 | 28,851 | 100 | 22,607 | 100 |
| Below median | 13,301 | 41 | 9,784 | 40 | 13,516 | 44 | 10,368 | 42 | 9,793 | 34 | 7,450 | 33 |
| Above median | 19,050 | 59 | 14,640 | 60 | 17,464 | 56 | 14,084 | 58 | 19,058 | 66 | 15,157 | 67 |

Note: "All Participants" totals do not match totals from other non-income tables because all respondents did not report their income.

Table 26. Intermediate Anglers by Median Income (With Percent of Participants)

(Numbers in thousands)

| Household income | 1991 | | | 1996 | | | 2001 | | |
|------------------|------------------|--------------|-------------------------|------------------|--------------|-------------------------|------------------|--------------|-------------------------|
| | All Participants | Intermediate | Percent of Participants | All Participants | Intermediate | Percent of Participants | All Participants | Intermediate | Percent of Participants |
| Total | 32,351 | 24,424 | 75 | 30,980 | 24,452 | 79 | 28,851 | 22,607 | 78 |
| Below median | 13,301 | 9,784 | 74 | 13,516 | 10,368 | 77 | 9,793 | 7,450 | 76 |
| Above median | 19,050 | 14,640 | 77 | 17,464 | 14,084 | 81 | 19,058 | 15,157 | 80 |

Note: "All Participants" totals do not match totals from other non-income tables because all respondents did not report their income.

Intermediate Hunters

In 2001 intermediate hunters, 76% of all hunters, constituted 79% of big game hunters, 77% of migratory bird hunters, 75% of small game hunters, and 63% of other animal hunters. Big game hunting was the biggest draw for intermediate hunters, as it is for the avid and casual subcategories of hunters, and as it was in 1991 and 1996.

Looking at the days data, 59% of all hunting days in 2001 were provided by intermediate hunters: 62% of all big game days, 60% of all migratory bird days, 55% of all small game days, and 29% of all other animal days. In 1991, the days afield by intermediate hunters were very close to 2001, with 57% of all hunting days, 63% of big game days, 58% of migratory bird days, 54% of small game days, and 30% of other animal

hunting days contributed by intermediate hunters. The intermediate hunter has maintained his/her share of all hunting activity over the past three surveys, with a small bump up in 1996 and a fall to 1991 levels in 2001.

The discussion of the sociodemographic characteristics of intermediate hunters begins with their urban/rural residence. In 2001 54% of intermediate hunters resided in rural areas, similar to the 53% of intermediate hunters in 1991 and 1996. Again, these percentages are very close to those of hunters as a whole.

When the 16-17 and 18-24 year old age cohorts are combined, the age group with the fewest number of intermediate hunters in 2001 was the 65 years old and older cohort. 7% of intermediate hunters were 65 years old and older,

compared to 5% of avids and 10% of casuals of the same age. The age group with the most intermediate hunters was the 25-34 year olds in 1991 and the 35-44 year olds in 2001. This aging trend holds for all subcategories of hunters: avid, intermediate, and casual.

Intermediate hunters had a strong tendency toward having higher income in 2001. 33% of intermediate hunters had below median household income. 34% of hunters as a whole had below median household income. Above median income is a strong determinant for intermediate hunting, as it is for hunting as a whole. This is a difference between intermediate hunters and avid hunters: the below median income hunting group tends to be less intermediate than the average hunter, while the same group tends to be more avid than the average hunter.

Table 27. Intermediate Hunting Trends

(Numbers in thousands)

| Hunting | Total Participants | Intermediate Participants | Percent of Participants | Total Days | Intermediate Days | Percent of Days | Intermediate Mean Days |
|------------------------|--------------------|---------------------------|-------------------------|------------|-------------------|-----------------|------------------------|
| 2001 | 13,034 | 9,969 | 76 | 228,368 | 134,728 | 59 | 14 |
| 1996 | 13,975 | 10,916 | 78 | 256,676 | 154,945 | 60 | 14 |
| 1991 | 14,063 | 10,262 | 73 | 235,806 | 134,150 | 57 | 13 |
| Big Game | | | | | | | |
| 2001 | 10,911 | 8,570 | 79 | 153,191 | 94,904 | 62 | 11 |
| 1996 | 11,288 | 8,957 | 79 | 153,784 | 98,477 | 64 | 11 |
| 1991 | 10,745 | 8,203 | 76 | 128,411 | 80,869 | 63 | 10 |
| Small Game | | | | | | | |
| 2001 | 5,434 | 4,079 | 75 | 60,142 | 33,177 | 55 | 8 |
| 1996 | 6,945 | 5,379 | 77 | 75,117 | 46,043 | 61 | 9 |
| 1991 | 7,642 | 5,526 | 72 | 77,132 | 41,645 | 54 | 8 |
| Migratory Birds | | | | | | | |
| 2001 | 2,956 | 2,278 | 77 | 29,310 | 17,601 | 60 | 8 |
| 1996 | 3,073 | 2,372 | 77 | 26,501 | 17,662 | 67 | 7 |
| 1991 | 3,009 | 2,063 | 69 | 22,235 | 12,800 | 58 | 6 |
| Other Animals | | | | | | | |
| 2001 | 1,047 | 662 | 63 | 19,207 | 5,514 | 29 | 8 |
| 1996 | 1,521 | 977 | 64 | 24,522 | 8,497 | 35 | 9 |
| 1991 | 1,411 | 832 | 59 | 19,340 | 5,870 | 30 | 7 |

Note: Intermediate hunters determined by total days, not type of hunting days (e.g., Small Game days).

Table 28. Intermediate Hunters by Urban/Rural Residence (With Percent of Totals)

(Numbers in thousands)

| Urban/Rural Cohorts | 1991 | | | | 1996 | | | | 2001 | | | |
|---------------------|------------------|------------------|---------------|------------------|------------------|------------------|---------------|------------------|------------------|------------------|---------------|------------------|
| | All Participants | Percent of Total | Inter-mediate | Percent of Total | All Participants | Percent of Total | Inter-mediate | Percent of Total | All Participants | Percent of Total | Inter-mediate | Percent of Total |
| Total | 14,063 | 100 | 10,262 | 100 | 13,975 | 100 | 10,916 | 100 | 13,034 | 100 | 9,969 | 100 |
| Urban | 6,631 | 47 | 4,854 | 47 | 6,402 | 46 | 5,121 | 47 | 5,873 | 45 | 4,628 | 46 |
| Rural | 7,432 | 53 | 5,408 | 53 | 7,574 | 54 | 5,795 | 53 | 7,161 | 55 | 5,341 | 54 |

Metropolitan Statistical Area (MSA) ⁽¹⁾

| | | | | | | | | | | | | |
|----------------------------|------|------|------|------|--------|-----|--------|-----|--------|-----|-------|-----|
| Total | N.A. | N.A. | N.A. | N.A. | 13,975 | 100 | 10,916 | 100 | 13,034 | 100 | 9,969 | 100 |
| In MSA in Central City | N.A. | N.A. | N.A. | N.A. | 2,123 | 15 | 1,723 | 16 | 1,803 | 14 | 1,414 | 14 |
| In MSA not in Central City | N.A. | N.A. | N.A. | N.A. | 5,660 | 41 | 4,544 | 42 | 5,946 | 46 | 4,615 | 46 |
| Not MSA | N.A. | N.A. | N.A. | N.A. | 6,192 | 44 | 4,649 | 43 | 5,285 | 41 | 3,940 | 40 |

⁽¹⁾ A town, county, or group of towns or counties with a population of at least 50,000. Each MSA must contain a central city. MSA's are determined by the Bureau of Census, unlike the urban/rural designation, which is determined by each respondent independently.

N.A. Not available

Table 29. Intermediate Hunters by Urban/Rural Residence (With Percent of Participants)

(Numbers in thousands)

| Urban/Rural Cohorts | 1991 | | | 1996 | | | 2001 | | |
|---------------------|------------------|---------------|-------------------------|------------------|---------------|-------------------------|------------------|---------------|-------------------------|
| | All Participants | Inter-mediate | Percent of Participants | All Participants | Inter-mediate | Percent of Participants | All Participants | Inter-mediate | Percent of Participants |
| Total | 14,063 | 10,262 | 73 | 13,975 | 10,916 | 78 | 13,034 | 9,969 | 76 |
| Urban | 6,631 | 4,854 | 73 | 6,402 | 5,121 | 80 | 5,873 | 4,628 | 79 |
| Rural | 7,432 | 5,408 | 73 | 7,574 | 5,795 | 77 | 7,161 | 5,341 | 75 |

Metropolitan Statistical Area (MSA) ⁽¹⁾

| | | | | | | | | | |
|----------------------------|------|------|------|--------|--------|----|--------|-------|----|
| Total | N.A. | N.A. | N.A. | 13,975 | 10,916 | 78 | 13,034 | 9,969 | 76 |
| In MSA in Central City | N.A. | N.A. | N.A. | 2,123 | 1,723 | 81 | 1,803 | 1,414 | 78 |
| In MSA not in Central City | N.A. | N.A. | N.A. | 5,660 | 4,544 | 80 | 5,946 | 4,615 | 78 |
| Not MSA | N.A. | N.A. | N.A. | 6,192 | 4,649 | 75 | 5,285 | 3,940 | 75 |

⁽¹⁾ A town, county, or group of towns or counties with a population of at least 50,000. Each MSA must contain a central city. MSA's are determined by the Bureau of Census, unlike the urban/rural designation, which is determined by each respondent independently.

N.A. Not available

Table 30. Intermediate Hunters by Age Group (With Percent of Totals)

(Numbers in thousands)

| Age Cohorts | 1991 | | | | 1996 | | | | 2001 | | | |
|--------------|------------------|------------------|--------------|------------------|------------------|------------------|--------------|------------------|------------------|------------------|--------------|------------------|
| | All Participants | Percent of Total | Intermediate | Percent of Total | All Participants | Percent of Total | Intermediate | Percent of Total | All Participants | Percent of Total | Intermediate | Percent of Total |
| Total | 14,063 | 100 | 10,261 | 100 | 13,975 | 100 | 10,915 | 100 | 13,034 | 100 | 9,970 | 100 |
| 16-17 | 662 | 5 | 449 | 4 | 672 | 5 | 540 | 5 | 584 | 4 | 434 | 4 |
| 18-24 | 2,008 | 14 | 1,392 | 14 | 1,397 | 10 | 1,037 | 10 | 1,251 | 10 | 878 | 9 |
| 25-34 | 3,928 | 28 | 2,847 | 28 | 2,783 | 20 | 2,080 | 19 | 2,413 | 19 | 1,775 | 18 |
| 35-44 | 3,363 | 24 | 2,524 | 25 | 3,819 | 27 | 3,024 | 28 | 3,551 | 27 | 2,807 | 28 |
| 45-54 | 2,071 | 15 | 1,560 | 15 | 2,851 | 20 | 2,248 | 21 | 2,821 | 22 | 2,251 | 23 |
| 55-64 | 1,177 | 8 | 925 | 9 | 1,487 | 11 | 1,239 | 11 | 1,449 | 11 | 1,101 | 11 |
| 65 and older | 836 | 6 | 564 | 5 | 967 | 7 | 747 | 7 | 965 | 7 | 724 | 7 |

Table 31. Intermediate Hunters by Age Group (With Percent of Participants)

(Numbers in thousands)

| Age Cohorts | 1991 | | | 1996 | | | 2001 | | |
|--------------|------------------|--------------|-------------------------|------------------|--------------|-------------------------|------------------|--------------|-------------------------|
| | All Participants | Intermediate | Percent of Participants | All Participants | Intermediate | Percent of Participants | All Participants | Intermediate | Percent of Participants |
| Total | 14,063 | 10,261 | 73 | 13,975 | 10,915 | 78 | 13,034 | 9,970 | 76 |
| 16-17 | 662 | 449 | 68 | 672 | 540 | 80 | 584 | 434 | 74 |
| 18-24 | 2,008 | 1,392 | 69 | 1,397 | 1,037 | 74 | 1,251 | 878 | 70 |
| 25-34 | 3,928 | 2,847 | 72 | 2,783 | 2,080 | 75 | 2,413 | 1,775 | 74 |
| 35-44 | 3,363 | 2,524 | 75 | 3,819 | 3,024 | 79 | 3,551 | 2,807 | 79 |
| 45-54 | 2,071 | 1,560 | 75 | 2,851 | 2,248 | 79 | 2,821 | 2,251 | 80 |
| 55-64 | 1,177 | 925 | 79 | 1,487 | 1,239 | 83 | 1,449 | 1,101 | 76 |
| 65 and older | 836 | 564 | 67 | 967 | 747 | 77 | 965 | 724 | 75 |

Table 32. Intermediate Hunters by Median Income (With Percent of Totals)

(Numbers in thousands)

| Household income | 1991 | | | | 1996 | | | | 2001 | | | |
|------------------|------------------|------------------|--------------|------------------|------------------|------------------|--------------|------------------|------------------|------------------|--------------|------------------|
| | All Participants | Percent of Total | Intermediate | Percent of Total | All Participants | Percent of Total | Intermediate | Percent of Total | All Participants | Percent of Total | Intermediate | Percent of Total |
| Total | 12,714 | 100 | 9,297 | 100 | 12,219 | 100 | 9,525 | 100 | 10,979 | 100 | 8,441 | 100 |
| Below median | 5,424 | 43 | 3,890 | 42 | 5,272 | 43 | 3,986 | 42 | 3,703 | 34 | 2,763 | 33 |
| Above median | 7,290 | 57 | 5,407 | 58 | 6,947 | 57 | 5,539 | 58 | 7,276 | 66 | 5,678 | 67 |

Note: "All Participants" totals do not match totals from other non-income tables because all respondents did not report their income.

Table 33. Intermediate Hunters by Median Income (With Percent of Participants)

(Numbers in thousands)

| Household income | 1991 | | | 1996 | | | 2001 | | |
|------------------|------------------|--------------|-------------------------|------------------|--------------|-------------------------|------------------|--------------|-------------------------|
| | All Participants | Intermediate | Percent of Participants | All Participants | Intermediate | Percent of Participants | All Participants | Intermediate | Percent of Participants |
| Total | 12,714 | 9,297 | 73 | 12,219 | 9,525 | 78 | 10,979 | 8,441 | 77 |
| Below median | 5,424 | 3,890 | 72 | 5,272 | 3,986 | 76 | 3,703 | 2,763 | 75 |
| Above median | 7,290 | 5,407 | 74 | 6,947 | 5,539 | 80 | 7,276 | 5,678 | 78 |

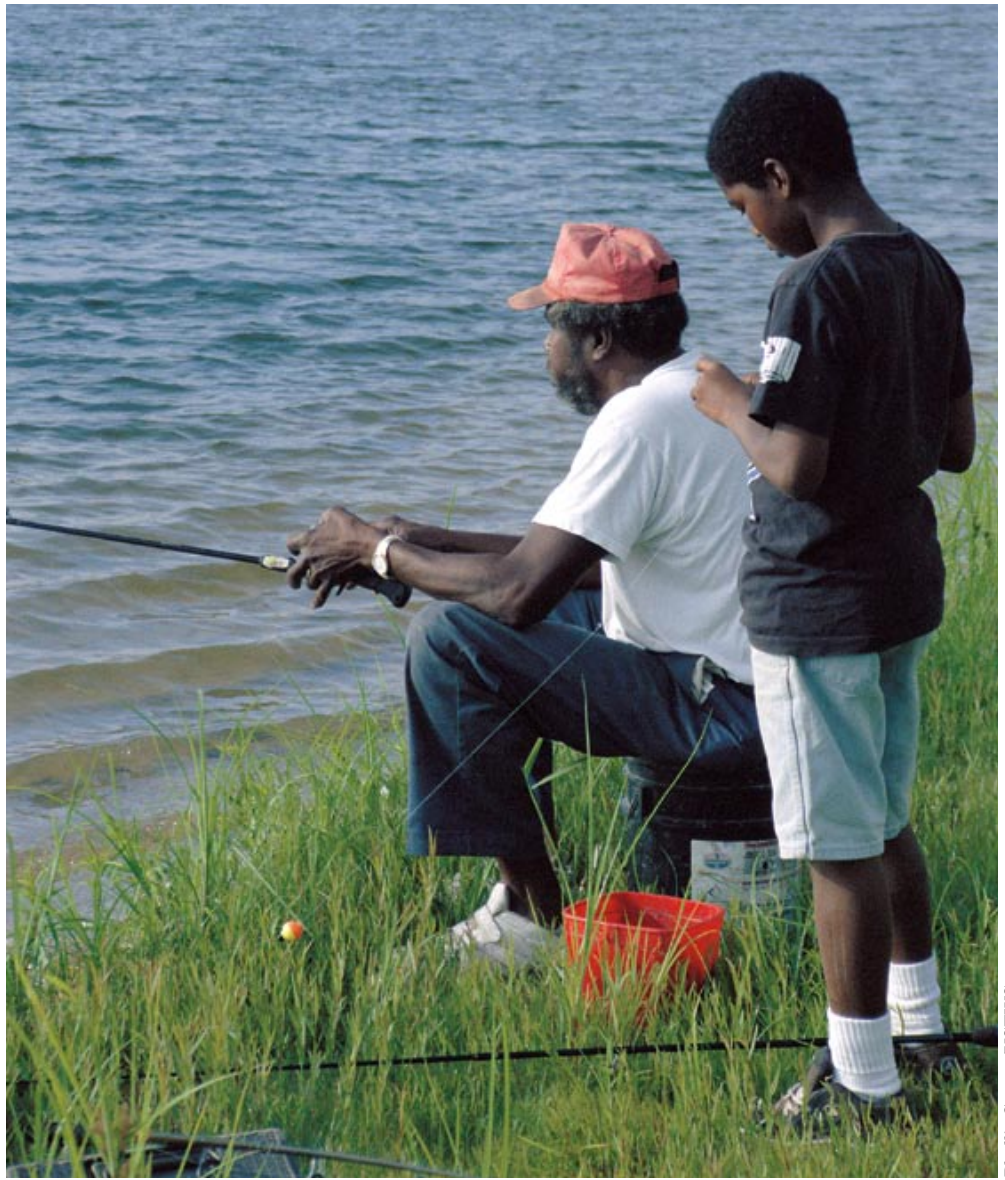
Note: "All Participants" totals do not match totals from other non-income tables because all respondents did not report their income.

Trends in Casual Fishing and Hunting

Another interesting subgroup of anglers and hunters is the casuals, those people who participate one or two days in a year. Casuals barely made it into the field compared to their avid counterparts, and yet count as equal to avids in participation tallies. What are their behavior and sociodemographic characteristics?

People who went fishing one day in 2001 made up 11% of all anglers. They participated 1% of all fishing days. Hunting is similar: 13% of all hunters went one or two days in 2001 which is 1% of all hunting days. 1991's casual hunters contributed 2% of all hunting days, and 1996's went 1% of all hunting days. The definition of a casual angler is one who fished one day in the year and the casual hunter is one who hunted one or two days in the year.

As with all anglers, the number of casual anglers has decreased with each survey, from 4.9 million in 1991 to 3.8 million in 1996 to 3.6 million in 2001. In contrast, the number of casual hunters decreased then stabilized, from 2.3 million to 1.6 million to 1.7 million, compared to all hunters (14.1 million to 14.0 million to 13.0 million). Both casual anglers and casual hunters had their biggest drop in numbers from 1991 to 1996, when the overall numbers of anglers and hunters remained the same. Further, the numbers of casual anglers and hunters roughly stabilized from 1996 to 2001 when overall angling and hunting dropped significantly. The trends in casual angling and hunting have run counter to the trends in overall angling and hunting.



Phyllis Cooper/USFWS

Casual Anglers

In 2001 casual anglers made up 9% of both non-Great Lakes freshwater anglers and saltwater anglers. Casual anglers as a group did not specialize in one type of fishing, but participated in each in equal proportions. This finding is supported by the days data. 1% of all freshwater days were provided by casual anglers. The same was true of all saltwater days. Again, the casual angler fishes the same proportion of all days for both freshwater fishing and saltwater fishing, without preference for either. There was a slight preference for saltwater fishing in 1991 and 1996.

One-third of casual anglers in 1991 and 1996 (and 36% in 2001) resided in rural areas, compared to 39% of

anglers as a whole in 1996 and 2001.

A similar conclusion can be made using the Metropolitan Statistical Area information. The casual angler is less likely than the average angler to come from a rural area.

In 2001 the age group that had the most casual anglers was 35-44 year olds. This was also true for anglers as a whole (and avid and intermediate anglers). And again, in 1991 the age group that had the most casual participation was the 25-34 year olds. The age group (after combining 16-17 and 18-24 year olds into one age group) that had the fewest casuals was 65 years old and older. This was the case with all anglers as well. The casual angler age distribution closely followed that of anglers as a whole.

Comparing 1991 and 2001 data, 16-34 year olds made up more of the casual angler population in 1991 than in 2001 (49% compared to 33%). By contrast, 45 year olds and older were 28% of casual anglers in 1991, 37% in 1996, and 39% in 2001. The overall angling population has aged from 1991 to 2001, and the casual angling population has followed suit.

In 2001 66% of all casual anglers had an above median household income and 34% of all casual anglers had a household income less than the median. The casual angler income distribution approximately followed that of anglers as a whole for all three surveys.

Table 34. Casual Fishing Trends

(Numbers in thousands)

| | <i>Total Participants</i> | <i>Casual Participants</i> | <i>Percent of Participants</i> | <i>Total Days</i> | <i>Casual Days</i> | <i>Percent of Days</i> | <i>Casual Mean Days</i> |
|-----------------------------------|---------------------------|----------------------------|--------------------------------|-------------------|--------------------|------------------------|-------------------------|
| Fishing | | | | | | | |
| 2001 | 34,070 | 3,595 | 11 | 557,394 | 3,595 | 1 | 1 |
| 1996 | 35,246 | 3,816 | 11 | 625,893 | 3,816 | 1 | 1 |
| 1991 | 35,578 | 4,862 | 14 | 511,329 | 4,862 | 1 | 1 |
| Non-Great Lakes Freshwater | | | | | | | |
| 2001 | 27,913 | 2,389 | 9 | 443,247 | 2,404 | 1 | 1 |
| 1996 | 28,921 | 2,623 | 9 | 485,474 | 2,636 | 1 | 1 |
| 1991 | 30,186 | 3,548 | 12 | 430,922 | 4,066 | 1 | 1 |
| Great Lakes | | | | | | | |
| 2001 | 1,847 | 100 | 5 | 23,138 | 100 | (Z) | 1 |
| 1996 | 2,039 | 139 | 7 | 20,095 | 139 | 1 | 1 |
| 1991 | 2,552 | 198 | 8 | 25,335 | 198 | 1 | 1 |
| Saltwater | | | | | | | |
| 2001 | 9,051 | 851 | 9 | 90,838 | 853 | 1 | 1 |
| 1996 | 9,438 | 992 | 11 | 103,034 | 1,006 | 1 | 1 |
| 1991 | 8,885 | 1,120 | 13 | 74,696 | 1,246 | 2 | 1 |

(Z) Less than 0.5 percent.

Note: Casuals determined by total days, not type of fishing days (e.g., Great Lakes days).

Table 35. Casual Anglers by Urban/Rural Residence (With Percent of Totals)

(Numbers in thousands)

| Urban/Rural Cohorts | 1991 | | | | 1996 | | | | 2001 | | | |
|---------------------|------------------|------------------|--------|------------------|------------------|------------------|--------|------------------|------------------|------------------|--------|------------------|
| | All Participants | Percent of Total | Casual | Percent of Total | All Participants | Percent of Total | Casual | Percent of Total | All Participants | Percent of Total | Casual | Percent of Total |
| Total | 35,578 | 100 | 4,862 | 100 | 35,246 | 100 | 3,816 | 100 | 34,070 | 100 | 3,595 | 100 |
| Urban | 22,368 | 63 | 3,199 | 66 | 21,618 | 61 | 2,521 | 66 | 20,925 | 61 | 2,297 | 64 |
| Rural | 13,210 | 37 | 1,663 | 34 | 13,628 | 39 | 1,295 | 34 | 13,146 | 39 | 1,298 | 36 |

Metropolitan Statistical Area (MSA) ⁽¹⁾

| | | | | | | | | | | | | |
|----------------------------|------|------|------|------|--------|-----|-------|-----|--------|-----|-------|-----|
| Total | N.A. | N.A. | N.A. | N.A. | 35,246 | 100 | 3,815 | 100 | 34,070 | 100 | 3,595 | 100 |
| In MSA in Central City | N.A. | N.A. | N.A. | N.A. | 7,637 | 22 | 1,073 | 28 | 6,676 | 20 | 665 | 18 |
| In MSA not in Central City | N.A. | N.A. | N.A. | N.A. | 17,012 | 48 | 1,680 | 44 | 17,714 | 52 | 2,035 | 57 |
| Not MSA | N.A. | N.A. | N.A. | N.A. | 10,584 | 30 | 1,062 | 28 | 9,680 | 28 | 895 | 25 |

⁽¹⁾ A town, county, or group of towns or counties with a population of at least 50,000. Each MSA must contain a central city. MSA's are determined by the Bureau of Census, unlike the urban/rural designation, which is determined by each respondent independently.

N.A. Not available

Table 36. Casual Anglers by Urban/Rural Residence (With Percent of Participants)

(Numbers in thousands)

| Urban/Rural Cohorts | 1991 | | | 1996 | | | 2001 | | |
|---------------------|------------------|--------|-------------------------|------------------|--------|-------------------------|------------------|--------|-------------------------|
| | All Participants | Casual | Percent of Participants | All Participants | Casual | Percent of Participants | All Participants | Casual | Percent of Participants |
| Total | 35,578 | 4,862 | 14 | 35,246 | 3,816 | 11 | 34,070 | 3,595 | 11 |
| Urban | 22,368 | 3,199 | 14 | 21,618 | 2,521 | 12 | 20,925 | 2,297 | 11 |
| Rural | 13,210 | 1,663 | 13 | 13,628 | 1,295 | 10 | 13,146 | 1,298 | 10 |

Metropolitan Statistical Area (MSA) ⁽¹⁾

| | | | | | | | | | |
|----------------------------|------|------|------|--------|-------|----|--------|-------|----|
| Total | N.A. | N.A. | N.A. | 35,246 | 3,815 | 11 | 34,070 | 3,595 | 11 |
| In MSA in Central City | N.A. | N.A. | N.A. | 7,637 | 1,073 | 14 | 6,676 | 665 | 10 |
| In MSA not in Central City | N.A. | N.A. | N.A. | 17,012 | 1,680 | 10 | 17,714 | 2,035 | 11 |
| Not MSA | N.A. | N.A. | N.A. | 10,584 | 1,062 | 10 | 9,680 | 895 | 9 |

⁽¹⁾ A town, county, or group of towns or counties with a population of at least 50,000. Each MSA must contain a central city. MSA's are determined by the Bureau of Census, unlike the urban/rural designation, which is determined by each respondent independently.

N.A. Not available

Table 37. Casual Anglers by Age Group (With Percent of Totals)

(Numbers in thousands)

| Age Cohorts | 1991 | | | | 1996 | | | | 2001 | | | |
|--------------|------------------|------------------|--------|------------------|------------------|------------------|--------|------------------|------------------|------------------|--------|------------------|
| | All Participants | Percent of Total | Casual | Percent of Total | All Participants | Percent of Total | Casual | Percent of Total | All Participants | Percent of Total | Casual | Percent of Total |
| Total | 35,578 | 100 | 4,862 | 100 | 35,246 | 100 | 3,816 | 100 | 34,070 | 100 | 3,595 | 100 |
| 16-17 | 1,481 | 4 | 198 | 4 | 1,406 | 4 | 151 | 4 | 1,319 | 4 | 149 | 4 |
| 18-24 | 4,589 | 13 | 659 | 14 | 3,321 | 9 | 389 | 10 | 2,931 | 9 | 270 | 8 |
| 25-34 | 9,927 | 28 | 1,492 | 31 | 7,175 | 20 | 700 | 18 | 6,578 | 19 | 750 | 21 |
| 35-44 | 8,583 | 24 | 1,150 | 24 | 9,673 | 27 | 1,178 | 31 | 9,047 | 27 | 1,009 | 28 |
| 45-54 | 4,891 | 14 | 513 | 11 | 7,020 | 20 | 722 | 19 | 6,940 | 20 | 692 | 19 |
| 55-64 | 3,270 | 9 | 407 | 8 | 3,537 | 10 | 379 | 10 | 4,168 | 12 | 443 | 12 |
| 65 and older | 2,827 | 8 | 443 | 9 | 3,092 | 9 | 297 | 8 | 3,090 | 9 | 282 | 8 |

Table 38. Casual Anglers by Age Group (With Percent of Participants)

(Numbers in thousands)

| Age Cohorts | 1991 | | | 1996 | | | 2001 | | |
|--------------|------------------|--------|-------------------------|------------------|--------|-------------------------|------------------|--------|-------------------------|
| | All Participants | Casual | Percent of Participants | All Participants | Casual | Percent of Participants | All Participants | Casual | Percent of Participants |
| Total | 35,578 | 4,862 | 14 | 35,246 | 3,816 | 11 | 34,070 | 3,595 | 11 |
| 16-17 | 1,481 | 198 | 13 | 1,406 | 151 | 11 | 1,319 | 149 | 11 |
| 18-24 | 4,589 | 659 | 14 | 3,321 | 389 | 12 | 2,931 | 270 | 9 |
| 25-34 | 9,927 | 1,492 | 15 | 7,175 | 700 | 10 | 6,578 | 750 | 11 |
| 35-44 | 8,583 | 1,150 | 13 | 9,673 | 1,178 | 12 | 9,047 | 1,009 | 11 |
| 45-54 | 4,891 | 513 | 10 | 7,020 | 722 | 10 | 6,940 | 692 | 10 |
| 55-64 | 3,270 | 407 | 12 | 3,537 | 379 | 11 | 4,168 | 443 | 11 |
| 65 and older | 2,827 | 443 | 16 | 3,092 | 297 | 10 | 3,090 | 282 | 9 |

Table 39. Casual Anglers by Median Income (With Percent of Totals)

(Numbers in thousands)

| Household income | 1991 | | | | 1996 | | | | 2001 | | | |
|------------------|------------------|------------------|--------|------------------|------------------|------------------|--------|------------------|------------------|------------------|--------|------------------|
| | All Participants | Percent of Total | Casual | Percent of Total | All Participants | Percent of Total | Casual | Percent of Total | All Participants | Percent of Total | Casual | Percent of Total |
| Total | 32,351 | 100 | 4,389 | 100 | 30,980 | 100 | 3,230 | 100 | 28,851 | 100 | 2,998 | 100 |
| Below median | 13,301 | 41 | 1,848 | 42 | 13,516 | 44 | 1,340 | 41 | 9,793 | 34 | 1,020 | 34 |
| Above median | 19,050 | 59 | 2,541 | 58 | 17,464 | 56 | 1,890 | 59 | 19,058 | 66 | 1,978 | 66 |

Note: "All Participants" totals do not match totals from other non-income tables because all respondents did not report their income.

Table 40. Casual Anglers by Median Income (With Percent of Participants)

(Numbers in thousands)

| Household income | 1991 | | | 1996 | | | 2001 | | |
|------------------|------------------|--------|-------------------------|------------------|--------|-------------------------|------------------|--------|-------------------------|
| | All Participants | Casual | Percent of Participants | All Participants | Casual | Percent of Participants | All Participants | Casual | Percent of Participants |
| Total | 32,351 | 4,389 | 14 | 30,980 | 3,230 | 10 | 28,851 | 2,998 | 10 |
| Below median | 13,301 | 1,848 | 14 | 13,516 | 1,340 | 10 | 9,793 | 1,020 | 10 |
| Above median | 19,050 | 2,541 | 13 | 17,464 | 1,890 | 11 | 19,058 | 1,978 | 10 |

Note: "All Participants" totals do not match totals from other non-income tables because all respondents did not report their income.

Casual Hunters

In 2001 casual hunters constituted 10% of big game hunters, 8% of small game hunters, 7% of migratory bird hunters, and 2% of other animal hunters. Big game hunting was the biggest draw for casual hunters, as it was for all hunters. Looking at this trend over the last three surveys, it is interesting that in 1991 the participation rate of casuals in big game hunting was matched by the participation rate of both small game and migratory bird casual hunting whereas small game and migratory bird hunting participation dropped in 2001 more than big game hunting participation. There are two points to be made about the changes in small game and migratory bird hunting from 1991 to 2001. The 29% drop in overall small game hunting from 1991 to 2001 was reflected in the three subgroups, led

by the 47% drop in small game hunting by casuals. However, migratory bird hunting remained level from 1991-2001, with the drop in casuals of 37% balanced by a 10% increase in intermediate migratory bird hunters.

1% of all hunting days in 2001 was provided by casual hunters. Casual hunters contributed 1% of big game, 1% of migratory bird, 1% of small game, and less than 0.5% of other animal hunting days. In 1991, casual hunters accounted for 2% of all hunting days, as well as 2% of big game, small game, and migratory bird hunting days, and 1% of other animal days. The casual hunter did not participate as much in 2001 as in 1991, which partly explains the change in hunting participation numbers, although their influence on total hunting days is very small.

The discussion of the sociodemographic characteristics of casual hunters begins with the urban/rural residence of participants. In 2001, 50% of all casual hunters resided in rural areas, compared to 55% of hunters as a whole living in rural areas. This pattern of casual hunters tending to be more urban than hunters as a whole held in 1991 and 1996 as well. Furthermore, 14% of urban-based hunters were casual in 2001, compared to 19% in 1991. 12% of rural-based hunters were casual in 2001, compared to 14% in 1991. This means that while the number of casual hunters declined from 1991 to 2001, the number of urban-based casual hunters declined more than rural-based casual hunters.

Table 41. Casual Hunting Trends

(Numbers in thousands)

| | <i>Total Participants</i> | <i>Casual Participants</i> | <i>Percent of Participants</i> | <i>Total Days</i> | <i>Casual Days</i> | <i>Percent of Days</i> | <i>Casual Mean Days</i> |
|------------------------|-------------------------------|--------------------------------|------------------------------------|-----------------------|------------------------|----------------------------|-----------------------------|
| Hunting, total | | | | | | | |
| 2001 | 13,034 | 1,672 | 13 | 228,368 | 2,607 | 1 | 2 |
| 1996 | 13,975 | 1,606 | 11 | 256,676 | 2,541 | 1 | 2 |
| 1991 | 14,063 | 2,301 | 16 | 235,806 | 3,559 | 2 | 2 |
| Big Game | | | | | | | |
| 2001 | 10,911 | 1,054 | 10 | 153,191 | 1,673 | 1 | 2 |
| 1996 | 11,288 | 989 | 9 | 153,784 | 1,576 | 1 | 2 |
| 1991 | 10,745 | 1,184 | 11 | 128,411 | 1,989 | 2 | 2 |
| Small Game | | | | | | | |
| 2001 | 5,434 | 443 | 8 | 60,142 | 633 | 1 | 1 |
| 1996 | 6,945 | 452 | 7 | 75,117 | 662 | 1 | 1 |
| 1991 | 7,642 | 836 | 11 | 77,132 | 1,261 | 2 | 2 |
| Migratory Birds | | | | | | | |
| 2001 | 2,956 | 214 | 7 | 29,310 | 310 | 1 | 1 |
| 1996 | 3,073 | 170 | 6 | 26,501 | 254 | 1 | 1 |
| 1991 | 3,009 | 338 | 11 | 22,235 | 504 | 2 | 1 |
| Other Animals | | | | | | | |
| 2001 | 1,047 | 19 | 2 | 19,207 | 27 | (Z) | 1 |
| 1996 | 1,521 | 54 | 4 | 24,522 | 80 | (Z) | 1 |
| 1991 | 1,411 | 45 | 3 | 19,340 | 189 | 1 | 4 |

(Z) Less than 0.5 percent.

Note: Casuals determined by total days, not type of hunting days (e.g., Small Game days).

Table 42. Casual Hunters by Urban/Rural Residence (With Percent of Totals)

(Numbers in thousands)

| Urban/Rural Cohorts | 1991 | | | | 1996 | | | | 2001 | | | |
|---------------------|------------------|------------------|--------|------------------|------------------|------------------|--------|------------------|------------------|------------------|--------|------------------|
| | All Participants | Percent of Total | Casual | Percent of Total | All Participants | Percent of Total | Casual | Percent of Total | All Participants | Percent of Total | Casual | Percent of Total |
| Total | 14,063 | 100 | 2,300 | 100 | 13,975 | 100 | 1,606 | 100 | 13,034 | 100 | 1,672 | 100 |
| Urban | 6,631 | 47 | 1,270 | 55 | 6,402 | 46 | 805 | 50 | 5,873 | 45 | 843 | 50 |
| Rural | 7,432 | 53 | 1,030 | 45 | 7,573 | 54 | 801 | 50 | 7,161 | 55 | 829 | 50 |

Metropolitan Statistical Area (MSA) ⁽¹⁾

| | | | | | | | | | | | | |
|----------------------------|------|------|------|------|--------|-----|-------|-----|--------|-----|-------|-----|
| Total | N.A. | N.A. | N.A. | N.A. | 13,975 | 100 | 1,606 | 100 | 13,034 | 100 | 1,672 | 100 |
| In MSA in Central City | N.A. | N.A. | N.A. | N.A. | 2,120 | 15 | 319 | 20 | 1,792 | 14 | 290 | 17 |
| In MSA not in Central City | N.A. | N.A. | N.A. | N.A. | 5,637 | 40 | 535 | 33 | 5,889 | 45 | 761 | 46 |
| Not MSA | N.A. | N.A. | N.A. | N.A. | 6,192 | 44 | 752 | 47 | 5,285 | 41 | 621 | 37 |

⁽¹⁾ A town, county, or group of towns or counties with a population of at least 50,000. Each MSA must contain a central city. MSA's are determined by the Bureau of Census, unlike the urban/rural designation, which is determined by each respondent independently.

N.A. Not available

Table 43. Casual Hunters by Urban/Rural Residence (With Percent of Participants)

(Numbers in thousands)

| Urban/Rural Cohorts | 1991 | | | 1996 | | | 2001 | | |
|---------------------|------------------|--------|-------------------------|------------------|--------|-------------------------|------------------|--------|-------------------------|
| | All Participants | Casual | Percent of Participants | All Participants | Casual | Percent of Participants | All Participants | Casual | Percent of Participants |
| Total | 14,063 | 2,300 | 16 | 13,975 | 1,606 | 11 | 13,034 | 1,672 | 13 |
| Urban | 6,631 | 1,270 | 19 | 6,402 | 805 | 13 | 5,873 | 843 | 14 |
| Rural | 7,432 | 1,030 | 14 | 7,573 | 801 | 11 | 7,161 | 829 | 12 |

Metropolitan Statistical Area (MSA) ⁽¹⁾

| | | | | | | | | | |
|----------------------------|------|------|------|--------|-------|----|--------|-------|----|
| Total | N.A. | N.A. | N.A. | 13,975 | 1,606 | 11 | 13,034 | 1,672 | 13 |
| In MSA in Central City | N.A. | N.A. | N.A. | 2,120 | 319 | 15 | 1,792 | 290 | 16 |
| In MSA not in Central City | N.A. | N.A. | N.A. | 5,637 | 535 | 9 | 5,889 | 761 | 13 |
| Not MSA | N.A. | N.A. | N.A. | 6,192 | 752 | 12 | 5,285 | 621 | 12 |

⁽¹⁾ A town, county, or group of towns or counties with a population of at least 50,000. Each MSA must contain a central city. MSA's are determined by the Bureau of Census, unlike the urban/rural designation, which is determined by each respondent independently.

N.A. Not available

When the 16-17 and 18-24 year old age cohorts are combined, the age group with the fewest number of casual hunters in 2001 was the 65 years old and older cohort. 10% of casual hunters were 65 years old and older, compared to 7% of hunters as a whole. The age group with the most casual hunters was the 35-44 year olds in 2001, compared to 1991 when it was the 25-34 year olds. As with hunters as a whole, the casual hunter in 2001 tended to be older than in 1991.

Casual hunters had a stronger tendency toward having higher incomes in 2001 than in 1991 or 1996. Only 32% of casual hunters had a below median household income in 2001, similar to the 34% of hunters as a whole who had below median income. If one is trying to find hunters among the general population, above median income is a determinant in casual (and intermediate) hunting levels. But if one is trying to find casual hunters in the general hunter population, above median income is no help in selecting casual (and intermediate) hunters, since hunters as a whole tend to have above median income.

In short, casual (and intermediate) hunters had income distributions that closely followed that of hunters as a whole. This conclusion also holds for 1991 and 1996.

The percentages of below and above median income for hunters as a whole in 1991 and 1996 were 43% and 57% respectively, compared to 2001's 34% below median income and 66% above median income. The tendency toward above median income by hunters held in each survey, but it was more pronounced in 2001.

Table 44. Casual Hunters by Age Group (With Percent of Totals)

(Numbers in thousands)

| Age Cohorts | 1991 | | | | 1996 | | | | 2001 | | | |
|--------------|------------------|------------------|--------|------------------|------------------|------------------|--------|------------------|------------------|------------------|--------|------------------|
| | All Participants | Percent of Total | Casual | Percent of Total | All Participants | Percent of Total | Casual | Percent of Total | All Participants | Percent of Total | Casual | Percent of Total |
| Total | 14,063 | 100 | 2,300 | 100 | 13,975 | 100 | 1,606 | 100 | 13,034 | 100 | 1,671 | 100 |
| 16-17 | 662 | 5 | 139 | 6 | 672 | 5 | 67 | 4 | 584 | 4 | 78 | 5 |
| 18-24 | 2,008 | 14 | 351 | 15 | 1,397 | 10 | 169 | 11 | 1,251 | 10 | 216 | 13 |
| 25-34 | 3,928 | 28 | 636 | 28 | 2,783 | 20 | 322 | 20 | 2,413 | 19 | 338 | 20 |
| 35-44 | 3,363 | 24 | 479 | 21 | 3,819 | 27 | 414 | 26 | 3,551 | 27 | 401 | 24 |
| 45-54 | 2,071 | 15 | 313 | 14 | 2,851 | 20 | 315 | 20 | 2,821 | 22 | 293 | 18 |
| 55-64 | 1,177 | 8 | 181 | 8 | 1,487 | 11 | 143 | 9 | 1,449 | 11 | 178 | 11 |
| 65 and older | 836 | 6 | 201 | 9 | 967 | 7 | 176 | 11 | 965 | 7 | 167 | 10 |

Table 45. Casual Hunters by Age Group (With Percent of Participants)

(Numbers in thousands)

| Age Cohorts | 1991 | | | 1996 | | | 2001 | | |
|--------------|------------------|--------|-------------------------|------------------|--------|-------------------------|------------------|--------|-------------------------|
| | All Participants | Casual | Percent of Participants | All Participants | Casual | Percent of Participants | All Participants | Casual | Percent of Participants |
| Total | 14,063 | 2,300 | 16 | 13,975 | 1,606 | 11 | 13,034 | 1,671 | 13 |
| 16-17 | 662 | 139 | 21 | 672 | 67 | 10 | 584 | 78 | 13 |
| 18-24 | 2,008 | 351 | 17 | 1,397 | 169 | 12 | 1,251 | 216 | 17 |
| 25-34 | 3,928 | 636 | 16 | 2,783 | 322 | 12 | 2,413 | 338 | 14 |
| 35-44 | 3,363 | 479 | 14 | 3,819 | 414 | 11 | 3,551 | 401 | 11 |
| 45-54 | 2,071 | 313 | 15 | 2,851 | 315 | 11 | 2,821 | 293 | 10 |
| 55-64 | 1,177 | 181 | 15 | 1,487 | 143 | 10 | 1,449 | 178 | 12 |
| 65 and older | 836 | 201 | 24 | 967 | 176 | 18 | 965 | 167 | 17 |

Table 46. Casual Hunters by Median Income (With Percent of Totals)

(Numbers in thousands)

| Household income | 1991 | | | | 1996 | | | | 2001 | | | |
|------------------|------------------|------------------|--------|------------------|------------------|------------------|--------|------------------|------------------|------------------|--------|------------------|
| | All Participants | Percent of Total | Casual | Percent of Total | All Participants | Percent of Total | Casual | Percent of Total | All Participants | Percent of Total | Casual | Percent of Total |
| Total | 12,714 | 100 | 2,062 | 100 | 12,219 | 100 | 1,417 | 100 | 10,979 | 100 | 1,377 | 100 |
| Below median | 5,424 | 43 | 900 | 44 | 5,272 | 43 | 654 | 46 | 3,703 | 34 | 446 | 32 |
| Above median | 7,290 | 57 | 1,162 | 56 | 6,947 | 57 | 763 | 54 | 7,276 | 66 | 931 | 68 |

Note: "All Participants" totals do not match totals from other non-income tables because all respondents did not report their income.

Table 47. Casual Hunters by Median Income (With Percent of Participants)

(Numbers in thousands)

| Household income | 1991 | | | 1996 | | | 2001 | | |
|------------------|------------------|--------|-------------------------|------------------|--------|-------------------------|------------------|--------|-------------------------|
| | All Participants | Casual | Percent of Participants | All Participants | Casual | Percent of Participants | All Participants | Casual | Percent of Participants |
| Total | 12,714 | 2,062 | 16 | 12,219 | 1,417 | 12 | 10,979 | 1,377 | 13 |
| Below median | 5,424 | 900 | 17 | 5,272 | 654 | 12 | 3,703 | 446 | 12 |
| Above median | 7,290 | 1,162 | 16 | 6,947 | 763 | 11 | 7,276 | 931 | 13 |

Note: "All Participants" totals do not match totals from other non-income tables because all respondents did not report their income.

Comparison of Avid, Intermediate, and Casual Participants

Going into this research, the assumption was that avid participants would be markedly different from casual participants. Indeed, the difference in average days is huge. But what about the circumstances of the participants' age and urban/rural status? What about household income? What are the differences there?

Figures 4, 5, and 6 illustrate avid, intermediate, and casual angling in 1991, 1996, and 2001. The year with the most casuals was 1991, when 4.9 million anglers fished only one day. This dropped significantly in 1996 to 3.8 million. The increase in intermediate anglers maintained the overall level of angling for 1996 compared to 1991. Of note for 2001 is the drop in intermediate anglers, from 27.7 million in 1996 to 26.6 million in 2001. This was not compensated by an increase in avid or casual angling, so overall angling decreased from 1996 to 2001.

Figure 4. 1991 Fishing
(Numbers in thousands)

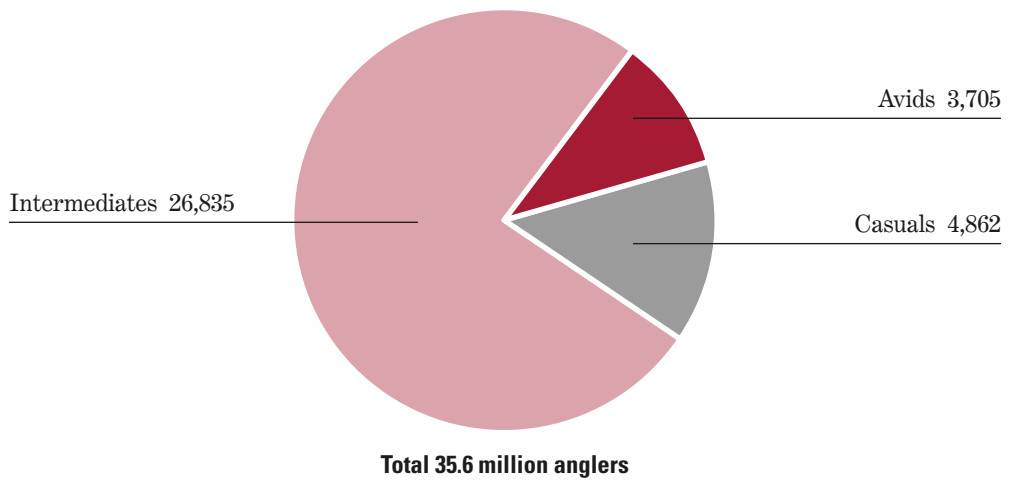


Figure 5. 1996 Fishing
(Numbers in thousands)

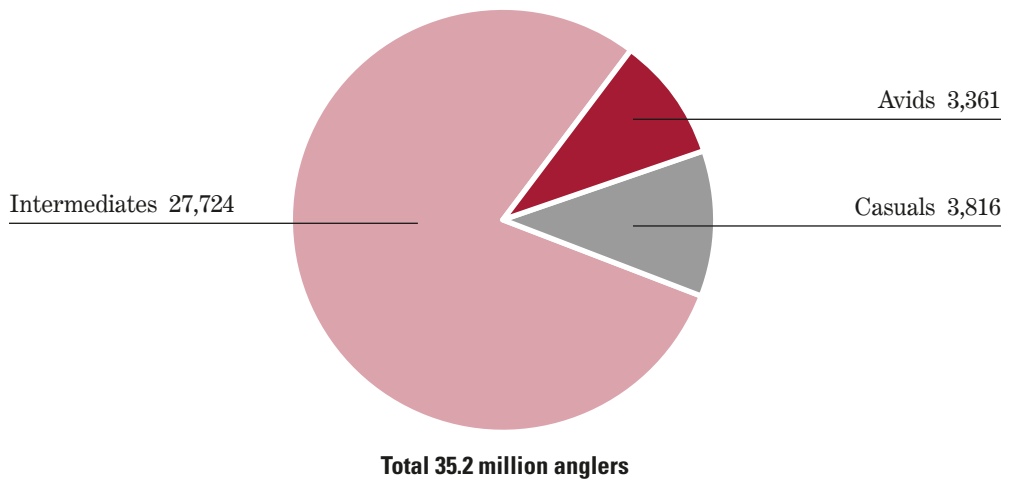
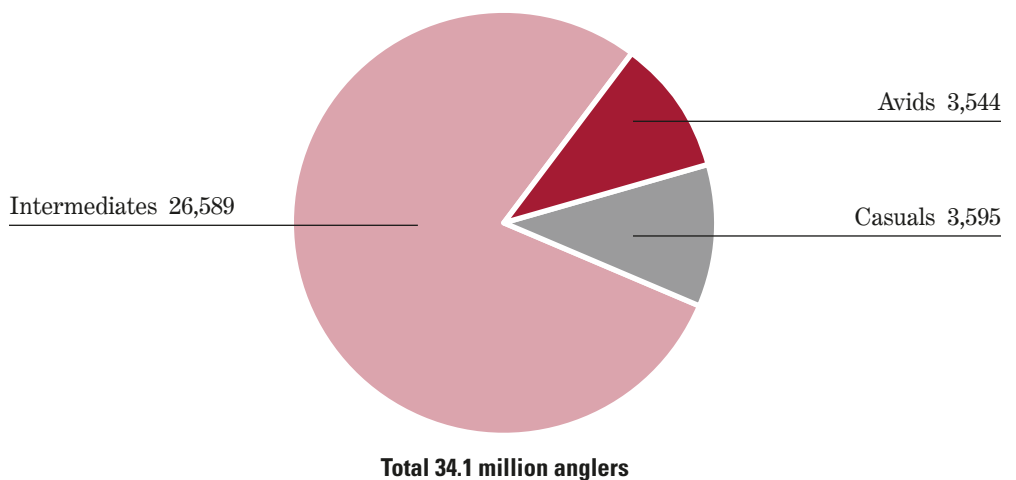


Figure 6. 2001 Fishing
(Numbers in thousands)



Figures 7, 8, and 9 graphically illustrate the hunting subgroups for the three survey years. As with fishing, there was a significant drop in casual participation from 1991 to 1996 which was compensated by an increase in intermediate hunting. And again as in fishing, there was a drop in intermediate hunters from 1996 to 2001 which was not counterbalanced by an increase in avid or casual hunting.

Figure 7. 1991 Hunting
(Numbers in thousands)

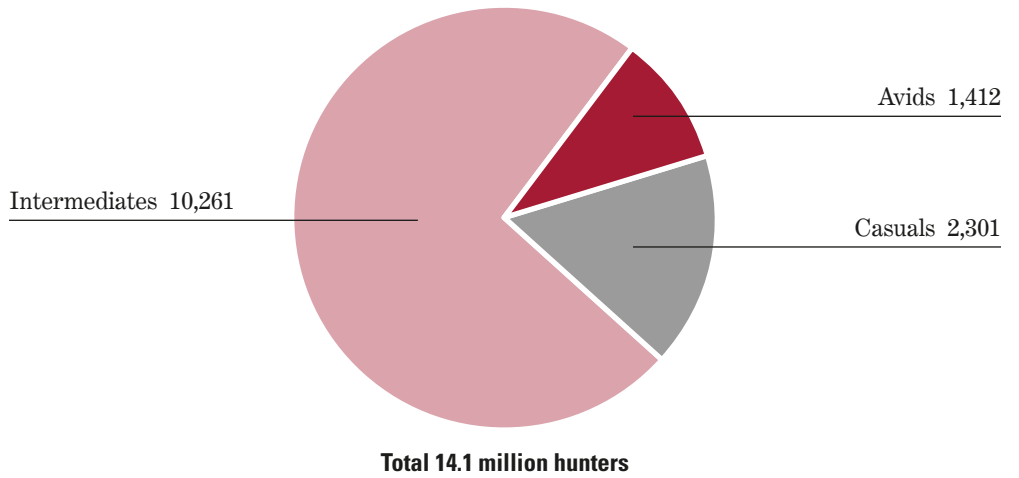


Figure 8. 1996 Hunting
(Numbers in thousands)

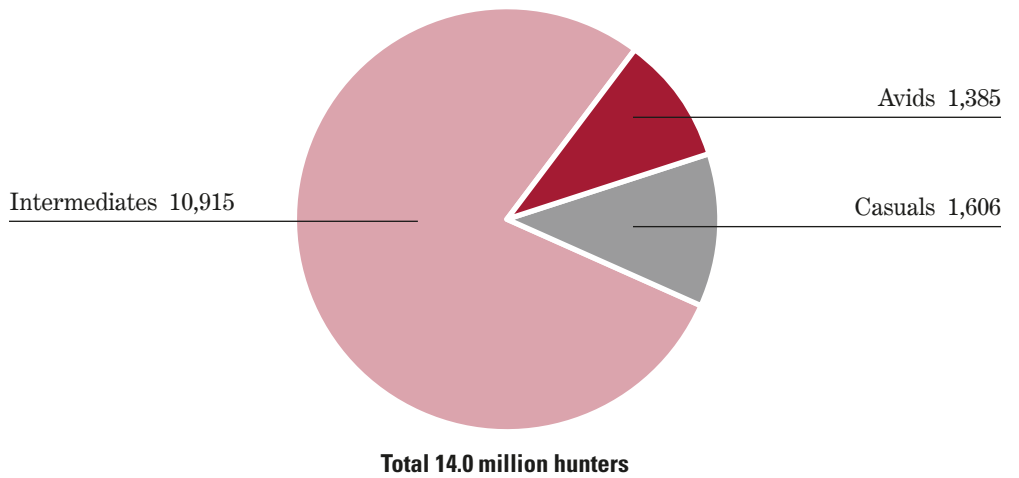
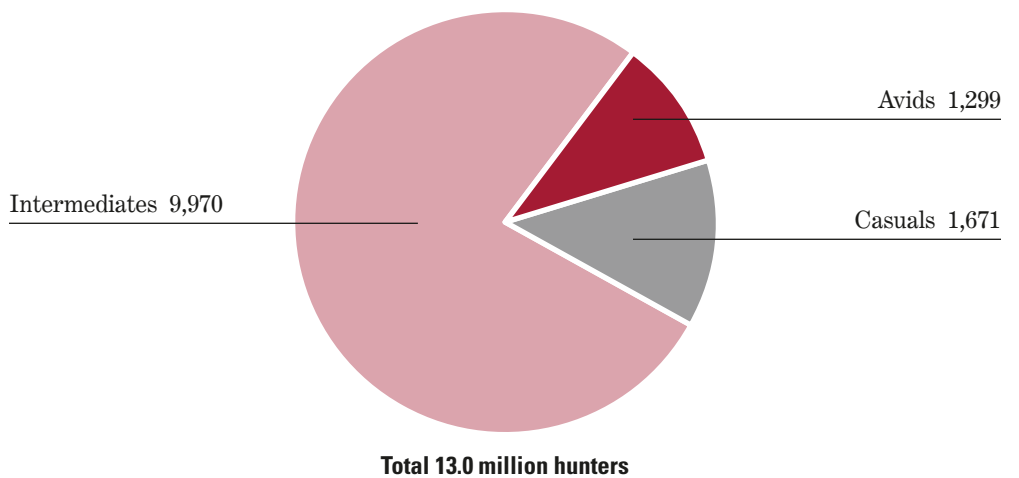


Figure 9. 2001 Hunting
(Numbers in thousands)



For fishing, the age cohort with the most participants was 25-34 year olds for all three groups in 1991, and 35-44 year olds for all three groups in 1996 and 2001. The age group with the fewest participants for all three subgroups was 65 years old and older for all three surveys (there was one exception: the 55-64 year old group was smaller than the 65 year old and older group for casual anglers in 1991).

In addition to comparing the number of participants by age cohort, comparing the percentage of age cohorts that are avid, intermediate, and casual anglers yields insights. Keeping in mind that 10% of all anglers in each survey year were avid, one looks for the age cohorts in which there is variation from this overall norm. The pattern that stands out for avids is the age group with the lowest percentage of avidity across surveys: 35-44 year olds consistently have the lowest percentage of avidity across surveys: 35-44 year olds consistently have the lowest percentage of avids for angling. The fact that this age group also provided the most avids in 1996 and 2001 is due to 35-44 year olds being the biggest group of anglers for those years. There is no noteworthy variation across age groups for intermediates or casuals.

Figure 10. 1991 Fishing
(Numbers in thousands)

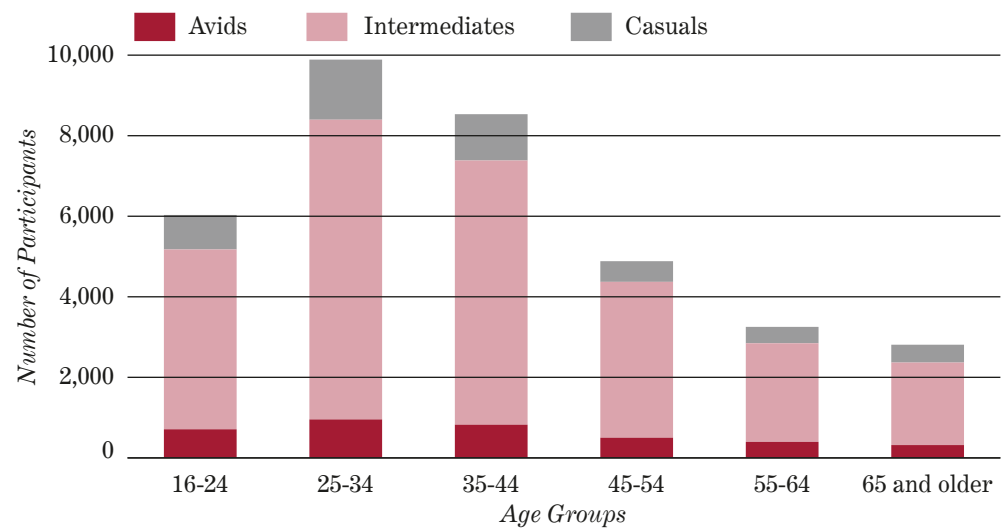


Figure 11. 1996 Fishing
(Numbers in thousands)

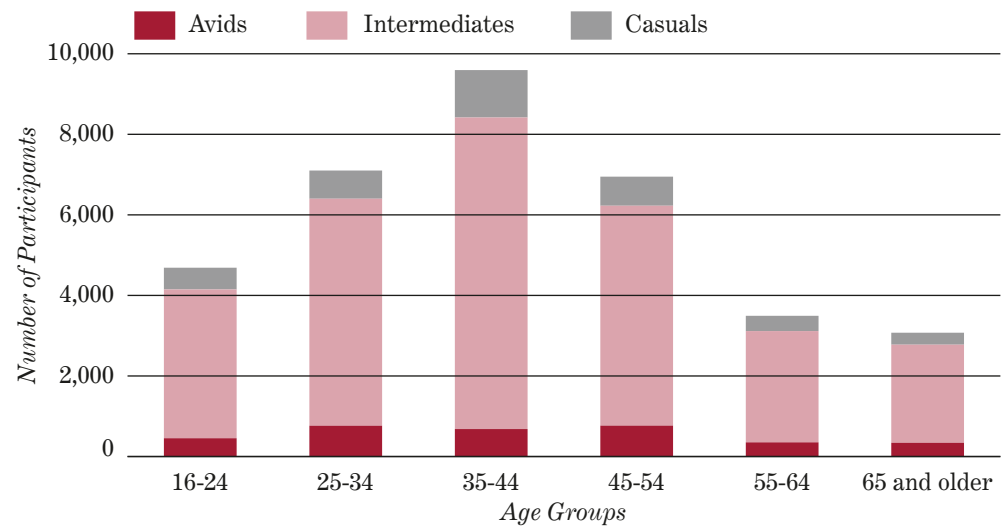
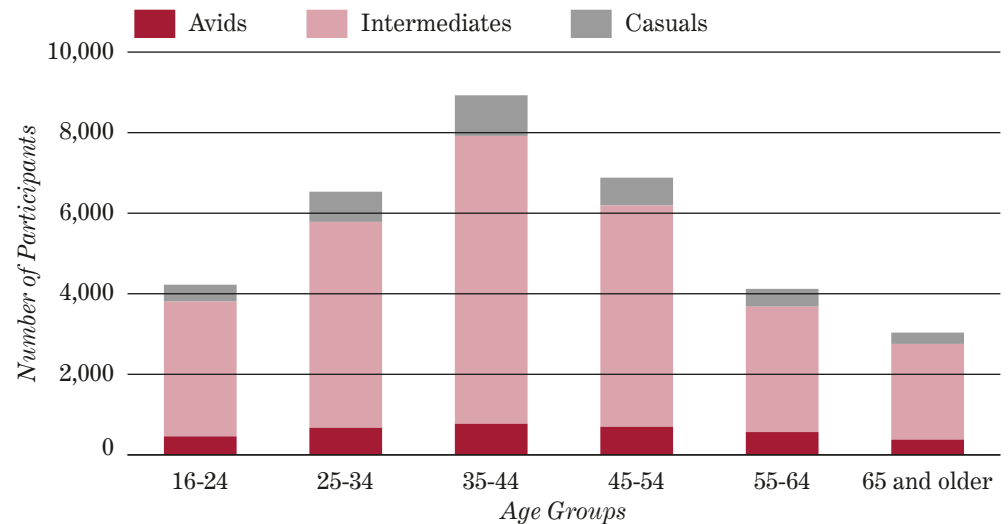


Figure 12. 2001 Fishing
(Numbers in thousands)



Avid, intermediate, and casual anglers were more likely to live in urban areas. A range of 53-56% of avids, 62-63% of intermediates, and 64-66% of casuals lived in urban areas the three surveyed years. These percentages show that anglers are more likely urban-based, although not as likely as the average American. The general American population's urban-based range is 72-74%.⁵ Avids tended to be less urban than the other two subgroups, but were still more likely to be urbanites than ruralites.

⁵ Source: 1991, 1996, and 2001 National Reports of Fishing, Hunting, and Wildlife-Associated Recreation. They can be accessed at <http://fa.r9.fws.gov/surveys/surveys.html>

Figure 13. 1991 Fishing
(Numbers in thousands)

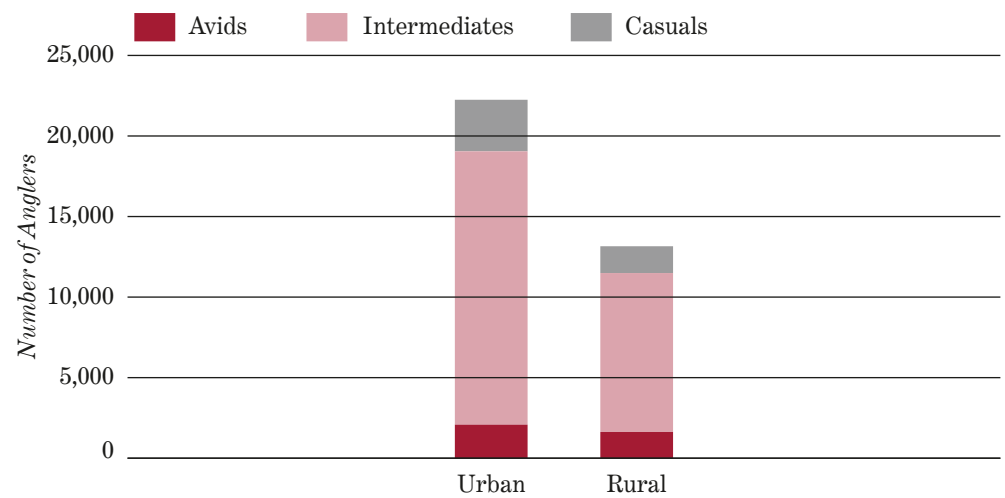


Figure 14. 1996 Fishing
(Numbers in thousands)

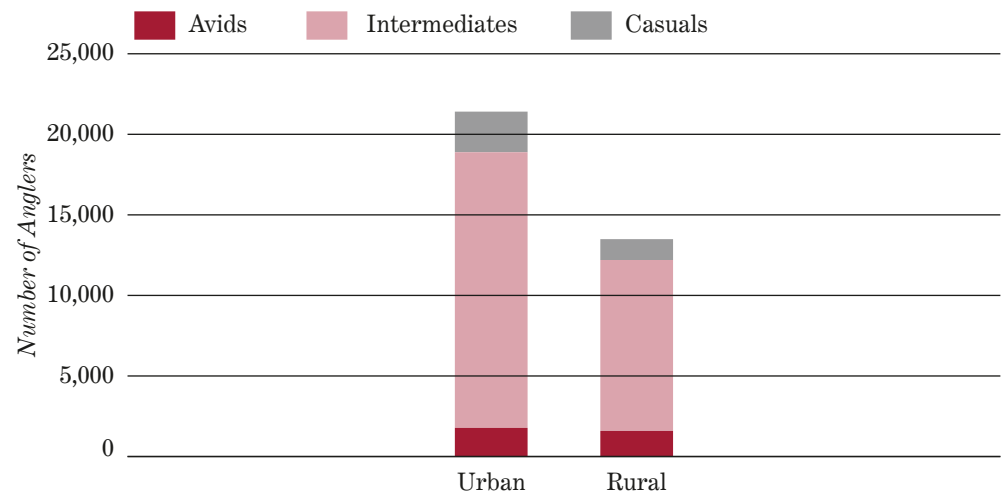
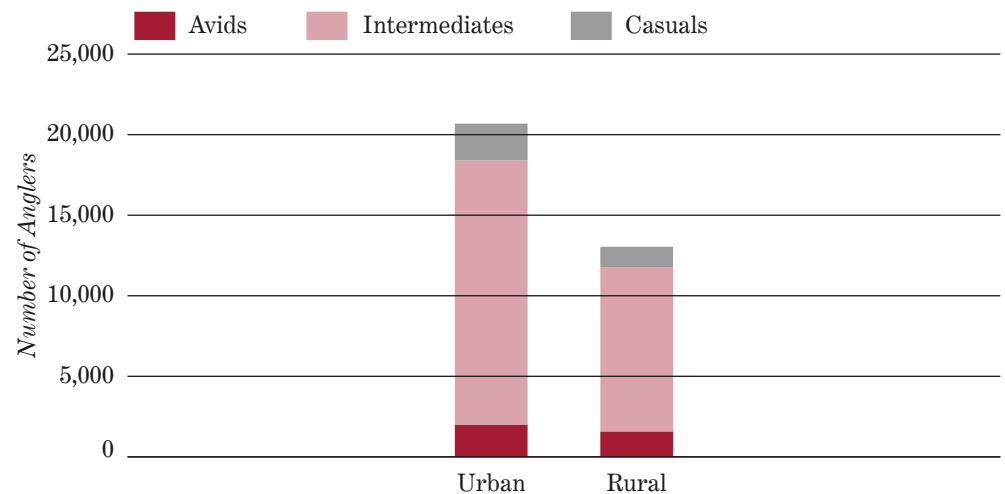


Figure 15. 2001 Fishing
(Numbers in thousands)



For hunting, the age cohort with the most participants was 25-34 year olds for avids, intermediates, and casuals in 1991, and 35-44 year olds for the three groups in 1996 and 2001. The age group with the fewest participants was 65 years old and older for nearly all three subgroups for all three surveys (the exception was in 1991 and 1996 when the 55-64 year old group numbered fewer than the 65 year old and older group for casual hunters).

Another approach is to compare percentages of age cohorts that are avid, intermediate, and casual hunters. The age group that had the lowest avidity percentage (and highest casual percentage) across the three surveys is the 65 year old and older cohort (in 1991 the 55-64 year old group joined them). The age group that consistently rated above the overall norm in avidity was the 18-34 year olds. If people 18-34 years old decide to hunt, they are more likely to hunt a lot. 35-44 year olds have been at or slightly under the national norm in avidity percentage. As for casual hunting, the age group with the lowest percentage in 1991 was the 35-44 year old group, and ten years later in 2001 it was the 45-54 year olds. Finally, the highest intermediate hunters percentage in 2001 was the 45-54 year olds and the lowest was the 18-24 year olds. In 1991 the lowest percentage was that of the 65 year old and older hunters, and in 1996 it was the 18-24 year olds. There has been a significant decline in participation by the 18-24 year old group, as also noted in the 1996 Survey trends report, "1980-1995 Participation in Fishing, Hunting, and Wildlife Watching," Washington, D.C. 1999.

Figure 16. 1991 Hunting
(Numbers in thousands)

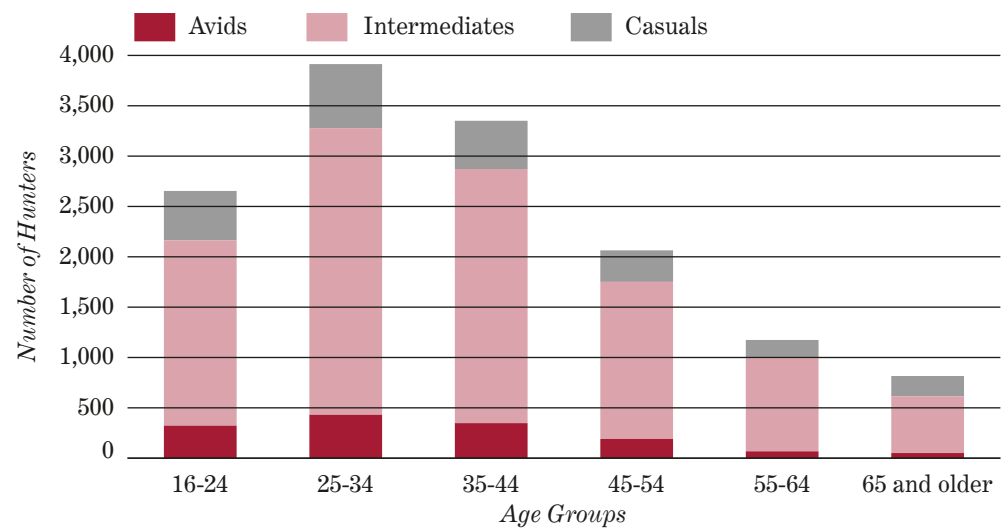


Figure 17. 1996 Hunting
(Numbers in thousands)

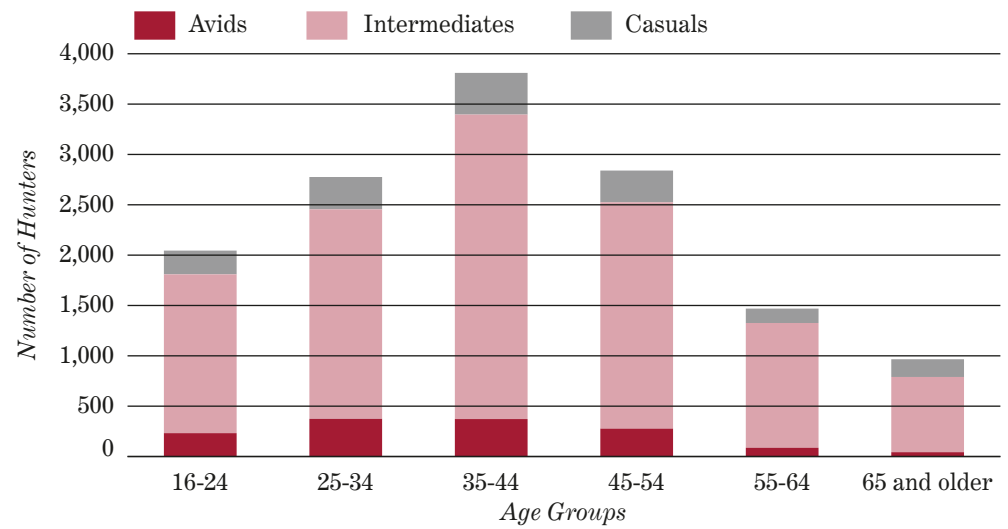
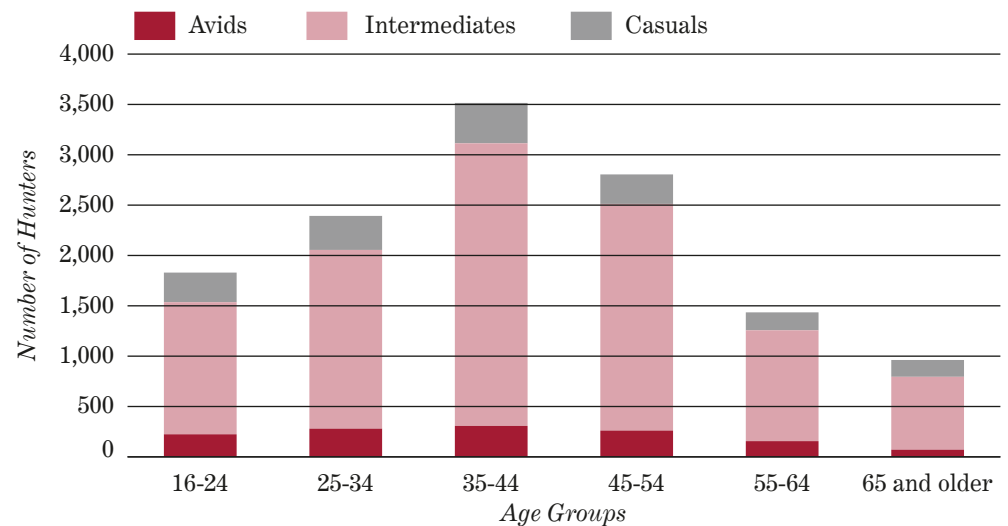


Figure 18. 2001 Hunting
(Numbers in thousands)



A significant area where there were differences among subcategories for hunting was the urban/rural demographic. Casual hunters in 1996 and 2001 lived in urban areas and rural areas equally and in 1991 lived more in urban areas than in rural areas. But for the intermediate and avid hunting groups in the three surveyed years, the majority (53%) of the intermediates and the strong majority (nearly 70%) of avids lived in rural areas.

Figure 19. 1991 Hunting
(Numbers in thousands)

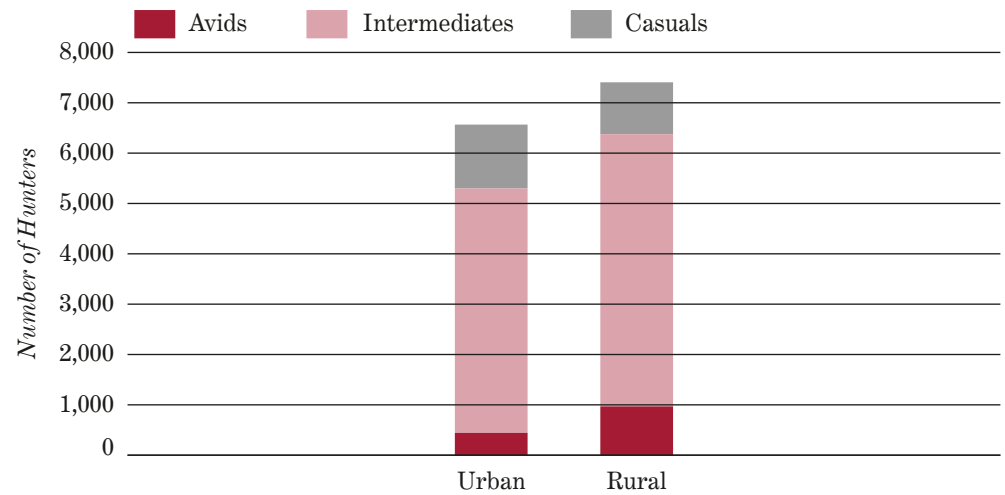


Figure 20. 1996 Hunting
(Numbers in thousands)

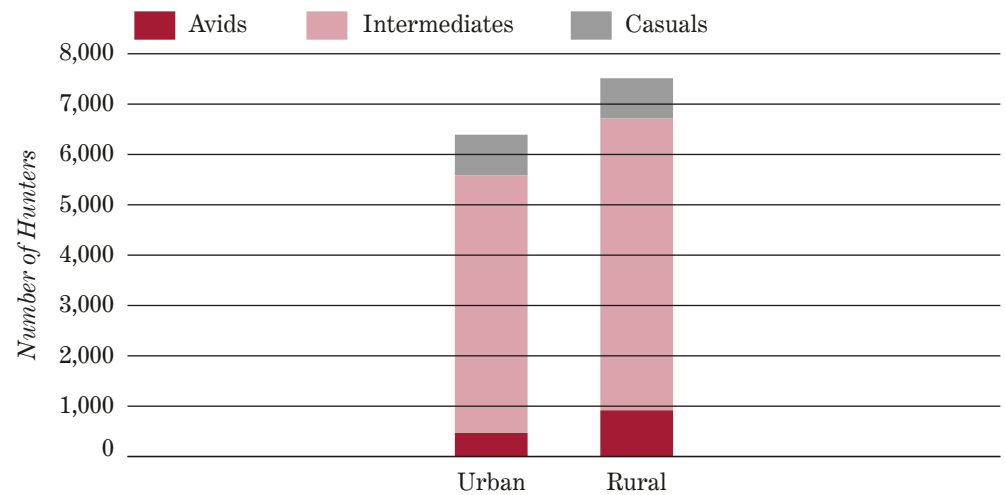
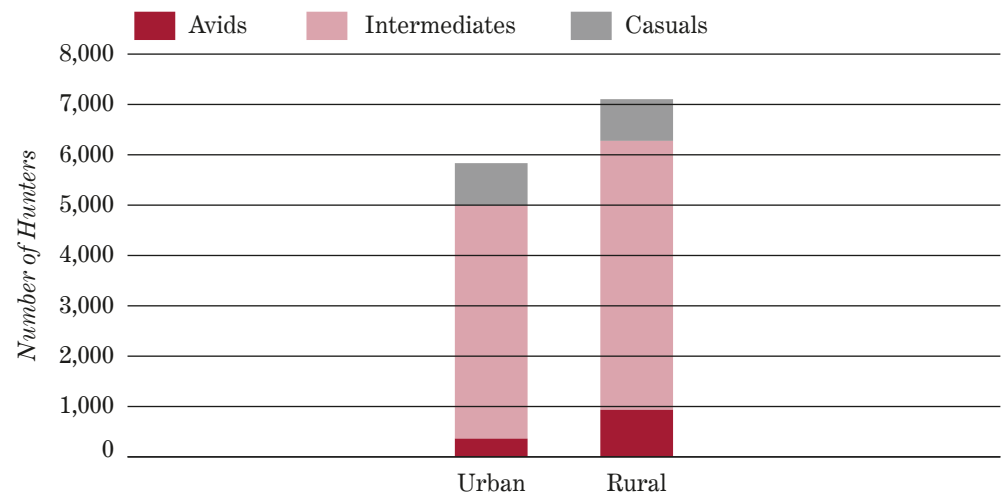


Figure 21. 2001 Hunting
(Numbers in thousands)



Part Two – State Trends

Number of In-State Anglers and Hunters

State trends in fishing and hunting do not necessarily follow national trends. National fishing and hunting participation trends encompass a wide variation at the state level.

For example, while national fishing participation fell 4% from 1991 to 2001, in North Dakota fishing increased 81% and in Michigan fishing decreased 23%. The three states with the largest increases were North Dakota, Utah (63%), and Alaska (36%, 25% for freshwater anglers, 48% for saltwater anglers), all western states with small populations and significant wilderness expanse. The one other state with a significant increase in fishing activity was Florida, with a 16% uptick (interestingly, this increase is solely due to the increase in saltwater anglers). The eastern seaboard states of New York, New Jersey, and North Carolina saw significant decreases in fishing. Two states with a 16% drop in participation from 1991 to 2001, New York (-28% for freshwater anglers and -17% for saltwater anglers) and New Jersey (-19% for freshwater anglers and -23% for saltwater anglers), are states that abut each other. Another state with a significant decrease is North Carolina, with a 13% downturn (-17% for freshwater anglers and +5% for saltwater anglers). The changes for all other states were not significant, which means the apparent upturn or downturn in fishing activity may not be a real change, but instead due to sampling factors.

Table 48. State Freshwater Fishing Participation Trends

(In-state participation, numbers in thousands)

| | 1991 | 1996 | 1991-1996 Percent Change | 2001 | 1996-2001 Percent Change | 1991-2001 Percent Change |
|--------------------|--------|--------|--------------------------------|--------|--------------------------------|--------------------------------|
| U.S., total | 31,041 | 29,734 | -4 | 28,439 | -4 | -8 |
| Alabama | 831 | 843 | 1 | 732 | -13 | -12 |
| Alaska | 213 | 313 | 47 | 266 | -15 | 25 |
| Arizona | 480 | 483 | 1 | 419 | -13 | -13 |
| Arkansas | 769 | 739 | -4 | 782 | 6 | 2 |
| California | 2,118 | 2,175 | 3 | 1,865 | -14 | -12 |
| Colorado | 778 | 787 | 1 | 915 | 16 | 18 |
| Connecticut | 255 | 318 | 25 | 254 | -20 | (Z) |
| Delaware | 45 | 66 | 47 | 73 | 11 | 62 |
| Florida | 1,311 | 1,37 | -13 | 1,316 | 16 | (Z) |
| Georgia | 1,066 | 967 | -9 | 1,017 | 5 | -5 |
| Hawaii | 32 | 22 | -31 | 12 | -45 | -63 |
| Idaho | 365 | 474 | 30 | 416 | -12 | 14 |
| Illinois | 1,359 | 1,351 | -1 | 1,237 | -8 | -9 |
| Indiana | 986 | 992 | 1 | 874 | -12 | -11 |
| Iowa | 556 | 477 | -14 | 542 | 14 | -3 |
| Kansas | 453 | 341 | -25 | 404 | 18 | -11 |
| Kentucky | 766 | 772 | 1 | 780 | 1 | 2 |
| Louisiana | 785 | 815 | 4 | 659 | -19 | -16 |
| Maine | 361 | 290 | -20 | 272 | -6 | -25 |
| Maryland | 392 | 319 | -19 | 367 | 15 | -6 |
| Massachusetts | 373 | 377 | 1 | 325 | -14 | -13 |
| Michigan | 1,762 | 1,824 | 4 | 1,354 | -26 | -23 |
| Minnesota | 1,450 | 1,538 | 6 | 1,624 | 6 | 12 |
| Mississippi | 565 | 487 | -14 | 494 | 1 | -13 |
| Missouri | 1,329 | 1,138 | -14 | 1,215 | 7 | -9 |
| Montana | 342 | 329 | -4 | 349 | 6 | 2 |
| Nebraska | 252 | 247 | -2 | 296 | 20 | 17 |
| Nevada | 171 | 219 | 28 | 172 | -21 | 1 |
| New Hampshire | 267 | 237 | -11 | 221 | -7 | -17 |
| New Jersey | 411 | 428 | 4 | 331 | -23 | -19 |
| New Mexico | 281 | 312 | 11 | 314 | 1 | 12 |
| New York | 1,454 | 1,295 | -11 | 1,052 | -19 | -28 |
| North Carolina | 1,019 | 1,009 | -1 | 848 | -16 | -17 |
| North Dakota | 99 | 90 | -9 | 179 | 99 | 81 |
| Ohio | 1,515 | 1,231 | -19 | 1,371 | 11 | -10 |
| Oklahoma | 804 | 891 | 11 | 774 | -13 | -4 |
| Oregon | 605 | 589 | -3 | 611 | 4 | 1 |
| Pennsylvania | 1,397 | 1,277 | -9 | 1,266 | -1 | -9 |
| Rhode Island | 66 | 72 | 9 | 51 | -29 | -23 |
| South Carolina | 645 | 716 | 11 | 591 | -17 | -8 |
| South Dakota | 158 | 213 | 35 | 214 | (Z) | 35 |
| Tennessee | 996 | 767 | -23 | 903 | 18 | -9 |
| Texas | 2,074 | 2,147 | 4 | 1,842 | -14 | -11 |
| Utah | 317 | 397 | 25 | 517 | 30 | 63 |
| Vermont | 181 | 176 | -3 | 171 | -3 | -6 |
| Virginia | 780 | 761 | -2 | 721 | -5 | -8 |
| Washington | 681 | 768 | 13 | 659 | -14 | -3 |
| West Virginia | 339 | 323 | -5 | 318 | -2 | -6 |
| Wisconsin | 1,470 | 1,474 | (Z) | 1,412 | -4 | -4 |
| Wyoming | 301 | 379 | 26 | 293 | -23 | -3 |

(Z) Less than 0.5 percent

Table 49. State Saltwater Fishing Participation Trends

(In-state participation, numbers in thousands)

| | 1991 | 1996 | 1991-1996 Percent Change | 2001 | 1996-2001 Percent Change | 1991-2001 Percent Change |
|--------------------|-------|-------|--------------------------------|-------|--------------------------------|--------------------------------|
| U.S., total | 8,885 | 9,438 | 6 | 9,051 | -4 | 2 |
| Alabama | 137 | 160 | 17 | 167 | 4 | 22 |
| Alaska | 183 | 283 | 55 | 271 | -4 | 48 |
| California | 1,057 | 1,049 | -1 | 932 | -11 | -12 |
| Connecticut | 145 | 178 | 23 | 161 | -10 | 11 |
| Delaware | 130 | 148 | 14 | 88 | -41 | -32 |
| Florida | 2,051 | 2,255 | 10 | 2,437 | 8 | 19 |
| Georgia | 72 | 137 | 90 | 98 | -28 | 36 |
| Hawaii | 192 | 244 | 27 | 144 | -41 | -25 |
| Louisiana | 240 | 346 | 44 | 504 | 46 | 110 |
| Maine | 143 | 106 | -26 | 150 | 42 | 5 |
| Maryland | 431 | 498 | 16 | 370 | -26 | -14 |
| Massachusetts | 393 | 429 | 9 | 376 | -12 | -4 |
| Mississippi | 148 | 121 | -18 | 106 | -12 | -28 |
| New Hampshire | 75 | 46 | -39 | 70 | 52 | -7 |
| New Jersey | 746 | 841 | 13 | 572 | -32 | -23 |
| New York | 491 | 476 | -3 | 406 | -15 | -17 |
| North Carolina | 626 | 770 | 23 | 657 | -15 | 5 |
| Oregon | 225 | 162 | -28 | 183 | 13 | -19 |
| Rhode Island | 125 | 108 | -14 | 149 | 38 | 19 |
| South Carolina | 298 | 382 | 28 | 348 | -9 | 17 |
| Texas | 828 | 862 | 4 | 860 | (Z) | 4 |
| Virginia | 339 | 377 | 11 | 385 | 2 | 14 |
| Washington | 504 | 378 | -25 | 386 | 2 | -23 |

(Z) Less than 0.5 percent

The 7% drop in the number of hunters nationally from 1991 to 2001 saw extremes of a 42% increase in hunters in South Dakota and a 39% drop in hunters in both California and Massachusetts. Three states experienced significant increases in hunting activity, South Dakota (largely due to non-big game hunting⁶), Arkansas (37%, with big game hunting increasing 29% and non-big game hunting 42%), and Minnesota (30%, with big game hunting increasing 47% and non-big game hunting decreasing 16%).

States with statistically significant hunting downturns were California (big game decreased 34% and non-big game hunting decreased 50%), Massachusetts (big game hunting decreased 32% and non-big game hunting decreased 52%), Illinois (-31%, with big game hunting a mere -4% and non-big game hunting a whopping -58%), Iowa (-26%, with big game hunting dropping 11% and non-big game hunting decreasing 34%), North Carolina (-26%, with big game hunting -22% and non-big game hunting -33%), and Ohio (-20%, with big game hunting increasing 8% and non-big game hunting decreasing 31%). All other states had statistically insignificant changes in hunting activity.

⁶ Due to sample size considerations, hunting at the state level is divided into big game and non-big game hunting.

Table 50. State Big Game Hunting Participation Trends

(In-state participation, numbers in thousands)

| | 1991 | 1996 | 1991-1996 Percent Change | 2001 | 1996-2001 Percent Change | 1991-2001 Percent Change |
|--------------------|--------|--------|--------------------------------|--------|--------------------------------|--------------------------------|
| U.S., total | 10,745 | 11,288 | 5 | 10,911 | -3 | 2 |
| Alabama | 262 | 279 | 6 | 392 | 41 | 50 |
| Alaska | 60 | 64 | 7 | 84 | 31 | 40 |
| Arizona | 103 | 100 | -3 | 81 | -19 | -21 |
| Arkansas | 249 | 298 | 20 | 322 | 8 | 29 |
| California | 195 | 294 | 51 | 129 | -56 | -34 |
| Colorado | 286 | 411 | 44 | 235 | -43 | -18 |
| Connecticut | 30 | 43 | 43 | 33 | -23 | 10 |
| Delaware | 16 | 28 | 75 | 11 | -61 | -31 |
| Florida | 191 | 159 | -17 | 188 | 18 | -2 |
| Georgia | 329 | 322 | -2 | 342 | 6 | 4 |
| Hawaii | 16 | 20 | 25 | 15 | -25 | -6 |
| Idaho | 160 | 215 | 34 | 156 | -27 | -3 |
| Illinois | 256 | 264 | 3 | 245 | -7 | -4 |
| Indiana | 206 | 262 | 27 | 215 | -18 | 4 |
| Iowa | 156 | 203 | 30 | 139 | -32 | -11 |
| Kansas | 71 | 114 | 61 | 159 | 39 | 124 |
| Kentucky | 209 | 282 | 35 | 264 | -6 | 26 |
| Louisiana | 203 | 228 | 12 | 212 | -7 | 4 |
| Maine | 158 | 172 | 9 | 156 | -9 | -1 |
| Maryland | 102 | 111 | 9 | 126 | 14 | 24 |
| Massachusetts | 85 | 76 | -11 | 58 | -24 | -32 |
| Michigan | 757 | 855 | 13 | 680 | -20 | -10 |
| Minnesota | 336 | 486 | 45 | 493 | 1 | 47 |
| Mississippi | 305 | 352 | 15 | 295 | -16 | -3 |
| Missouri | 411 | 457 | 11 | 423 | -7 | 3 |
| Montana | 202 | 161 | -20 | 206 | 28 | 2 |
| Nebraska | 67 | 77 | 15 | 89 | 16 | 33 |
| Nevada | 28 | 28 | (Z) | 25 | -11 | -11 |
| New Hampshire | 62 | 66 | 6 | 71 | 8 | 15 |
| New Jersey | 101 | 75 | -26 | 111 | 48 | 10 |
| New Mexico | 87 | 73 | -16 | 112 | 53 | 29 |
| New York | 666 | 596 | -11 | 664 | 11 | (Z) |
| North Carolina | 288 | 266 | -8 | 224 | -16 | -22 |
| North Dakota | 58 | 59 | 2 | 74 | 25 | 28 |
| Ohio | 390 | 322 | -17 | 422 | 31 | 8 |
| Oklahoma | 130 | 226 | 74 | 212 | -6 | 63 |
| Oregon | 223 | 254 | 14 | 226 | -11 | 1 |
| Pennsylvania | 969 | 816 | -16 | 956 | 17 | -1 |
| Rhode Island | 16 | 20 | 25 | 6 | -70 | -63 |
| South Carolina | 184 | 245 | 33 | 217 | -11 | 18 |
| South Dakota | 69 | 79 | 14 | 75 | -5 | 9 |
| Tennessee | 231 | 277 | 20 | 262 | -5 | 13 |
| Texas | 739 | 775 | 5 | 888 | 15 | 20 |
| Utah | 151 | 118 | -22 | 171 | 45 | 13 |
| Vermont | 93 | 91 | -2 | 94 | 3 | 1 |
| Virginia | 328 | 332 | 1 | 322 | -3 | -2 |
| Washington | 197 | 233 | 18 | 187 | -20 | -5 |
| West Virginia | 308 | 352 | 14 | 269 | -24 | -13 |
| Wisconsin | 672 | 584 | -13 | 606 | 4 | -10 |
| Wyoming | 123 | 109 | -11 | 110 | 1 | -11 |

(Z) Less than 0.5 percent

Table 51. State Non-Big Game Hunting Participation Trends

(In-state participation, numbers in thousands)

| | | | <i>1991-1996</i> | | | <i>1991-2001</i> |
|--------------------|-------------|-------------|------------------|-------------|----------------|------------------|
| | <i>1991</i> | <i>1996</i> | <i>Percent</i> | <i>2001</i> | <i>Percent</i> | <i>Percent</i> |
| | | | <i>Change</i> | | <i>Change</i> | <i>Change</i> |
| U.S., total | 9,065 | 8,445 | -7 | 7,098 | -16 | -22 |
| Alabama | 226 | 160 | -29 | 170 | 6 | -25 |
| Alaska | 33 | 38 | 17 | 27 | -29 | -17 |
| Arizona | 112 | 105 | -6 | 103 | -2 | -8 |
| Arkansas | 190 | 255 | 34 | 268 | 5 | 41 |
| California | 378 | 391 | 4 | 188 | -52 | -50 |
| Colorado | 121 | 141 | 17 | 107 | -24 | -12 |
| Connecticut | 39 | 31 | -20 | 24 | -24 | -39 |
| Delaware | 21 | 27 | 30 | 10 | -64 | -53 |
| Florida | 162 | 81 | -50 | 120 | 49 | -26 |
| Georgia | 199 | 218 | 10 | 201 | -8 | 1 |
| Hawaii | 5 | 10 | 80 | 8 | -18 | 48 |
| Idaho | 91 | 111 | 22 | 85 | -23 | -7 |
| Illinois | 332 | 312 | -6 | 141 | -55 | -58 |
| Indiana | 253 | 213 | -16 | 170 | -20 | -33 |
| Iowa | 277 | 292 | 6 | 183 | -37 | -34 |
| Kansas | 218 | 241 | 11 | 231 | -4 | 6 |
| Kentucky | 289 | 252 | -13 | 180 | -28 | -38 |
| Louisiana | 262 | 290 | 11 | 230 | -21 | -12 |
| Maine | 72 | 91 | 28 | 71 | -22 | -1 |
| Maryland | 97 | 86 | -11 | 83 | -3 | -14 |
| Massachusetts | 71 | 45 | -37 | 35 | -23 | -52 |
| Michigan | 421 | 493 | 17 | 245 | -50 | -42 |
| Minnesota | 295 | 349 | 18 | 342 | -2 | 16 |
| Mississippi | 226 | 261 | 15 | 214 | -18 | -6 |
| Missouri | 331 | 344 | 4 | 207 | -40 | -38 |
| Montana | 74 | 74 | (Z) | 62 | -16 | -16 |
| Nebraska | 153 | 148 | -3 | 130 | -12 | -15 |
| Nevada | 41 | 36 | -13 | 37 | 5 | -9 |
| New Hampshire | 40 | 45 | 11 | 27 | -40 | -34 |
| New Jersey | 93 | 48 | -49 | 67 | 41 | -28 |
| New Mexico | 41 | 39 | -5 | 48 | 22 | 16 |
| New York | 362 | 285 | -21 | 342 | 20 | -5 |
| North Carolina | 265 | 276 | 4 | 177 | -36 | -33 |
| North Dakota | 73 | 52 | -28 | 104 | 99 | 42 |
| Ohio | 486 | 347 | -29 | 337 | -3 | -31 |
| Oklahoma | 195 | 179 | -8 | 157 | -12 | -19 |
| Oregon | 84 | 115 | 37 | 86 | -25 | 2 |
| Pennsylvania | 628 | 458 | -27 | 500 | 9 | -20 |
| Rhode Island | 16 | 13 | -18 | 6 | -53 | -62 |
| South Carolina | 132 | 163 | 23 | 142 | -12 | 8 |
| South Dakota | 129 | 154 | 20 | 219 | 42 | 71 |
| Tennessee | 278 | 279 | (Z) | 226 | -19 | -19 |
| Texas | 704 | 519 | -26 | 797 | 54 | 13 |
| Utah | 71 | 63 | -11 | 93 | 48 | 31 |
| Vermont | 61 | 49 | -20 | 34 | -31 | -45 |
| Virginia | 275 | 187 | -32 | 153 | -18 | -44 |
| Washington | 134 | 147 | 10 | 101 | -31 | -24 |
| West Virginia | 212 | 198 | -7 | 135 | -32 | -36 |
| Wisconsin | 335 | 343 | 3 | 239 | -30 | -29 |
| Wyoming | 35 | 52 | 48 | 44 | -14 | 28 |

(Z) Less than 0.5 percent

Number of Fishing and Hunting Days

The number of fishing days rose 9% from 1991 to 2001 nationally. At the state level there were significant drops in only two states: Pennsylvania's 25% and Michigan's 24% decreases. Four states had significant increases: Utah's 96%, Minnesota's 66%, Colorado's 47%, and Florida's 28% (with freshwater's 35% increase and saltwater's 33%).

Table 52. State Freshwater Fishing Days Trend

(In-state participation, numbers in thousands)

| | 1991 | 1996 | 1991-1996 Percent Change | 2001 | 1996-2001 Percent Change | 1991-2001 Percent Change |
|--------------------|---------|---------|--------------------------------|---------|--------------------------------|--------------------------------|
| U.S., total | 439,536 | 515,115 | 17 | 466,984 | -9 | 6 |
| Alabama | 11,215 | 14,256 | 27 | 9,877 | -31 | -12 |
| Alaska | 2,086 | 3,602 | 73 | 2,110 | -41 | 1 |
| Arizona | 4,074 | 4,689 | 15 | 4,246 | -9 | 4 |
| Arkansas | 11,002 | 9,661 | -12 | 13,006 | 35 | 18 |
| California | 18,712 | 28,987 | 55 | 19,385 | -33 | 4 |
| Colorado | 6,284 | 8,232 | 31 | 9,267 | 13 | 47 |
| Connecticut | 3,460 | 3,880 | 12 | 3,516 | -9 | 2 |
| Delaware | 569 | 980 | 72 | 609 | -38 | 7 |
| Florida | 15,465 | 18,409 | 19 | 20,840 | 13 | 35 |
| Georgia | 15,341 | 12,857 | -16 | 13,076 | 2 | -15 |
| Hawaii | 207 | 189 | -9 | 194 | 3 | -6 |
| Idaho | 3,157 | 4,411 | 40 | 4,070 | -8 | 29 |
| Illinois | 16,808 | 20,459 | 22 | 16,133 | -21 | -4 |
| Indiana | 12,306 | 15,811 | 28 | 14,192 | -10 | 15 |
| Iowa | 6,062 | 7,062 | 16 | 7,485 | 6 | 23 |
| Kansas | 4,981 | 6,355 | 28 | 5,662 | -11 | 14 |
| Kentucky | 9,895 | 9,631 | -3 | 12,394 | 29 | 25 |
| Louisiana | 12,026 | 18,493 | 54 | 8,419 | -54 | -30 |
| Maine | 3,960 | 4,108 | 4 | 3,422 | -17 | -14 |
| Maryland | 4,354 | 4,290 | -1 | 4,269 | (Z) | -2 |
| Massachusetts | 6,011 | 6,746 | 12 | 4,560 | -32 | -24 |
| Michigan | 25,319 | 28,709 | 13 | 19,320 | -33 | -24 |
| Minnesota | 18,080 | 27,002 | 49 | 30,083 | 11 | 66 |
| Mississippi | 8,338 | 8,213 | -1 | 8,466 | 3 | 2 |
| Missouri | 15,136 | 14,682 | -3 | 13,279 | -10 | -12 |
| Montana | 3,156 | 2,617 | -17 | 4,068 | 55 | 29 |
| Nebraska | 2,734 | 3,004 | 10 | 3,204 | 7 | 17 |
| Nevada | 1,218 | 1,976 | 62 | 1,575 | -20 | 29 |
| New Hampshire | 2,720 | 3,139 | 15 | 2,871 | -9 | 6 |
| New Jersey | 5,911 | 6,021 | 2 | 5,553 | -8 | -6 |
| New Mexico | 1,943 | 2,836 | 46 | 2,485 | -12 | 28 |
| New York | N.A. | 21,010 | N.A. | 17,379 | -17 | N.A. |
| North Carolina | 13,015 | 15,831 | 22 | 12,073 | -24 | -7 |
| North Dakota | 993 | 1,321 | 33 | 2,186 | 65 | 120 |
| Ohio | 18,880 | 17,848 | -5 | 19,882 | 11 | 5 |
| Oklahoma | 12,079 | 14,674 | 21 | 12,741 | -13 | 5 |
| Oregon | 6,490 | 7,118 | 10 | 7,895 | 11 | 22 |
| Pennsylvania | 24,313 | 20,901 | -14 | 18,313 | -12 | -25 |
| Rhode Island | 1,049 | 1,347 | 28 | 649 | -52 | -38 |
| South Carolina | 9,329 | 11,342 | 22 | 8,713 | -23 | -7 |
| South Dakota | 1,722 | 2,748 | 60 | 2,984 | 9 | 73 |
| Tennessee | 13,690 | 11,317 | -17 | 15,035 | 33 | 10 |
| Texas | 29,092 | 37,575 | 29 | 25,650 | -32 | -12 |
| Utah | 2,672 | 3,926 | 47 | 5,238 | 33 | 96 |
| Vermont | 2,258 | 1,951 | -14 | 2,321 | 19 | 3 |
| Virginia | 10,504 | 9,282 | -12 | 10,849 | 17 | 3 |
| Washington | 8,583 | 10,975 | 28 | 9,800 | -11 | 14 |
| West Virginia | 4,107 | 5,040 | 23 | 4,152 | -18 | 1 |
| Wisconsin | 21,257 | 17,130 | -19 | 22,042 | 29 | 4 |
| Wyoming | 2,348 | 2,415 | 3 | 2,497 | 3 | 6 |

N.A. Not available

(Z) Less than 0.5 percent

Table 53. State Saltwater Fishing Days Trend

(In-state participation, numbers in thousands)

| | <i>1991</i> | <i>1996</i> | <i>1991-1996 Percent Change</i> | <i>2001</i> | <i>1996-2001 Percent Change</i> | <i>1991-2001 Percent Change</i> |
|--------------------|-------------|-------------|---|-------------|---|---|
| U.S., total | 74,696 | 103,034 | 38 | 90,838 | -12 | 22 |
| Alabama | 1,173 | 1,561 | 33 | 1,340 | -14 | 14 |
| Alaska | 1,066 | 1,949 | 83 | 1,531 | -21 | 44 |
| California | 5,499 | 7,302 | 33 | 8,345 | 14 | 52 |
| Connecticut | 1,226 | 1,747 | 42 | 1,398 | -20 | 14 |
| Delaware | 759 | 1,612 | 112 | 698 | -57 | -8 |
| Florida | 22,634 | 25,140 | 11 | 30,123 | 20 | 33 |
| Georgia | 606 | 993 | 64 | 467 | -53 | -23 |
| Hawaii | 2,189 | 2,901 | 33 | 2,567 | -12 | 17 |
| Louisiana | 2,612 | 2,083 | -20 | 4,673 | 124 | 79 |
| Maine | 843 | 989 | 17 | 727 | -26 | -14 |
| Maryland | 2,526 | 5,264 | 108 | 3,169 | -40 | 25 |
| Massachusetts | 3,282 | 3,954 | 20 | 3,304 | -16 | 1 |
| Mississippi | 807 | 1,443 | 79 | 988 | -32 | 22 |
| New Hampshire | 293 | 314 | 7 | 320 | 2 | 9 |
| New Jersey | 6,071 | 10,366 | 71 | 5,114 | -51 | -16 |
| New York | 3,598 | 5,151 | 43 | 4,430 | -14 | 23 |
| North Carolina | 3,525 | 5,677 | 61 | 3,402 | -40 | -3 |
| Oregon | 1,072 | 870 | -19 | 953 | 10 | -11 |
| Rhode Island | 1,091 | 947 | -13 | 1,508 | 59 | 38 |
| South Carolina | 1,556 | 2,451 | 58 | 2,013 | -18 | 29 |
| Texas | 6,823 | 13,030 | 91 | 7,538 | -42 | 10 |
| Virginia | 1,853 | 5,156 | 178 | 3,279 | -36 | 77 |
| Washington | 3,557 | 2,135 | -40 | 2,941 | 38 | -17 |

The number of hunting days nationally declined a statistically insignificant 3% from 1991 to 2001. Three states had significant increases: Utah with 81% (27% big game hunting, 235% non-big game hunting), Minnesota with 61% (117% big game, 29% non-big game), and Arkansas with 53% (80% big game, 46% non-big game). Four states had significant losses: Michigan's -40% (-29% big game, -48% non-big game), California's -34% (-42% big game, -26% non-big game), Illinois' -34% (24% big game, -63% non-big game), and Virginia's -33% (-17% big game, -54% non-big game).

Table 54. State Big Game Hunting Days Trend

(In-state participation, numbers in thousands)

| | 1991 | 1996 | 1991-1996 Percent Change | 2001 | 1996-2001 Percent Change | 1991-2001 Percent Change |
|--------------------|---------|---------|--------------------------------|---------|--------------------------------|--------------------------------|
| U.S., total | 128,411 | 153,784 | 20 | 153,191 | (Z) | 19 |
| Alabama | 3,705 | 5,276 | 42 | 6,658 | 26 | 80 |
| Alaska | 612 | 748 | 22 | 944 | 26 | 54 |
| Arizona | 886 | 681 | -23 | 860 | 26 | -3 |
| Arkansas | 3,194 | 4,631 | 45 | 5,740 | 24 | 80 |
| California | 2,225 | 2,773 | 25 | 1,285 | -54 | -42 |
| Colorado | 1,934 | 3,004 | 55 | 1,634 | -46 | -16 |
| Connecticut | 491 | 607 | 24 | 522 | -14 | 6 |
| Delaware | 162 | 407 | 151 | 158 | -61 | -2 |
| Florida | 2,820 | 4,189 | 49 | 3,493 | -17 | 24 |
| Georgia | 4,419 | 5,323 | 20 | 6,131 | 15 | 39 |
| Hawaii | 191 | 193 | 1 | 285 | 48 | 49 |
| Idaho | 1,248 | 2,085 | 67 | 1,384 | -34 | 11 |
| Illinois | 2,632 | 3,628 | 38 | 3,274 | -10 | 24 |
| Indiana | 3,212 | 3,602 | 12 | 2,696 | -25 | -16 |
| Iowa | 1,188 | 1,764 | 48 | 1,449 | -18 | 22 |
| Kansas | 681 | 1,184 | 74 | 1,570 | 33 | 131 |
| Kentucky | 2,032 | 2,380 | 17 | 2,828 | 19 | 39 |
| Louisiana | 3,138 | 3,348 | 7 | 4,365 | 30 | 39 |
| Maine | 1,496 | 2,529 | 69 | 2,021 | -20 | 35 |
| Maryland | 1,434 | 1,321 | -8 | 1,350 | 2 | -6 |
| Massachusetts | 558 | 702 | 26 | 683 | -3 | 22 |
| Michigan | 9,219 | 11,227 | 22 | 6,532 | -42 | -29 |
| Minnesota | 2,245 | 2,883 | 28 | 4,869 | 69 | 117 |
| Mississippi | 5,767 | 6,210 | 8 | 7,196 | 16 | 25 |
| Missouri | 3,513 | 5,127 | 46 | 4,591 | -10 | 31 |
| Montana | 1,983 | 1,235 | -38 | 1,797 | 46 | -9 |
| Nebraska | 479 | 703 | 47 | 763 | 9 | 59 |
| Nevada | 213 | 172 | -19 | 169 | -2 | -21 |
| New Hampshire | 688 | 783 | 14 | 1,127 | 44 | 64 |
| New Jersey | 1,222 | 1,169 | -4 | 2,813 | 141 | 130 |
| New Mexico | 600 | 387 | -36 | 711 | 84 | 19 |
| New York | 8,297 | 8,166 | -2 | 10,864 | 33 | 31 |
| North Carolina | 4,145 | 4,286 | 3 | 5,117 | 19 | 23 |
| North Dakota | 346 | 390 | 13 | 574 | 47 | 66 |
| Ohio | 3,505 | 3,927 | 12 | 4,290 | 9 | 22 |
| Oklahoma | 1,719 | 2,877 | 67 | 3,465 | 20 | 102 |
| Oregon | 1,905 | 2,781 | 46 | 2,500 | -10 | 31 |
| Pennsylvania | 9,606 | 8,973 | -7 | 8,816 | -2 | -8 |
| Rhode Island | 187 | 424 | 127 | 65 | -85 | -65 |
| South Carolina | 2,703 | 4,750 | 76 | 3,757 | -21 | 39 |
| South Dakota | 458 | 684 | 49 | 534 | -22 | 17 |
| Tennessee | 3,544 | 4,340 | 22 | 4,112 | -5 | 16 |
| Texas | 7,667 | 11,122 | 45 | 8,868 | -20 | 16 |
| Utah | 983 | 830 | -16 | 1,252 | 51 | 27 |
| Vermont | 1,037 | 1,158 | 12 | 1,218 | 5 | 17 |
| Virginia | 5,216 | 5,132 | -2 | 4,305 | -16 | -17 |
| Washington | 1,780 | 2,829 | 59 | 1,841 | -35 | 3 |
| West Virginia | 3,364 | 3,933 | 17 | 3,167 | -19 | -6 |
| Wisconsin | 6,936 | 5,804 | -16 | 7,505 | 29 | 8 |
| Wyoming | 826 | 1,105 | 34 | 1,001 | -9 | 21 |

(Z) Less than 0.5 percent

Table 55. State Non-Big Game Hunting Days Trend

(In-state participation, numbers in thousands)

| | 1991 | 1996 | 1991-1996 Percent Change | 2001 | 1996-2001 Percent Change | 1991-2001 Percent Change |
|--------------------|---------|---------|--------------------------------|---------|--------------------------------|--------------------------------|
| U.S., total | 118,709 | 126,140 | 6 | 108,659 | -14 | -8 |
| Alabama | 2,309 | 1,981 | -14 | 1,689 | -15 | -27 |
| Alaska | 349 | 496 | 42 | 305 | -39 | -13 |
| Arizona | 762 | 1,151 | 51 | 1,067 | -7 | 40 |
| Arkansas | 2,452 | 4,494 | 83 | 3,590 | -20 | 46 |
| California | 3,428 | 5,630 | 64 | 2,532 | -55 | -26 |
| Colorado | 883 | 1,561 | 77 | 1,253 | -20 | 42 |
| Connecticut | 369 | 344 | -7 | 296 | -14 | -20 |
| Delaware | 254 | 397 | 56 | 92 | -77 | -64 |
| Florida | 1,948 | 816 | -58 | 1,807 | 121 | -7 |
| Georgia | 1,806 | 2,106 | 17 | 2,811 | 33 | 56 |
| Hawaii | 56 | 130 | 132 | 107 | -18 | 91 |
| Idaho | 1,034 | 1,805 | 75 | 1,028 | -43 | -1 |
| Illinois | 4,416 | 3,422 | -23 | 1,614 | -53 | -63 |
| Indiana | 4,383 | 2,745 | -37 | 3,056 | 11 | -30 |
| Iowa | 3,031 | 3,906 | 29 | 2,875 | -26 | -5 |
| Kansas | 2,324 | 3,498 | 51 | 2,682 | -23 | 15 |
| Kentucky | 4,326 | 3,519 | -19 | 2,586 | -27 | -40 |
| Louisiana | 3,751 | 4,328 | 15 | 2,665 | -38 | -29 |
| Maine | 1,020 | 1,344 | 32 | 813 | -40 | -20 |
| Maryland | 926 | 515 | -44 | 615 | 19 | -34 |
| Massachusetts | 939 | 745 | -21 | 729 | -2 | -22 |
| Michigan | 6,479 | 7,619 | 18 | 3,378 | -56 | -48 |
| Minnesota | 3,350 | 4,403 | 31 | 4,323 | -2 | 29 |
| Mississippi | 3,185 | 2,886 | -9 | 2,852 | -1 | -10 |
| Missouri | 3,813 | 4,078 | 7 | 3,046 | -25 | -20 |
| Montana | 715 | 864 | 21 | 868 | (Z) | 21 |
| Nebraska | 1,903 | 1,846 | -3 | 1,691 | -8 | -11 |
| Nevada | 391 | 491 | 26 | 429 | -13 | 10 |
| New Hampshire | 517 | 640 | 24 | 452 | -29 | -13 |
| New Jersey | 1,246 | 612 | -51 | 675 | 10 | -46 |
| New Mexico | 536 | 305 | -43 | 1,110 | 264 | 107 |
| New York | 5,427 | 4,214 | -22 | 5,077 | 20 | -6 |
| North Carolina | 2,945 | 4,996 | 70 | 2,935 | -41 | (Z) |
| North Dakota | 994 | 683 | -31 | 1,278 | 87 | 29 |
| Ohio | 5,818 | 5,220 | -10 | 7,685 | 47 | 32 |
| Oklahoma | 2,040 | 2,580 | 26 | 3,847 | 49 | 89 |
| Oregon | 783 | 1,730 | 121 | 796 | -54 | 2 |
| Pennsylvania | 6,645 | 5,199 | -22 | 6,257 | 20 | -6 |
| Rhode Island | 175 | 114 | -35 | 66 | -42 | -62 |
| South Carolina | 1,552 | 2,217 | 43 | 1,417 | -36 | -9 |
| South Dakota | 1,588 | 1,730 | 9 | 2,366 | 37 | 49 |
| Tennessee | 3,952 | 5,110 | 29 | 4,231 | -17 | 7 |
| Texas | 8,679 | 9,092 | 5 | 8,310 | -9 | -4 |
| Utah | 431 | 823 | 91 | 1,442 | 75 | 235 |
| Vermont | 880 | 598 | -32 | 484 | -19 | -45 |
| Virginia | 3,925 | 2,009 | -49 | 1,817 | -10 | -54 |
| Washington | 1,848 | 2,685 | 45 | 1,396 | -48 | -24 |
| West Virginia | 3,067 | 2,924 | -5 | 2,734 | -6 | -11 |
| Wisconsin | 4,749 | 4,942 | 4 | 3,035 | -39 | -36 |
| Wyoming | 310 | 597 | 93 | 450 | -25 | 45 |

Note: These day estimates are sums of days of small game, migratory bird, and other animal hunting, which is an overestimate, since different kinds of hunting can be done on the same day. The typical overestimate is 6%, based on 1991 data.

(Z) Less than 0.5 percent

Trends in State Fishing and Hunting Expenditures

The state trend information for expenditures in this report covers trip-related expenditures by state where each purchase took place and all fishing and hunting expenditures (trip-related and equipment purchases) by state residents. The 1991 Survey did not ask for the state in which equipment was purchased, so the 1991-2001 total expenditure trend data cannot be presented by state where expenditures took place.

Fishing Trip-Related and Total Expenditures by State

Nationally trip-related expenditures for fishing increased from 1991 to 1996 (13%) and decreased from 1996 to 2001 (-16%), making the 1991 to 2001 comparison (-5%) statistically insignificant. Although state resident total expenditures also saw an increase from 1991 to 1996 (37%) and a decrease from 1996 to 2001 (-17%), unlike trip-related expenditures there was a significant difference (14%) comparing 1991 to 2001. The inclusion of equipment expenditures literally made a significant difference.

Focusing on the 1991 to 2001 trip-related expenditures comparison, anglers in two states increased their expenditures significantly: Florida (34%) and Minnesota (32%). Six states experienced significant decreases: New York (-43%), Indiana (-40%), Arkansas (-35%), Illinois (-35%), Michigan (-26%), and Ohio (-25%).

Looking at the state resident fishing expenditures total (which include both trip-related and equipment expenditures), nine states saw a significant increase from 1991 to 2001 and four states a significant decrease. The states with increases were Nevada (126%), Montana (118%), North Dakota (102%), Utah (99%), Colorado (86%), New Hampshire (65%), Florida (59%), Wyoming (56%), and Rhode Island (42%). The states with decreases were Michigan (-43%), Alaska (-32%), Washington (-26%), and Iowa (-24%).

Table 56. State Trip-Related Fishing Expenditure Trends

(In-state expenditures, in thousands, 2001 dollars)

| | 1991 | 1996 | 1991-1996 Percent Change | 2001 | 1996-2001 Percent Change | 1991-2001 Percent Change |
|--------------------|------------|------------|--------------------------------|------------|--------------------------------|--------------------------------|
| U.S., total | 15,396,151 | 17,380,775 | 13* | 14,656,001 | -16* | -5 |
| Alabama | 332,656 | 407,730 | 23 | 355,883 | -13 | 7 |
| Alaska | 311,389 | 495,717 | 59 | 423,139 | -15 | 36 |
| Arizona | 203,936 | 207,236 | 2 | 140,567 | -32 | -31 |
| Arkansas | 282,023 | 202,475 | -28 | 182,772 | -10 | -35* |
| California | 1,078,873 | 1,632,823 | 51* | 1,116,707 | -32 | 4 |
| Colorado | 220,432 | 303,747 | 38 | 303,412 | (Z) | 38 |
| Connecticut | 81,030 | 113,382 | 40 | 100,286 | -12 | 24 |
| Delaware | 52,008 | 88,234 | 70 | 30,547 | -65 | -41 |
| Florida | 1,563,048 | 1,831,307 | 17 | 2,087,721 | 14 | 34* |
| Georgia | 330,307 | 348,211 | 5 | 245,288 | -30 | -26 |
| Hawaii | 93,333 | 107,933 | 16 | 66,198 | -39 | -29 |
| Idaho | 97,270 | 147,741 | 52 | 115,142 | -22 | 18 |
| Illinois | 316,403 | 328,385 | 4 | 204,724 | -38* | -35* |
| Indiana | 251,941 | 226,380 | -10 | 152,287 | -33 | -40* |
| Iowa | 94,359 | 120,687 | 28 | 104,706 | -13 | 11 |
| Kansas | 98,130 | 88,462 | -10 | 80,360 | -9 | -18 |
| Kentucky | 211,025 | 249,580 | 18 | 220,918 | -11 | 5 |
| Louisiana | 437,731 | 432,809 | -1 | 397,183 | -8 | -9 |
| Maine | 150,284 | 161,575 | 8 | 94,931 | -41 | -37 |
| Maryland | 202,064 | 298,123 | 48 | 245,088 | -18 | 21 |
| Massachusetts | 249,887 | 267,611 | 7 | 217,216 | -19 | -13 |
| Michigan | 696,455 | 653,074 | -6 | 516,682 | -21 | -26* |
| Minnesota | 593,970 | 746,501 | 26 | 785,922 | 5 | 32* |
| Mississippi | 177,719 | 191,413 | 8 | 117,694 | -39 | -34 |
| Missouri | 402,385 | 386,460 | -4 | 317,368 | -18 | -21 |
| Montana | 157,789 | 194,444 | 23 | 148,042 | -24 | -6 |
| Nebraska | 59,518 | 52,866 | -11 | 60,000 | 13 | 1 |
| Nevada | 53,079 | 82,767 | 56 | 76,293 | -8 | 44 |
| New Hampshire | 79,952 | 77,495 | -3 | 75,876 | -2 | -5 |
| New Jersey | 476,156 | 530,377 | 11 | 373,755 | -30 | -22 |
| New Mexico | 83,863 | 118,077 | 41 | 89,623 | -24 | 7 |
| New York | 669,267 | 676,325 | 1 | 378,967 | -44* | -43* |
| North Carolina | 490,302 | 561,324 | 14 | 449,830 | -20 | -8 |
| North Dakota | 27,134 | 34,631 | 28 | 57,066 | 65 | 110 |
| Ohio | 508,991 | 325,717 | -36* | 379,730 | 17 | -25* |
| Oklahoma | 255,375 | 293,220 | 15 | 211,301 | -28 | -17 |
| Oregon | 266,167 | 299,258 | 12 | 256,958 | -14 | -3 |
| Pennsylvania | 345,743 | 332,379 | -4 | 282,022 | -15 | -18 |
| Rhode Island | 51,465 | 49,856 | -3 | 69,274 | 39 | 35 |
| South Carolina | 313,809 | 339,670 | 8 | 316,887 | -7 | 1 |
| South Dakota | 50,791 | 87,024 | 71 | 85,428 | -2 | 68 |
| Tennessee | 336,685 | 242,477 | -28 | 263,252 | 9 | -22 |
| Texas | 1,029,347 | 1,311,286 | 27 | 866,813 | -34* | -16 |
| Utah | 125,397 | 133,478 | 6 | 170,530 | 28 | 36 |
| Vermont | 58,153 | 47,165 | -19 | 59,094 | 25 | 2 |
| Virginia | 260,098 | 353,107 | 36 | 276,985 | -22 | 6 |
| Washington | 370,026 | 367,309 | -1 | 340,322 | -7 | -8 |
| West Virginia | 72,002 | 70,877 | -2 | 64,115 | -10 | -11 |
| Wisconsin | 618,202 | 496,268 | -20 | 508,636 | 2 | -18 |
| Wyoming | 107,163 | 124,771 | 16 | 94,289 | -24 | -12 |

*Significant difference at the 90% level of significance.

(Z) Less than 0.5 percent

Table 57. State Resident Fishing Expenditure Trends

(In-state expenditures, in thousands, 2001 dollars)

| | 1991 | 1996 | 1991-1996 Percent Change | 2001 | 1996-2001 Percent Change | 1991-2001 Percent Change |
|--------------------|------------|------------|--------------------------------|------------|--------------------------------|--------------------------------|
| U.S., total | 31,175,168 | 42,710,679 | 37* | 35,632,132 | -17* | 14* |
| Alabama | 582,304 | 851,693 | 46 | 598,037 | -30 | 3 |
| Alaska | 310,916 | 243,383 | -22 | 212,738 | -13 | -32* |
| Arizona | 389,470 | 361,957 | -7 | 324,426 | -10 | -17 |
| Arkansas | 371,918 | 244,918 | -34* | 385,217 | 57* | 4 |
| California | 2,334,734 | 4,189,242 | 79* | 2,149,634 | -49* | -8 |
| Colorado | 415,068 | 725,154 | 75* | 770,233 | 6 | 86* |
| Connecticut | 328,896 | 315,557 | -4 | 327,512 | 4 | (Z) |
| Delaware | 103,293 | 202,820 | 96* | 92,418 | -54* | -11 |
| Florida | 2,150,972 | 3,142,568 | 46 | 3,423,204 | 9 | 59* |
| Georgia | 694,900 | 1,367,724 | 97* | 611,235 | -55* | -12 |
| Hawaii | 98,174 | 99,257 | 1 | 97,187 | -2 | -1 |
| Idaho | 189,093 | 265,451 | 40 | 228,926 | -14 | 21 |
| Illinois | 1,444,641 | 2,219,810 | 54* | 1,145,764 | -48* | -21 |
| Indiana | 525,677 | 901,890 | 72* | 468,909 | -48* | -11 |
| Iowa | 416,950 | 473,252 | 14 | 318,518 | -33* | -24* |
| Kansas | 375,323 | 311,553 | -17 | 330,607 | 6 | -12 |
| Kentucky | 609,609 | 809,932 | 33 | 550,903 | -32 | -10 |
| Louisiana | 892,062 | 1,012,401 | 13 | 646,717 | -36* | -28 |
| Maine | 182,827 | 149,214 | -18 | 157,926 | 6 | -14 |
| Maryland | 367,532 | 750,949 | 104* | 494,919 | -34 | 35 |
| Massachusetts | 590,512 | 797,485 | 35 | 460,028 | -42* | -22 |
| Michigan | 1,672,278 | 1,666,469 | (Z) | 958,598 | -42* | -43* |
| Minnesota | 1,100,120 | 1,688,978 | 54* | 1,243,224 | -26 | 13 |
| Mississippi | 342,009 | 605,738 | 77* | 316,900 | -48* | -7 |
| Missouri | 571,004 | 711,659 | 25 | 757,224 | 6 | 33 |
| Montana | 92,560 | 114,626 | 24 | 201,969 | 76* | 118* |
| Nebraska | 192,148 | 213,264 | 11 | 179,595 | -16 | -7 |
| Nevada | 104,160 | 366,708 | 252* | 235,357 | -36* | 126* |
| New Hampshire | 113,071 | 247,526 | 119* | 186,257 | -25 | 65* |
| New Jersey | 868,961 | 1,324,141 | 52* | 712,408 | -46* | -18 |
| New Mexico | 146,722 | 203,779 | 39 | 195,631 | -4 | 33 |
| New York | 1,127,415 | 1,585,969 | 41 | 919,978 | -42* | -18 |
| North Carolina | 750,802 | 1,488,085 | 98* | 922,464 | -38 | 23 |
| North Dakota | 90,369 | 154,287 | 71* | 182,109 | 18 | 102* |
| Ohio | 1,120,020 | 1,078,212 | -4 | 904,493 | -16 | -19 |
| Oklahoma | 548,646 | 600,010 | 9 | 492,682 | -18 | -10 |
| Oregon | 599,686 | 701,382 | 17 | 588,733 | -16 | -2 |
| Pennsylvania | 880,765 | 1,063,284 | 21 | 761,512 | -28* | -14 |
| Rhode Island | 82,580 | 169,342 | 105* | 116,918 | -31 | 42* |
| South Carolina | 518,163 | 841,669 | 62* | 495,895 | -41* | -4 |
| South Dakota | 113,382 | 183,401 | 62* | 100,882 | -45* | -11 |
| Tennessee | 641,126 | 555,662 | -13 | 467,108 | -16 | -27 |
| Texas | 1,918,111 | 3,414,000 | 78* | 2,125,366 | -38 | 11 |
| Utah | 200,466 | 214,001 | 7 | 398,344 | 86* | 99* |
| Vermont | 83,510 | 153,274 | 84* | 72,158 | -53* | -14 |
| Virginia | 560,407 | 1,021,051 | 82* | 688,345 | -33* | 23 |
| Washington | 1,312,102 | 763,399 | -42* | 964,827 | 26 | -26* |
| West Virginia | 141,972 | 214,125 | 51* | 145,730 | -32 | 3 |
| Wisconsin | 860,632 | 1,056,844 | 23 | 840,828 | -20 | -2 |
| Wyoming | 86,151 | 107,993 | 25 | 134,391 | 24 | 56* |

*Significant difference at the 90% level of significance.

(Z) Less than 0.5 percent

Hunting Trip-Related and Total Expenditures by State

Nationally trip-related expenditures for hunting increased significantly from 1991 to 1996 (30%) and decreased insignificantly from 1996 to 2001 (-10%), making the 1991 to 2001 comparison a significant increase of 17%. Similarly, for state resident total expenditures, there was a significant increase from 1991 to 1996 (45%) and an insignificant decrease from 1996 to 2001 (-12%), winding up with a significant increase from 1991 to 2001 of 29%.

Focusing on the 1991 to 2001 trip-related expenditures comparison, hunters in two states increased their expenditures significantly: Arkansas (82%) and Texas (46%). One state experienced a significant decrease: Michigan (-36%).

Regarding the state resident hunting trip-related and equipment expenditures, seven states saw a significant increase from 1991 to 2001 and three states a significant decrease. The states with increases were Utah (173%), Oregon (169%), New Mexico (130%), Alabama (79%), South Carolina (68%), Tennessee (62%), Minnesota (58%). The states with decreases were California (-56%), Michigan (-51%), and Mississippi (-42%).

Table 58. State Trip-Related Hunting Expenditure Trends

(In-state expenditures, in thousands, 2001 dollars)

| | 1991 | 1996 | 1991-1996 Percent Change | 2001 | 1996-2001 Percent Change | 1991-2001 Percent Change |
|--------------------|-----------|-----------|--------------------------------|-----------|--------------------------------|--------------------------------|
| U.S., total | 4,471,065 | 5,825,510 | 30* | 5,252,391 | -10 | 17* |
| Alabama | 116,555 | 128,690 | 10 | 185,360 | 44 | 59 |
| Alaska | 57,622 | 97,875 | 70 | 146,488 | 50 | 154 |
| Arizona | 50,362 | 73,582 | 46 | 64,291 | -13 | 28 |
| Arkansas | 110,562 | 97,467 | -12 | 200,929 | 106* | 82* |
| California | 140,249 | 301,217 | 115* | 154,412 | -49* | 10 |
| Colorado | 203,397 | 250,420 | 23 | 183,451 | -27 | -10 |
| Connecticut | 7,065 | 9,271 | 31 | 6,930 | -25 | -2 |
| Delaware | 4,128 | 8,842 | 114 | 3,108 | -65 | -25 |
| Florida | 110,317 | 132,959 | 21 | 115,085 | -13 | 4 |
| Georgia | 137,942 | 117,057 | -15 | 188,684 | 61 | 37 |
| Hawaii | 12,606 | 8,808 | -30 | 7,999 | -9 | -37 |
| Idaho | 57,519 | 84,716 | 47 | 81,783 | -3 | 42 |
| Illinois | 73,372 | 121,868 | 66 | 104,018 | -15 | 42 |
| Indiana | 72,922 | 49,009 | -33 | 43,894 | -10 | -40 |
| Iowa | 60,525 | 83,513 | 38 | 60,083 | -28 | -1 |
| Kansas | 57,654 | 99,386 | 72 | 95,568 | -4 | 66 |
| Kentucky | 93,460 | 75,421 | -19 | 61,891 | -18 | -34 |
| Louisiana | 106,393 | 139,647 | 31 | 109,978 | -21 | 3 |
| Maine | 41,088 | 77,936 | 90 | 52,240 | -33 | 27 |
| Maryland | 39,350 | 32,621 | -17 | 31,202 | -4 | -21 |
| Massachusetts | 18,329 | 22,151 | 21 | 10,042 | -55 | -45 |
| Michigan | 246,638 | 317,738 | 29 | 156,703 | -51* | -36* |
| Minnesota | 110,061 | 141,378 | 28 | 171,040 | 21 | 55 |
| Mississippi | 124,073 | 194,472 | 57 | 126,653 | -35 | 2 |
| Missouri | 106,817 | 161,239 | 51 | 102,319 | -37 | -4 |
| Montana | 137,407 | 111,990 | -18 | 106,179 | -5 | -23 |
| Nebraska | 49,004 | 80,953 | 65 | 74,345 | -8 | 52 |
| Nevada | 24,293 | 22,942 | -6 | 20,194 | -12 | -17 |
| New Hampshire | 12,549 | 15,341 | 22 | 15,421 | 1 | 23 |
| New Jersey | 39,277 | 46,167 | 18 | 67,284 | 46 | 71 |
| New Mexico | 45,238 | 33,316 | -26 | 58,503 | 76 | 29 |
| New York | 210,928 | 238,919 | 13 | 152,059 | -36 | -28 |
| North Carolina | 75,462 | 111,694 | 48 | 90,279 | -19 | 20 |
| North Dakota | 31,767 | 26,506 | -17 | 53,245 | 101 | 68 |
| Ohio | 88,190 | 91,038 | 3 | 112,104 | 23 | 27 |
| Oklahoma | 70,578 | 86,327 | 22 | 95,502 | 11 | 35 |
| Oregon | 73,166 | 141,902 | 94 | 105,253 | -26 | 44 |
| Pennsylvania | 215,546 | 204,242 | -5 | 187,713 | -8 | -13 |
| Rhode Island | 3,704 | 4,477 | 21 | 800 | -82 | -78 |
| South Carolina | 80,357 | 122,260 | 52 | 94,626 | -23 | 18 |
| South Dakota | 62,328 | 120,286 | 93 | 112,206 | -7 | 80 |
| Tennessee | 100,391 | 118,966 | 19 | 113,886 | -4 | 13 |
| Texas | 367,820 | 503,040 | 37 | 535,668 | 6 | 46* |
| Utah | 53,867 | 40,621 | -25 | 86,018 | 112 | 60 |
| Vermont | 42,440 | 31,276 | -26 | 16,286 | -48 | -62 |
| Virginia | 110,011 | 103,028 | -6 | 94,592 | -8 | -14 |
| Washington | 86,456 | 101,784 | 18 | 99,145 | -3 | 15 |
| West Virginia | 69,912 | 75,669 | 8 | 62,354 | -18 | -11 |
| Wisconsin | 195,876 | 142,641 | -27 | 159,396 | 12 | -19 |
| Wyoming | 66,962 | 102,460 | 53 | 70,390 | -31 | 5 |

*Significant difference at the 90% level of significance.

Table 59. State Resident Hunting Expenditure Trends

(In-state expenditures, in thousands, 2001 dollars)

| | 1991 | 1996 | 1991-1996 Percent Change | 2001 | 1996-2001 Percent Change | 1991-2001 Percent Change |
|-------------------|------------|------------|--------------------------------|------------|--------------------------------|--------------------------------|
| U.S. total | 16,031,197 | 23,293,156 | 45* | 20,611,025 | -12 | 29* |
| Alabama | 358,648 | 600,645 | 67 | 642,336 | 7 | 79* |
| Alaska | 115,166 | 152,097 | 32 | 97,650 | -36 | -15 |
| Arizona | 199,681 | 235,054 | 18 | 224,791 | -4 | 13 |
| Arkansas | 374,479 | 598,963 | 60 | 381,003 | -36 | 2 |
| California | 836,095 | 1,144,663 | 37 | 364,008 | -68* | -56* |
| Colorado | 200,849 | 536,620 | 167* | 182,990 | -66* | -9 |
| Connecticut | 56,335 | 96,721 | 72 | 69,313 | -28 | 23 |
| Delaware | 26,710 | 34,883 | 31 | 18,154 | -48 | -32 |
| Florida | 420,874 | 528,179 | 25 | 540,767 | 2 | 28 |
| Georgia | 358,874 | 966,612 | 169* | 503,047 | -48 | 40 |
| Hawaii | 22,426 | 22,628 | 1 | 17,163 | -24 | -23 |
| Idaho | 127,332 | 204,145 | 60 | 166,780 | -18 | 31 |
| Illinois | 425,044 | 589,824 | 39 | 527,368 | -11 | 24 |
| Indiana | 316,715 | 312,624 | -1 | 278,165 | -11 | -12 |
| Iowa | 221,821 | 250,257 | 13 | 184,830 | -26 | -17 |
| Kansas | 163,302 | 356,915 | 119 | 222,396 | -38 | 36 |
| Kentucky | 307,458 | 383,676 | 25 | 383,789 | (Z) | 25 |
| Louisiana | 563,951 | 711,807 | 26 | 517,465 | -27 | -8 |
| Maine | 86,731 | 229,208 | 164* | 117,605 | -49 | 36 |
| Maryland | 209,848 | 108,933 | -48* | 141,895 | 30 | -32 |
| Massachusetts | 147,497 | 156,902 | 6 | 113,461 | -28 | -23 |
| Michigan | 1,135,475 | 1,360,925 | 20 | 550,378 | -60* | -52* |
| Minnesota | 376,596 | 581,709 | 54 | 593,246 | 2 | 58* |
| Mississippi | 522,725 | 554,832 | 6 | 300,669 | -46* | -42* |
| Missouri | 440,993 | 740,985 | 68 | 486,198 | -34 | 10 |
| Montana | 114,655 | 109,548 | -4 | 160,346 | 46* | 40 |
| Nebraska | 87,913 | 110,154 | 25 | 134,618 | 22 | 53 |
| Nevada | 84,949 | 128,219 | 51 | 147,992 | 15 | 74 |
| New Hampshire | 57,266 | 67,414 | 18 | 55,697 | -17 | -3 |
| New Jersey | 160,712 | 203,487 | 27 | 156,659 | -23 | -3 |
| New Mexico | 74,207 | 97,156 | 31 | 170,345 | 75 | 130* |
| New York | 655,838 | 967,054 | 47 | 948,523 | -2 | 45 |
| North Carolina | 351,858 | 630,052 | 79 | 565,044 | -10 | 61 |
| North Dakota | 67,301 | 102,482 | 52 | 78,267 | -24 | 16 |
| Ohio | 496,224 | 550,998 | 11 | 645,319 | 17 | 30 |
| Oklahoma | 206,320 | 474,836 | 130 | 321,775 | -32 | 56 |
| Oregon | 159,560 | 673,247 | 322* | 429,277 | -36 | 169* |
| Pennsylvania | 697,992 | 728,165 | 4 | 899,005 | 23 | 29 |
| Rhode Island | 27,021 | 26,838 | -1 | 15,143 | -44 | -44 |
| South Carolina | 166,413 | 387,024 | 133* | 279,013 | -28 | 68* |
| South Dakota | 102,641 | 110,458 | 8 | 111,837 | 1 | 9 |
| Tennessee | 405,238 | 909,687 | 124* | 654,682 | -28 | 62* |
| Texas | 1,308,362 | 1,382,378 | 6 | 1,446,869 | 5 | 11 |
| Utah | 112,078 | 189,500 | 69 | 306,204 | 62 | 173* |
| Vermont | 62,642 | 107,743 | 72* | 53,622 | -50* | -14 |
| Virginia | 332,568 | 478,236 | 44 | 338,494 | -29 | 2 |
| Washington | 249,092 | 383,684 | 54 | 336,061 | -12 | 35 |
| West Virginia | 214,606 | 263,480 | 23 | 199,449 | -24 | -7 |
| Wisconsin | 655,294 | 959,455 | 46 | 626,616 | -35 | -4 |
| Wyoming | 65,324 | 119,944 | 84 | 62,451 | -48 | -4 |

*Significant difference at the 90% level of significance.

(Z) Less than 0.5 percent

Summary

Sportspersons

Hunting and fishing are important to millions of Americans, with nearly one in five people participating in hunting and fishing in 2001. From 1991 to 2001 the number of Americans 16 years old and older who fished and hunted decreased 5%. The number of anglers decreased by 4% and the number of hunters decreased by 7%. Despite these drops in sportsperson numbers, the number of days afield increased 5% for sportspersons, 9% for anglers, and decreased a statistically insignificant 3% for hunters.

The 1991-2001 trend can be broken up into two phases: the 1991-1996 trend and the 1996-2001 trend. The 1991-1996 national trend for both hunting and fishing consisted of level numbers of participants and increases in days afield. The 1996-2001 national trend for both hunting and fishing consisted of decreases in participants and decreases in the number of days.

Trends in overall fishing and hunting are better understood by an examination of the trends of sportsperson subgroups such as avid and casual anglers and hunters. Avid anglers and hunters, the 10% of all participants who fished or hunted the most days in a year, accounted for 40% to 50% of all days afield in 1991, 1996, and 2001. Another subgroup of anglers and hunters were the casual participants, those who fished or hunted one or two days in the year. Losing a casual participant would have little effect on overall days totals (unlike losing an avid participant), but would have the same effect as losing an avid or intermediate participant on overall participant numbers. The trends in casual angling and hunting have run counter to the trends in overall angling and hunting, with drops when overall trends were level and stability when overall trends were declining.

Fishing

The number of freshwater anglers fell 8% from 1991 to 2001, while saltwater angling held relatively constant. Coldwater fishing participation fell 12% and warmwater fishing dropped 13%.

The average days of avid anglers, 68 in 1991, 85 in 1996, and 73 in 2001, were about eight times more than the average days of nonavid anglers, 8 in 1991, 11 in 1996, and 10 in 2001.

The percentage of casual anglers fell from 14% of all anglers in 1991 to 11% in 2001. They accounted for only 1% of all fishing days in each survey year.

The intermediate group between avid and casual anglers was the bulk of total participants. The intermediate angler group made up over 75% of all anglers in the three surveyed years, although they contributed only slightly more than half the days. In 2001 their average days spent fishing were 11, which was less than the 16 days spent by the average angler.

The increase in intermediate anglers from 1991 to 1996 compensated for the loss of casual and avid anglers, maintaining the overall number of anglers. In 2001 the number of intermediate anglers dropped, and avid and casual angling did not increase, so the number of anglers decreased from 1996 to 2001. Also, days on the water by intermediate anglers went up 15% from 1991 to 2001, avid days went up 3% and casual days went down 26%, so the intermediate angler was largely responsible for the overall increase in angling days.

Looking at percent comparisons of subgroup demographics with those of total participants, a generalization is that the demographics of casuals and intermediates in general followed those of participants as a whole, but the demographics of avids did not.

- Avid anglers are more likely to live in a rural area
- Avid anglers have lower income



LaVonda Walton/USFWS

Hunting

The number of big game and migratory bird hunters in 2001 was the same as in 1991, while the number of small game and other animal hunters fell significantly. The 29% drop in small game hunting from 1991 to 2001 was led by the 47% drop in casual hunters' pursuit of small game, although avid and intermediate hunters also cut back on small game hunting. The loss of small game habitat in many states could partially explain the drop.

As for days, small game hunting days decreased 22% from 1991 to 2001, big game hunting days increased 25%, migratory bird hunting days increased 28%, and other animal days stayed the same. Overall, the increasing days hunting group (big game, migratory bird) counterbalanced the decreasing days group (small game, other animals) in the total hunting days trend.

The average days of avid hunters were approximately six times greater than those of nonavid hunters. Avid hunters went 69 days in 1991, 72 days in 1996, and 70 days in 2001. The nonavid hunter hunted an average of 11 days in 1991, 13 days in 1996, and 12 days in 2001.

The intermediate hunter group was about 75% of the total hunter group for the three surveyed years, and their average days were 14, compared to 18 for the average hunter.

Casual participants in hunting fell from 16% of all hunters in 1991 to 13% in 2001. They accounted for 2% of all hunting days in 1991 and 1% in both 1996 and 2001.

Demographic findings include

- Casual hunters tend to live in urban areas more than intermediate and avid hunters. Casual hunters were equally split between urban and rural residences in 1996 and 2001 and in 1991 were more likely to live in urban areas than in rural areas.



Ryan Hagerly/USFWS

- Avid hunters are strongly rural-based. Rural hunters are twice as likely to be avid than are urban-based hunters.
- The average age of hunters of every subgroup has increased. Younger people are not hunting as much in 2001 as they did in 1991. However, if younger people decide to hunt, they are more likely to be avid.
- Avid hunters were more likely to have a household income below the national median than intermediate, casual, or hunters as a whole.

There was a significant drop in casual participation from 1991 to 1996 which was compensated by an increase in intermediate hunting, maintaining the overall numbers of hunters. However, there was a drop in intermediate hunters from 1996 to 2001 which was not compensated by an increase in avid or casual hunting.

The fact that in 2001 11% of anglers fished 1% of all days while 10% fished 47% of all days illustrates the diversity of fishing activity in the United States. Hunters were even more diverse, with 13% of all hunters hunting 1% of all days afield and 10% hunting 40% of all days in 2001. However, there is something they all have in common. While tens of millions of American sportspersons are widely varied in both the demographic qualities they possess and in the type and amount of hunting and fishing they do, they share an appreciation of and fervor for hunting and fishing.

Appendix I – FHWAR Survey Methodology

The National Survey of Fishing and Hunting was first conducted in 1955, gathering demographic, participation, and expenditure data at the national level. A similar survey has been undertaken every fifth year since 1955. The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation began collecting regional and state data in 1980, as well as wildlife-watching data.

Each National Survey of Fishing, Hunting and Wildlife-Associated Recreation has been conducted in two phases. First, a screening interview of households is conducted to identify wildlife-related recreation participants 6 years old and older. This screening survey is used to select sportspersons and wildlife-watching participants to be included in the second phase. In the second phase an interview or multiple

interviews are conducted to collect detailed information on participation and expenditures for persons 16 years old and older.

Screening interviews were conducted in January and February of 1991 and in April through June of 1996 and 2001. A representative sample of the United States population was contacted by telephone or face-to-face. A household representative 18 years old or older is asked to provide estimates of the wildlife-associated recreation activity of all household members 6 years old and older. The demographic characteristics of the household members are also obtained in the screening survey. The screening interview information is used to construct a representative sample of wildlife-associated recreation participants for the detailed survey that follows.

The detailed phases of the Surveys asked respondents 16 years old and older to recall their recreation activities and expenditures over a 4-month period (an exception being for respondents who reported participation in the first interview wave in 1996 and 2001, who were then not given the second interview, but rather were next interviewed in January 1997 and 2002, making the recall six to eight months for their second interview). Respondents were interviewed three times in 1991 and two or three times in 1996 and 2001 to get their entire year's activity. Previous Surveys used a 12-month recall period, i.e., respondents were asked at the end of the survey year to recall their entire year's activity. Research on recall bias⁷ found that 12-month recall periods involving detailed information on participation and expenditures resulted in overestimations. As a result of shortening the recall period beginning in 1991, the estimates from previous Surveys are not directly comparable with the 1991 and later FHWAR Survey estimates.

The total screening sample for each survey consisted of households in the U.S. drawn from expired Current Population Survey samples by the U.S. Bureau of the Census.

Information for each state is available since 1980 only. The 1955-1970 Surveys obtained national-level data only, and the 1975 Survey used a sampling procedure by a private firm that makes comparison of its state-level data with the following Surveys conducted by the U.S. Bureau of the Census unreliable.

⁷ Investigation of Possible Recall/Reference Period Bias in National Surveys of Fishing, Hunting, and Wildlife-Associated Recreation, Westat, Inc. under contract to the U.S. Department of the Interior, 1989.



Kenneth O. Butts/USFWS

Table A-1. Major Characteristics of Surveys: 1955 to 2001

| <i>Characteristic</i> | <i>1955</i> | <i>1960</i> | <i>1965</i> | <i>1970</i> | <i>1975</i> | <i>1980</i> | <i>1985</i> | <i>1991</i> | <i>1996</i> | <i>2001</i> |
|---|--|---|---|---|--|--|--|---|---|---|
| Survey Design | | | | | | | | | | |
| Screening interview mode and population of interest | Combined with detailed phase | Personal interview, 12 years old and older | Personal interview, 9 years old and older | Mail questionnaire, 9 years old and older | Telephone interview, 6 years old and older | Telephone/ personal interview, 6 years old and older | Telephone/ personal interview, 6 years old and older | Telephone/ personal interview, 6 years old and older | Telephone/ personal interview, 6 years old and older | Telephone/ personal interview, 6 years old and older |
| Detailed interview mode and population of interest | Personal interview, 12 years old and older | Personal interview, 12 years old and older. Substantial participants ¹ | Personal interview, 12 years old and older. Substantial participants ¹ | Personal interview, 12 years old and older. Substantial participants ² | Mail questionnaire, 9 years old and older | Personal interview, 16 years old and older | Personal interview, 16 years old and older | Telephone/ personal interview, 16 years old and older | Telephone/ personal interview, 16 years old and older | Telephone/ personal interview, 16 years old and older |
| Respondent's Recall Period | 1 year | 1 year | 1 year | 1 year | 1 year | 1 year | 1 year | 4 months | 4-8 months | 4-8 months |
| Sample Sizes | | | | | | | | | | |
| Screening phase (households) | 20,000 | 18,000 | 16,000 | 24,000 | 106,294 | 116,025 | 102,694 | 102,804 | 44,000 | 52,508 |
| Detailed phase (individuals) | | | | | | | | | | |
| Fishing and hunting | 9,328 | 10,300 | 6,400 | 8,700 | 20,211 | 30,291 | 28,011 | 23,179 | 13,222 | 25,070 |
| Wildlife watching ³ | (X) | (X) | (X) | (X) | (X) | 5,997 | 26,671 | 22,723 | 9,802 | 15,303 |
| Response Rates | | | | | | | | | | |
| Screening phase | (NA) | (NA) | (NA) | (NA) | 95 percent | 95 percent | 93 percent | 95 percent | 71 percent | 75 percent |
| Detailed phase | | | | | | | | | | |
| Fishing and hunting | (NA) | 93 percent | (NA) | (NA) | 37 percent | 90 percent | 92 percent | 95 percent | 80 percent | 88 percent |
| Wildlife watching ³ | (X) | (X) | (X) | (X) | (X) | 95 percent | 94 percent | 95 percent | 82 percent | 90 percent |
| Level of Reporting | National | National | National | National | State and National | State and National | State and National | State and National | State and National | State and National |
| Data Collection Agent | Private contractor | U.S. Census Bureau | U.S. Census Bureau | U.S. Census Bureau | Private contractor | U.S. Census Bureau | U.S. Census Bureau | U.S. Census Bureau | U.S. Census Bureau | U.S. Census Bureau |

(NA) Not available.

(X) Not applicable; wildlife-watching (nonconsumptive) interviews were not conducted prior to 1980.

¹ Spent \$5.00 or more or participated 3 days or more during the year.

² Spent \$7.50 or more or participated 3 days or more during the year.

³ Termed "nonconsumptive" in 1980, 1985, and 1991 surveys.

Appendix II – Sources of Comparable 1955-2001 Estimates

The U.S. population trend is of Americans 12 years old and older. The 1955-1970 Surveys covered the activity of people 12 years old and older.

The angler and hunter trend numbers for 1955-1980 came from Appendix B of the 2001 National Report. The survey results were made comparable for publication in Table B-4. The 1980-1985 trend comes from the 1980 and 1985 National Reports, covering the activity of Americans 16 years old and older. The 1985-1990 trend comes from Report 91-2, “1980-1990 Fishing, Hunting, and Wildlife-Associated Recreation Trends.” The source of these estimates is the screening data from the 1985 and 1990 surveys, covering the activity of Americans 6 years old and older. The 1991-2001 trend estimates come from the National Reports of those Surveys, covering the activity of Americans 16 years old and older.



USFWS

U.S. Fish & Wildlife Service
Division of Federal Aid
Washington, DC 20240
<http://federalaid.fws.gov>

July 2004

