

Trends in Fishing and Hunting 1991-2006: A Focus on Fishing and Hunting by Species

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

Report 2006-8



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

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Trends in Fishing and Hunting 1991-2006: A Focus on Fishing and Hunting by Species

The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation dates back to 1955, and has been repeated at five-year intervals since. The first four Surveys collected only national fishing and hunting data. Beginning in 1975 state-level data was acquired, and beginning in 1980 wildlife watching was added.

This report is concerned only with fishing and hunting trends. Figure 1 shows the trends of the general population, anglers, and hunters since 1955, indexed with 1955=100.

Fishing participation increased faster than the general population, and hunting kept pace with the general population, until 1991. Since 1991 both have had a downward trend. This report looks closer at data from the 1991–2006 Surveys, to get a clearer picture of why this downturn is happening.

National Hunting and Fishing Trends 1991–2006

Fishing and hunting both have experienced declines since 1991.

From the perspective of a percentage of the total population, the decline in hunting and fishing is more pronounced. Table 2 details the drop in participation rates of fishing from 21.0% in 1991 to 13.1% in 2006. Participation rates for hunting fell from 7.4% to 5.5%.

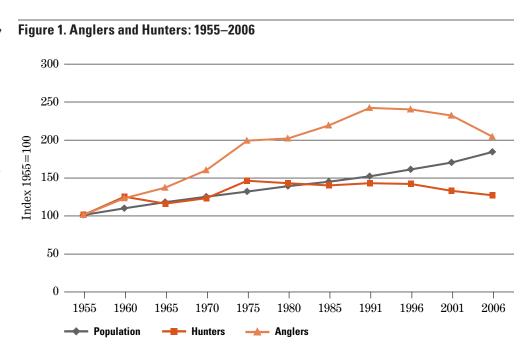


Table 1. Hunters and Anglers 16 years and older: 1991–2006 (numbers in thousands) Year**Population** Anglers Hunters 2006 229,245 29,952 12,510 2001 212,298 34,071 13,034 13,975 1996 201,472 35,246 1991 189,966 35,578 14,063

| Table 2. Participation Rates 16 years and older: 1991–2006 | | | | | | | |
|--|---------|---------|--|--|--|--|--|
| Year | Anglers | Hunters | | | | | |
| 2006 | 13.1% | 5.5% | | | | | |
| 2001 | 16.0% | 6.1% | | | | | |
| 1996 | 17.5% | 6.9% | | | | | |
| 1991 | 21.0% | 7.4% | | | | | |

Note: Participation rates are percents of the population that fished or hunted.

National Hunting and Fishing Trends by Species 1991–2006

The National Survey disaggregates hunting into four types: big game, small game, migratory bird, and other animals. Similarly, fishing is categorized as Great Lakes, other freshwater, and saltwater. This report takes the disaggregation further and presents the trend in selected species of game and fish. This will enable us to narrow the focus as we look at the past and future of our hunting and fishing traditions.

The National Survey of Fishing, Hunting, and Wildlife-Associated Recreation tracks hunting and fishing for selected species. For fishing, the list is as follows:

Great Lakes fishing

- black bass
- walleye, sauger
- northern pike, pickerel, muskie, and muskie hybrids
- perch
- salmon
- steelhead
- lake trout
- other trout
- other
- anything

Other freshwater fishing

- black bass
- white bass, striped bass, and striped bass hybrids
- panfish
- crappie
- catfish and bullheads
- walleye
- sauger
- northern pike, pickerel, muskie, and muskie hybrids
- trout
- salmon
- steelhead
- other
- anything

Saltwater fishing

- salmon
- striped bass
- flatfish (flounder, halibut)
- bluefish
- red drum (redfish)
- sea trout (weakfish)
- mackerel
- shellfish
- other
- anything

For hunting:

Big game hunting

- deer
- elk
- bear
- turkey
- other

Small game hunting

- rabbit, hare
- quail
- grouse/prairie chicken
- squirrel
- pheasant
- other

Migratory bird hunting

- geese
- duck
- dove
- other

Other animals, such as fox, raccoon, and groundhog

Some of the most popular species were chosen for this report. "Anything" means the angler was not fishing for any particular species, but for anything that he/she could catch. In this report "freshwater anything anglers" means people who were freshwater fishing for anything. "Saltwater anything anglers" means people who were saltwater fishing for anything. Trend data for all species mentioned above are available. Contact the author for further information.

National and State Trends by Species Sought

While the 1991–2006 trend is the primary area of interest, the 2001–2006 comparison is also presented because it is a measure of the most recent activity trend available.

Fishing

In aggregate, freshwater fishing participation decreased significantly¹ from 1991 to 2006. Looking at the species trends, black bass, trout, catfish, and freshwater anything all had significant decreases both for the 1991–2006 and 2001–2006 comparisons. This consistency, where no species fishing bucked the overall trend, means than no one freshwater fishery was responsible for the downturn and, alternatively, no one fishery has shown a likelihood for an upturn.

¹ Statistical significance in this report is determined at the 95 percent level of significance. For the two survey estimates being compared, 95% of all possible samples would have demonstrated a difference for the two estimates.

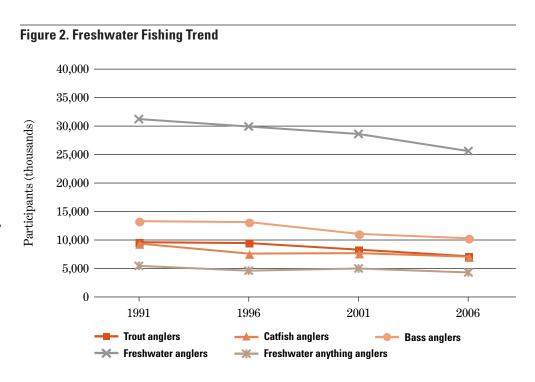


Figure 3. Indexed Freshwater Fishing Trend

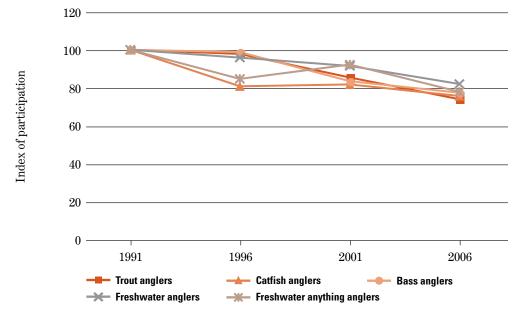


Table 3. Trend in the Number of Black Bass Anglers, by State of Activity: 1991–2006 $(\mathrm{in}~000\mathrm{'s})$

| | 1991 | 1996 | 2001 | 2006 | 2006–1991 Ratio | 2006–2001 Ratio |
|----------------|--------|--------|--------|--------|-----------------|-----------------|
| U.S. Total | 13,139 | 12,972 | 10,956 | 10,181 | 0.8 | 0.9 |
| Alabama | 451 | 455 | 383 | 399 | 0.9 | 1.0 |
| Alaska | ••• | ••• | ••• | | N.A. | N.A |
| Arizona | 180 | 247 | 148 | 152 | 0.8 | 1.0 |
| Arkansas | 398 | 335 | 317 | 260 | 0.7 | 8.0 |
| California | 499 | 653 | 495 | 351 | 0.7 | 0.7 |
| Colorado | 77 | 84 | 71 | 92 | 1.2 | 1.5 |
| Connecticut | 128 | 131 | 112 | 80 | 0.6 | 0.7 |
| Delaware | 25 | 43 | 28 | 28 | 1.1 | 1.0 |
| Florida | 823 | 663 | 647 | 822 | 1.0 | 1.5 |
| Georgia | 509 | 496 | 389 | 512 | 1.0 | 1.5 |
| Hawaii | 12 | 7 | ••• | | N.A. | N.A |
| Idaho | 42 | 73 | 53 | 54 | 1.3 | 1.0 |
| Illinois | 494 | 620 | 390 | 378 | 0.8 | 1.0 |
| Indiana | 455 | 507 | 361 | 324 | 0.7 | 0.0 |
| Iowa | 223 | 218 | 192 | 176 | 0.8 | 0.0 |
| Kansas | 202 | 188 | 170 | 204 | 1.0 | 1.2 |
| Kentucky | 413 | 405 | 339 | 344 | 0.8 | 1.0 |
| Louisiana | 408 | 409 | 272 | 187 | 0.5 | 0.7 |
| Maine | 118 | 117 | 107 | 129 | 1.1 | 1.2 |
| Maryland | 238 | 146 | 155 | 160 | 0.7 | 1.0 |
| Massachusetts | 208 | 228 | 155 | 168 | 0.8 | 1.1 |
| Michigan | 653 | 568 | 429 | 531 | 0.8 | 1.2 |
| Minnesota | 325 | 428 | 345 | 351 | 1.1 | 1.0 |
| Mississippi | 263 | 246 | 239 | 214 | 0.8 | 0.9 |
| Missouri | 650 | 621 | 574 | 376 | 0.6 | 0.7 |
| Montana | 27 | ••• | 22 | 22 | 0.8 | 1.0 |
| Nebraska | 96 | 91 | 108 | 66 | 0.7 | 0.6 |
| Nevada | 48 | 52 | 37 | 30 | 0.6 | 0.8 |
| New Hampshire | 126 | 114 | 97 | 105 | 0.8 | 1.1 |
| New Jersey | 185 | 240 | 171 | 138 | 0.7 | 0.8 |
| New Mexico | 53 | 73 | 47 | 56 | 1.1 | 1.2 |
| New York | 582 | 668 | 507 | 389 | 0.7 | 0.8 |
| North Carolina | 548 | 495 | 375 | 348 | 0.6 | 0.9 |
| North Dakota | 7 | 6 | 6 | | N.A. | N.A. |
| Ohio | 632 | 541 | 553 | 457 | 0.7 | 0.8 |
| Oklahoma | 488 | 325 | 381 | 301 | 0.6 | 0.8 |
| Oregon | 87 | 73 | 63 | 70 | 0.8 | 1.1 |
| Pennsylvania | 644 | 595 | 559 | 443 | 0.7 | 0.8 |
| Rhode Island | 38 | 49 | 23 | 28 | 0.7 | 1.2 |
| South Carolina | 326 | 407 | 285 | 248 | 0.8 | 0.9 |
| South Dakota | 26 | 49 | 22 | 17 | 0.7 | 0.8 |
| Tennessee | 477 | 399 | 460 | 368 | 0.8 | 0.8 |
| Texas | 1088 | 1315 | 892 | 852 | 0.8 | 1.0 |
| Utah | 53 | 46 | 68 | 60 | 1.1 | 0.9 |
| Vermont | 52 | 66 | 41 | 46 | 0.9 | 1.1 |
| Virginia | 420 | 446 | 390 | 299 | 0.7 | 8.0 |
| Washington | 122 | 150 | 102 | 75 | 0.6 | 0.7 |
| West Virginia | 180 | 151 | 143 | 156 | 0.9 | 1.1 |
| Wisconsin | 495 | 387 | 501 | 420 | 0.8 | 0.8 |
| | 7 | | | 8 | 1.1 | N.A. |

 $N.A.\ Not\ available\ \dots\ Sample\ size\ too\ small\ to\ report\ data\ reliably.$

 $The \ ratios \ are \ calculated \ by \ dividing \ the \ later \ year's \ estimate \ by \ the \ earlier \ year's \ estimate. \ The \ ratio \ is \ useful \ in \ comparing \ trends \ across \ states.$

Table 4. Trend in the Number of Trout Anglers, by State of Activity: 1991–2006 $(\mathrm{in}~000\mathrm{'s})$

| | 1991 | 1996 | 2001 | 2006 | 2006–1991 Ratio | 2006–2001 Ratio |
|----------------|-------|-------|-------|-------|-----------------|-----------------|
| U.S. Total | 9,497 | 9,290 | 8,118 | 7,022 | 0.7 | 0.9 |
| Alabama | 30 | 30 | 19 | | N.A. | N.A. |
| Alaska | 108 | 111 | 83 | 66 | 0.6 | 0.8 |
| Arizona | 228 | 218 | 219 | 209 | 0.9 | 1.0 |
| Arkansas | 108 | 152 | 131 | 143 | 1.3 | 1.1 |
| California | 1628 | 1526 | 1174 | 871 | 0.5 | 0.7 |
| Colorado | 706 | 699 | 806 | 608 | 0.9 | 0.8 |
| Connecticut | 175 | 168 | 118 | 130 | 0.7 | 1.1 |
| Delaware | 12 | 9 | 11 | 14 | 1.2 | 1.3 |
| Florida | 46 | ••• | 90 | 70 | 1.5 | 0.8 |
| Georgia | 108 | 160 | 108 | 140 | 1.3 | 1.3 |
| Hawaii | 8 | 7 | | | N.A. | N.A. |
| Idaho | 319 | 409 | 332 | 258 | 0.8 | 0.8 |
| Illinois | 118 | 178 | 90 | 38 | 0.3 | 0.4 |
| Indiana | 48 | 43 | 34 | 26 | 0.5 | 0.8 |
| Iowa | 26 | 48 | 48 | 34 | 1.3 | 0.7 |
| Kansas | 16 | | 18 | 18 | 1.1 | 1.0 |
| Kentucky | 39 | 39 | 41 | 38 | 1.0 | 0.9 |
| Louisiana | 48 | 39 | 37 | 72 | 1.5 | 1.9 |
| Maine | 275 | 185 | 163 | 179 | 0.7 | 1.1 |
| Maryland | 87 | 89 | 101 | 77 | 0.9 | 0.8 |
| Massachusetts | 201 | 179 | 133 | 156 | 0.8 | 1.2 |
| Michigan | 305 | 288 | 239 | 249 | 0.8 | 1.0 |
| Minnesota | 89 | 88 | 78 | 49 | 0.6 | 0.6 |
| Mississippi | 14 | | 23 | | N.A. | N.A. |
| Missouri | 236 | 255 | 195 | 156 | 0.7 | 0.8 |
| Montana | 285 | 266 | 293 | 236 | 0.8 | 0.8 |
| Nebraska | 33 | 27 | 25 | 22 | 0.7 | 0.9 |
| Nevada | 89 | 159 | 111 | 106 | 1.2 | 1.0 |
| New Hampshire | 171 | 131 | 121 | 89 | 0.5 | 0.7 |
| New Jersey | 213 | 195 | 140 | 77 | 0.4 | 0.6 |
| New Mexico | 213 | 237 | 210 | 184 | 0.9 | 0.9 |
| New York | 748 | 560 | 436 | 454 | 0.6 | 1.0 |
| North Carolina | 183 | 197 | 173 | 257 | 1.4 | 1.5 |
| North Dakota | 4 | 6 | 6 | | N.A. | N.A. |
| Ohio | 132 | 74 | 101 | 74 | 0.6 | 0.7 |
| Oklahoma | 39 | | 59 | | N.A. | N.A. |
| Oregon | 428 | 395 | 417 | 320 | 0.7 | 0.8 |
| Pennsylvania | 879 | 750 | 653 | 613 | 0.7 | 0.9 |
| Rhode Island | 38 | 39 | 22 | 14 | 0.4 | 0.6 |
| South Carolina | 46 | 38 | 49 | 21 | 0.5 | 0.4 |
| South Dakota | 30 | 42 | 16 | 18 | 0.6 | 1.1 |
| Tennessee | 148 | 120 | 137 | 95 | 0.6 | 0.7 |
| Texas | 97 | 141 | 140 | 160 | 1.6 | 1.1 |
| Utah | 263 | 341 | 431 | 328 | 1.2 | 0.8 |
| Vermont | 116 | 107 | 100 | 60 | 0.5 | 0.6 |
| Virginia | 177 | 239 | 116 | 138 | 0.8 | 1.2 |
| Washington | 533 | 628 | 436 | 337 | 0.6 | 0.8 |
| West Virginia | 143 | 174 | 112 | 177 | 1.2 | 1.6 |
| Wisconsin | 220 | 139 | 200 | 192 | 0.9 | 1.0 |
| Wisconsin | | | | | | |

 $N.A.\ Not\ available\ \dots Sample\ size\ too\ small\ to\ report\ data\ reliably.$

 $The \ ratios \ are \ calculated \ by \ dividing \ the \ later \ year's \ estimate \ by \ the \ earlier \ year's \ estimate. \ The \ ratio \ is \ useful \ in \ comparing \ trends \ across \ states.$

Table 5. Trend in the Number of Catfish Anglers, by State of Activity: 1991–2006 $(\mathrm{in}~000\mathrm{'s})$

| HOTAL | 1991 | 1996 | 2001 | 2006 | 2006–1991 Ratio | 2006–2001 Ratio |
|----------------|-------|-------|-------|-------|-----------------|-----------------|
| U.S. Total | 9,195 | 7,430 | 7,517 | 6,954 | 0.8 | 0.9 |
| Alabama | 334 | 331 | 230 | 245 | 0.7 | 1.1 |
| Alaska | | 100 | | | N.A. | N.A |
| Arizona | 221 | 128 | 105 | 119 | 0.5 | 1.1 |
| Arkansas | 295 | 274 | 340 | 235 | 0.8 | 0.7 |
| California | 502 | 441 | 403 | 180 | 0.4 | 0.4 |
| Colorado | 37 | 48 | 68 | 35 | 0.9 | 3.0 |
| Connecticut | 37 | 36 | 13 | | N.A. | N.A |
| Delaware | 12 | 9 | 6 | 13 | 1.1 | 2.2 |
| Florida | 304 | 223 | 299 | 389 | 1.3 | 1.5 |
| Georgia | 352 | 248 | 467 | 395 | 1.1 | 3.0 |
| Hawaii | 6 | 6 | | 6 | 1.0 | N.A |
| Idaho | 28 | 40 | 32 | 25 | 0.9 | 3.0 |
| Illinois | 616 | 430 | 421 | 335 | 0.5 | 8.0 |
| Indiana | 333 | 303 | 277 | 223 | 0.7 | 3.0 |
| Iowa | 301 | 242 | 196 | 214 | 0.7 | 1.1 |
| Kansas | 216 | 166 | 216 | 216 | 1.0 | 1.0 |
| Kentucky | 310 | 251 | 305 | 275 | 0.9 | 9.0 |
| Louisiana | 338 | 288 | 246 | 207 | 0.6 | 3.0 |
| Maine | 10 | ••• | ••• | ••• | N.A. | N.A |
| Maryland | 131 | 77 | 64 | 74 | 0.6 | 1.2 |
| Massachusetts | 51 | 24 | 27 | 27 | 0.5 | 1.0 |
| Michigan | 134 | | | 64 | 0.5 | N.A |
| Minnesota | 60 | 33 | 38 | 71 | 1.2 | 1.9 |
| Mississippi | 276 | 194 | 277 | 215 | 0.8 | 3.0 |
| Missouri | 540 | 411 | 467 | 448 | 0.8 | 1.0 |
| Montana | 6 | ••• | 12 | ••• | N.A. | N.A |
| Nebraska | 135 | 80 | 107 | 69 | 0.5 | 0.6 |
| Nevada | 23 | 23 | 28 | 23 | 1.0 | 3.0 |
| New Hampshire | 24 | 11 | ••• | ••• | N.A. | N.A |
| New Jersey | 73 | 48 | 35 | 44 | 0.6 | 1.3 |
| New Mexico | 48 | 72 | 60 | 59 | 1.2 | 1.0 |
| New York | 183 | 128 | 82 | 72 | 0.4 | 0.9 |
| North Carolina | 308 | 269 | 275 | 294 | 1.0 | 1.1 |
| North Dakota | 7 | 9 | 8 | | N.A. | N.A |
| Ohio | 416 | 248 | 342 | 288 | 0.7 | 3.0 |
| Oklahoma | 418 | 510 | 321 | 264 | 0.6 | 0.0 |
| Oregon | 43 | | 35 | 30 | 0.7 | 0.0 |
| Pennsylvania | 255 | 156 | 165 | 143 | 0.6 | 0.0 |
| Rhode Island | 4 | 4 | | | N.A. | N.A |
| South Carolina | 238 | 210 | 273 | 226 | 0.9 | 8.0 |
| South Dakota | 37 | 32 | 25 | 19 | 0.5 | 8.0 |
| Tennessee | 387 | 223 | 261 | 298 | 0.8 | 1.1 |
| Texas | 1149 | 1136 | 974 | 1035 | 0.9 | 1.1 |
| Utah | 44 | 32 | 48 | 54 | 1.2 | 1.1 |
| Vermont | 18 | 7 | 10 | | N.A. | N.A |
| Virginia | 225 | 181 | 185 | 153 | 0.7 | 3.0 |
| Washington | 42 | | | 23 | 0.5 | N.A |
| West Virginia | 116 | 87 | 89 | 108 | 0.9 | 1.2 |
| Wisconsin | 137 | 82 | 54 | 46 | 0.3 | 0.0 |
| Wyoming | 13 | ••• | | | N.A. | N.A |

 $N.A.\ Not\ available\ \dots\ Sample\ size\ too\ small\ to\ report\ data\ reliably.$

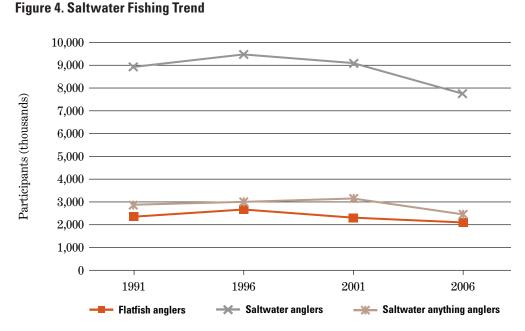
Table 6. Trend in Number of Freshwater Anything Anglers, by State of Activity: 1991–2006 $(\mathrm{in}~000\mathrm{'s})$

| | 1991 | 1996 | 2001 | 2006 | $\it 2006-1991~Ratio$ | 2006–2001 Ratio |
|-------------------|-------------------------------|-------|-------|-------|-----------------------|-----------------|
| U.S. Total | 5,285 | 4,475 | 4,872 | 4,120 | 0.8 | 0.8 |
| Alabama | 107 | 128 | 141 | 115 | 1.1 | 0.8 |
| Alaska | 26 | 19 | 12 | | N.A. | N.A. |
| Arizona | 65 | 70 | 85 | 59 | 0.9 | 0.7 |
| Arkansas | 109 | 68 | 123 | 117 | 1.1 | 1.0 |
| California | 144 | 220 | 192 | 87 | 0.6 | 0.5 |
| Colorado | 50 | 56 | 113 | 23 | 0.5 | 0.2 |
| Connecticut | 24 | 85 | 55 | 32 | 1.3 | 0.6 |
| Delaware | 7 | 16 | 24 | 14 | 2.0 | 0.6 |
| Florida | 300 | 203 | 480 | 268 | 0.9 | 0.6 |
| Georgia | 255 | 175 | 209 | 202 | 0.8 | 1.0 |
| Hawaii | 9 | ••• | 5 | ••• | N.A. | N.A. |
| Idaho | 17 | ••• | ••• | 30 | 1.8 | N.A. |
| Illinois | 283 | 231 | 262 | 138 | 0.5 | 0.5 |
| Indiana | 186 | 120 | 101 | 106 | 0.6 | 1.0 |
| Iowa | 116 | 55 | 96 | 52 | 0.4 | 0.5 |
| Kansas | 66 | 36 | 57 | 45 | 0.7 | 0.8 |
| Kentucky | 140 | 198 | 124 | 116 | 0.8 | 0.9 |
| Louisiana | 100 | 137 | 89 | 67 | 0.7 | 0.8 |
| Maine | 40 | 50 | 40 | 46 | 1.2 | 1.2 |
| Maryland | 64 | 62 | 99 | 70 | 1.1 | 0.7 |
| Massachusetts | 67 | 79 | 80 | 52 | 0.8 | 0.7 |
| Michigan | 243 | 225 | 181 | 209 | 0.9 | 1.2 |
| Minnesota | 147 | 153 | 90 | 149 | 1.0 | 1.7 |
| Mississippi | 114 | 70 | 99 | 74 | 0.6 | 0.7 |
| Missouri | 224 | 101 | 127 | 160 | 0.7 | 1.3 |
| Montana | 28 | 36 | 55 | 13 | 0.5 | 0.2 |
| Nebraska | 40 | 21 | 65 | 52 | 1.3 | 0.8 |
| Nevada | | | ••• | 11 | N.A. | N.A. |
| New Hampshire | 34 | 43 | 48 | 25 | 0.7 | 0.5 |
| New Jersey | 77 | 58 | 81 | 44 | 0.6 | 0.5 |
| New Mexico | 16 | 24 | 25 | 14 | 0.9 | 0.6 |
| New York | 312 | 257 | 171 | 132 | 0.4 | 0.8 |
| North Carolina | 200 | 153 | 154 | 167 | 0.8 | 1.1 |
| North Dakota | 15 | 6 | 23 | 9 | 0.6 | 0.4 |
| Ohio | 379 | 165 | 206 | 290 | 0.8 | 1.4 |
| Oklahoma | 118 | 142 | 254 | 118 | 1.0 | 0.5 |
| Oregon | 21 | | 44 | 43 | 2.0 | 1.0 |
| Pennsylvania | 257 | 280 | 231 | 67 | 0.3 | 0.3 |
| Rhode Island | 9 | 7 | 15 | 11 | 1.2 | 0.7 |
| South Carolina | 78 | 111 | 129 | 122 | 1.6 | 0.9 |
| South Dakota | 28 | 9 | 20 | 17 | 0.6 | 0.9 |
| Tennessee | 201 | 98 | 120 | 227 | 1.1 | 1.9 |
| Texas | 318 | 322 | 258 | 285 | 0.9 | 1.1 |
| Utah | 18 | 22 | 28 | 21 | 1.2 | 0.8 |
| Vermont | 27 | 23 | 40 | 17 | 0.6 | 0.4 |
| Virginia | 172 | 157 | 128 | 163 | 0.9 | 1.3 |
| Washington | 59 | | 42 | 29 | 0.5 | 0.7 |
| West Virginia | 56 | 46 | 60 | 72 | 1.3 | 1.2 |
| Wisconsin | 213 | 180 | 129 | 166 | 0.8 | 1.3 |
| Wyoming | 25 | 11 | | 17 | 0.7 | N.A. |
| V A Not available | Sample size too small to repo | | , | | ··· | 21,121 |

N.A. Not available ... Sample size too small to report data reliably.

 $The \ ratios \ are \ calculated \ by \ dividing \ the \ later \ year's \ estimate \ by \ the \ earlier \ year's \ estimate. \ The \ ratio \ is \ useful \ in \ comparing \ trends \ across \ states.$

In aggregate, saltwater fishing participation also significantly decreased from 1991 to 2006. At the species level there was a difference. Flatfishing participation did not decrease significantly either from 1991 to 2006 or 2001 to 2006. Fishing for saltwater anything decreased significantly. Looking at all saltwater species fishing, bluefish and mackerel fishing has gone way down, contributing significantly to the overall downward trend.



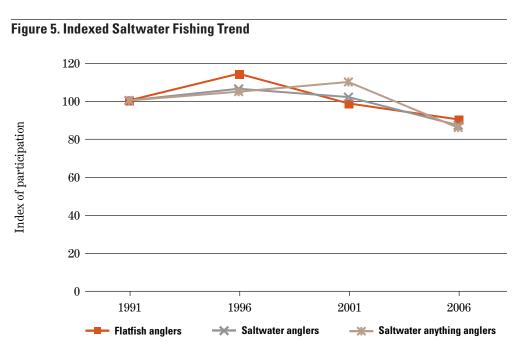


Table 7. Trend in Number of Saltwater Anything Anglers, by State of Activity: 1991–2006 $(\mathrm{in}~000\mathrm{'s})$

| | 1991 | 1996 | 2001 | 2006 | 2006–1991 Ratio | 2006–2001 Ratio |
|----------------|-------|-------|-------|-------|-----------------|-----------------|
| U.S. Total | 2,831 | 2,964 | 3,110 | 2,424 | 0.9 | 0.8 |
| Alabama | 69 | 81 | 89 | 61 | 0.9 | 0.7 |
| Alaska | 25 | 6 | | | N.A. | N.A. |
| California | 343 | 346 | 314 | 245 | 0.7 | 0.8 |
| Connecticut | 17 | 39 | 47 | 22 | 1.3 | 0.5 |
| Delaware | 39 | 18 | 30 | 45 | 1.2 | 1.5 |
| Florida | 973 | 1086 | 1278 | 920 | 0.9 | 0.7 |
| Georgia | 27 | 51 | 35 | 71 | 2.6 | 2.0 |
| Hawaii | 110 | 92 | 68 | 53 | 0.5 | 0.8 |
| Louisiana | 74 | 93 | 143 | 65 | 0.9 | 0.5 |
| Maine | 28 | | 15 | 20 | 0.7 | 1.3 |
| Maryland | 98 | 96 | 134 | 102 | 1.0 | 0.8 |
| Massachusetts | 65 | 75 | 59 | 57 | 0.9 | 1.0 |
| Mississippi | 53 | 39 | 45 | 35 | 0.7 | 0.8 |
| New Hampshire | | | | 13 | N.A. | N.A. |
| New Jersey | 86 | 123 | 150 | 99 | 1.2 | 0.7 |
| New York | | 77 | 72 | 46 | N.A. | 0.6 |
| North Carolina | 224 | 286 | 260 | 187 | 0.8 | 0.7 |
| Oregon | 22 | | 25 | | N.A. | N.A. |
| Rhode Island | 23 | 8 | 25 | 24 | 1.0 | 1.0 |
| South Carolina | 110 | 132 | 146 | 134 | 1.2 | 0.9 |
| Texas | 308 | 261 | 148 | 204 | 0.7 | 1.4 |
| Virginia | 110 | 107 | 117 | 140 | 1.3 | 1.2 |
| Washington | 53 | 49 | 28 | | N.A. | N.A. |

 $[\]it N.A.$ Not available $\it ...$ Sample size too small to report data reliably.

 $The \ ratios \ are \ calculated \ by \ dividing \ the \ later \ year's \ estimate \ by \ the \ earlier \ year's \ estimate. \ The \ ratio \ is \ useful \ in \ comparing \ trends \ across \ states.$

Table 8. Trend in Number of Flatfish Anglers, by State of Activity: 1991–2006 $(\mathrm{in}~000\mathrm{'s})$

| | 1991 | 1996 | 2001 | 2006 | $\it 2006-1991~Ratio$ | 2006-2001 Ratio |
|----------------|-------|-------|-------|-------|-----------------------|-----------------|
| U.S. Total | 2,302 | 2,626 | 2,269 | 2,069 | 0.9 | 0.9 |
| Alabama | 33 | 27 | 29 | 47 | 1.4 | 1.6 |
| Alaska | 109 | 143 | 159 | 113 | 1.0 | 0.7 |
| California | 176 | 214 | 191 | 202 | 1.1 | 1.1 |
| Connecticut | 38 | 51 | 42 | 35 | 0.9 | 0.8 |
| Delaware | 49 | 77 | 56 | 67 | 1.4 | 1.2 |
| Florida | 266 | 307 | 322 | 232 | 0.9 | 0.7 |
| Georgia | | ••• | ••• | | N.A. | N.A. |
| Hawaii | | ••• | | | N.A. | N.A. |
| Louisiana | 71 | 56 | 62 | 61 | 0.9 | 1.0 |
| Maine | | 10 | | | N.A. | N.A. |
| Maryland | 95 | 132 | 84 | 97 | 1.0 | 1.2 |
| Massachusetts | 81 | 74 | 71 | 68 | 0.8 | 1.0 |
| Mississippi | 35 | 40 | 18 | | N.A. | N.A. |
| New Hampshire | 18 | | | | N.A. | N.A. |
| New Jersey | 382 | 444 | 285 | 288 | 0.8 | 1.0 |
| New York | 214 | 209 | 206 | 110 | 0.5 | 0.5 |
| North Carolina | 208 | 291 | 190 | 140 | 0.7 | 0.7 |
| Oregon | 14 | ••• | | | N.A. | N.A. |
| Rhode Island | 34 | 20 | 39 | 34 | 1.0 | 0.9 |
| South Carolina | 73 | 95 | 90 | 59 | 0.8 | 0.7 |
| Texas | 333 | 385 | 300 | 463 | 1.4 | 1.5 |
| Virginia | 92 | 143 | 152 | 94 | 1.0 | 0.6 |
| Washington | 60 | | 26 | | N.A. | N.A. |

Note: the 1991–2006 and 2001–2006 U.S. totals are not statistically significantly different.

N.A. Not available ... Sample size too small to report data reliably.

Hunting

Big game hunting as a single category had no significant differences in participation from 1991 to 2006 or 2001 to 2006. The same is true with deer hunting. Turkey hunting underwent a significant increase 1991–2006 and had no significant difference 2001–2006. Deer hunting (the major component of big game hunting) had the same stable trend as overall big game hunting.



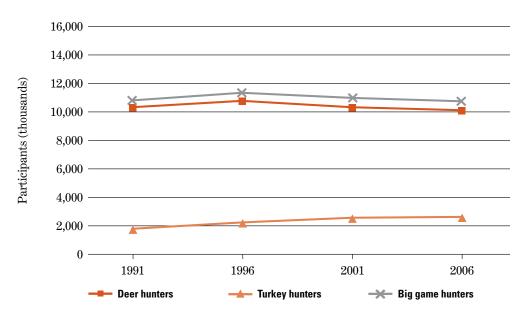


Figure 7. Indexed Big Game Hunting Trend

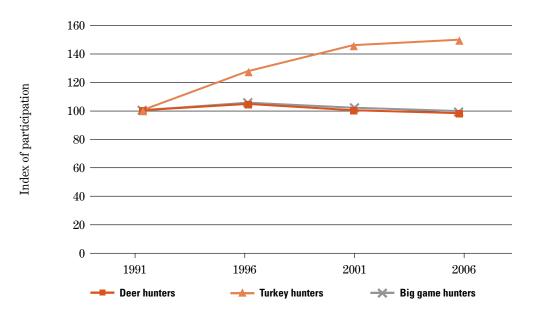


Table 9. Trend in Number of Deer Hunters, by State of Activity: 1991–2006 $(\mathrm{in}~000\mathrm{'s})$

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

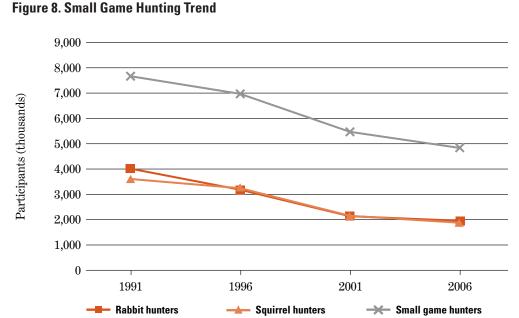
N.A. Not available ... Sample size too small to report data reliably.

Table 10. Trend in Number of Turkey Hunters, by State of Activity: 1991–2006 $(in~000^{\circ}s)$

| | 1991 | 1996 | 2001 | 2006 | 2006–1991 Ratio | 2006–2001 Ratio |
|----------------|-------|-------|--------|-------|-----------------|-----------------|
| U.S. Total | 1,720 | 2,189 | 2,504 | 2,569 | 1.5 | 1.0 |
| Alabama | 64 | 59 | 80 | 98 | 1.5 | 1.2 |
| Alaska | | ••• | | | N.A. | N.A. |
| Arizona | 9 | | | | N.A. | N.A. |
| Arkansas | 37 | 76 | 106 | 86 | 2.3 | 0.8 |
| California | ••• | ••• | ••• | 51 | N.A. | N.A. |
| Colorado | | | | | N.A. | N.A. |
| Connecticut | | 10 | | | N.A. | N.A. |
| Delaware | | | | | N.A. | N.A. |
| Florida | 39 | | 96 | 82 | 2.1 | 0.9 |
| Georgia | 49 | 61 | 83 | 79 | 1.6 | 1.0 |
| Hawaii | | | | | N.A. | N.A. |
| Idaho | ••• | ••• | 13 | 25 | N.A. | 1.9 |
| Illinois | 23 | ••• | | 61 | 2.7 | N.A. |
| Indiana | 19 | ••• | 37 | 35 | 1.8 | 0.9 |
| Iowa | 22 | 51 | 25 | 51 | 2.3 | 2.0 |
| Kansas | 18 | 31 | 58 | 51 | 2.8 | 0.9 |
| Kentucky | 17 | 73 | 105 | 76 | 4.5 | 0.7 |
| Louisiana | 12 | | 31 | 47 | 3.9 | 1.5 |
| Maine | | | | 21 | N.A. | N.A. |
| Maryland | 23 | 29 | 20 | 25 | 1.1 | 1.3 |
| Massachusetts | 15 | | | 14 | 0.9 | N.A. |
| Michigan | 36 | *** | 68 | 81 | 2.3 | 1.2 |
| Minnesota | | ••• | | | N.A. | N.A. |
| Mississippi | 63 | 89 | 95 | 67 | 1.1 | N.A. 0.7 |
| Missouri | 137 | 169 | 165 | 155 | 1.1 | 0.7 |
| Montana | | | | | N.A. | |
| | 5 | ••• | 1.0 | | | N.A. |
| Nebraska | 14 | 8 | 16 | 22 | 1.6 | 1.4 |
| Nevada | ••• | ••• | | | N.A. | N.A. |
| New Hampshire | ••• | ••• | 12 | 13 | N.A. | 1.1 |
| New Jersey | ••• | ••• | | 27 | N.A. | N.A. |
| New Mexico | 11 | ••• | 13 | 23 | 2.1 | 1.8 |
| New York | 141 | 215 | 270 | 164 | 1.2 | 0.6 |
| North Carolina | 30 | | 53 | 75 | 2.5 | 1.4 |
| North Dakota | | | | 7 | N.A. | N.A. |
| Ohio | 25 | 77 | 92 | 96 | 3.8 | 1.0 |
| Oklahoma | 28 | 57 | 76 | 72 | 2.6 | 0.9 |
| Oregon | ••• | ••• | 17 | ••• | N.A. | N.A. |
| Pennsylvania | 346 | 343 | 301 | 369 | 1.1 | 1.2 |
| Rhode Island | | | | | N.A. | N.A. |
| South Carolina | 36 | 53 | 46 | 64 | 1.8 | 1.4 |
| South Dakota | 7 | 13 | 10 | 12 | 1.7 | 1.2 |
| Tennessee | 34 | 43 | 86 | 120 | 3.5 | 1.4 |
| Texas | 179 | 108 | 128 | 182 | 1.0 | 1.4 |
| Utah | ••• | | ••• | | N.A. | N.A. |
| Vermont | 11 | 8 | 16 | 15 | 1.4 | 0.9 |
| Virginia | 160 | 151 | 103 | 120 | 0.8 | 1.2 |
| Washington | ••• | | 18 | | N.A. | N.A. |
| West Virginia | 98 | 117 | 79 | 73 | 0.7 | 0.9 |
| Wisconsin | 49 | 93 | 119 | 159 | 3.2 | 1.3 |
| Wyoming | 4 | ••• | 6 | | N.A. | N.A. |

 ${\it N.A. Not available} \quad ... \; {\it Sample size too small to report data reliably}.$

Small game hunting in aggregate had significant decreases for both 1991–2006 and 2001–2006. Rabbit and squirrel hunting had significant decreases in participation for 1991–2006. In the more recent interval of 2001–2006, squirrel hunting had significant decreases but rabbit hunting did not. Squirrel hunting and, to a lesser extent, rabbit hunting have been the root cause of the downward trend in small game hunting.



120

100

80

60

40

20

1991

1996

2001

2006

Rabbit hunters

Squirrel hunters

Small game hunters

Figure 9. Indexed Small Game Hunting Trend

Table 11. Trend in Number of Rabbit Hunters, by State of Activity: 1991–2006 $(\mathrm{in}~000\mathrm{'s})$

| , | 1991 | 1996 | 2001 | 2006 | 2006–1991 Ratio | 2006–2001 Ratio |
|----------------|-------|-------|---------|---------|-----------------|-----------------|
| U.S. Total | 3,980 | 3,146 | 2,099 | 1,923 | 0.5 | 0.9 |
| Alabama | 90 | 27 | 47 | 66 | 0.7 | 1.4 |
| Alaska | 10 | 11 | 7 | | N.A. | N.A. |
| Arizona | 25 | 23 | 21 | 18 | 0.7 | 0.9 |
| Arkansas | 55 | 80 | 49 | 28 | 0.5 | 0.6 |
| California | 64 | | | | N.A. | N.A. |
| Colorado | 34 | 47 | 23 | | N.A. | N.A. |
| Connecticut | | | | ••• | N.A. | N.A. |
| Delaware | 8 | 11 | 3 | 5 | 0.6 | 1.7 |
| Florida | 37 | ••• | | ••• | N.A. | N.A |
| Georgia | 70 | ••• | 55 | 65 | 0.9 | 1.2 |
| Hawaii | | | | | N.A. | N.A |
| Idaho | 18 | 21 | | ••• | N.A. | N.A |
| Illinois | 159 | 166 | | 55 | 0.3 | N.A |
| Indiana | 157 | 123 | 100 | 53 | 0.3 | 0.5 |
| Iowa | 109 | 114 | 49 | 32 | 0.3 | 0.7 |
| Kansas | 60 | 56 | 34 | 29 | 0.5 | 0.9 |
| Kentucky | 150 | 138 | 97 | 63 | 0.4 | 0.6 |
| Louisiana | 138 | 149 | 68 | 86 | 0.6 | 1.3 |
| Maine | 24 | 20 | 17 | 12 | 0.5 | 0.7 |
| Maryland | 35 | 21 | 26 | 17 | 0.5 | 0.7 |
| Massachusetts | 26 | | | | N.A. | N.A. |
| Michigan | 321 | 318 | 130 | 131 | 0.4 | 1.0 |
| Minnesota | 37 | | | | N.A. | N.A. |
| Mississippi | 118 | 132 | 110 | 49 | 0.4 | 0.4 |
| Missouri | 158 | 175 | 96 | 101 | 0.6 | 1.1 |
| Montana | 13 | | | | N.A. | N.A. |
| Nebraska | 31 | 20 | 10 | | 0.4 | 1.1 |
| Nevada | 12 | | | 7 | 0.4 | N.A. |
| New Hampshire | 14 | 16 | ••• | | N.A. | N.A. |
| - | 54 | | 27 | ••• | N.A. | |
| New Jersey | | 32 | | | | N.A. |
| New Mexico | 19 | 8 | 100 | 12 | 0.6 | N.A. |
| New York | 216 | 173 | 160 | 107 | 0.5 | 0.7 |
| North Carolina | 107 | 117 | 58 | 52 | 0.5 | 0.9 |
| North Dakota | 6 | ••• | 5 | | N.A. | N.A. |
| Ohio | 373 | 235 | 208 | 127 | 0.3 | 0.6 |
| Oklahoma | 64 | 65 | 51 | 29 | 0.5 | 0.6 |
| Oregon | 10 | ••• | ••• | | N.A. | N.A. |
| Pennsylvania | 473 | 241 | 224 | 235 | 0.5 | 1.0 |
| Rhode Island | 5 | 3 | ••• | ••• | N.A. | N.A. |
| South Carolina | 40 | 40 | 41 | 30 | 0.8 | 0.7 |
| South Dakota | 14 | 13 | | | N.A. | N.A. |
| Tennessee | 124 | 118 | 67 | 66 | 0.5 | 1.0 |
| Texas | 148 | | | 122 | 0.8 | N.A. |
| Utah | 42 | 33 | 27 | 37 | 0.9 | 1.4 |
| Vermont | 26 | 19 | 14 | | N.A. | N.A. |
| Virginia | 108 | 57 | 41 | 70 | 0.6 | 1.7 |
| Washington | 16 | | | | N.A. | N.A. |
| West Virginia | 87 | 45 | 50 | 43 | 0.5 | 0.9 |
| Wisconsin | 155 | 163 | 64 | 67 | 0.4 | 1.0 |
| Wyoming | 13 | 8 | 13 | 7 | 0.5 | 0.5 |

Note: the 2001–2006 U.S. total difference is not statistically significant.

N.A. Not available ... Sample size too small to report data reliably.

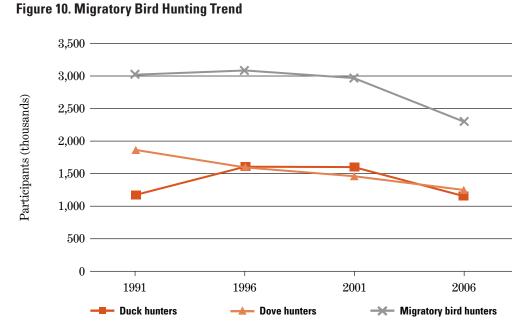
The ratios are calculated by dividing the later year's estimate by the earlier year's estimate. The ratio is useful in comparing trends across states.

Table 12. Trend in Number of Squirrel Hunters, by State of Activity: 1991–2006 $(\mathrm{in}~000\mathrm{'s})$

| | 1991 | 1996 | 2001 | 2006 | 2006–1991 Ratio | 2006–2001 Ratio |
|-----------------|-------------------------------|-------|-------|-------|-----------------|-----------------|
| U.S. Total | 3,569 | 3,207 | 2,119 | 1,845 | 0.5 | 0.9 |
| Alabama | 96 | 56 | 60 | 86 | 0.9 | 1.4 |
| Alaska | | | | | N.A. | N.A |
| Arizona | | | | | N.A. | N.A |
| Arkansas | 117 | 143 | 125 | 92 | 0.8 | 0.7 |
| California | 62 | ••• | ••• | ••• | N.A. | N.A |
| Colorado | | ••• | ••• | ••• | N.A. | N.A |
| Connecticut | 8 | ••• | ••• | ••• | N.A. | N.A. |
| Delaware | 7 | 13 | ••• | ••• | N.A. | N.A |
| Florida | 85 | ••• | | 49 | 0.6 | N.A |
| Georgia | 82 | 86 | 80 | 86 | 1.0 | 1.1 |
| Hawaii | ••• | ••• | ••• | ••• | N.A. | N.A. |
| Idaho | 13 | ••• | ••• | | N.A. | N.A. |
| Illinois | 136 | 163 | | 44 | 0.3 | N.A. |
| Indiana | 140 | 122 | 94 | 55 | 0.4 | 0.6 |
| Iowa | 76 | 77 | 33 | 23 | 0.3 | 0.7 |
| Kansas | 31 | 26 | 23 | | N.A. | N.A. |
| Kentucky | 167 | 146 | 92 | 72 | 0.4 | 0.8 |
| Louisiana | 167 | 191 | 88 | 90 | 0.5 | 1.0 |
| Maine | | | | | N.A. | N.A. |
| Maryland | 46 | 29 | 19 | 28 | 0.6 | 1.5 |
| Massachusetts | 12 | | ••• | | N.A. | N.A. |
| Michigan | 189 | 224 | 92 | 91 | 0.5 | 1.0 |
| Minnesota | 52 | 44 | | | N.A. | N.A. |
| Mississippi | 156 | 146 | 111 | 65 | 0.4 | 0.6 |
| Missouri | 168 | 193 | 110 | 152 | 0.9 | 1.4 |
| Montana | | | ••• | | N.A. | N.A. |
| Nebraska | 16 | | | | N.A. | N.A. |
| Nevada | | | ••• | | N.A. | N.A. |
| New Hampshire | 8 | ••• | | | N.A. | N.A. |
| New Jersey | 19 | ••• | ••• | ••• | N.A. | N.A. |
| New Mexico | | | | | N.A. | N.A. |
| New York | 121 | 129 | 101 | ••• | N.A. | N.A. |
| North Carolina | 152 | 166 | 73 | 42 | 0.3 | 0.6 |
| North Dakota | | | | | N.A. | N.A. |
| Ohio | 209 | 177 | 171 | 115 | 0.6 | 0.7 |
| Oklahoma | 62 | 73 | 51 | 29 | 0.5 | 0.6 |
| Oregon | 10 | | | ••• | N.A. | N.A. |
| Pennsylvania | 365 | 258 | 215 | 203 | 0.6 | 0.9 |
| Rhode Island | 3 | | | | N.A. | N.A. |
| South Carolina | 49 | 56 | 52 | 23 | 0.5 | 0.4 |
| South Dakota | 4 | | | | N.A. | N.A. |
| Tennessee | 163 | 135 | 112 | 78 | 0.5 | 0.7 |
| Texas | 156 | | | 66 | 0.4 | N.A. |
| Utah | | | | ••• | N.A. | N.A. |
| Vermont | 8 | 11 | 12 | | N.A. | N.A. |
| Virginia | 156 | 110 | 88 | 78 | 0.5 | 0.9 |
| Washington | | | | | N.A. | N.A. |
| West Virginia | 162 | 181 | 109 | 114 | 0.7 | 1.0 |
| Wisconsin | 138 | 145 | 62 | 60 | 0.4 | 1.0 |
| Wyoming | | | | | N.A. | N.A. |
| V Mot available | Sample size too small to same | ••• | ••• | ••• | 11.11. | 11.71 |

 $N.A.\ Not\ available\ \dots\ Sample\ size\ too\ small\ to\ report\ data\ reliably.$

As with small game hunting, migratory bird hunting had significant decreases from 1991 to 2006. Duck hunting had no significant difference from 1991 to 2006, although in the most recent time interval, 2001–2006, there was a significant decrease. Conversely, dove hunting had a significant decrease in participation for 1991 to 2006, although no significant difference for 2001 to 2006. Dove and duck hunting combined create the overall downward trend. Dove hunting pulled down migratory bird hunting levels over the longer-term, and duck hunting pulled it down in the most recent time period.



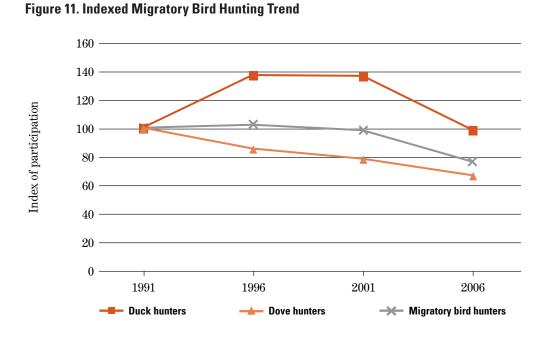


Table 13. Trend in Number of Duck Hunters, by State of Activity: 1991–2006 $(\mathrm{in}~000\mathrm{'s})$

| | 1991 | 1996 | 2001 | 2006 | 2006–1991 Ratio | 2006–2001 Ratio |
|-------------------|-------------------------------|-------|----------|-------|-----------------|-----------------|
| U.S. Total | 1,164 | 1,596 | 1,589 | 1,147 | 1.0 | 0.7 |
| Alabama | | ••• | 27 | 24 | N.A. | 0.9 |
| Alaska | 12 | 10 | 11 | | N.A. | N.A. |
| Arizona | | | | | N.A. | N.A. |
| Arkansas | 46 | 78 | 154 | 100 | 2.2 | 0.6 |
| California | 97 | 131 | 97 | 61 | 0.6 | 0.6 |
| Colorado | 28 | 33 | 33 | ••• | N.A. | N.A. |
| Connecticut | 5 | | | ••• | N.A. | N.A. |
| Delaware | 8 | 13 | | 10 | 1.3 | N.A. |
| Florida | | ••• | ••• | ••• | N.A. | N.A. |
| Georgia | 20 | | | | N.A. | N.A. |
| Hawaii | | | ••• | | N.A. | N.A. |
| Idaho | 19 | 33 | 28 | 26 | 1.4 | 0.9 |
| Illinois | 55 | 52 | 39 | 65 | 1.2 | 1.7 |
| Indiana | | ••• | | ••• | N.A. | N.A. |
| Iowa | 23 | 31 | 45 | ••• | N.A. | N.A. |
| Kansas | 10 | ••• | 26 | 27 | 2.7 | 1.0 |
| Kentucky | 18 | 20 | 23 | | N.A. | N.A. |
| Louisiana | 74 | 111 | 127 | 72 | 1.0 | 0.6 |
| Maine | 10 | | ••• | | N.A. | N.A. |
| Maryland | 14 | 46 | 33 | 39 | 2.8 | 1.2 |
| Massachusetts | 15 | ••• | | 13 | 0.9 | N.A. |
| Michigan | 45 | ••• | ••• | | N.A. | N.A. |
| Minnesota | 66 | 132 | 165 | 49 | 0.7 | 0.3 |
| Mississippi | 35 | 59 | 39 | 41 | 1.2 | 1.1 |
| Missouri | 26 | | 35 | 36 | 1.4 | 1.0 |
| Montana | 17 | 24 | 16 | 13 | 0.8 | 0.8 |
| Nebraska | 22 | 27 | 33 | 28 | 1.3 | 0.8 |
| Nevada | 8 | 9 | 13 | | N.A. | N.A. |
| New Hampshire | 5 | 5 | | ••• | N.A. | N.A. |
| New Jersey | 17 | | | ••• | N.A. | N.A. |
| New Mexico | 6 | ••• | | ••• | N.A. | N.A. |
| New York | | ••• | 15 55 | ••• | N.A. N.A. | N.A. |
| | 36 | ••• | | ••• | | |
| North Carolina | 25 | | 48 | | N.A. | N.A. |
| North Dakota | 18 | 17 | 49 | 20 | 1.1 | 0.4 |
| Ohio | 29 | ••• | 43 | | N.A. | N.A. |
| Oklahoma | 20 | | 32 | 34 | 1.7 | 1.1 |
| Oregon | 23 | 52 | 29 | 27 | 1.2 | 0.9 |
| Pennsylvania | 35 | ••• | ••• | ••• | N.A. | N.A. |
| Rhode Island | 2 | ••• | ••• | ••• | N.A. | N.A. |
| South Carolina | 25 | 44 | 21 | 32 | 1.3 | 1.5 |
| South Dakota | 20 | 30 | 34 | 14 | 0.7 | 0.4 |
| Tennessee | 16 | ••• | 54 | 33 | 2.1 | 0.6 |
| Texas | 100 | 101 | 90 | 102 | 1.0 | 1.1 |
| Utah | 9 | 20 | 42 | 20 | 2.2 | 0.5 |
| Vermont | 4 | 9 | | | N.A. | N.A. |
| Virginia | 15 | ••• | ••• | 26 | 1.7 | N.A. |
| Washington | 35 | 53 | 42 | 18 | 0.5 | 0.4 |
| West Virginia | | ••• | ••• | | N.A. | N.A. |
| Wisconsin | 73 | 79 | 46 | 48 | 0.7 | 1.0 |
| Wyoming | 3 | 18 | ••• | | N.A. | N.A. |
| N A Not available | Sample size too small to repo | | | | | |

 $N.A.\ Not\ available\ \dots\ Sample\ size\ too\ small\ to\ report\ data\ reliably.$

Table 14. Trend in Number of Dove Hunters, by State of Activity: 1991–2006 $(\mathrm{in}~000\mathrm{'s})$

| | 1991 | 1996 | 2001 | 2006 | 2006–1991 Ratio | 2006–2001 Ratio |
|----------------|-------|-------|-------|-------|-----------------|-----------------|
| U.S. Total | 1,851 | 1,581 | 1,450 | 1,238 | 0.7 | 0.9 |
| Alabama | 96 | 68 | 72 | 59 | 0.6 | 0.8 |
| Alaska | ••• | ••• | | | N.A. | N.A |
| Arizona | 68 | 69 | 50 | 32 | 0.5 | 0.6 |
| Arkansas | 41 | 45 | 36 | 24 | 0.6 | 0.7 |
| California | 161 | 159 | ••• | 108 | 0.7 | N.A |
| Colorado | 28 | 23 | ••• | ••• | N.A. | N.A. |
| Connecticut | ••• | ••• | ••• | ••• | N.A. | N.A. |
| Delaware | 7 | 13 | ••• | 3 | 0.4 | N.A. |
| Florida | 60 | ••• | ••• | ••• | N.A. | N.A. |
| Georgia | 68 | 117 | 75 | 97 | 1.4 | 1.3 |
| Hawaii | ••• | ••• | ••• | ••• | N.A. | N.A. |
| Idaho | 10 | ••• | | | N.A. | N.A. |
| Illinois | 59 | 53 | | 30 | 0.5 | N.A. |
| Indiana | 25 | | | | N.A. | N.A. |
| Iowa | | | | | N.A. | N.A. |
| Kansas | 46 | 41 | 50 | 34 | 0.7 | 0.7 |
| Kentucky | 63 | 54 | 49 | | N.A. | N.A. |
| Louisiana | 70 | 58 | 24 | 38 | 0.5 | 1.6 |
| Maine | ••• | ••• | | ••• | N.A. | N.A. |
| Maryland | 22 | ••• | ••• | ••• | N.A. | N.A. |
| Massachusetts | | | | | N.A. | N.A. |
| Michigan | | ••• | | | N.A. | N.A. |
| Minnesota | ••• | ••• | | | N.A. | N.A. |
| Mississippi | 58 | 85 | 38 | 26 | 0.4 | 0.7 |
| Missouri | 52 | 40 | 34 | 54 | 1.0 | 1.6 |
| Montana | | ••• | | | N.A. | N.A. |
| Nebraska | 30 | 19 | 13 | 17 | 0.6 | 1.3 |
| Nevada | 12 | 8 | 12 | ••• | N.A. | N.A. |
| New Hampshire | | ••• | | ••• | N.A. | N.A. |
| New Jersey | | | | ••• | N.A. | N.A. |
| New Mexico | 19 | 16 | 27 | 6 | 0.3 | 0.2 |
| New York | ••• | ••• | ••• | ••• | N.A. | N.A. |
| North Carolina | 79 | 89 | 92 | | N.A. | N.A. |
| North Dakota | 6 | ••• | 6 | | N.A. | N.A. |
| Ohio | | ••• | | | N.A. | N.A. |
| Oklahoma | 62 | 48 | 59 | 37 | 0.6 | 0.6 |
| Oregon | | ••• | | | N.A. | N.A. |
| Pennsylvania | 74 | ••• | | | N.A. | N.A. |
| Rhode Island | | ••• | | | N.A. | N.A. |
| South Carolina | 57 | 71 | 51 | 28 | 0.5 | 0.5 |
| South Dakota | 13 | 13 | 9 | | N.A. | N.A. |
| Tennessee | 60 | 50 | 69 | 54 | 0.9 | 0.8 |
| Texas | 412 | 291 | 461 | 394 | 1.0 | 0.9 |
| Utah | 12 | 12 | 21 | 13 | 1.1 | 0.6 |
| Vermont | | | | | N.A. | N.A. |
| Virginia | 78 | 32 | 38 | 38 | 0.5 | 1.0 |
| Washington | | | | | N.A. | N.A. |
| West Virginia | ••• | ••• | ••• | ••• | N.A. | N.A. |
| Wisconsin | | ••• | ••• | ••• | N.A. | N.A. |
| | | ••• | ••• | ••• | 11.11. | 11.71. |

Note: the 2001–2006 U.S. total difference is not statistically significant.

N.A. Not available ... Sample size too small to report data reliably.

The ratios are calculated by dividing the later year's estimate by the earlier year's estimate. The ratio is useful in comparing trends across states.

Fishing days

An additional method of looking at species fishing and hunting is analyzing days afield. This gives us a measure of the effort of the participants. If the average angler changes his/her level of effort, the same number of anglers from one year to the next can contribute more (or less) days.

There was no significant difference in aggregate fishing days when comparing 1991 to 2006, although from 2001 to 2006 days decreased significantly. Bass, trout, catfish and freshwater anything fishing days showed no significant difference from 1991 to 2006 (although

freshwater anything did undergo a significant decrease from 2001 to 2006). As for the saltwater species, flatfishing and saltwater anything days had no significant difference for the 1991–2006 time span. All species fishing days followed the aggregate fishing days trend of no significant difference for the 1991–2006 comparison. However, of this report's selected species, only freshwater anything days followed the overall downward trend from 2001 to 2006. In an aside from this report's focus species, walleye, sauger, and steelhead days tended down, but not significantly, while salmon fishing days dropped significantly from 2001 to 2006.

Table 15. Trend In Days of Fishing and Hunting by Species: 1991–2006

(U.S. Totals. Totals in thousands)

| (O.D. Totals, Totals III tilous | arias) | | | | | | | |
|---------------------------------|---|--|--|--|------------------------|------------------|--------------------|------|
| | | | | _ | | Average D | ays | |
| | 1991 | 1996 | 2001 | 2006 | 1991 | 1996 | 2001 | 2006 |
| Total fishing days | 511,329 | 625,893 | 557,394 | 516,781 | 14 | 18 | 16 | 17 |
| Bass | 162,595 | 196,385 | 166,202 | 163,924 | 12 | 15 | 15 | 16 |
| Trout | 86,626 | 97,978 | 89,285 | 82,143 | 9 | 11 | 11 | 12 |
| Catfish | 96,451 | 91,498 | 103,664 | 98,190 | 10 | 12 | 14 | 14 |
| Freshwater anything | 40,558 | 41,280 | 48,251 | 37,135 | 8 | 9 | 10 | 9 |
| Flatfish | 16,170 | 28,644 | 21,111 | 20,478 | 7 | 11 | 9 | 10 |
| Saltwater anything | 17,861 | 24,807 | 25,240 | 20,774 | 6 | 8 | 8 | 9 |
| | | | | | | | | |
| Total hunting days | 235,806 | 256,676 | 228,368 | 219,925 | 17 | 18 | 18 | 18 |
| Deer | 112,853 | 131,345 | 133,457 | 132,194 | 11 | 12 | 13 | 13 |
| Turkey | 13,483 | 18,532 | 23,165 | 25,828 | 8 | 8 | 9 | 10 |
| Duck | 8,800 | 13,800 | 18,290 | 12,173 | 8 | 9 | 12 | 11 |
| Dove | 9,480 | 8,141 | 9,041 | 5,893 | 5 | 5 | 6 | 5 |
| Squirrel | 29,602 | 25,401 | 22,333 | 18,534 | 8 | 8 | 11 | 10 |
| Rabbit | 35,624 | 28,873 | 22,768 | 20,513 | 9 | 9 | 11 | 11 |
| Deer Turkey Duck Dove Squirrel | 112,853 13,483 8,800 9,480 29,602 | 131,345 18,532 13,800 8,141 25,401 | 133,457 23,165 18,290 9,041 22,333 | 132,194 25,828 12,173 5,893 18,534 | 11 8 8 5 8 | 8 9 5 8 | 9 12 6 11 | |

Figure 12. Freshwater Fishing Days Trend

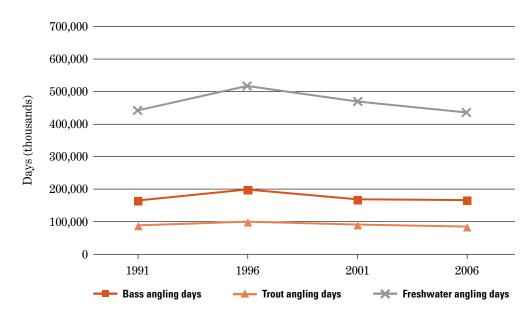


Figure 13. Indexed Freshwater Fishing Days Trend

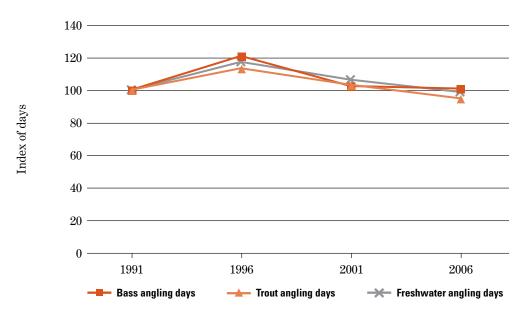


Figure 14. Freshwater Fishing Days Trend

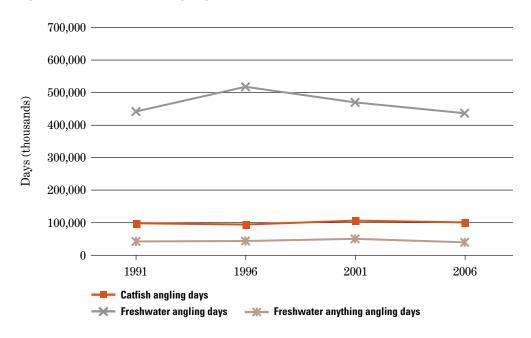


Figure 15. Indexed Freshwater Fishing Days Trend

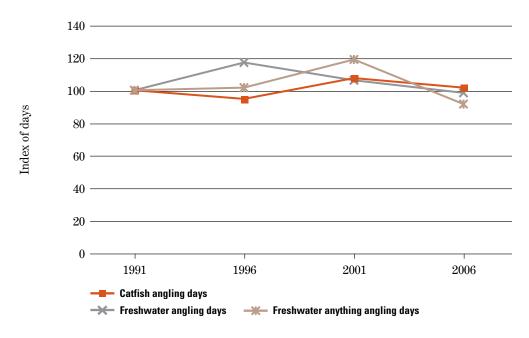


Figure 16. Saltwater Fishing Days Trend

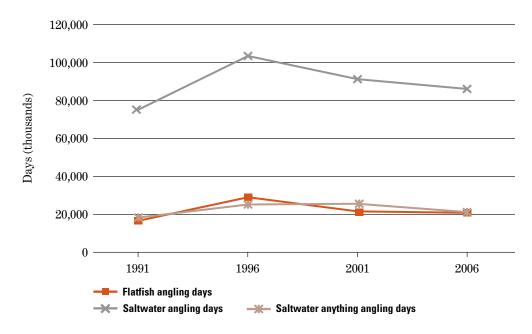
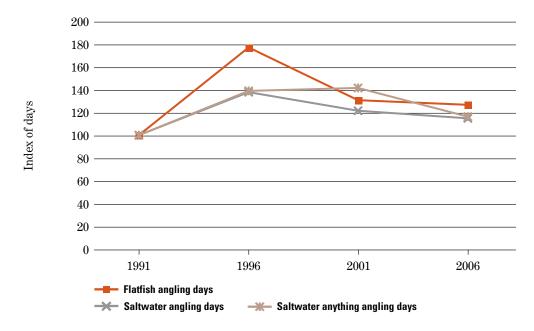


Figure 17. Indexed Saltwater Fishing Days Trend



Hunting days

Similar to fishing days, there was no significant difference in the number of aggregate hunting days for the 1991-2006 comparison. Unlike fishing days, there was no significant difference for the 2001–2006 time span. Deer and turkey days saw a significant increase 1991–2006 and no significant difference 2001–2006. Duck days had a significant increase for 1991–2006 and a significant decrease for 2001–2006. Dove days had a significant decrease for 1991–2006 and 2001–2006. Rabbit and squirrel days underwent a significant decrease for 1991–2006 and no significant difference 2001–2006. The deer/turkey/duck hunting days' 1991-2006 increase counteracted the dove/rabbit/squirrel days' decrease. All but duck and dove hunting days (which decreased) followed the overall trend (no change) for 2001–2006.



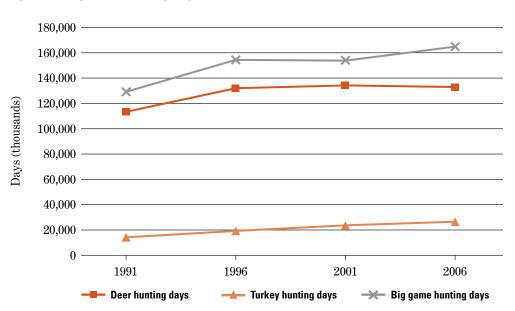


Figure 19. Indexed Big Game Hunting Day Trend

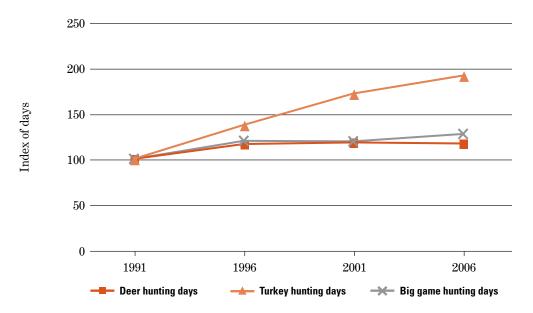


Figure 20. Small Game Hunting Days Trend

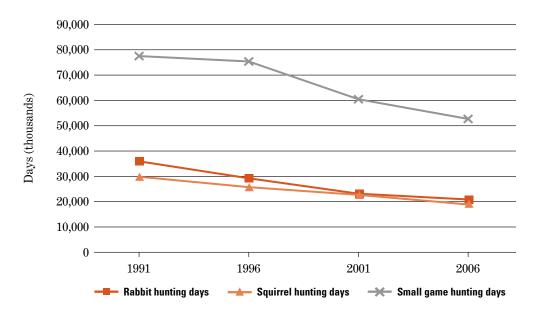


Figure 21. Indexed Small Game Hunting Days Trend

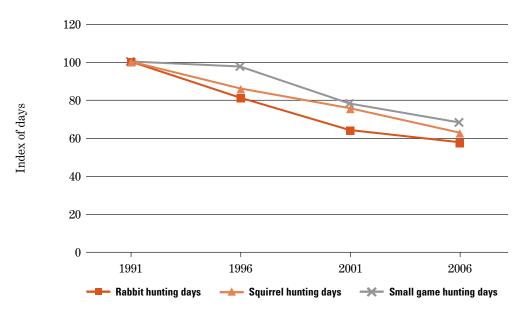


Figure 22. Migratory Bird Hunting Days Trend

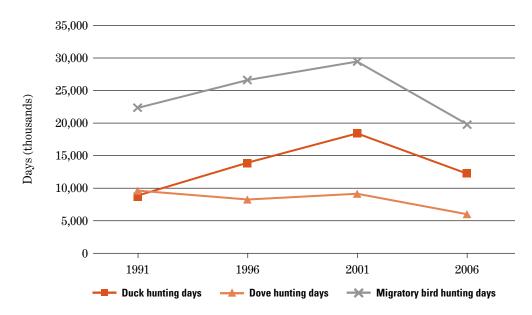
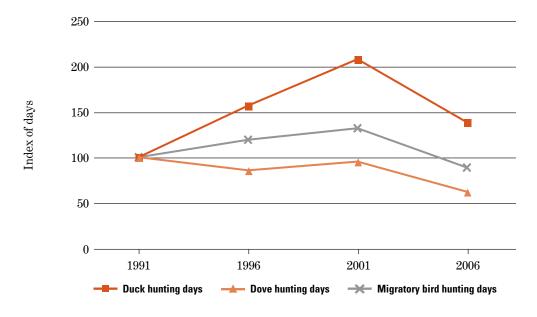


Figure 23. Indexed Migratory Bird Hunting Days Trend



Fishing Expenditures

Aggregate fishing expenditures increased a third from 1991 to 1996, fell a fifth from 1996 to 2001, and rose slightly from 2001 to 2006. Comparing 2006 to 1991 expenditures finds an 18% increase in inflation-adjusted dollars. Fishing expenditures for all of this report's selected species increased from 1991 to 1996, but there was not as much similarity with aggregate fishing expenditures after that. Bass, trout, and catfish angling expenditures mirrored the aggregate trend. Freshwater anything, saltwater anything, and flatfish angling expenditures declined from 1996 to 2006.

Table 16. Trend in Trip and Equipment Hunting and Fishing Expenditures by Species: 1991–2006 (U.S. totals. Dollars adjusted for inflation.)

| | 1991 (thousands of dollars) | 1996 (thousands of dollars) | 2001 (thousands of dollars) | 2006 (thousands of dollars) | 1991 (dollars) | 1996 (dollars) | 2001 (dollars) | 2006 (dollars) |
|---------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------|-------------------|-------------------|-------------------|
| Fishing | | | | | | | | |
| Bass | 4,720,032 | 7,451,326 | 5,028,546 | 5,673,291 | 359 | 574 | 459 | 557 |
| Trout | 2,514,699 | 3,717,524 | 2,701,374 | 2,842,910 | 265 | 400 | 333 | 405 |
| Catfish | 2,799,913 | 3,471,657 | 3,136,419 | 3,398,285 | 305 | 467 | 417 | 489 |
| Freshwater anything | 1,177,374 | 1,566,264 | 1,459,864 | 1,285,216 | 223 | 350 | 300 | 312 |
| Flatfish | 1,041,692 | 1,949,511 | 1,270,560 | 1,245,751 | 453 | 742 | 560 | 602 |
| Saltwater anything | 1,150,628 | 1,688,365 | 1,519,063 | 1,263,758 | 406 | 570 | 488 | 521 |
| | | | | | | | | |
| Hunting | | | | | | | | |

| riauisii | 1,041,092 | 1,949,511 | 1,270,500 | 1,240,701 | 400 | 144 | 900 | 002 |
|--------------------|-----------|-----------|-----------|-----------|-----|-----|-----|-----|
| Saltwater anything | 1,150,628 | 1,688,365 | 1,519,063 | 1,263,758 | 406 | 570 | 488 | 521 |
| | | | | | | | | |
| Hunting | | | | | | | | |
| Deer | 6,183,360 | 9,871,898 | 8,956,092 | 8,904,846 | 602 | 921 | 872 | 885 |
| Turkey | 738,751 | 1,392,866 | 1,554,567 | 1,739,825 | 430 | 636 | 621 | 677 |
| Duck | 336,768 | 704,279 | 735,551 | 653,633 | 289 | 441 | 463 | 570 |
| Dove | 362,791 | 415,474 | 363,593 | 316,426 | 196 | 263 | 251 | 256 |
| Squirrel | 604,481 | 832,118 | 576,807 | 625,194 | 169 | 259 | 272 | 339 |
| Rabbit | 727,452 | 945,858 | 588,042 | 691,950 | 183 | 301 | 280 | 360 |
| | | | | | | | | |

Averages

Figure 24. Freshwater Fishing Trip and Equipment Expenditures Trend

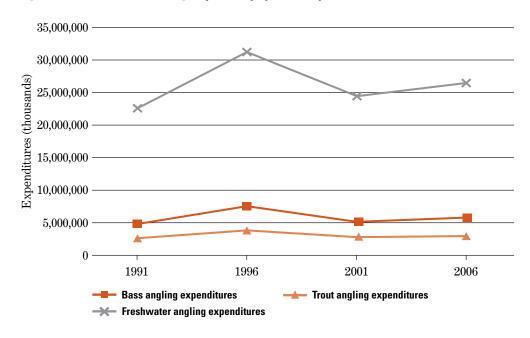


Figure 25. Indexed Freshwater Fishing Trip and Equipment Expenditures Trend

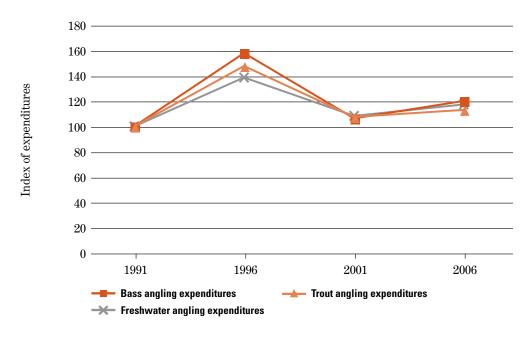


Figure 26. Freshwater Fishing Trip and Equipment Expenditures Trend

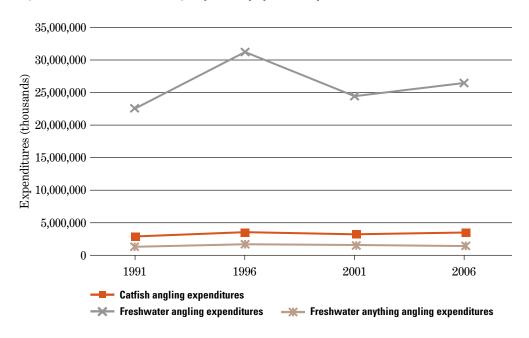


Figure 27. Indexed Freshwater Fishing Trip and Equipment Expenditures Trend

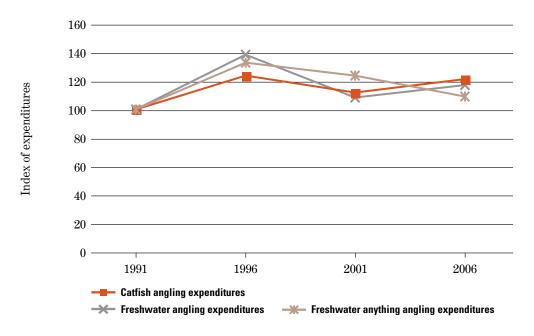


Figure 28. Saltwater Fishing Trip and Equipment Expenditures Trend

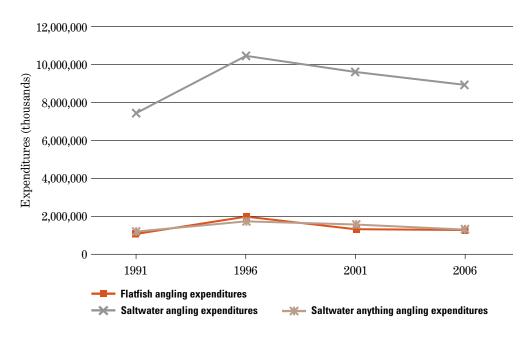
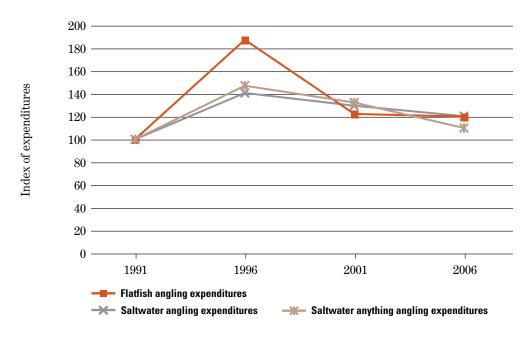


Figure 29. Indexed Saltwater Fishing Trip and Equipment Trend



Hunting Expenditures

Aggregate hunting expenditures increased 43% from 1991 to 1996, fell 10% from 1996 to 2001, and were level from 2001 to 2006. The comparison of 1991 and 2006 reveals a 23% increase. As with fishing, all species hunting expenditures increased from 1991 to 1996, but there was no consistency after that. Deer hunting expenditures followed the aggregate trend. Turkey hunting expenditures increased steadily from 1991 to 2006 (more than doubling). Duck hunting expenditures increased from 1991 to 2001 then declined 10% from 2001 to 2006. Dove hunting expenditures decreased steadily from 1996 to 2006 (a 24% decrease). Squirrel and rabbit hunting expenditures increased from 1991 to 1996, decreased from 1996 to 2001, and increased from 2001 to 2006. The 1991 to 2006 comparison reveals no change for both squirrel and rabbit hunting expenditures.



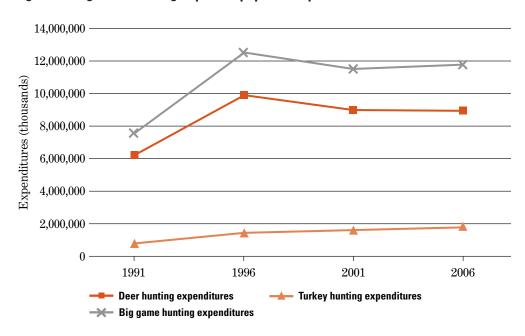


Figure 31. Indexed Big Game Hunting Trip and Equipment Expenditures Trend

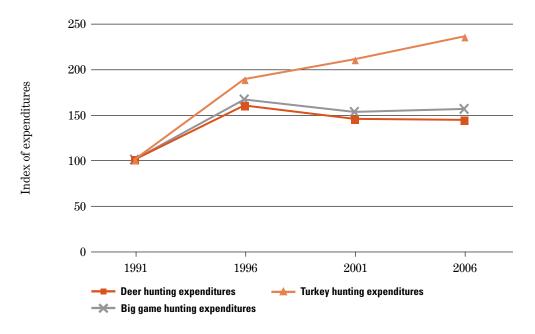


Figure 32. Small Game Hunting Trip and Equipment Expenditures Trend

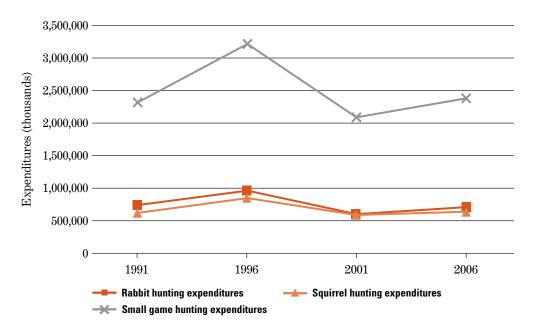


Figure 33. Indexed Small Game Hunting Trip and Equipment Expenditures Trend

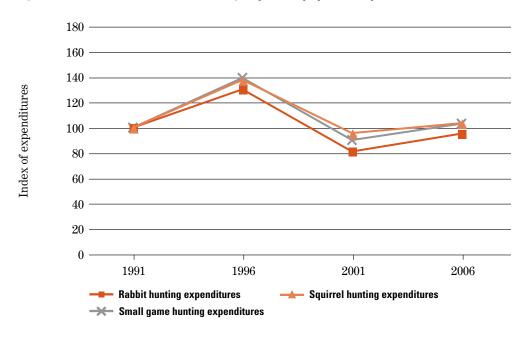


Figure 34. Migratory Bird Hunting Trip and Equipment Expenditures Trend

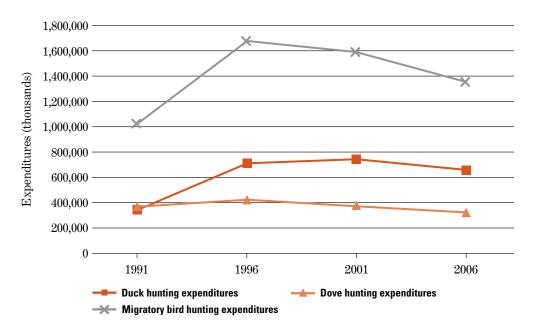
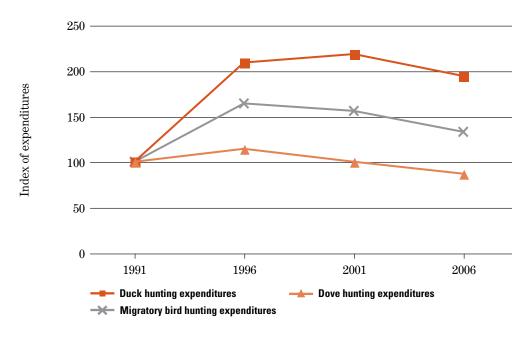


Figure 35. Indexed Migratory Bird Hunting Trip and Equipment Expenditures Trend



State Participation Trends

National trends are interesting and important, but the requisite data aggregation masks regional variation. Analyzing state estimates gives insight into who is doing what and where.

The tool used here to measure state trends is the participation rate of state residents. (The denominator of the participation rate calculation is the state population, so state resident participants has to be used as the numerator. There is no easy way to calculate participation rates for in-state participants.) Participation rates are the proportion of state residents that participate in an activity. They are a good measure of the popularity of an activity among the general population, plus it is easy to compare them across states. Using participation rates removes the disparity in population levels among the states from the comparison.

Hunting Participation Rates

The aggregate participation rate for deer hunting was 5% in 1991, 1996, and 2001, then fell to 4% in 2006. Twenty-six states had above average deer hunting participation rates in 2006 (Alabama, Arkansas, Idaho, Iowa, Kansas, Louisiana, Maine, Michigan, Minnesota, Mississippi, Missouri, Montana, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, West Virginia, Wisconsin, and Wyoming). The five states with the highest participation rates were Montana, North Dakota, Wisconsin, Maine, and West Virginia. The state with the lowest rate was California.

Figure 36. The State Participation Rates of Deer Hunters Relative to the National Participation Rate: 2006

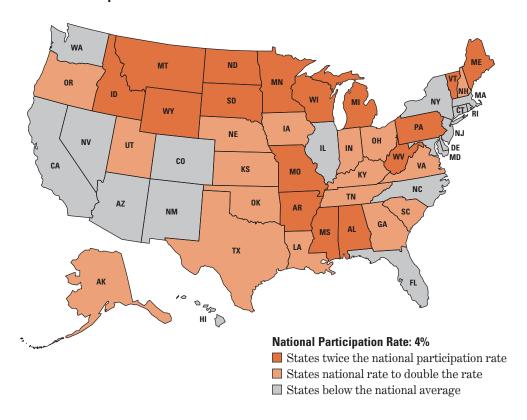


Table 17. Trend in Number of Deer Hunters, by State of Residence: 1991–2006 (Numbers in thousands)

| 1991 10,277 219 | 1996 10,722 | 2001 | 2006 | 1991 | 1996 | 2001 | 200 |
|------------------------------|--|--|---|---|--|--|---|
| 219 | 10,722 | 40.070 | | | | | |
| | | 10,272 | 10,062 | 5 | 5 | 5 | |
| | 212 | 293 | 284 | 7 | 6 | 9 | |
| 9 | 17 | 18 | 20 | 2 | 4 | 4 | |
| 94 | 72 | 65 | 70 | 3 | 2 | 2 | |
| 217 | 268 | 278 | 268 | 12 | 14 | 14 | 1 |
| | | | | 1 | 1 | | (2 |
| 108 | 144 | 72 | 41 | 4 | 5 | 2 | |
| 36 | 51 | 34 | 29 | 1 | 2 | 1 | |
| 17 | 27 | 12 | 17 | 3 | 5 | 2 | |
| | | | | | 1 | | |
| 259 | 299 | 307 | 305 | 5 | 5 | 5 | |
| 7 | 11 | 8 | 9 | 1 | 1 | 1 | |
| 132 | 152 | 108 | 92 | 18 | 17 | 11 | |
| 277 | 286 | 252 | 176 | 3 | 3 | 3 | |
| 200 | 263 | 200 | 208 | 5 | 6 | 4 | |
| 141 | 178 | 131 | 164 | 7 | 8 | 6 | |
| 67 | 97 | 111 | 88 | 4 | 5 | 6 | |
| 184 | 255 | 201 | 215 | 7 | 8 | 6 | |
| 213 | 254 | 214 | 211 | 7 | 8 | 6 | |
| 117 | 135 | 115 | 138 | 12 | 14 | 11 | |
| 114 | 97 | 106 | 127 | 3 | 2 | 3 | |
| 97 | 82 | 68 | 59 | 2 | 2 | 1 | |
| 713 | 800 | 640 | 696 | 10 | 11 | 8 | |
| 332 | 463 | 467 | 410 | 10 | 13 | 13 | |
| 248 | 257 | 221 | 234 | 13 | 13 | 10 | |
| 352 | 406 | 339 | 453 | 9 | 10 | 8 | |
| | | | | 22 | | | |
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(Z) Less than 0.5 percent.

The aggregate participation rate for turkey hunting was 1% in every survey year. Eighteen states had above average turkey hunting participation rates in 2006 (Alabama, Arkansas, Iowa, Kansas, Kentucky, Louisiana, Maine, Mississippi, Missouri, Nebraska, Oklahoma, Pennsylvania, South Carolina, Tennessee, Vermont, Virginia, West Virginia, and Wisconsin). The states with the highest rates were Arkansas, Pennsylvania, Wisconsin, Mississippi, Missouri, Vermont, and West Virginia. The states with the lowest rate (for states which have estimates) were California and New Jersev.

Figure 37. The State Participation Rates of Turkey Hunters Relative to the National Participation Rate: 2006

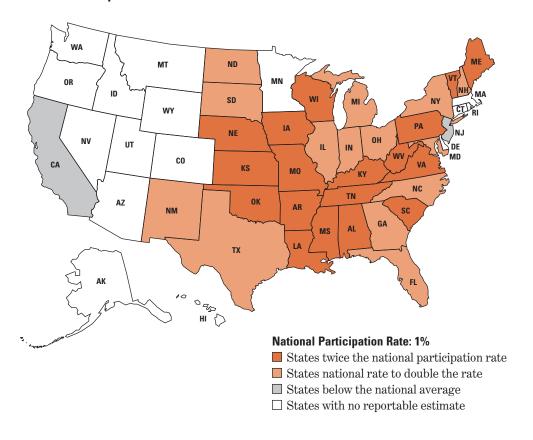


Table 18. Trend in Number of Turkey Hunters, by State of Residence: 1991–2006 (Numbers in thousands)

| | | Number of parti | | | | Participation | | |
|----------------|--------|-----------------|--------|--------|------|---------------|------|----------------|
| | 1991 | 1996 | 2001 | 2006 | 1991 | 1996 | 2001 | 2006 |
| U.S. Total | 1,720 | 2,189 | 2,504 | 2,569 | 1 | 1 | 1 | , |
| Alabama | 58 | 45 | 54 | 86 | 2 | 1 | 2 | 2 |
| Alaska | ••• | | | | N.A. | N.A. | N.A. | N.A |
| Arizona | ••• | ••• | ••• | ••• | N.A. | N.A. | N.A. | N.A |
| Arkansas | 31 | 67 | 105 | 82 | 2 | 4 | 5 | 4 |
| California | ••• | | | 48 | N.A. | N.A. | N.A. | (\mathbf{Z}) |
| Colorado | ••• | | | | N.A. | N.A. | N.A. | N.A. |
| Connecticut | ••• | 10 | ••• | ••• | N.A. | (Z) | N.A. | N.A. |
| Delaware | | 4 | | | | 1 | | • • • |
| Florida | 47 | ••• | 105 | 85 | (Z) | ••• | 1 | 1 |
| Georgia | 46 | 67 | 77 | 72 | 1 | 1 | 1 | 1 |
| Hawaii | | | | | N.A. | N.A. | N.A. | N.A. |
| Idaho | ••• | ••• | | | N.A. | N.A. | N.A. | N.A. |
| Illinois | 28 | 53 | 57 | 67 | (Z) | 1 | 1 | 1 |
| Indiana | 19 | | 47 | 33 | (Z) | ••• | 1 | 1 |
| Iowa | 20 | 41 | 24 | 51 | 1 | 2 | 1 | 2 |
| Kansas | 16 | 25 | 48 | 47 | 1 | 1 | 2 | 2 |
| Kentucky | 21 | 73 | 97 | 63 | 1 | 2 | 3 | 2 |
| Louisiana | 22 | | 26 | 56 | 1 | | 1 | 2 |
| Maine | | | 10 | 18 | | | 1 | 2 |
| Maryland | 25 | *** | 21 | 26 | 1 | | 1 | 1 |
| Massachusetts | 15 | 19 | | | (Z) | (Z) | N.A. | N.A. |
| Michigan | 37 | | 68 | 78 | 1 | | 1 | 1 |
| Minnesota | | ••• | | | N.A. | N.A. | N.A. | N.A. |
| | 51 | 68 | 72 | 56 | N.A. | N.A. | 3 | N.A. |
| Mississippi | 125 | | | 140 | 3 | | 3 | 3 |
| Missouri | | 149 | 139 | | | 4 | | |
| Montana | | | | | N.A. | N.A. | N.A. | N.A. |
| Nebraska | 14 | 10 | 15 | 23 | 1 | 1 | 1 | 2 |
| Nevada | ••• | | | ••• | N.A. | N.A. | N.A. | N.A. |
| New Hampshire | ••• | 7 | 11 | 10 | | 1 | 1 | 1 |
| New Jersey | ••• | ••• | 24 | 20 | N.A. | N.A. | (Z) | (Z) |
| New Mexico | 12 | ••• | 13 | 20 | 1 | ••• | 1 | 1 |
| New York | 126 | 209 | 269 | 144 | 1 | 1 | 2 | 1 |
| North Carolina | 32 | 49 | 60 | 82 | 1 | 1 | 1 | 1 |
| North Dakota | 3 | ••• | | 7 | 1 | ••• | | 1 |
| Ohio | 30 | 79 | 98 | 97 | (Z) | 1 | 1 | 1 |
| Oklahoma | 29 | 56 | 72 | 66 | 1 | 2 | 3 | 2 |
| Oregon | ••• | | 16 | | | | 1 | ••• |
| Pennsylvania | 314 | 309 | 272 | 343 | 3 | 3 | 3 | 4 |
| Rhode Island | *** | ••• | *** | *** | N.A. | N.A. | N.A. | N.A. |
| South Carolina | 31 | 45 | 48 | 51 | 1 | 2 | 2 | 2 |
| South Dakota | 6 | 9 | 6 | 6 | 1 | 2 | 1 | 1 |
| Tennessee | 31 | 39 | 69 | 110 | 1 | 1 | 2 | 2 |
| Texas | 175 | | 120 | 169 | 1 | | 1 | 1 |
| Utah | | | | | N.A. | N.A. | N.A. | N.A. |
| Vermont | 10 | 8 | 17 | 13 | 2 | 2 | 4 | 3 |
| Virginia | 154 | 164 | 85 | 116 | 3 | 3 | 2 | 2 |
| Washington | | | 17 | | N.A. | N.A. | (Z) | N.A. |
| West Virginia | 85 | 88 | 68 | 43 | 6 | 6 | 5 | 3 |
| Wisconsin | 49 | 93 | 116 | 155 | 1 | 2 | 3 | 4 |
| Wyoming | 40 | Jo | 6 | 100 | 1 | 4 | 2 | 4 |

 $[\]begin{array}{ll} \dots Sample \ size \ too \ small \ to \ report \ data \ reliably. \\ N.A. \ Not \ available & (Z) \ Less \ than \ 0.5 \ percent. \end{array}$

The aggregate participation rate for squirrel hunting was 2% in 1991 and 1996 and 1% in 2001 and 2006. Eight states had above average participation rates in 2006 (Alabama, Arkansas, Kentucky, Louisiana, Mississippi, Missouri, Pennsylvania, and West Virginia). The states with the highest rates in 2006 were West Virginia, Arkansas, Louisiana, Mississippi, and Missouri. The states with the lowest rate (for states which have estimates) were Florida, Illinois, and Texas.

Figure 38. The State Participation Rates of Squirrel Hunters Relative to the National Participation Rate: 2006

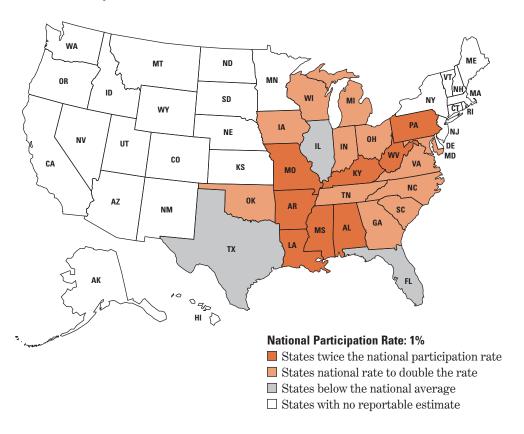


Table 19. Trend in Number of Squirrel Hunters, by State of Residence: 1991–2006 (Numbers in thousands)

| | Ì | Number of parti | cipants | | Participation rates | | | | |
|----------------|--------|-----------------|---------|--------|---------------------|-----------|-----------|----------------|--|
| | 1991 | 1996 | 2001 | 2006 | 1991 | 1996 | 2001 | 2006 | |
| U.S. Total | 3,569 | 3,207 | 2,119 | 1,845 | 2 | 2 | 1 | , | |
| Alabama | 88 | 49 | 57 | 72 | 3 | 1 | 2 | 2 | |
| Alaska | ••• | ••• | ••• | ••• | N.A. | N.A. | N.A. | N.A | |
| Arizona | | | | | N.A. | N.A. | N.A. | N.A | |
| Arkansas | 108 | 134 | 107 | 88 | 6 | 7 | 5 | 4 | |
| California | 65 | | | | (Z) | N.A. | N.A. | N.A | |
| Colorado | | | | | N.A. | N.A. | N.A. | N.A | |
| Connecticut | 8 | | ••• | | (Z) | N.A. | N.A. | N.A | |
| Delaware | 7 | 8 | ••• | | 1 | 1 | | | |
| Florida | 109 | | ••• | 60 | 1 | | | (\mathbf{Z}) | |
| Georgia | 74 | 92 | 80 | 88 | 2 | 2 | 1 | 1 | |
| Hawaii | | | | | N.A. | N.A. | N.A. | N.A | |
| Idaho | 12 | ••• | ••• | ••• | 2 | | ••• | | |
| Illinois | 125 | 166 | | 48 | 1 | 2 | | (Z) | |
| Indiana | 134 | 119 | 88 | 53 | 3 | 3 | 2 | 1 | |
| Iowa | 67 | 69 | 33 | 24 | 3 | 3 | 1 | 1 | |
| Kansas | 33 | 22 | 22 | | 2 | 1 | 1 | ••• | |
| Kentucky | 162 | 137 | 94 | 77 | 6 | 5 | 3 | 2 | |
| Louisiana | 165 | 196 | 81 | 100 | 5 | 6 | 2 | 3 | |
| Maine | | | | | N.A. | N.A. | N.A. | N.A | |
| Maryland | 52 | 35 | 21 | 31 | 1 | 1 | 1 | 1 | |
| Massachusetts | 14 | | | | (Z) | N.A. | N.A. | N.A | |
| Michigan | 181 | 216 | 93 | 91 | 3 | 3 | 1 | 1 | |
| Minnesota | 53 | | | | 2 | | | | |
| Mississippi | 141 | 115 | 91 | 64 | 7 | 6 | 4 | 3 | |
| Missouri | | | | | | | | 6 | |
| | 152 | 175 | 109 | 144 | 4 N.A. | 4 N.A. | 3 N.A. | | |
| Montana | 1.0 | ••• | ••• | ••• | | | | N.A | |
| Nebraska | 16 | ••• | ••• | ••• | 1 | | | NT A | |
| Nevada | ••• | ••• | ••• | ••• | N.A. | N.A. | N.A. | N.A | |
| New Hampshire | 8 | | ••• | | 1 | | | 27. A | |
| New Jersey | 27 | ••• | ••• | ••• | (Z) | N.A. | N.A. | N.A | |
| New Mexico | | | ••• | ••• | N.A. | N.A. | N.A. | N.A | |
| New York | 123 | 128 | 101 | | 1 | 1 | 1 | ••• | |
| North Carolina | 151 | 161 | 73 | 42 | 3 | 3 | 1 | 1 | |
| North Dakota | ••• | ••• | ••• | ••• | N.A. | N.A. | N.A. | N.A | |
| Ohio | 212 | 170 | 168 | 114 | 3 | 2 | 2 | 1 | |
| Oklahoma | 56 | 76 | 49 | 29 | 2 | 3 | 2 | 1 | |
| Oregon | 10 | ••• | ••• | ••• | (Z) | N.A. | N.A. | N.A | |
| Pennsylvania | 354 | 245 | 204 | 197 | 4 | 3 | 2 | 2 | |
| Rhode Island | 3 | ••• | ••• | ••• | (Z) | N.A. | N.A. | N.A | |
| South Carolina | 49 | 51 | 52 | 23 | 2 | 2 | 2 | 1 | |
| South Dakota | 4 | | | | 1 | | | •• | |
| Tennessee | 174 | 137 | 117 | 62 | 5 | 3 | 3 | 1 | |
| Texas | 152 | | ••• | 64 | 1 | | | (\mathbf{Z}) | |
| Utah | | | | | N.A. | N.A. | N.A. | N.A | |
| Vermont | 8 | 10 | 12 | | 2 | 2 | 3 | | |
| Virginia | 151 | 116 | 84 | 77 | 3 | 2 | 2 |] | |
| Washington | | | | | N.A. | N.A. | N.A. | N.A | |
| West Virginia | 152 | 160 | 101 | 97 | 11 | 11 | 7 | 7 | |
| Wisconsin | 135 | 142 | 58 | 60 | 4 | 4 | 1 | 1 | |
| Wyoming | ••• | ••• | | | N.A. | N.A. | N.A. | N.A | |

 $[\]begin{array}{ll} \dots Sample \ size \ too \ small \ to \ report \ data \ reliably. \\ N.A. \ Not \ available & (Z) \ Less \ than \ 0.5 \ percent. \end{array}$

The aggregate participation rate for rabbit hunting was the same as squirrel hunting: 2% in 1991 and 1996, 1% in 2001 and 2006. Nine states had higher than average participation rates in 2006 (Alabama, Kentucky, Louisiana, Michigan, Mississippi, Missouri, Pennsylvania, Utah, and West Virginia). The states with the highest rates in 2006 were Louisiana and West Virginia. The states with the lowest rate (for states which have estimates) were Arizona, Maryland and Nevada.

Figure 39. The State Participation Rates of Rabbit Hunters Relative to the National Participation Rate: 2006

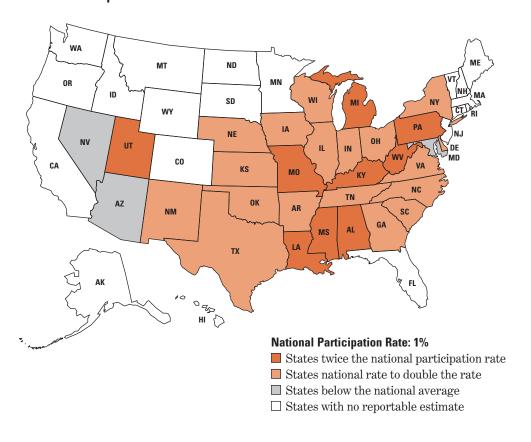


Table 20. Trend in Number of Rabbit Hunters, by State of Residence: 1991–2006 (Numbers in thousands)

| | | Number of parti | | | | Participation | | |
|----------------|-------|-----------------|-------|--------|------|---------------|------|----------------|
| | 1991 | 1996 | 2001 | 2006 | 1991 | 1996 | 2001 | 2000 |
| U.S. Total | 3,980 | 3,146 | 2,099 | 1,923 | 2 | 2 | 1 | , |
| Alabama | 83 | 31 | 37 | 58 | 3 | 1 | 1 | 2 |
| Alaska | 10 | 11 | 7 | | 3 | 3 | 2 | |
| Arizona | 20 | 23 | 21 | 20 | 1 | 1 | 1 | (\mathbf{Z}) |
| Arkansas | 50 | 81 | 45 | 28 | 3 | 4 | 2 | 1 |
| California | 73 | | | | (Z) | N.A. | N.A. | N.A |
| Colorado | 35 | 54 | 23 | | 1 | 2 | 1 | ••• |
| Connecticut | | | | | N.A. | N.A. | N.A. | N.A |
| Delaware | 8 | 12 | 5 | 5 | 2 | 2 | 1 | 1 |
| Florida | 42 | | | | (Z) | N.A. | N.A. | N.A |
| Georgia | 68 | ••• | 53 | 65 | 1 | ••• | 1 | 1 |
| Hawaii | | ••• | | ••• | N.A. | N.A. | N.A. | N.A. |
| Idaho | 15 | ••• | ••• | ••• | 2 | ••• | ••• | ••• |
| Illinois | 166 | 168 | | 58 | 2 | 2 | | 1 |
| Indiana | 161 | 118 | 95 | 56 | 4 | 3 | 2 | 1 |
| Iowa | 86 | 97 | 49 | 32 | 4 | 4 | 2 | 1 |
| Kansas | 55 | 38 | 32 | 27 | 3 | 2 | 2 | 1 |
| Kentucky | 149 | 143 | 99 | 67 | 5 | 5 | 3 | 2 |
| Louisiana | 134 | 152 | 70 | 95 | 4 | 5 | 2 | 3 |
| Maine | 22 | 18 | 15 | | 2 | 2 | 1 | |
| Maryland | 42 | 23 | 24 | 14 | 1 | 1 | 1 | (Z) |
| Massachusetts | 30 | | | | 1 | | | |
| Michigan | 315 | 318 | 120 | 131 | 4 | 4 | 2 | 2 |
| Minnesota | 31 | | | | 1 | | | |
| Mississippi | 107 | 97 | 77 | 47 | 6 | 5 | 4 | 2 |
| Missouri | 155 | 169 | 93 | 98 | 4 | 4 | 2 | 2 |
| Montana | 11 | | | | 2 | | | |
| Nebraska | 29 | 16 | 8 | 11 | 2 | | 1 | 1 |
| Nevada | 11 | 7 | | 8 | 1 | 1 | | (Z) |
| New Hampshire | 14 | 12 | ••• | | 2 | 1 | ••• | |
| New Jersey | 55 | | 20 | ••• | | | | ••• |
| v | | 28 | 30 | | 1 | (Z) | (Z) | |
| New Mexico | 21 | 8 | 150 | 15 | 2 | 1 | ••• | 1 |
| New York | 218 | 172 | 158 | 98 | 2 | 1 | 1 | 1 |
| North Carolina | 108 | 98 | 62 | 52 | 2 | 2 | 1 | 1 |
| North Dakota | 7 | ••• | 4 | | 1 | ••• | 1 | |
| Ohio | 368 | 220 | 202 | 126 | 4 | 3 | 2 | 1 |
| Oklahoma | 60 | 61 | 52 | 29 | 2 | 2 | 2 | 1 |
| Oregon | 9 | ••• | ••• | ••• | (Z) | N.A. | N.A. | N.A |
| Pennsylvania | 452 | 231 | 204 | 233 | 5 | 2 | 2 | 2 |
| Rhode Island | 6 | 4 | ••• | ••• | 1 | 1 | ••• | ••• |
| South Carolina | 39 | 27 | 42 | 25 | 1 | 1 | 1 | 1 |
| South Dakota | 12 | 10 | ••• | ••• | 2 | 2 | ••• | ••• |
| Tennessee | 126 | 124 | 65 | 49 | 3 | 3 | 2 | 1 |
| Texas | 140 | | | 107 | 1 | | | 1 |
| Utah | 43 | 25 | 28 | 38 | 4 | 2 | 2 | 2 |
| Vermont | 24 | 15 | 13 | | 5 | 3 | 3 | |
| Virginia | 107 | 59 | 40 | 72 | 2 | 1 | 1 | 1 |
| Washington | 17 | | | | (Z) | N.A. | N.A. | N.A |
| West Virginia | 79 | 45 | 45 | 38 | 6 | 3 | 3 | 3 |
| Wisconsin | 152 | 154 | 64 | 65 | 4 | 4 | 2 | 1 |
| Wyoming | 10 | 8 | 12 | | 3 | 2 | 3 | |

 $[\]begin{array}{ll} \dots Sample \ size \ too \ small \ to \ report \ data \ reliably. \\ N.A. \ Not \ available & (Z) \ Less \ than \ 0.5 \ percent. \end{array}$

The aggregate participation rate for duck hunting was 1% for every survey year. Five states had higher than average participation rates (Arkansas, Louisiana, Montana, Nebraska and North Dakota) in 2006. The state with the highest participation rate was Arkansas. The states with the lowest rate (for states which have estimates) were California, Massachusetts and Texas.

Figure 40. The State Participation Rates of Duck Hunters Relative to the National Participation Rate: 2006

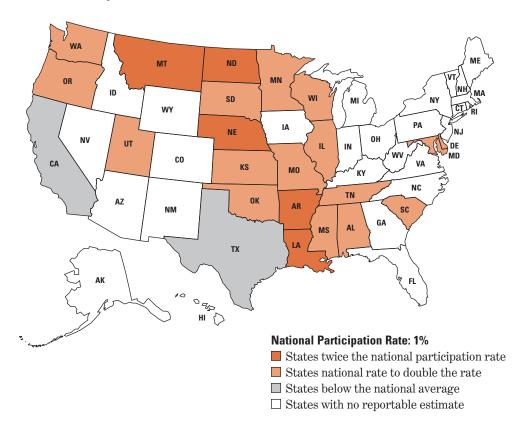


Table 21. Trend in Number of Duck Hunters, by State of Residence: 1991–2006 (Numbers in thousands)

| | <u> </u> | Number of parti | cipants | Participation rates | | | | |
|---------------------------|----------|-----------------|---------|---------------------|------|------|------|------|
| | 1991 | 1996 | 2001 | 2006 | 1991 | 1996 | 2001 | 2006 |
| U.S. Total | 1,164 | 1,596 | 1,589 | 1,147 | 1 | 1 | 1 | 1 |
| Alabama | | | 22 | 25 | | | 1 |] |
| Alaska | 10 | 10 | 11 | | 3 | 2 | 2 | |
| Arizona | | | | | N.A. | N.A. | N.A. | N.A |
| Arkansas | 35 | 72 | 76 | 68 | 2 | 4 | 4 | Ę |
| California | 97 | 145 | 101 | 62 | (Z) | 1 | (Z) | (Z) |
| Colorado | 26 | | 30 | | 1 | | 1 | •• |
| Connecticut | 7 | | | | (Z) | N.A. | N.A. | N.A |
| Delaware | 8 | 8 | 3 | 9 | 2 | 1 | 1 |] |
| Florida | | | | | N.A. | N.A. | N.A. | N.A |
| Georgia | 23 | | | ••• | (Z) | N.A. | N.A. | N.A |
| Hawaii | | | | | N.A. | N.A. | N.A. | N.A |
| Idaho | 17 | 31 | 18 | | 2 | 4 | 2 | •• |
| Illinois | 55 | 59 | 55 | 61 | 1 | 1 | 1 | 1 |
| Indiana | 11 | | | | (Z) | N.A. | N.A. | N.A |
| Iowa | 19 | 29 | 34 | | 1 | 1 | 2 | |
| Kansas | 10 | | 24 | 23 | 1 | | 1 | 1 |
| Kentucky | 14 | | | | (Z) | N.A. | N.A. | N.A |
| Louisiana | 80 | 91 | 104 | 66 | 3 | 3 | 3 | 1V.A |
| Maine | 10 | | | | 1 | | | |
| | | ••• | 23 | 28 | (Z) | ••• | | |
| Maryland Massachusetts | 11 | ••• | | | | | | |
| | 12 | ••• | ••• | 13 | (Z) | N.A. | N.A. | (Z) |
| Michigan | 42 | 100 | | | 1 | ••• | | ••• |
| Minnesota | 64 | 129 | 160 | 52 | 2 | 4 | 4 | 1 |
| Mississippi | 25 | 51 | 27 | 32 | 1 | 3 | 1 | 1 |
| Missouri | 23 | | 36 | 33 | 1 | | 1 | 1 |
| Montana | 11 | 13 | 14 | 13 | 2 | 2 | 2 | 2 |
| Nebraska | 21 | 19 | 29 | 23 | 2 | 2 | 2 | 2 |
| Nevada | 6 | 10 | 14 | ••• | 1 | 1 | 1 | |
| New Hampshire | 4 | ••• | ••• | ••• | (Z) | N.A. | N.A. | N.A |
| New Jersey | 18 | ••• | ••• | | (Z) | N.A. | N.A. | N.A |
| New Mexico | 6 | ••• | 15 | ••• | 1 | ••• | 1 | ••• |
| New York | 33 | ••• | ••• | ••• | (Z) | N.A. | N.A. | N.A |
| North Carolina | 21 | ••• | 57 | ••• | (Z) | | 1 | ••• |
| North Dakota | 15 | 13 | 22 | 8 | 3 | 3 | 5 | 2 |
| Ohio | 29 | ••• | 43 | ••• | (Z) | N.A. | (Z) | N.A |
| Oklahoma | 20 | | 32 | 28 | 1 | | 1 | 1 |
| Oregon | 23 | 52 | 29 | 26 | 1 | 2 | 1 | 1 |
| Pennsylvania | 35 | | 48 | ••• | (Z) | ••• | 1 | •• |
| Rhode Island | 3 | *** | *** | *** | (Z) | N.A. | N.A. | N.A |
| South Carolina | 26 | 41 | 21 | 29 | 1 | 1 | 1 | 1 |
| South Dakota | 19 | 23 | 26 | 9 | 4 | 4 | 5 | 1 |
| Tennessee | 18 | | 66 | 47 | (Z) | | 2 | 1 |
| Texas | 99 | | 104 | 81 | 1 | | 1 | (Z) |
| Utah | 9 | 20 | 41 | 20 | 1 | 1 | 3 | 1 |
| Vermont | 4 | | | | 1 | | | ••• |
| Virginia | 15 | | | | (Z) | N.A. | N.A. | N.A |
| Washington | 37 | 47 | 36 | 25 | 1 | 1 | 1 | 1 |
| West Virginia | | | | | N.A. | N.A. | N.A. | N.A |
| Wisconsin | 65 | 81 | 47 | 48 | 2 | 2 | 1 | 1 |
| Wisconsin | | | | | | | | |

 $[\]begin{array}{ll} \dots Sample \ size \ too \ small \ to \ report \ data \ reliably. \\ N.A. \ Not \ available & (Z) \ Less \ than \ 0.5 \ percent. \end{array}$

The aggregate participation rate for dove hunting was the same as for duck hunting (1% every survey year). The states that had higher than average participation rates in 2006 were Kansas and Texas. The states with the lowest rate (for states which have estimates) were California, Florida, Illinois and New Mexico.

Figure 41. The State Participation Rates of Dove Hunters Relative to the National Participation Rate: 2006

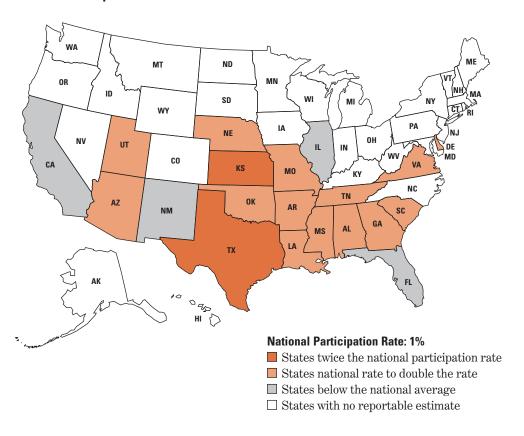


Table 22. Trend in Number of Dove Hunters, by State of Residence: 1991–2006 (Numbers in thousands)

| U.S. Total Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas Kentucky | 1991 1,851 90 47 38 183 29 7 64 63 10 52 24 46 62 | 1996 1,581 54 56 44 168 26 8 106 57 | 2001 1,450 67 35 | 2006 1,238 52 30 24 109 4 39 80 | 1991 1 3 N.A. 2 2 1 1 N.A. 1 1 N.A. | 1996 1 2 N.A. 2 2 1 1 N.A. 1 2 | 2001 1 2 N.A. 1 N.A 1 1 1 | 2006 1 N.A 1 (Z N.A |
|--|--|---|------------------------------|--|---|--|------------------------------------|--------------------------|
| Alabama Alaska Arizona Arkansas California Colorado Connecticut Delaware Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas | 90 47 38 183 29 7 64 63 10 52 24 | 54 56 44 168 26 8 106 57 | 67 35 73 | 52 30 24 109 4 39 80 | 3 N.A. 2 2 1 1 N.A. 1 1 | 2 N.A. 2 2 1 1 N.A. 1 | 2 N.A. 1 N.A. | N.A (Z N.A |
| Alaska Arizona Arkansas California Colorado Connecticut Delaware Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas | 47 38 183 29 7 64 63 10 52 24 46 | 56 44 168 26 8 106 57 | 35 73 | 30 24 109 4 39 80 | N.A. 2 2 1 1 N.A. 1 1 | N.A. 2 2 1 1 N.A. 1 2 | N.A. 1 N.A | N.A (Z N.A |
| Arizona Arkansas California Colorado Connecticut Delaware Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas | 47 38 183 29 7 64 63 10 52 24 46 | 56 44 168 26 8 106 57 | 35 73 | 30 24 109 4 39 80 | 2 2 1 1 N.A. 1 1 | 2 2 1 1 N.A. 1 2 | 1 N.A. | (Z N.A |
| Arkansas California Colorado Connecticut Delaware Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas | 38 183 29 7 64 63 10 52 24 46 | 44 168 26 8 106 57 | 73 | 24 109 4 39 80 | 2 1 1 N.A. 1 1 | 2 1 1 N.A. 1 2 | N.A. | (Z N.A |
| California Colorado Connecticut Delaware Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas | 183 29 7 64 63 10 52 24 | 168 26 8 106 57 | 73 | 109 4 39 80 | 1 1 N.A. 1 1 | 1 1 N.A. 1 2 | N.A. | (Z N.A (Z |
| Colorado Connecticut Delaware Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas | 29 7 64 63 10 52 24 46 | 26 8 106 57 | 73 | 4 39 80 | 1 N.A. 1 1 | 1 N.A. 1 2 | N.A. | N.A (Z |
| Connecticut Delaware Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas | 7 64 63 10 52 24 46 | 8 106 57 | 73 | 4 39 80 | N.A. 1 1 1 | N.A. 1 2 | N.A. | N.A (Z |
| Delaware Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas | 7 64 63 10 52 24 | 8 106 57 | 73 | 4 39 80 | 1 1 1 | 1 2 | | (Z |
| Florida Georgia Hawaii Idaho Illinois Indiana Iowa Kansas | 64 63 10 52 24 46 | 106 57 | 73 | 39 80 | 1 1 | 2 | | (Z |
| Georgia Hawaii Idaho Illinois Indiana Iowa Kansas | 63 10 52 24 46 | 106 57 | 73 | 80 | 1 | 2 | | |
| Hawaii Idaho Illinois Indiana Iowa Kansas | 10 52 24 46 | 57 | | *** | | | 1 | |
| Idaho Illinois Indiana Iowa Kansas | 10 52 24 46 | 57 | | | N.A. | 3.7.4 | | 1 |
| Illinois Indiana Iowa Kansas | 52 24 46 | 57 | | | | N.A. | N.A. | N.A |
| Indiana Iowa Kansas | 24 46 | | | | 1 | | | |
| Iowa Kansas | 46 | | | 31 | 1 | 1 | ••• | (\mathbf{Z}) |
| Kansas | 46 | | ••• | ••• | 1 | ••• | ••• | |
| | | ••• | | | N.A. | N.A. | N.A. | N.A |
| Vontuelzy | 62 | 38 | 44 | 38 | 2 | 2 | 2 | 6 |
| Kentucky | | 54 | 45 | | 2 | 2 | 1 | ••• |
| Louisiana | 73 | 56 | 26 | 42 | 2 | 2 | 1 | 1 |
| Maine | | | | | N.A. | N.A. | N.A. | N.A |
| Maryland | 21 | | | | 1 | ••• | ••• | |
| Massachusetts | | ••• | | | N.A. | N.A. | N.A. | N.A |
| Michigan | ••• | ••• | ••• | ••• | N.A. | N.A. | N.A. | N.A |
| Minnesota | ••• | ••• | | | N.A. | N.A. | N.A. | N.A |
| Mississippi | 50 | 75 | 38 | 24 | 3 | 4 | 2 | 1 |
| Missouri | 54 | | 35 | 45 | 1 | | 1 | 1 |
| Montana | | | | | N.A. | N.A. | N.A. | N.A |
| Nebraska | 27 | 14 | 9 | 17 | 2 | 1 | 1 |] |
| Nevada | 13 | 8 | 14 | | 1 | 1 | 1 | |
| New Hampshire | | | | | N.A. | N.A. | N.A. | N.A |
| New Jersey | | *** | *** | *** | N.A. | N.A. | N.A. | N.A |
| New Mexico | 21 | 16 | 27 | 6 | 2 | 1 | 2 | (Z) |
| New York | | | | | N.A. | N.A. | N.A. | N.A |
| North Carolina | 91 | 87 | 95 | *** | N.A. 2 | 2 | 2 | |
| North Dakota | 6 | | 6 | *** | 1 | | 1 | ••• |
| Ohio | | | | *** | N.A. | N.A. | N.A. | N.A |
| Oklahoma | 58 | 48 | 59 | 37 | N.A. 2 | 2 | 2 | N.A |
| | | | | | N.A. | N.A. | N.A. | N.A |
| Oregon Pennsylvania | 73 | | | ••• | N.A. | | | |
| - | | ••• | ••• | ••• | | N. A | NI A | NT A |
| Rhode Island | | | 40 | | N.A. | N.A. | N.A. | N.A |
| South Carolina | 55 | 69 | 48 | 25 | 2 | 2 | 2 |] |
| South Dakota | 14 | 13 | 6 | ··· | 3 | 2 | 1 | |
| Tennessee | 63 | 52 | 65 | 53 | 2 | 1 | 2 |] |
| Texas | 398 | 279 | 464 | 377 | 3 | 2 | 3 | 2 |
| Utah | 12 | 12 | 20 | 13 | 1 | 1 | 1 |) N. A |
| Vermont | ••• | ••• | ••• | ••• | N.A. | N.A. | N.A. | N.A |
| Virginia | 66 | 32 | 38 | 39 | 1 | 1 | 1 |] |
| Washington | | ••• | | | N.A. | N.A. | N.A. | N.A |
| West Virginia | | | | | N.A. | N.A. | N.A. | N.A |
| Wisconsin | | ••• | | | N.A. | N.A. | N.A. | N.A |
| Wyoming | | ••• | | ••• | N.A. | N.A. | N.A. | N.A |

 $[\]begin{array}{ll} \dots Sample \ size \ too \ small \ to \ report \ data \ reliably. \\ N.A. \ Not \ available & (Z) \ Less \ than \ 0.5 \ percent. \end{array}$

Fishing Participation Rates

There has been a steady decline in the participation rate of bass fishing nationally: 7% in 1991, 6% in 1996, 5% in 2001, and 4% in 2006. In 2006, 25 states had above average participation rates (Alabama, Arkansas, Florida, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Hampshire, North Carolina, Ohio, Oklahoma, South Carolina, Tennessee, Texas, West Virginia and Wisconsin). The states with the highest participation rates were Oklahoma, West Virginia, Alabama, Arkansas, Kansas, Kentucky and Mississippi. The states with the lowest rates were California, North Dakota and Washington.

Figure 42. The State Participation Rates of Black Bass Anglers Relative to the National Participation Rate: 2006

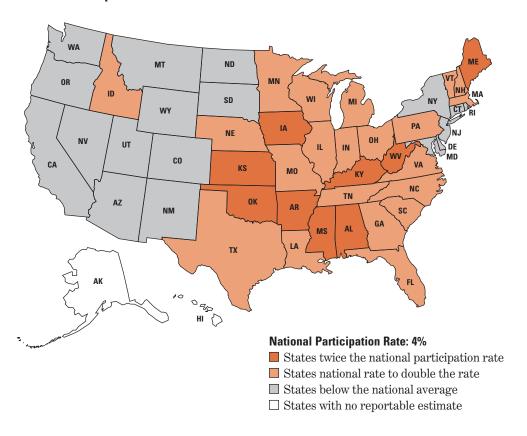


Table 23. Trend in Number of Black Bass Anglers, by State of Residence: 1991–2006

(Numbers in thousands)

| | 1991 | 1996 | 2001 | 2006 | 1991 | 1996 | 2001 | 2000 |
|-------------------------------|--------|--------|--------|----------|---------------|------|--------|------|
| U.S. Total | 13,139 | 12,972 | 10,956 | 10,181 | 7 | 6 | 5 | 200 |
| Alabama | 340 | 327 | 293 | 325 | 11 | 10 | 9 | ! |
| Arizona | 145 | 198 | 147 | 129 | 5 | 6 | 4 | • |
| Arkansas | 290 | 201 | 236 | 197 | 16 | 11 | 12 | • |
| California | 575 | 691 | 489 | 357 | 3 | 3 | 2 | |
| Colorado | 98 | 102 | 100 | 115 | 4 | 3 | 3 | - |
| Connecticut | 128 | 122 | 100 | 79 | 5 | 5 | 4 | • |
| Delaware | 27 | 28 | 18 | 20 | 5 | 5 | 3 | • |
| Florida | 761 | 626 | 578 | 765 | 7 | 6 | 5 5 | |
| Georgia | 438 | 454 | 393 | 486 | 9 | 8 | 6 | r |
| Hawaii | 13 | 7 | | | $\frac{s}{2}$ | 1 | | |
| Idaho | 38 | 46 | 38 | 45 | 5 | 5 | 4 | ٠٠ |
| Illinois | 555 | | 508 | 483 | 6 | 8 | | |
| | | 730 | | | | | 5 | |
| Indiana | 417 | 421 | 360 | 310 | 10 | 9 | 8 | (|
| Iowa | 217 | 214 | 185 | 188 | 10 | 10 | 8 | 8 |
| Kansas | 210 | 183 | 175 | 187 | 11 | 10 | 9 | 9 |
| Kentucky | 336 | 354 | 272 | 308 | 12 | 12 | 9 | (|
| Louisiana | 363 | 351 | 226 | 159 | 11 | 11 | 7 | Ę |
| Maine | 67 | 67 | 75 | 83 | 7 | 7 | 7 | 8 |
| Maryland | 213 | 148 | 128 | 130 | 6 | 4 | 3 | é |
| Massachusetts | 220 | 220 | 162 | 178 | 5 | 5 | 3 | 4 |
| Michigan | 551 | 481 | 310 | 425 | 8 | 7 | 4 | |
| Minnesota | 245 | 270 | 250 | 276 | 7 | 8 | 7 | 7 |
| Mississippi | 219 | 213 | 211 | 196 | 11 | 10 | 10 | (|
| Missouri | 494 | 515 | 486 | 301 | 13 | 13 | 12 | 7 |
| Montana | 11 | 8 | 22 | 21 | 2 | 1 | 3 | |
| Nebraska | 114 | 90 | 102 | 66 | 9 | 7 | 8 | Ę |
| Nevada | 34 | 41 | 38 | 35 | 4 | 3 | 3 | 6 |
| New Hampshire | 80 | 64 | 68 | 56 | 9 | 7 | 7 | |
| New Jersey | 229 | 253 | 174 | 143 | 4 | 4 | 3 | 6 |
| New Mexico | 30 | 60 | 37 | 39 | 3 | 5 | 3 | Ę |
| New York | 557 | 625 | 421 | 315 | 4 | 4 | 3 | 2 |
| North Carolina | 490 | 437 | 325 | 329 | 10 | 8 | 5 | { |
| North Dakota | 15 | 16 | 10 | 5 | 3 | 3 | 2 |] |
| Ohio | 663 | 528 | 562 | 517 | 8 | 6 | 7 | (|
| Oklahoma | 418 | 310 | 339 | 262 | 17 | 12 | 13 | 10 |
| Oregon | 86 | 74 | 59 | 57 | 4 | 3 | 2 | 2 |
| Pennsylvania | 591 | 506 | 505 | 412 | 6 | 5 | 5 | |
| Rhode Island | 37 | 43 | 23 | 22 | 5 | 6 | 3 | |
| South Carolina | 268 | 335 | 249 | 187 | 10 | 12 | 8 | (|
| South Caronna South Dakota | 24 | 41 | 18 | 16 | 5 | 8 | 3 | • |
| Tennessee | 382 | 354 | 397 | 288 | 10 | 9 | 9 | (|
| Texas | 1093 | 1231 | 864 | 821 | 9 | 9 | 6 | |
| Utah | 16 | 22 | 43 | 46 | | | 3 | |
| | | | | 46 22 | 1 7 | 2 | | 6 |
| Vermont | 30 | 32 | 33 | | 7 | 7 | 7 | 4 |
| Virginia | 372 | 384 | 359 | 226 | 8 | 7 | 7 | 4 |
| Washington | 123 | 127 | 107 | 73 | 3 | 3 | 2 |] |
| West Virginia Wisconsin | 143 | 132 | 111 | 145 | 10 | 9 | 8 | 10 |
| | 360 | 275 | 339 | 316 | 10 | 7 | 8 | |

 $Note: A lask a \ is \ not \ included \ because \ its \ participation \ rates \ were \ based \ on \ a \ sample \ size \ less \ than \ 10.$

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

There has been a decline in the national participation rate of trout fishing since 1996: 5% in 1991 and 1996, 4% in 2001, and 3% in 2006. Seventeen states had above average participation rates in 2006 (Alaska, Arizona, Colorado, Connecticut, Idaho, Maine, Montana, Nevada, New Hampshire, New Mexico, Oregon, Pennsylvania, Utah, Vermont, Washington, West Virginia, and Wyoming). The states with the highest participation rates were Wyoming, Montana, Idaho, Utah, and Colorado. The states with the lowest rates were Alabama, Florida, Illinois, Indiana, Kansas, Minnesota, New Jersey, Oklahoma, South Carolina and Texas.

Figure 43. The State Participation Rates of Trout Anglers Relative to the National Participation Rate: 2006

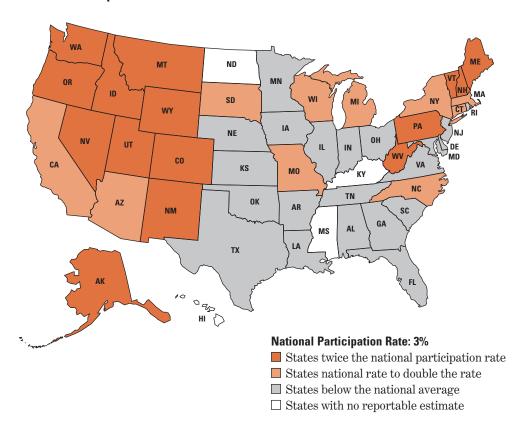


Table 24. Trend in Number of Trout Anglers, by State of Residence: 1991–2006 (Numbers in thousands)

| | | Number of parts | ecipants | | | Participation | | |
|--------------------|-------|-----------------|----------|-------|------|---------------|------|------|
| | 1991 | 1996 | 2001 | 2006 | 1991 | 1996 | 2001 | 2006 |
| U.S. Total | 9,497 | 9,290 | 8,118 | 7,022 | 5 | 5 | 4 | 3 |
| Alabama | 31 | 24 | 21 | 25 | 1 | 1 | 1 | 1 |
| Alaska | 66 | 78 | 67 | 42 | 18 | 18 | 15 | 8 |
| Arizona | 194 | 215 | 214 | 186 | 7 | 7 | 6 | 4 |
| Arkansas | 66 | 59 | 84 | 41 | 4 | 3 | 4 | 2 |
| California | 1673 | 1557 | 1163 | 866 | 7 | 7 | 4 | |
| Colorado | 490 | 551 | 529 | 478 | 19 | 19 | 16 | 18 |
| Connecticut | 173 | 170 | 119 | 124 | 7 | 7 | 5 | 5 |
| Delaware | 11 | 14 | 13 | 11 | 2 | 2 | 2 | 2 |
| Florida | 76 | | 113 | 83 | 1 | ••• | 1 |] |
| Georgia | 120 | 159 | 104 | 136 | 2 | 3 | 2 | 2 |
| Hawaii | 17 | 10 | | | 2 | 1 | | ••• |
| Idaho | 212 | 252 | 213 | 180 | 28 | 29 | 22 | 16 |
| Illinois | 166 | 235 | 143 | 66 | 2 | 3 | 2 | 1 |
| Indiana | 66 | 44 | 57 | 33 | 2 | 1 | 1 | 1 |
| Iowa | 33 | 57 | 50 | 44 | 2 | 3 | 2 | 2 |
| Kansas | 55 | 41 | 48 | 28 | 3 | 2 | 2 | 1 |
| Kentucky | 36 | 49 | 41 | | 1 | 2 | 1 | ••• |
| Louisiana | 51 | 54 | 28 | 62 | 2 | 2 | 1 | 2 |
| Maine | 167 | 136 | 124 | 133 | 18 | 14 | 12 | 12 |
| Maryland | 80 | 87 | 112 | 85 | 2 | 2 | 3 | 2 |
| Massachusetts | 238 | 218 | 155 | 166 | 5 | 5 | 3 | 8 |
| Michigan | 274 | 248 | 211 | 207 | 4 | 3 | 3 | 9 |
| Minnesota | 94 | 71 | 62 | 55 | 3 | 2 | 2 | 1 |
| Mississippi | 18 | 29 | 31 | | 1 | 1 | 1 | ••• |
| Missouri | 181 | 226 | 163 | 146 | 5 | 6 | 4 | 3 |
| Montana | 144 | 140 | 174 | 134 | 24 | 21 | 25 | 18 |
| Nebraska | 43 | 37 | 35 | 29 | 4 | 3 | 3 | 2 |
| Nevada | 108 | 157 | 125 | 128 | 12 | 13 | 9 | 7 |
| New Hampshire | 107 | 85 | 82 | 60 | 12 | 10 | 9 | 6 |
| New Jersey | 248 | 231 | 151 | 88 | 4 | 4 | 2 | 1 |
| New Mexico | 131 | 165 | 153 | 142 | 12 | 13 | 11 | 9 |
| New York | 675 | 509 | 384 | 430 | 5 | 4 | 3 | 5 |
| North Carolina | 163 | 151 | 125 | 202 | 3 | 3 | 2 | 3 |
| North Dakota | 8 | 8 | 6 | | 2 | 2 | 1 | ••• |
| Ohio | 185 | 121 | 133 | 145 | 2 | 1 | 2 | 2 |
| Oklahoma | 60 | 51 | 69 | 26 | 2 | 2 | 3 | 1 |
| Oregon | 346 | 347 | 344 | 306 | 16 | 14 | 13 | 11 |
| Pennsylvania | 809 | 619 | 577 | 566 | 9 | 7 | 6 | 6 |
| Rhode Island | 33 | 37 | 22 | 15 | 4 | 5 | 3 | 2 |
| South Carolina | 40 | 43 | 51 | 29 | 2 | 2 | 2 | 1 |
| South Dakota | 28 | 38 | 12 | 17 | 5 | 7 | 2 | 3 |
| | 122 | 99 | 121 | 81 | 3 | 2 | 3 | 2 |
| Tennessee Texas | 271 | 253 | 319 | 236 | 2 | 2 | 2 |] |
| Texas Utah | | 253 | 363 | | 19 | 19 | 23 | |
| | 216 | | | 266 | | | | 15 |
| Vermont | 68 | 50 | 65 | 41 | 15 | 11 | 14 | 8 |
| Virginia | 174 | 260 | 115 | 107 | 4 | 5 | 2 | 2 |
| Washington | 552 | 591 | 462 | 347 | 15 | 14 | 10 | 7 |
| West Virginia | 113 | 130 | 96 | 147 | 8 | 9 | 7 | 10 |
| Wisconsin | 161 | 112 | 158 | 144 | 4 | 3 | 4 | 3 |
| Wyoming | 101 | 103 | 107 | 88 | 29 | 28 | 28 | 22 |

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

As with bass and trout fishing, catfishing has declined in participation: 5% of Americans participated in 1991, 4% in 1996 and 2001, and 3% in 2006. Eighteen states had above average participation rates in 2006 (Alabama, Arkansas, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Nebraska, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and West Virginia). The states with the highest participation rates were Arkansas, Kansas, Iowa, Missouri and Oklahoma. The state with the lowest rate (for states which have estimates) was New York.

Figure 44. The State Participation Rates of Catfish Anglers Relative to the National Participation Rate: 2006

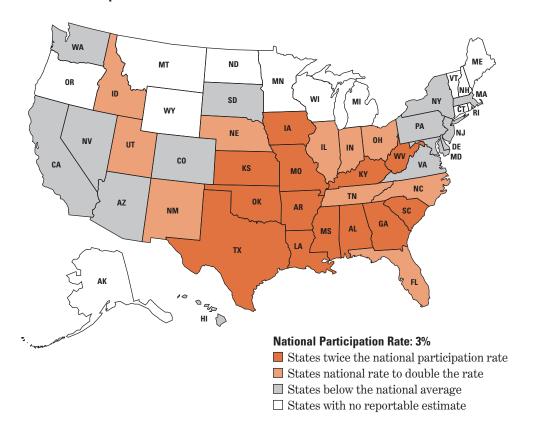


Table 25. Trend in Number of Catfish Anglers, by State of Residence: 1991–2006

(Numbers in thousands)

| | | Number of part | cipants | | | Participation | rates | |
|-------------------|-----------|----------------|---------|-------|---------------|---------------|-------|-------|
| | 1991 | 1996 | 2001 | 2006 | 1991 | 1996 | 2001 | 2006 |
| U.S. Total | 9,195 | 7,430 | 7,517 | 6,954 | 5 | 4 | 4 | ; |
| Alabama | 306 | 284 | 207 | 240 | 10 | 9 | 6 | 7 |
| Arizona | 167 | 110 | 101 | 103 | 6 | 3 | 3 | 4 |
| Arkansas | 222 | 225 | 271 | 236 | 12 | 12 | 14 | 11 |
| California | 575 | 445 | 403 | 205 | 3 | 2 | 2 |] |
| Colorado | 53 | 62 | 79 | 55 | 2 | 2 | 2 | 2 |
| Connecticut | 34 | 32 | 15 | ••• | 1 | 1 | 1 | |
| Delaware | 15 | 9 | 8 | 7 | 3 | 2 | 1 |] |
| Florida | 303 | 217 | 280 | 365 | 3 | 2 | 2 | |
| Georgia | 320 | 272 | 456 | 389 | 7 | 5 | 7 | (|
| Hawaii | 10 | 6 | | 6 | 1 | 1 | |] |
| Idaho | 25 | 44 | 24 | 31 | 3 | 5 | 2 | ć |
| Illinois | 619 | 488 | 452 | 353 | 7 | 5 | 5 | 4 |
| Indiana | 325 | 281 | 288 | 211 | 8 | 6 | 6 | 4 |
| Iowa | 289 | 249 | 198 | 214 | 13 | 11 | 9 | (|
| Kansas | 218 | 172 | 234 | 205 | 12 | 9 | 12 | 10 |
| Kentucky | 284 | 248 | 257 | 256 | 10 | 8 | 8 | 8 |
| Louisiana | 318 | 253 | 195 | 206 | 10 | 8 | 6 | 6 |
| Maine | 6 | ••• | ••• | | 1 | ••• | ••• | ••• |
| Maryland | 123 | 74 | 53 | 70 | 3 | 2 | 1 | 2 |
| Massachusetts | 52 | 24 | 29 | 33 | 1 | 1 | 1 | 1 |
| Michigan | 130 | | | | 2 | | | ••• |
| Minnesota | 43 | ••• | ••• | | 1 | ••• | | |
| Mississippi | 234 | 161 | 229 | 185 | 12 | 8 | 11 | 8 |
| Missouri | 463 | 371 | 429 | 395 | 12 | 9 | 10 | 9 |
| Montana | 8 | | 12 | | 1 | | 2 | |
| Nebraska | 131 | 83 | 91 | 66 | 11 | 7 | 7 | 5 |
| Nevada | 22 | 28 | 30 | 18 | 2 | 2 | 2 | 1 |
| New Hampshire | 23 | 9 | | ••• | 3 | 1 | | |
| New Jersey | 82 | 57 | 28 | 55 | 1 | 1 | (Z) | 1 |
| New Mexico | 40 | 63 | 37 | 43 | 4 | 5 | 3 | 3 |
| New York | 209 | 129 | 82 | 72 | 2 | 1 | 1 | (Z) |
| North Carolina | 253 | 277 | 274 | 293 | 5 | 5 | 5 | 4 |
| North Dakota | 7 | 9 | 5 | | 1 | 2 | 1 | |
| Ohio | 424 | 224 | 339 | 284 | 5 | 3 | 4 | 3 |
| Oklahoma | 340 | 341 | 308 | 250 | 14 | 14 | 12 | 9 |
| Oregon | 43 | | 47 | | 2 | | 2 | ••• |
| Pennsylvania | 266 | 154 | 164 | 149 | 3 | 2 | 2 | 2 |
| Rhode Island | 4 | 3 | | | 1 | (Z) | | |
| South Carolina | 209 | 167 | 231 | 187 | 8 | 6 | 8 | 6 |
| South Dakota | 30 | 23 | 19 | 11 | 6 | 4 | 3 | 2 |
| Tennessee | 326 | 230 | 248 | 246 | 9 | 6 | 6 | 5 |
| Texas | 1156 | 1144 | 972 | 1001 | 9 | 8 | 6 | (|
| Utah | 27 | 18 | 31 | 46 | 2 | 1 | 2 | 3 |
| Vermont | 13 | 7 | 10 | | 3 | 2 | 2 | |
| Virginia Virginia | 203 | 178 | 171 | 134 | 4 | 3 | 3 | 2 |
| Washington | 205 51 | | | 32 | 1 | | | 1 |
| West Virginia | 96 | 83 | 84 | 111 | 7 | 6 | 6 | |
| Wisconsin | 96 | | 35 | | $\frac{7}{2}$ | | | |
| | | ••• | | ••• | | ••• | 1 | ••• |
| Wyoming | 11 | ••• | 8 | ••• | 3 | ••• | 2 | • • • |

Note: Alaska is not included because its participation rates were based on sample sizes less than 10. \dots Sample size too small to report data reliably.

⁽Z) Less than 0.5 percent.

Since 1996 the participation rate for freshwater anything fishing has been flat: 3% in 1991 and 2% in 1996, 2001, and 2006. Sixteen states had above average participation rates in 2006 (Alabama, Arkansas, Georgia, Kentucky, Maine, Minnesota, Mississippi, Missouri, Nebraska, Ohio, Oklahoma, South Carolina, Tennessee, Virginia, West Virginia and Wisconsin). The states with the highest rates were Tennessee, Arkansas, Nebraska, Oklahoma and West Virginia. The state with the lowest rate (for states which have estimates) was California.

Figure 45. The State Participation Rates of Freshwater Anything Anglers Relative to the National Participation Rate: 2006

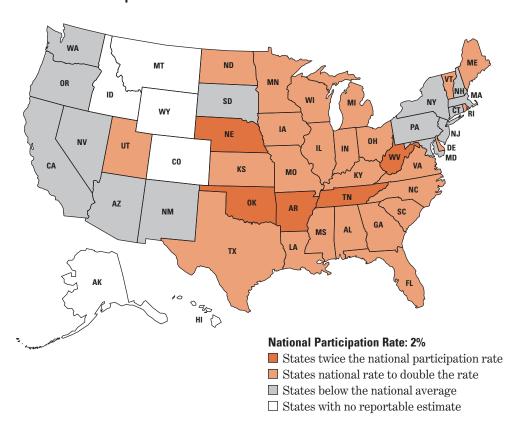


Table 26. Trend in Number of Freshwater Anything Anglers, by State of Residence: 1991–2006 (Numbers in thousands)

| | | Number of parti | | | | Participation | | |
|----------------|-------|-----------------|-------|-------|------|---------------|------|--------|
| | 1991 | 1996 | 2001 | 2006 | 1991 | 1996 | 2001 | 2006 |
| U.S. Total | 5,285 | 4,475 | 4,872 | 4,120 | 3 | 2 | 2 | : |
| Alabama | 90 | 117 | 134 | 122 | 3 | 4 | 4 | é |
| Alaska | 3 | 8 | 8 | ••• | 1 | 2 | 2 | |
| Arizona | 49 | 68 | 72 | 51 | 2 | 2 | 2 |] |
| Arkansas | 87 | 70 | 108 | 87 | 5 | 4 | 5 | 4 |
| California | 162 | 243 | 219 | 82 | 1 | 1 | 1 | (Z |
| Colorado | 50 | 47 | 65 | | 2 | 2 | 2 | |
| Connecticut | 29 | 76 | 55 | 38 | 1 | 3 | 2 |] |
| Delaware | 9 | 11 | 12 | 14 | 2 | 2 | 2 | 4 |
| Florida | 274 | 212 | 455 | 256 | 3 | 2 | 4 | 4 |
| Georgia | 254 | 136 | 203 | 181 | 5 | 2 | 3 | Ę |
| Hawaii | 10 | ••• | 6 | ••• | 1 | ••• | 1 | |
| Idaho | 13 | | | | 2 | | | |
| Illinois | 340 | 304 | 267 | 160 | 4 | 3 | 3 | 2 |
| Indiana | 175 | 126 | 103 | 106 | 4 | 3 | 2 | 2 |
| Iowa | 105 | 63 | 93 | 54 | 5 | 3 | 4 | 2 |
| Kansas | 70 | 41 | 62 | 40 | 4 | 2 | 3 | 2 |
| Kentucky | 136 | 173 | 106 | 107 | 5 | 6 | 3 | Ę |
| Louisiana | 85 | 128 | 79 | 66 | 3 | 4 | 2 | 2 |
| Maine | 30 | 30 | 23 | 31 | 3 | 3 | 2 | 9 |
| Maryland | 60 | 71 | 90 | 59 | 2 | 2 | 2 | 1 |
| Massachusetts | 74 | 94 | 100 | 54 | 2 | 2 | 2 | 1 |
| Michigan | 203 | 160 | 132 | 170 | 3 | 2 | 2 | 2 |
| Minnesota | 113 | 118 | 76 | 129 | 3 | 3 | 2 | Ę |
| Mississippi | 103 | 49 | 92 | 62 | 5 | 2 | 4 | 5 |
| Missouri | 232 | 96 | 102 | 152 | 6 | 2 | 2 | 3 |
| Montana | 12 | 9 | 38 | | 2 | 1 | 5 | ••• |
| Nebraska | 37 | 23 | 61 | 59 | 3 | 2 | 5 | 4 |
| Nevada | 8 | 18 | 15 | 20 | 1 | 1 | 1 |] |
| New Hampshire | 14 | 14 | 29 | 14 | 2 | 2 | 3 |] |
| New Jersey | 66 | 53 | 83 | 47 | 1 | 1 | 1 | 1 |
| New Mexico | 20 | 25 | 19 | 13 | 2 | 2 | 1 | 1 |
| New York | 339 | 229 | 138 | 125 | 2 | 2 | 1 | 1 |
| North Carolina | 162 | 149 | 119 | 167 | 3 | 3 | 2 | 2 |
| North Dakota | 16 | 11 | 23 | 9 | 3 | 2 | 5 | 2 |
| Ohio | 412 | 150 | 212 | 304 | 5 | 2 | 2 | 8 |
| Oklahoma | 102 | 142 | 263 | 101 | 4 | 6 | 10 | 4 |
| Oregon | 21 | | 41 | 39 | 1 | | 2 |] |
| Pennsylvania | 244 | 288 | 219 | 68 | 3 | 3 | 2 | 1 |
| Rhode Island | 12 | 11 | 12 | 13 | 2 | 1 | 2 | 2 |
| South Carolina | 62 | 95 | 138 | 106 | 2 | 3 | 4 | 5 |
| South Dakota | 22 | 8 | 17 | 9 | 4 | 1 | 3 |] |
| Tennessee | 159 | 84 | 109 | 215 | 4 | 2 | 3 | 5 |
| Texas | 344 | 333 | 267 | 291 | 3 | 2 | 2 | 2 |
| Utah | 15 | | 24 | 42 | 1 | | 2 | 2 |
| Vermont | 21 | 14 | 22 | 11 | 5 | 3 | 5 | 2 |
| Virginia | 170 | 111 | 145 | 165 | 4 | 2 | 3 | |
| Washington | 57 | | 42 | 30 | 2 | | 1 |] |
| West Virginia | 62 | 46 | 56 | 60 | 4 | 3 | 4 | ر پ |
| Wisconsin | 150 | 126 | 97 | 135 | 4 | 3 | 2 | 3 |
| Wisconsin | | | | | | | | |

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

⁽Z) Less than 0.5 percent.

Flatfishing participation nationally has been steady at 1% of Americans since 1991. Seven coastal states had participation rates above the national average in 2006 (Alaska, Connecticut, Delaware, New Jersey, Rhode Island, Texas and Virginia), as well as the noncoastal state Pennsylvania. The states with the highest rates were Alaska, Delaware, New Jersey and Texas. No coastal state which had a reportable estimate had a participation rate below the national average.

Figure 46. The State Participation Rates of Flatfish Anglers Relative to the National Participation Rate: 2006

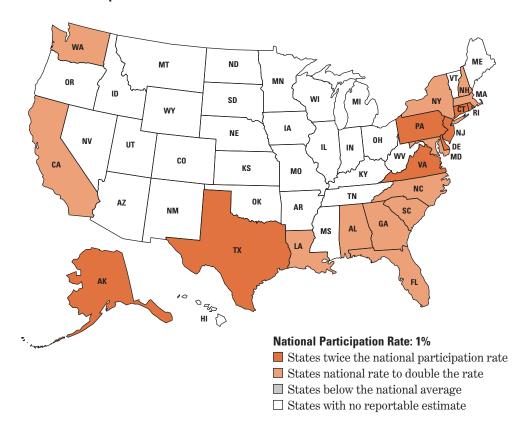


Table 27. Trend in Number of Flatfish Anglers, by State of Residence: 1991–2006 (Numbers in thousands)

| | ì | Number of parts | icipants | | | Participation | rates | 2001 2006 | | | | |
|----------------|-------|-----------------|----------|-------|------|---------------|-------|-----------|--|--|--|--|
| | 1991 | 1996 | 2001 | 2006 | 1991 | 1996 | 2001 | 2006 | | | | |
| U.S. Total | 2,302 | 2,626 | 2,269 | 2,069 | 1 | 1 | 1 | 1 | | | | |
| Alabama | 29 | 25 | 32 | 33 | 1 | 1 | 1 | 1 | | | | |
| Alaska | 55 | 67 | 61 | 44 | 15 | 16 | 13 | 9 | | | | |
| California | 183 | 211 | 185 | 201 | 1 | 1 | 1 | 1 | | | | |
| Connecticut | 45 | 52 | 51 | 44 | 2 | 2 | 2 | 2 | | | | |
| Delaware | 26 | 48 | 28 | 21 | 5 | 9 | 5 | 3 | | | | |
| Florida | 195 | 233 | 281 | 186 | 2 | 2 | 2 | 1 | | | | |
| Georgia | 22 | 55 | 37 | 45 | (Z) | 1 | 1 | 1 | | | | |
| Louisiana | 68 | 39 | 48 | 51 | 2 | 1 | 1 | 1 | | | | |
| Maryland | 95 | 100 | 60 | 59 | 3 | 3 | 1 | 1 | | | | |
| Massachusetts | 80 | 62 | 57 | 66 | 2 | 1 | 1 | 1 | | | | |
| Mississippi | 31 | 37 | 21 | ••• | 2 | 2 | 1 | | | | | |
| New Hampshire | 9 | 7 | | 7 | 1 | 1 | ••• | 1 | | | | |
| New Jersey | 273 | 281 | 180 | 209 | 5 | 5 | 3 | 3 | | | | |
| New York | 220 | 229 | 205 | 92 | 2 | 2 | 1 | 1 | | | | |
| North Carolina | 113 | 205 | 119 | 97 | 2 | 4 | 2 | 1 | | | | |
| Oregon | 17 | ••• | 28 | | 1 | ••• | 1 | | | | | |
| Pennsylvania | 150 | 188 | 154 | 152 | 2 | 2 | 2 | 2 | | | | |
| Rhode Island | 15 | 11 | 17 | 18 | 2 | 1 | 2 | 2 | | | | |
| South Carolina | 50 | 75 | 66 | 43 | 2 | 3 | 2 | 1 | | | | |
| Texas | 321 | 375 | 315 | 447 | 3 | 3 | 2 | 3 | | | | |
| Virginia | 118 | 178 | 164 | 97 | 2 | 3 | 3 | 2 | | | | |
| Washington | 69 | | 35 | 28 | 2 | | 1 | 1 | | | | |

 $Note: States\ where\ participation\ rates\ were\ zero\ or\ based\ on\ a\ sample\ size\ less\ than\ 10\ are\ not\ shown.$ (Z) Less than 0.5 percent.

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

As with flatfishing, saltwater anything has been steady at 1% of Americans since 1991. Ten coastal states had participation rates above the national average in 2006 (Delaware, Florida, Georgia, Hawaii, Louisiana, Maryland, North Carolina, Rhode Island, South Carolina and Virginia). The states with the highest rates were Florida, Hawaii, Delaware and Virginia. The coastal state with the lowest rate (for states which had reportable estimates) was New York.

Figure 47. The State Participation Rates of Saltwater Anything Anglers Relative to the National Participation Rate: 2006

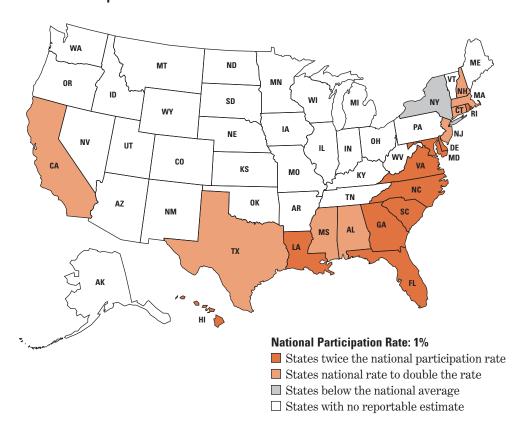


Table 28. Trend in Number of Saltwater Anything Anglers, by State of Residence: 1991–2006 (Numbers in thousands)

| | 1 | Number of parti | cipants | | | Participation | rates | |
|----------------|-------|-----------------|---------|-------|------|---------------|-------|------|
| | 1991 | 1996 | 2001 | 2006 | 1991 | 1996 | 2001 | 2006 |
| U.S. Total | 2,831 | 2,964 | 3,110 | 2,424 | 1 | 1 | 1 | 1 |
| Alabama | 60 | 47 | 85 | 40 | 2 | 1 | 2 | 1 |
| Alaska | 6 | 6 | | | 2 | 1 | | |
| California | 348 | 284 | 309 | 234 | 2 | 1 | 1 | 1 |
| Connecticut | 25 | 46 | 51 | 26 | 1 | 2 | 2 | 1 |
| Delaware | 9 | 19 | 15 | 22 | 2 | 3 | 3 | 3 |
| Florida | 711 | 743 | 883 | 631 | 7 | 7 | 7 | 4 |
| Georgia | 66 | 104 | 90 | 150 | 1 | 2 | 1 | 2 |
| Hawaii | 80 | 64 | 64 | 44 | 10 | 7 | 7 | 4 |
| Louisiana | 71 | 71 | 95 | 63 | 2 | 2 | 3 | 2 |
| Maine | 10 | | | | 1 | | ••• | ••• |
| Maryland | 102 | 91 | 127 | 87 | 3 | 2 | 3 | 2 |
| Massachusetts | 69 | 77 | 78 | 72 | 1 | 2 | 2 | 1 |
| Mississippi | 42 | 41 | 49 | 33 | 2 | 2 | 2 | 1 |
| New Hampshire | | 11 | 13 | 9 | ••• | 1 | 1 | 1 |
| New Jersey | 98 | 119 | 111 | 98 | 2 | 2 | 2 | 1 |
| New York | 98 | 94 | 96 | 58 | 1 | 1 | 1 | (Z) |
| North Carolina | 131 | 198 | 154 | 116 | 3 | 4 | 3 | 2 |
| Ohio | 59 | 55 | 45 | | 1 | 1 | 1 | ••• |
| Oregon | 16 | ••• | ••• | ••• | 1 | ••• | ••• | ••• |
| Pennsylvania | 72 | 85 | 124 | | 1 | 1 | 1 | ••• |
| Rhode Island | 13 | 10 | 16 | 16 | 2 | 1 | 2 | 2 |
| South Carolina | 47 | 71 | 109 | 65 | 2 | 2 | 4 | 2 |
| Texas | 296 | 250 | 187 | 210 | 2 | 2 | 1 | 1 |
| Virginia | 140 | 186 | 130 | 162 | 3 | 4 | 2 | 3 |
| Washington | 55 | 78 | 28 | | 1 | 2 | 1 | ••• |

 $Note: States\ where\ participation\ rates\ were\ zero\ or\ based\ on\ a\ sample\ size\ less\ than\ 10\ are\ not\ shown.$

⁽Z) Less than 0.5 percent.

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

Demographic Trends

Demographic trends analysis gives insight into what is happening to the hunting and angling population. A common use of demographics is to build a profile of the typical angler or hunter. Here, however, we take the opposite approach. Instead of listing the median or mean of each demographic category for a hunter or angler, we find the preferred type of hunting or fishing for selected demographic cohorts. The focus is for which species a demographic cohort is most (or least) likely to hunt or fish.

The proportion of all participants who fall into defined demographic categories is the metric used in this analysis. This enables us to see how substantive the people in each demographic category are in the composition of the total number of participants. Using proportions instead of total numbers of participants facilitates comparison of typical groups of each type of fishing and hunting equally, without having the more populous types be unduly dominant.

Fishing

It is interesting how opposite the preferences of the youngest and oldest anglers are. In 2006 the angler groups that had the highest proportion of 16-24 year old anglers were those who fished for catfish or freshwater anything (the two groups tied); flatfish anglers had the highest proportion of 55 years old and older anglers. Similarly, in 1991 the most popular fish for 16-24 year old anglers was catfish; the most popular fish for anglers 55 and older was saltwater anything. Alternatively, the fish that had the smallest proportion of 16-24 year olds in 2006 was flatfish; the fish with the smallest proportion of 55 years old and older anglers was freshwater anything. In 1991 the least popular fish for 16–24 year old anglers was flatfish; it was bass for anglers 55 and older.



In both 2006 and 1991 the target fish that had the highest proportion of female anglers was freshwater anything, the smallest proportion of female anglers were those seeking bass.

In 2006 the game fish that had the highest proportion of Hispanic participants was flatfish, while in 1991 it was saltwater anything. The lowest proportion of Hispanic anglers in both years were those fishing for bass.

Catfishing had the highest proportion of rural anglers in both 1991 and 2006. The rural population's least popular game fish were flatfish and saltwater anything (tied) in 2006 and saltwater anything in 1991.

In both 2006 and 1991 the angling species that the largest proportion of above median income anglers fished for was flatfish. In both years the largest proportion of below median income anglers was that of catfish anglers.

Table 29. Demographics for Species Anglers: 1991 (Percent of total participants)

| | Total | bass | trout | cat fish | $freshwater \ anything$ | $\it flat \it fish$ | $saltwater\\anything$ |
|------------------|-------|------|-------|----------|-------------------------|---------------------|-----------------------|
| Urban/rural* | | | | | | | |
| Urban | 63 | 60 | 66 | 57 | 62 | 74 | 78 |
| Rural | 37 | 40 | 34 | 43 | 38 | 26 | 22 |
| Marital | | | | | | | |
| Married | 67 | 66 | 67 | 64 | 65 | 68 | 67 |
| Not married | 33 | 34 | 33 | 36 | 35 | 32 | 33 |
| Education | | | | | | | |
| Less than twelve | 16 | 14 | 13 | 22 | 23 | 12 | 14 |
| Twelve | 40 | 41 | 38 | 43 | 37 | 37 | 34 |
| College | 44 | 45 | 49 | 34 | 39 | 51 | 52 |
| Ethnicity | | | | | | | |
| Hispanic | 3 | 2 | 5 | 4 | 3 | 4 | 6 |
| Not hispanic | 97 | 98 | 95 | 96 | 97 | 96 | 94 |
| 1100 mapanio | | | | | | | 0.1 |
| Race | | | | | | | |
| White | 92 | 93 | 94 | 89 | 88 | 95 | 89 |
| Black | 5 | 5 | 2 | 8 | 9 | 3 | 6 |
| All others | 3 | 2 | 3 | 3 | 3 | 2 | 5 |
| Household income | | | | | | | |
| Below median | 41 | 41 | 39 | 52 | 47 | 30 | 36 |
| Above median | 59 | 59 | 61 | 48 | 53 | 70 | 64 |
| Gender | | | | | | | |
| Male | 72 | 80 | 77 | 74 | 63 | 77 | 69 |
| Female | 28 | 20 | 23 | 26 | 37 | 23 | 31 |
| remaie | 20 | 20 | 20 | 20 | 91 | <i>∆</i> ∂ | 91 |
| Age cohorts | | | | | | | |
| 16–17 | 4 | 4 | 4 | 6 | 6 | 2 | 3 |
| 18–24 | 13 | 15 | 14 | 15 | 13 | 10 | 14 |
| 25–34 | 28 | 28 | 28 | 29 | 29 | 32 | 26 |
| 35–44 | 24 | 25 | 25 | 22 | 23 | 25 | 24 |
| 45–54 | 14 | 13 | 14 | 12 | 14 | 16 | 15 |
| 55–64 | 9 | 8 | 9 | 9 | 8 | 8 | 9 |
| 65 and older | 8 | 6 | 7 | 7 | 7 | 7 | 9 |

 $[*]Metropolitan \, Statistical \, Area \, (MSA) \, data \, are \, not \, available \, from \, the \, 1991 \, dataset. \, Urban/rural \, designation \, was \, supplied \, by \, the \, Bureau \, of \, Census, \, and \, was \, based \, on \, a \, modified \, version \, of \, the \, current \, MSA \, categorization.$

Table 30. Demographics for Species Anglers: 2006 (Percent of total participants)

| Above median 59 60 62 47 53 71 66 Gender Male 75 80 79 73 66 79 74 Female 25 20 21 27 34 21 26 Age cohorts 16-17 4 4 3 4 5 1 3 18-24 8 9 7 10 9 7 7 25-34 16 16 15 17 20 14 19 35-44 25 24 25 26 25 28 26 45-54 22 22 24 20 21 24 24 55-64 15 16 16 13 12 17 14 | (1 or coint of total participal | | , | | | freshwater | a . c . 1 | saltwater |
|---|---------------------------------|-------|------|-------|---------|------------|-----------|-----------|
| 1 - Inside MSA 78 72 75 65 73 88 88 88 3 - Outside MISA 27 28 25 35 27 12 12 12 12 12 12 12 12 12 12 12 12 12 | | Total | bass | trout | catfish | anything | flatfish | anything |
| Marital | | | | | | | | |
| Marital Married 69 70 69 64 67 72 69 No longer married 13 11 13 16 12 11 11 Newer married 18 19 18 20 21 18 21 Education Less than twelve 13 13 10 19 18 8 12 Twelve 34 35 33 39 33 33 30 College 52 51 56 41 49 59 58 Ethnicity Hispanic 5 4 6 6 5 13 10 No hispanic 95 96 94 94 95 87 39 Race White 92 93 95 88 90 89 87 Black 5 4 | | | | | | | | |
| Married 69 70 69 64 67 72 69 No longer married 13 11 13 16 12 11 11 Never married 18 19 18 20 21 18 21 Education Uses than twelve 13 13 10 19 18 8 12 Twelve 34 35 33 39 33 33 30 College 52 51 56 41 49 59 58 Ethnicity Wise of the colspan="8">Use of the colspan= | 3 - Outside MSA | 27 | 28 | 25 | 35 | 27 | 12 | 12 |
| No longer married 13 | Marital | | | | | | | |
| New Francisco 18 | Married | 69 | 70 | 69 | 64 | 67 | 72 | 69 |
| Never married 18 | No longer married | 13 | 11 | 13 | 16 | 12 | 11 | 11 |
| Less than twelve 13 13 10 19 18 8 12 Twelve 34 35 33 39 33 33 30 College 52 51 56 41 49 59 58 Ethnicity Hispanic 5 4 6 6 5 13 10 Not hispanic 95 96 94 94 95 87 90 Race White 92 93 95 88 90 89 87 Black 5 4 2 8 7 8 9 87 Household income Below median 41 40 38 53 47 29 34 Above median 59 60 62 47 53 71 66 Gender 3 7 7 7 7 7 4 2 | Never married | 18 | 19 | 18 | 20 | 21 | 18 | 21 |
| Less than twelve 13 13 10 19 18 8 12 Twelve 34 35 33 39 33 33 30 College 52 51 56 41 49 59 58 Ethnicity Hispanic 5 4 6 6 5 13 10 Not hispanic 95 96 94 94 95 87 90 Race White 92 93 95 88 90 89 87 Black 5 4 2 8 7 8 9 87 Household income Below median 41 40 38 53 47 29 34 Above median 59 60 62 47 53 71 66 Gender 3 7 7 7 7 7 4 2 | EL C | | | | | | | |
| Twelve 34 35 33 39 33 33 30 College 52 51 56 41 49 59 58 Ethnicity Hispanic 5 4 6 6 5 13 10 Not hispanic 95 96 94 94 95 87 90 Race White 92 93 95 88 90 89 87 Black 5 4 2 8 7 8 9 All others 3 3 3 3 3 3 3 5 Household income Below median 41 40 38 53 47 29 34 Above median 5 80 79 73 66 79 74 Female 25 20 21 27 34 21 26 | | 10 | 10 | 10 | 10 | 10 | 0 | 10 |
| Ethnicity Ethnicity Hispanic 5 4 6 6 5 13 10 Not hispanic 95 96 94 94 95 87 90 Race White 92 93 95 88 90 89 87 Black 5 4 2 8 7 8 9 All others 3 3 3 3 3 3 3 5 Household income Below median 41 40 38 53 47 29 34 Above median 59 60 62 47 53 71 66 Gender Male 75 80 79 73 66 79 74 Female 25 20 21 27 34 21 26 Age cohorts 16-17 4 4 | | | | | | | | |
| Ethnicity Hispanie 5 4 6 6 5 13 10 Not hispanie 95 96 94 94 95 87 90 Race White 92 93 95 88 90 89 87 Black 5 4 2 8 7 8 9 All others 3 3 3 3 3 3 3 3 3 5 Household income Below median 41 40 38 53 47 29 34 Above median 59 60 62 47 53 71 66 Gender Male 75 80 79 73 66 79 74 Female 25 20 21 27 34 21 26 Age cohorts 16–17 4 4 4 3 4 5 1 3 3 18–24 8 9 7 10 9 7 7 25–34 16 16 16 15 17 20 14 19 35–44 25 24 25 26 25 28 26 45–54 22 22 24 20 21 24 20 21 24 24 24 55–64 15 16 16 16 13 12 17 14 | | | | | | | | |
| Hispanic 5 4 6 6 5 13 10 Not hispanic 95 96 94 94 95 87 90 Race White 92 93 95 88 90 89 87 Black 5 4 2 8 7 8 9 All others 3 3 3 3 3 3 3 5 Household income Below median 41 40 38 53 47 29 34 Above median 59 60 62 47 53 71 66 Gender 9 7 73 66 79 74 Female 25 20 21 27 34 21 26 Age cohorts 16-17 4 4 3 4 5 1 3 18-24 | College | 52 | 51 | 56 | 41 | 49 | 59 | 58 |
| Hispanic 5 4 6 6 5 13 10 Not hispanic 95 96 94 94 95 87 90 Race White 92 93 95 88 90 89 87 Black 5 4 2 8 7 8 9 All others 3 3 3 3 3 3 3 5 Household income Below median 41 40 38 53 47 29 34 Above median 59 60 62 47 53 71 66 Gender 9 7 73 66 79 74 Female 25 20 21 27 34 21 26 Age cohorts 16-17 4 4 3 4 5 1 3 18-24 | Ethnicity | | | | | | | |
| Race White 92 93 95 88 90 89 87 Black 5 4 2 8 7 8 9 All others 3 3 3 3 3 3 3 5 Household income Below median 41 40 38 53 47 29 34 Above median 59 60 62 47 53 71 66 Gender Male 75 80 79 73 66 79 74 Female 25 20 21 27 34 21 26 Age cohorts 16-17 4 4 3 4 5 1 3 18-24 8 9 7 10 9 7 7 25-34 16 16 15 17 20 14 19 | | 5 | 4 | 6 | 6 | 5 | 13 | 10 |
| White 92 93 95 88 90 89 87 Black 5 4 2 8 7 8 9 All others 3 3 3 3 3 3 5 Household income Below median 41 40 38 53 47 29 34 Above median 59 60 62 47 53 71 66 Gender Male 75 80 79 73 66 79 74 Female 25 20 21 27 34 21 26 Age cohorts 16-17 4 4 3 4 5 1 3 18-24 8 9 7 10 9 7 7 25-34 16 16 15 17 20 14 19 35-44 | | | 96 | 94 | | 95 | 87 | 90 |
| White 92 93 95 88 90 89 87 Black 5 4 2 8 7 8 9 All others 3 3 3 3 3 3 5 Household income Below median 41 40 38 53 47 29 34 Above median 59 60 62 47 53 71 66 Gender Male 75 80 79 73 66 79 74 Female 25 20 21 27 34 21 26 Age cohorts 16-17 4 4 3 4 5 1 3 18-24 8 9 7 10 9 7 7 25-34 16 16 15 17 20 14 19 35-44 | | | | | | | | |
| Black 5 4 2 8 7 8 9 All others 3 3 3 3 3 3 5 Household income Below median 41 40 38 53 47 29 34 Above median 59 60 62 47 53 71 66 Gender Male 75 80 79 73 66 79 74 Female 25 20 21 27 34 21 26 Age cohorts 16-17 4 4 3 4 5 1 3 18-24 8 9 7 10 9 7 7 25-34 16 16 15 17 20 14 19 35-44 25 24 25 26 25 28 26 45-54 22 | | 0.0 | 00 | 0.5 | 00 | 0.0 | 00 | 0.5 |
| Household income Below median 41 40 38 53 47 29 34 Above median 59 60 62 47 53 71 66 Gender Male 75 80 79 73 66 79 74 Female 25 20 21 27 34 21 26 Age cohorts 16-17 4 4 4 3 4 5 1 3 3 18-24 8 9 7 10 9 7 7 7 25-34 16 16 16 15 17 20 14 19 35-44 25 24 25 26 25 28 26 45-54 22 22 24 20 21 24 20 21 24 24 55-64 15 16 16 16 13 12 17 14 | | | | | | | | |
| Household income Below median 41 40 38 53 47 29 34 Above median 59 60 62 47 53 71 66 Gender Male 75 80 79 73 66 79 74 Female 25 20 21 27 34 21 26 Age cohorts 16-17 4 4 4 3 4 5 1 3 3 18-24 8 9 7 10 9 7 7 7 25-34 16 16 16 15 17 20 14 19 35-44 25 24 25 26 25 28 26 45-54 22 22 24 20 21 24 20 21 24 24 55-64 15 16 16 16 13 12 17 14 | | | | | | | | |
| Below median 41 40 38 53 47 29 34 Above median 59 60 62 47 53 71 66 Gender Male 75 80 79 73 66 79 74 Female 25 20 21 27 34 21 26 Age cohorts 16-17 4 4 3 4 5 1 3 18-24 8 9 7 10 9 7 7 25-34 16 16 15 17 20 14 19 35-44 25 24 25 26 25 28 26 45-54 22 22 24 20 21 24 24 55-64 15 16 16 13 12 17 14 | All others | 3 | 3 | 3 | 3 | 3 | 3 | Б |
| Above median 59 60 62 47 53 71 66 Gender Male 75 80 79 73 66 79 74 Female 25 20 21 27 34 21 26 Age cohorts 16–17 4 4 4 3 4 5 1 3 18–24 8 9 7 10 9 7 7 25–34 16 16 16 15 17 20 14 19 35–44 25 24 25 26 25 28 26 45–54 22 22 24 20 21 24 20 21 24 24 55–64 15 16 16 16 13 12 17 14 | Household income | | | | | | | |
| Gender Male 75 80 79 73 66 79 74 Female 25 20 21 27 34 21 26 Age cohorts 16–17 4 4 3 4 5 1 3 18–24 8 9 7 10 9 7 7 25–34 16 16 15 17 20 14 19 35–44 25 24 25 26 25 28 26 45–54 22 22 24 20 21 24 24 55–64 15 16 16 13 12 17 14 | Below median | 41 | 40 | 38 | 53 | 47 | 29 | 34 |
| Male 75 80 79 73 66 79 74 Female 25 20 21 27 34 21 26 Age cohorts 16–17 4 4 3 4 5 1 3 18–24 8 9 7 10 9 7 7 25–34 16 16 15 17 20 14 19 35–44 25 24 25 26 25 28 26 45–54 22 22 24 20 21 24 24 55–64 15 16 16 13 12 17 14 | Above median | 59 | 60 | 62 | 47 | 53 | 71 | 66 |
| Male 75 80 79 73 66 79 74 Female 25 20 21 27 34 21 26 Age cohorts 16–17 4 4 3 4 5 1 3 18–24 8 9 7 10 9 7 7 25–34 16 16 15 17 20 14 19 35–44 25 24 25 26 25 28 26 45–54 22 22 24 20 21 24 24 55–64 15 16 16 13 12 17 14 | | | | | | | | |
| Female 25 20 21 27 34 21 26 Age cohorts 16–17 4 4 3 4 5 1 3 18–24 8 9 7 10 9 7 7 25–34 16 16 15 17 20 14 19 35–44 25 24 25 26 25 28 26 45–54 22 22 24 20 21 24 24 55–64 15 16 16 13 12 17 14 | | =- | 0.0 | =0 | =0 | 22 | =0 | |
| Age cohorts 16–17 4 4 3 4 5 1 3 18–24 8 9 7 10 9 7 7 25–34 16 16 15 17 20 14 19 35–44 25 24 25 26 25 28 26 45–54 22 22 24 20 21 24 24 55–64 15 16 16 13 12 17 14 | | | | | | | | |
| 16-17 4 4 3 4 5 1 3 18-24 8 9 7 10 9 7 7 25-34 16 16 15 17 20 14 19 35-44 25 24 25 26 25 28 26 45-54 22 22 24 20 21 24 24 55-64 15 16 16 13 12 17 14 | Female | 25 | 20 | 21 | 27 | 34 | 21 | 26 |
| 16-17 4 4 3 4 5 1 3 18-24 8 9 7 10 9 7 7 25-34 16 16 15 17 20 14 19 35-44 25 24 25 26 25 28 26 45-54 22 22 24 20 21 24 24 55-64 15 16 16 13 12 17 14 | Age cohorts | | | | | | | |
| 25-34 16 16 15 17 20 14 19 35-44 25 24 25 26 25 28 26 45-54 22 22 24 20 21 24 24 55-64 15 16 16 13 12 17 14 | | 4 | 4 | 3 | 4 | 5 | 1 | 3 |
| 25-34 16 16 15 17 20 14 19 35-44 25 24 25 26 25 28 26 45-54 22 22 24 20 21 24 24 55-64 15 16 16 13 12 17 14 | 18–24 | 8 | 9 | 7 | 10 | 9 | 7 | 7 |
| 35-44 25 24 25 26 25 28 26 45-54 22 22 24 20 21 24 24 55-64 15 16 16 13 12 17 14 | | 16 | 16 | 15 | 17 | 20 | 14 | 19 |
| 45–54 22 22 24 20 21 24 24 55–64 15 16 16 13 12 17 14 | | 25 | 24 | 25 | 26 | 25 | | 26 |
| 55-64 15 16 16 13 12 17 14 | 45–54 | 22 | 22 | 24 | 20 | 21 | 24 | 24 |
| | | 15 | 16 | 16 | 13 | 12 | 17 | 14 |
| | 65 and older | 10 | 8 | 10 | 9 | 8 | 10 | 7 |

 $[*]MSA\ is\ the\ Bureau\ of\ the\ Census'\ Metropolitan\ Statistical\ Area.\ Very\ simply,\ the\ cutoff\ for\ a\ metropolitan\ area\ is\ 50,000\ inhabitants.\ See\ the\ National\ Survey's$ $national\ report\ for\ further\ details.$

Hunting

In 2006 and 1991 the game animal that had the highest proportion of 16–24 year old hunters was squirrel. In both years the game animal that had the lowest proportion of 16-24 year old hunters was turkey. There was movement in the preferences of the oldest age cohort: in 2006 the game animals with the highest proportion of 55 and older hunters was turkey and dove (a tie), and in 1991 turkey was the game animal (as with fishing, the age groups are oppositeminded in regard to turkey hunting preferences). In 1991 the game animal with the lowest proportion of 55 and older hunters was dove, but in 2006 duck had taken its place. For the oldest hunters (55 years old and older), dove hunting has gone from least likely to undertake in 1991 to a tie for most likely in 2006.

In 2006 and 1991 the game animal that had the highest proportion of female hunters was deer. In 1991 duck hunting had the least proportion of female hunters, but in 2006 rabbit hunting had taken its place.

Hispanic preferences have been quite stable. In both 1991 and 2006 the highest proportion of Hispanic hunters was dove hunters, and the lowest proportion was turkey, squirrel, and duck hunters (a tie).

In 2006 rabbit hunting had the highest proportion of rural hunters; in 1991 it was turkey hunting. For both 1991 and 2006 the game animal with the smallest proportion of rural hunters was duck.

In 1991 and 2006 duck hunting had the highest proportion of above median income hunters. In 1991 and 2006 squirrel hunting had the highest proportion of below median income hunters.



Table 31. Demographics for Species Hunters: 1991 (Percent of total participants)

| (Percent of total participa | | | | **** | | | |
|-----------------------------|-------|------|--------|--------|----------|------|------|
| | Total | deer | turkey | rabbit | squirrel | duck | dove |
| Urban/rural | | | | | | | |
| Urban | 47 | 44 | 40 | 46 | 42 | 56 | 52 |
| Rural | 53 | 56 | 60 | 54 | 58 | 44 | 48 |
| | | | | | | | |
| Marital | | | | | | | |
| Married | 69 | 70 | 69 | 62 | 61 | 65 | 65 |
| Not married | 31 | 30 | 31 | 38 | 39 | 35 | 35 |
| | | | | | | | |
| Education | | | | | | | |
| Less than twelve | 17 | 17 | 14 | 19 | 23 | 8 | 12 |
| Twelve | 44 | 47 | 47 | 45 | 46 | 36 | 36 |
| College | 39 | 36 | 39 | 35 | 32 | 56 | 53 |
| | | | | | | | |
| Ethnicity | | | | | | | |
| Hispanic | 2 | 2 | 1 | 2 | 1 | 1 | 3 |
| Not hispanic | 98 | 98 | 99 | 98 | 99 | 99 | 97 |
| | | | | | | | |
| Race | | | | | | | |
| White | 97 | 97 | 98 | 95 | 95 | 97 | 97 |
| Black | 2 | 2 | 2 | 4 | 4 | 1 | 1 |
| All others | 1 | 1 | (Z) | 1 | 1 | 1 | 2 |
| | | | | | | | |
| Household income | | | | | | | |
| Below median | 43 | 44 | 39 | 45 | 49 | 28 | 33 |
| Above median | 57 | 56 | 61 | 55 | 51 | 72 | 67 |
| | | | | | | | |
| Gender | | | | | | | |
| Male | 92 | 92 | 96 | 96 | 96 | 97 | 94 |
| Female | 8 | 8 | 4 | 4 | 4 | 3 | 6 |
| | | | | | | | |
| Age cohorts | | | | | | | |
| 16–17 | 5 | 4 | 3 | 7 | 8 | 4 | 5 |
| 18–24 | 14 | 14 | 14 | 19 | 20 | 17 | 19 |
| 25–34 | 28 | 29 | 28 | 28 | 26 | 29 | 28 |
| 35–44 | 24 | 24 | 26 | 22 | 23 | 25 | 25 |
| 45–54 | 15 | 15 | 15 | 13 | 12 | 13 | 14 |
| 55–64 | 8 | 8 | 9 | 7 | 6 | 7 | 6 |
| 65 and older | 6 | 5 | 5 | 4 | 5 | 4 | 4 |
| | • | - | | - | | _ | - |

Table 32. Demographics for Species Hunters: 2006 (Percent of total participants)

| 840A I | Total | Deer | Turkey | Rabbit | Squirrel | Duck | |
|-------------------------------|-------|------|--------|--------|---|--------|------|
| | | | | | 1 | 2 0000 | Dove |
| MSA designator 1 - Inside MSA | 62 | 60 | 60 | 57 | 58 | 70 | 67 |
| 3 - Outside MSA | 38 | 40 | 40 | 43 | 42 | 30 | 33 |
| 5 - Outside MSA | 90 | 40 | 40 | 40 | 42 | 90 | 99 |
| Marital | | | | | | | |
| Married | 72 | 73 | 74 | 69 | 68 | 76 | 70 |
| Not married | 28 | 27 | 26 | 31 | 32 | 24 | 30 |
| | | | | | | | |
| Education | | | | | | | |
| Less than twelve | 14 | 15 | 11 | 18 | 16 | 6 | 8 |
| Twelve | 39 | 41 | 39 | 42 | 46 | 30 | 33 |
| College | 47 | 44 | 50 | 40 | 38 | 65 | 58 |
| | | | | | | | |
| Ethnicity | | | | | | | |
| Hispanic | 3 | 3 | 2 | 5 | 2 | 2 | 8 |
| Not hispanic | 97 | 97 | 98 | 95 | 98 | 98 | 92 |
| | | | | | | | |
| Race | | | | | | | |
| White | 96 | 96 | 97 | 94 | 95 | 97 | 98 |
| Black | 2 | 1 | 1 | 4 | 3 | 1 | 1 |
| All others | 2 | 2 | 2 | 2 | 3 | 2 | 2 |
| Household income | | | | | | | |
| Below median | 41 | 43 | 41 | 50 | 52 | 25 | 34 |
| Above median | 59 | 57 | 59 | 50 | 48 | 75 | 66 |
| | | | | | | | |
| Gender | | | | | | | |
| Male | 91 | 91 | 94 | 96 | 95 | 95 | 94 |
| Female | 9 | 9 | 6 | 4 | 5 | 5 | 6 |
| | | | | | | | |
| Age cohorts | | | | | | | |
| 16–17 | 4 | 4 | 2 | 2 | 3 | 3 | 3 |
| 18–24 | 8 | 8 | 8 | 9 | 11 | 8 | 9 |
| 25–34 | 16 | 18 | 16 | 19 | 18 | 20 | 21 |
| 35–44 | 25 | 25 | 24 | 27 | 24 | 30 | 23 |
| 45–54 | 23 | 23 | 25 | 22 | 23 | 19 | 19 |
| 55–64 | 15 | 14 | 16 | 12 | 12 | 13 | 19 |
| 65 and older | 9 | 9 | 9 | 8 | 8 | 6 | 6 |

Crossover Activity of Hunters and Anglers

Deer hunting is the most popular hunting activity for all anglers. Turkey hunting is second for bass and trout anglers; squirrel hunting is second for catfish, freshwater any, and saltwater any anglers; dove hunting is second for flatfish anglers. Duck and dove hunting is last for all anglers except flatfish anglers, whose least popular hunting was for rabbits and squirrels.

Bass fishing is the most popular fishing activity for all hunters. Trout fishing is second for deer and duck hunters;

catfishing is second for turkey, rabbit, squirrel, and dove hunters. Saltwater anything fishing is least popular for all hunters.

Table 33. Crossover Participation by Species: 2006

(Numbers in thousands)

| (Numbers in thousands |) | $Number\ of$ |
|-----------------------|---------------------|------------------|
| | | anglers who |
| $Type\ of\ angler$ | $Rank\ of\ hunting$ | hunt for species |
| Bass | Deer | 3,066 |
| | Turkey | 1,025 |
| | Squirrel | 845 |
| | Rabbit | 833 |
| | Dove | 544 |
| | Duck | 473 |
| | | |
| Trout | Deer | 1,919 |
| | Turkey | 558 |
| | Rabbit | 399 |
| | Squirrel | 376 |
| | Duck | 258 |
| | Dove | 247 |
| | | |
| Catfish | Deer | 1,890 |
| | Squirrel | 655 |
| | Turkey | 619 |
| | Rabbit | 618 |
| | Dove | 435 |
| | Duck | 244 |
| | | |
| Freshwater anything | Deer | 721 |
| | Squirrel | 205 |
| | Rabbit | 186 |
| | Turkey | 183 |
| | Duck | 69 |
| | Dove | 64 |
| | | |
| Flatfish | Deer | 400 |
| | Dove | 138 |
| | Turkey | 115 |
| | Duck | 114 |
| | Rabbit | 101 |
| | Squirrel | 90 |
| | | |
| Saltwater anything | Deer | 286 |
| | Squirrel | 85 |
| | Turkey | 65 |
| | Rabbit | 65 |
| | Dove | 57 |
| | Duck | 51 |

| | | $Number\ of$ |
|----------------|------------------------|------------------|
| T | D | hunters who |
| Type of hunter | Rank of fishing | fish for species |
| Deer | Bass | 3,066 |
| | Trout | 1,919 |
| | Catfish | 1,890 |
| | Freshwater anything | 721 |
| | Flatfish | 400 |
| | Saltwater anything | 286 |
| Turkey | Bass | 1,025 |
| - | Catfish | 619 |
| | Trout | 558 |
| | Freshwater anything | 183 |
| | Flatfish | 115 |
| | Saltwater anything | 65 |
| | | |
| Rabbit | Bass | 833 |
| | Catfish | 618 |
| | Trout | 399 |
| | Freshwater anything | 186 |
| | Flatfish | 101 |
| | Saltwater anything | 65 |
| | | |
| Squirrel | Bass | 845 |
| | Catfish | 655 |
| | Trout | 376 |
| | Freshwater anything | 205 |
| | Flatfish | 90 |
| | Saltwater anything | 85 |
| | | |
| Duck | Bass | 473 |
| | Trout | 258 |
| | Catfish | 244 |
| | Flatfish | 114 |
| | Freshwater anything | 69 |
| | Saltwater anything | 51 |
| Dove | Bass | 544 |
| 2310 | Catfish | 435 |
| | Trout | 247 |
| | Flatfish | 138 |
| | Freshwater anything | 64 |
| | Saltwater anything | 57 |
| | Zaramator arry trining | |

Conclusion

The generalization that hunting and fishing are declining in popularity is often heard, but is not strictly speaking true. The growth in the fishing population has been higher than the growth in the U.S. population when the base year for comparison is 1955 (see Figure 1). Also, while participation in certain types of hunting and fishing is dropping, other types present a different picture. Participation rates for flatfishing and saltwater anything fishing have held steady since 1991. The same is true for turkey and duck hunting. The number of deer hunters has been remarkably steady since 1991.

The shorter-term trends show a drop-off since the high-water mark of 1991. Since 1991 hunting and fishing participation has dropped significantly. But even in recent years there are areas of stability. Several species hunter/anglers stand out. Turkey hunting is important because it is increasing in popularity at a time when outdoor recreation participation is decreasing. Duck hunting stands out because the demographics of duck hunters are so striking: urban, remarkably high income, and a preponderance of younger participants.

Flatfishing trends and demographics have similarities to those of turkey and duck hunting. Flatfishing participation has not decreased while all other species fishing has gone down, and participants tend to be urban and have remarkably high incomes. Unlike turkey and duck hunters, Hispanics and people 55 years old and older flatfish at a relatively high rate.



Older white males have been the dominant demographic group for fishing and hunting for decades. Youth and women have recently gotten more attention as potential sources of new participants. Squirrel hunting and catfishing have the highest proportions of young adult participants. Deer hunting and freshwater anything fishing have the highest proportions of women participants. Knowing their fishing and hunting preferences could be useful in any efforts to encourage participation.

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