U.S. Fish \& Wildlife Service

# Casting Beyond the Bow: An Examination of Anglers Fishing From Boats 

## Addendum to the 2006 National

 Survey of Fishing, Hunting, and Wildlife-Associated RecreationReport 2006-9

# Casting Beyond the Bow: An Examination of Anglers Fishing From Boats Addendum to the 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation <br> Report 2006-9 



December 2010
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This report is intended to complement the National and State Reports for the 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. The conclusions in this report are the author's and do not represent official positions of the U.S. Fish and Wildlife Service

The author thanks Sylvia Cabrera, Richard Aiken, and Christy Vigfusson for valuable input into this report.

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## Introduction

Seventeen million anglers, 16 years of age and older, enjoyed their fishing from a boat in the varied fresh and marine waters of the U.S. in 2006. They spent over 246 million days on the water. This report presents an analysis of their boat use, expenditures, and selected demographic characteristics. For purposes of this report these individuals are referred to as "boaters" and the types of water fished on as either saltwater, Great Lakes, or freshwater (excluding the Great Lakes).

All estimates herein came from the 2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (Survey). The Survey has been conducted since 1955 and is one of the most comprehensive databases on wildlife recreation in the U.S. The focus of the Survey is on anglers, hunters and wildlife watchers-not all outdoor enthusiasts. Therefore, this report only captures fishing from boats-not all recreational boating. ${ }^{1}$

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## Participation and Days by Water Type

## All Boaters

Fifty-seven percent of all anglers (17 million people) used a boat to fish in 2006 (Table 1). Forty-eight percent (246 million days) of all fishing days were spent on a boat.

As for the type of fishing, almost three quarters of anglers in the Great Lakes fished from a boat in 2006. Great Lakes anglers also spent the biggest proportion of their time aboard, spending $60 \%$ of their fishing days on a boat. Almost 70\% of saltwater anglers fished from a boat and more than half of freshwater anglers fished from a boat. Saltwater anglers spent $59 \%$ of their fishing days on a boat compared to only $44 \%$ of freshwater fishing days spent on a boat.


Table 1. Anglers Fishing From Boats and Days of Participation by Type of Fishing
(Population 16 years old and older. Numbers in thousands)

|  | Total, all fishing |  | Freshwater, excludes Great Lakes |  | Great Lakes |  | Saltwater |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Participants and days of fishing | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Total anglers | 29,952 | 100 | 25,035 | 100 | 1,420 | 100 | 7,717 | 100 |
| Anglers fishing from boats | 17,035 | 57 | 13,073 | 52 | 1,054 | 74 | 5,304 | 69 |
|  |  |  |  |  |  |  |  |  |
| Total days of fishing | 516,781 | 100 | 419,942 | 100 | 18,016 | 100 | 85,663 | 100 |
| Days fishing from boats | 246,038 | 48 | 185,074 | 44 | 10,728 | 60 | 50,236 | 59 |

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

## Freshwater Boaters

A state-by-state analysis of freshwater boaters reveals that Minnesota, which prides itself on being the "Land of 10,000 Lakes," has the largest number of boaters and the highest percent of freshwater anglers fishing from boats (Table 2).

Wisconsin has the second largest number of freshwater boaters ( 885 thousand) while Florida ranks third in participation with 836 thousand boaters. Seventynine percent of freshwater anglers in Minnesota fished from boats, followed closely by Wisconsin (71\%) and Michigan (70\%). There are nine states where boat use by freshwater anglers is 60\% or higher (Alabama, Arkansas, Maine, Michigan, Minnesota, New Hampshire, South Carolina, South Dakota, and Wisconsin).

Table 2. Freshwater Anglers and Boaters by State Where Fishing Occurred
(Population 16 years old and older. Numbers in thousands)

|  | Anglers | Boaters | Percent |
| :---: | :---: | :---: | :---: |
| US Total | 25,035 | 13,073 | 52 |
| Alaska | 191 | 91 | 48 |
| Alabama | 714 | 465 | 65 |
| Arkansas | 655 | 403 | 62 |
| Arizona | 422 | 195 | 46 |
| California | 1,224 | 620 | 51 |
| Colorado | 660 | 166 | 25 |
| Connecticut | 204 | 85 | 42 |
| Delaware | 58 | 31 | 54 |
| Florida | 1,417 | 836 | 59 |
| Georgia | 1,025 | 559 | 54 |
| Hawaii | 22 | $\ldots$ | ... |
| Iowa | 438 | 193 | 44 |
| Idaho | 350 | 164 | 47 |
| Illinois | 777 | 359 | 46 |
| Indiana | 677 | 311 | 46 |
| Kansas | 404 | 168 | 42 |
| Kentucky | 721 | 321 | 44 |
| Louisiana | 549 | 324 | 59 |
| Massachusetts | 292 | 133 | 45 |
| Maryland | 364 | 142 | 39 |
| Maine | 303 | 204 | 67 |
| Michigan | 1,192 | 828 | 70 |
| Minnesota | 1,381 | 1,086 | 79 |
| Missouri | 1,076 | 535 | 50 |
| Mississippi | 508 | 253 | 50 |
| Montana | 291 | 148 | 51 |
| North Carolina | 884 | 362 | 41 |
| North Dakota | 106 | 60 | 56 |
| Nebraska | 198 | 69 | 35 |
| New Hampshire | 198 | 125 | 63 |
| New Jersey | 243 | 128 | 53 |
| New Mexico | 248 | 52 | 21 |
| Nevada | 142 | 49 | 35 |
| New York | 741 | 344 | 46 |
| Ohio | 982 | 275 | 28 |
| Oklahoma | 611 | 318 | 52 |
| Oregon | 491 | 253 | 52 |
| Pennsylvania | 914 | 434 | 48 |
| Rhode Island | 50 | 24 | 49 |
| South Carolina | 612 | 386 | 63 |
| South Dakota | 135 | 83 | 62 |
| Tennessee | 871 | 463 | 53 |
| Texas | 1,860 | 696 | 37 |
| Utah | 375 | 172 | 46 |
| Virginia | 622 | 303 | 49 |
| Vermont | 114 | 64 | 56 |
| Washington | 538 | 308 | 57 |
| Wisconsin | 1,253 | 885 | 71 |
| West Virginia | 376 | 98 | 26 |
| Wyoming | 203 | 81 | 40 |

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

Note: Detail does not add to total because of multiple response and nonresponses.

Anglers spent a total of 185 million days aboard a boat in freshwater, with an average of 13 days fishing from boats (Table 3).

There were 16 states with above average days (Alabama, Arkansas, Connecticut, Delaware, Florida, Georgia, Louisiana, Massachusetts, Michigan, Minnesota, Missouri, Mississippi, Oklahoma, South Carolina, Tennessee, and Texas). Massachusetts and Alabama tied with the highest average of 18 days. Florida followed closely with an average of 17 days spent boating in freshwater. Alaska had the lowest freshwater boating days with an average of 6 days.

Table 3. Days Freshwater Fishing From a Boat by State Where Fishing Occurred
(Population 16 years old and older. Numbers in thousands)

|  | Days Fishing from Boats | Average Days Boating |
| :---: | :---: | :---: |
| US Total | 185,074 | 13 |
| Alaska | 569 | 6 |
| Alabama | 8,196 | 18 |
| Arkansas | 5,842 | 15 |
| Arizona | 1,995 | 10 |
| California | 4,266 | 7 |
| Colorado | 1,591 | 10 |
| Connecticut | 1,234 | 14 |
| Delaware | 453 | 14 |
| Florida | 13,903 | 17 |
| Georgia | 8,139 | 15 |
| Hawaii | ... | ... |
| Iowa | 1,913 | 10 |
| Idaho | 1,759 | 11 |
| Illinois | 4,749 | 13 |
| Indiana | 3,421 | 11 |
| Kansas | 1,709 | 10 |
| Kentucky | 2,873 | 9 |
| Louisiana | 4,471 | 14 |
| Massachusetts | 2,383 | 18 |
| Maryland | 1,369 | 10 |
| Maine | 1,771 | 9 |
| Michigan | 11,470 | 14 |
| Minnesota | 16,384 | 15 |
| Missouri | 7,409 | 14 |
| Mississippi | 3,935 | 16 |
| Montana | 1,033 | 7 |
| North Carolina | 3,931 | 11 |
| North Dakota | 431 | 7 |
| Nebraska | 909 | 13 |
| New Hampshire | 1,294 | 10 |
| New Jersey | 1,569 | 12 |
| New Mexico | 373 | 7 |
| Nevada | 339 | 7 |
| New York | 2,776 | 8 |
| Ohio | 2,660 | 10 |
| Oklahoma | 4,547 | 15 |
| Oregon | 2,257 | 9 |
| Pennsylvania | 5,654 | 13 |
| Rhode Island | 252 | 10 |
| South Carolina | 5,784 | 15 |
| South Dakota | 703 | 8 |
| Tennessee | 7,437 | 16 |
| Texas | 10,810 | 16 |
| Utah | 1,120 | 7 |
| Virginia | 2,933 | 10 |
| Vermont | 507 | 8 |
| Washington | 3,312 | 11 |
| Wisconsin | 10,843 | 12 |
| West Virginia | 1,071 | 11 |
| Wyoming | 610 | 8 |

[^1]Figure 1. Average Days Freshwater Anglers Fish From a Boat


## Saltwater Boaters

Saltwater anglers' boating participation ranged from $90 \%$ in Alaska to $48 \%$ in North Carolina (Table 4).

Over $80 \%$ of saltwater anglers in Louisiana and New Jersey used a boat in 2006. In terms of participation, Florida has the most saltwater boaters with over 1.5 million.

Table 4. Saltwater Anglers and Boaters by State Where Fishing Occurred
(Population 16 years old and older. Numbers in thousands)

|  | Anglers | Boaters | Percent |
| :--- | ---: | ---: | ---: |
| US Total | $\mathbf{7 , 7 1 7}$ | $\mathbf{5 , 3 0 4}$ | $\mathbf{6 9}$ |
| Alaska | 180 | 162 | 90 |
| Alabama | 153 | 94 | 62 |
| California | 761 | 542 | 71 |
| Connecticut | 157 | 101 | 65 |
| Delaware | 117 | 70 | 60 |
| Florida | 2,002 | 1,513 | 76 |
| Georgia | 146 | 84 | 56 |
| Hawaii | 154 | 86 | 84 |
| Louisiana | 289 | 245 | 69 |
| Massachusetts | 298 | 204 | 78 |
| Maryland | 372 | 291 | 49 |
| Maine | 100 | 49 | 48 |
| Mississippi | $* 66$ | $* 37$ | 69 |
| North Carolina | 519 | 250 | 82 |
| New Hampshire | 47 | 32 | 76 |
| New Jersey | 496 | 408 | 72 |
| New York | 291 | 221 | 67 |
| Oregon | 150 | 109 | 56 |
| Rhode Island | 122 | 82 | 55 |
| South Carolina | 325 | 181 | 73 |
| Texas | 1,147 | 633 | 65 |
| Virginia | 352 | 256 |  |
| Washington | 286 | 186 |  |

*Estimate based on a sample size of 10-29.
Note: Detail does not add to total because of multiple response and nonresponses.

Saltwater anglers spent 50 million days fishing from boats in 2006 (Table 5).

Nationally, anglers spent on average 9 days boating in saltwater. Seven states had higher average days than the U.S. total (Connecticut, Georgia, Louisiana, Massachusetts, Mississippi, New York and Texas). New Hampshire, the state with the shortest ocean coastline of any U.S. coastal state, had the lowest average of 3 days spent fishing from a boat in saltwater.

Table 5. Days Saltwater Fishing From a Boat by State Where Fishing Occurred
(Population 16 years old and older. Numbers in Thousands)

|  | Days Fishing from Boats | Average Days Boating |
| :--- | ---: | ---: |
| US Total | $\mathbf{5 0 , 2 3 6}$ | $\mathbf{9}$ |
| Alaska | 788 | 5 |
| Alabama | 346 | 4 |
| California | 4,977 | 9 |
| Connecticut | 1,082 | 11 |
| Delaware | 360 | 5 |
| Florida | 13,783 | 9 |
| Georgia | $* 1,239$ | $* 15$ |
| Hawaii | 481 | 6 |
| Louisiana | 2,503 | 10 |
| Massachusetts | 2,186 | 11 |
| Maryland | 2,318 | 8 |
| Maine | 315 | 6 |
| Mississippi | $* 449$ | $* 12$ |
| North Carolina | 1,519 | 6 |
| New Hampshire | 107 | 3 |
| New Jersey | 3,629 | 9 |
| New York | 2,722 | 13 |
| Oregon | 569 | 5 |
| Rhode Island | 606 | 7 |
| South Carolina | 1,351 | 8 |
| Texas | 6,033 | 10 |
| Virginia | 1,783 | 7 |
| Washington | 1,091 | 6 |

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

Figure 2. Average Days Saltwater Anglers Fish From a Boat


## Great Lakes Boaters

Seventy-four percent of all anglers in the Great Lakes used a boat to fish during 2006 (Table 6).

In the Great Lake states, Indiana had the highest reportable boater participation with $89 \%$ of its anglers fishing from a boat, Ohio anglers used boats $80 \%$ of the time and Illinois ranked third with $77 \%$. Michigan had the largest number of boaters in the Great Lakes (350 thousand).

The days anglers spent fishing from boats in the Great Lakes totaled 10.7 million in 2006 (Table 7). The average number of days spent fishing from a boat in the Great Lakes was 10. Michigan had the largest number of days ( 4.3 million) while Indiana had the highest average days anglers fished from a boat (17 days).

Table 6. Great Lakes Anglers and Boaters by State Where Fishing Occurred
(Population 16 years old and older. Numbers in thousands)

|  | Anglers | Boaters | Percent |
| :--- | ---: | ---: | ---: |
| US Total | $\mathbf{1 , 4 2 0}$ | $\mathbf{1 , 0 5 4}$ | $\mathbf{7 4}$ |
| Illinois | $* 56$ | $* 43$ | $* 77$ |
| Indiana | $* 46$ | $* 41$ | $* 89$ |
| Michigan | 461 | 350 | 76 |
| Minnesota | $* 48$ | $\ldots$ | $\ldots$ |
| New York | 247 | 157 | 64 |
| Ohio | 328 | 263 | 80 |
| Pennsylvania | $* 85$ | $* 47$ | $* 55$ |
| Wisconsin | 235 | 164 | 70 |

*Estimate based on a sample size of 10-29.
... Sample size too small to report data reliably.
Note: Detail does not add to total because of multiple response and nonresponses.

Table 7. Days Great Lakes Fishing From a Boat by State Where Fishing Occurred
(Population 16 years old and older. Numbers in thousands)
Days Fishing from Boats
Average Days Boating

| US Total | $\mathbf{1 0 , 7 2 8}$ | $\mathbf{1 0}$ |
| :--- | ---: | ---: |
| Illinois | $* 292$ | $* 7$ |
| Indiana | $* 667$ | $* 17$ |
| Michigan | 4,318 | 13 |
| Minnesota | $\ldots$ | $\ldots$ |
| New York | 1,269 | 8 |
| Ohio | 1,959 | 7 |
| Pennsylvania | $* 297$ | $* 6$ |
| Wisconsin | 1,671 | 10 |

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

Figure 3. Average Days Great Lakes Anglers Fish From a Boat


## Boater Demographics

The South Atlantic has the largest population and the most anglers (Table 8). An examination of boaters by water type reveals that the East North Central region has the highest participation of freshwater boaters. Since it is where the Great Lakes are located, it also has the most anglers fishing from boats in those lakes. For saltwater boaters, the South Atlantic had more than double the number of boaters of any other region with almost 2 million participants.

Fifty-two percent of the U.S. population is female. For all anglers, this figure drops to $25 \%$. When comparing these figures to boating anglers the type of fishing that has the highest proportion of female boaters is freshwater (22\%). Twenty percent of all saltwater boaters were female. In the Great Lakes, females represent $17 \%$ of all boaters. Boating follows the trend of all fishing and continues to be a male dominated sport.

In $200620 \%$ of the U.S. population was between 35 and 44 years old and this percentage was even higher for anglers ( $25 \%$ ). Angling boaters followed suit; with a quarter or more between the ages of 35 to 44 years old. Freshwater boating appealed to young and old alike- $11 \%$ were 16 to 24 years old and $10 \%$ were 65 years old or older. Thirty percent of Great Lakes boaters were 55 years old or older compared to only $25 \%$ of all anglers.

Seventy-seven percent of the U.S. population lives in an urban area. ${ }^{2}$ Anglers are less likely to live in urban areas. Freshwater angling boaters are least likely to live in an urban area (57\%),

[^2]
while $74 \%$ of all saltwater angling boaters do. Sixty-five percent of boaters in the Great Lakes live in urban areas.

Eighty-five percent of American's had completed 12 years of schooling or more in 2006. Anglers followed a similar educational pattern as the general public. Saltwater boaters were the most educated anglers with $34 \%$ completing 4 years of college or more. Twentysix percent of freshwater boaters had completed 4 years or more of college compared to $30 \%$ of boaters in the Great Lakes.

Boats can cost as little as $\$ 50$ for a used kayak to over $\$ 30,000$ for a premier bass boat. Anglers and boaters alike come from higher income households when compared to the total U.S. population. Forty-six percent of saltwater boating anglers came from households earning $\$ 75$ thousand or more, as did $38 \%$ of Great Lakes boating anglers and $32 \%$ of freshwater boating anglers. They are all higher than the U.S. population's $22 \%$.

## Boat Type, Length, and Completion of Boater Safety Course

Three-fourths of the earth's surface is water and what better way to enjoy it than maneuvering around in a canoe, jon boat, yacht, or sailboat. One of the most important decisions a boater can make is deciding what kind of boat to buy or rent. This depends on a number of factors including distance to the water, what kind of water, and conditions of the water body. Table 9 provides a breakdown of boaters using motor and non-motor boats to fish by water type as well as the length of boat used most often.

Saltwater boaters were more likely to use motorboats ( $81 \%$ ) compared to Great Lakes (79\%) and freshwater ( $71 \%$ ) boaters. A quarter of freshwater boaters used something other than a motorboat, like a canoe or kayak, when fishing. It's difficult to judge what kind of
boat is being used by just looking at two categories of motor and non-motor boats. Therefore, in 2006, the information on boating was expanded to include length of boat used and participation in a boater safety course.

We have seen already that saltwater anglers were more likely to use a motorboat and in Table 9 we also find that saltwater anglers were the primary users of boats over 40 feet long. Nine percent of saltwater boaters fished from a boat 41 feet long or longer while only one percent of freshwater boaters fished from a boat larger than 40 feet. The most popular length for freshwater boaters was a boat between 13 and 16 feet long. Thirtythree percent of freshwater boaters were fishing from this type of vessel. As for Great Lakes boaters, $28 \%$ were fishing from boats 20 to 25 feet long.

Even though you're safer on the water than the road, accidents on the water can happen and they can be hazardous. There are some simple precautions to help avoid these accidents, one of which is participation in a boater safety course. Boater safety courses often cover topics like navigation rules and regulations, vessel length and capacity, registration information, and personal watercraft basics. It's not surprising that saltwater boaters, who use the larger vessels, had the highest boater safety course completion rate of $29 \%$ in 2006. Less than $20 \%$ of freshwater anglers completed a boater safety course while $27 \%$ of Great Lakes boaters completed one. This still leaves a large majority of those on the water who have not completed a boater safety course.

Table 9. Boat Type, Length and Completion of Boater Safety Course
(Population 16 years old and older. Numbers in thousands)

|  | Freshwater |  | Great Lakes |  | Saltwater |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boaters | Percent | Boaters | Percent | Boaters | Percent |
| Fishing from Motorboats and Nonmotorboats |  |  |  |  |  |  |
| Total Boaters | 13,073 | 100 | 1,054 | 100 | 5,304 | 100 |
| Motorboat | 9,257 | 71 | 828 | 79 | 4,315 | 81 |
| Non-Motorboat | 3,247 | 25 | 195 | 19 | 666 | 13 |
| Length of Boat Used Most Often |  |  |  |  |  |  |
| Less than 13 feet | 2,043 | 16 | *102 | *10 | 418 | 8 |
| 13 to 16 feet | 4,362 | 33 | 215 | 20 | 748 | 14 |
| 17 to 19 feet | 2,877 | 22 | 261 | 25 | 847 | 16 |
| 20 to 25 feet | 2,000 | 15 | 292 | 28 | 1,438 | 27 |
| 26 to 30 feet | 336 | 3 | *70 | *7 | 439 | 8 |
| 31 to 40 feet | 109 | 1 | *47 | *4 | 362 | 7 |
| 41 feet or more | 90 | 1 | ... | ... | 457 | 9 |
| Completing a Boater Safety Course |  |  |  |  |  |  |
| Completed course | 2,402 | 18 | 284 | 27 | 1,518 | 29 |
| Did not complete or attempt course | 10,322 | 79 | 755 | 72 | 3,599 | 68 |
| *Estimate based on a sample size of 10-29. <br> ... Sample size too small to report data reliably. <br> Note: Detail does not add to total because some p |  |  |  |  |  |  |

## Who Boaters Take Fishing and What Information They Need

## Anglers Fishing Alone or with Others

Fishing from a boat can be enjoyed with friends, family or in the solitude of one's own company. Eight percent of freshwater anglers enjoyed the latter, preferring to boat alone in 2006. This compares to $6 \%$ of Great Lake boaters and $5 \%$ of saltwater boaters (Table 10).

In all three water types, friends are the most popular group boaters fish with. It was also common for boaters to bring spouses and other family members out fishing. Spouses or partners accompanied $21 \%$ of boaters in freshwater, $15 \%$ of Great Lakes boaters and $18 \%$ of saltwater boaters.

## Types of Information Boaters Need

The types of information boaters looked for and the sources that were helpful to find this information are presented in Table 11.

The most popular type of information boaters looked for was on fish species (Table 11). Information on weather conditions was also important, especially for those saltwater fishing. Around $13 \%$ of boaters were looking
for information on fishing rules and regulations. Eleven percent of saltwater and Great Lakes boaters needed directions to fishing sites compared to $10 \%$ of freshwater boaters.

## Sources of Boating Information

To find helpful information, boaters relied on a variety of sources (Table 11). The most popular source of information was family, friends and other anglers or boaters. The internet was another popular source for information. Fifteen percent of boaters in the Great Lakes went online to find helpful information compared to $14 \%$ for saltwater boaters and $12 \%$ for freshwater boaters. Between 8 and 10 percent boaters found helpful information from TV or radio shows. Another 8\% found bait and tackle shops provided helpful information (9\% for Great Lakes boaters). Saltwater boaters were more likely to acquire information from magazines and newspapers compared to freshwater and Great Lakes boaters. Call-in service centers appear to be a thing of the past. Only $1 \%$ of freshwater and saltwater anglers found helpful boating information from this source.

## Sources of Boating Information By Age

Helpful sources of information may also differ by a boater's age. One would expect to find a higher internet use by younger boaters who are more likely to own a computer and have access to the internet. Table 12 reinforces this theory. ${ }^{3}$

Finding helpful boating information on the internet was highest for 25 to 34 -year-olds ( $12 \%$ ). Only $5 \%$ of those 65 years old or older found helpful boating information off the internet. Those 65 and older find helpful information from TV or radio sources $10 \%$ of the time. Sixty-four-year-olds are the most frequent users of bait and tackle shops for helpful information. Family, friends, and other anglers or boaters are still the most popular sources of information for all age categories.
${ }^{3}$ The percents in Table 12 are the number of angling boaters in all water types, in each age category, who reported using each source of information divided by the total number of angling boaters. A boater could have answered using more than one source of information.

Table 10. Anglers Fishing Most Often From Boats Alone or With Others
(Population 16 years old and older. Numbers in thousands)

| Fishing Alone or With Others | Freshwater |  | Great Lakes |  | Saltwater |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boaters | Percent | Boaters | Percent | Boaters | Percent |
| Fished most often alone | 1,593 | 8 | *88 | *6 | 402 | 5 |
| Fished most often with friends | 5,643 | 30 | 576 | 38 | 2,933 | 37 |
| Fished most often with spouse/partner | 4,001 | 21 | 224 | 15 | 1,410 | 18 |
| Fished most often with children | 2,961 | 16 | 173 | 11 | 1,153 | 15 |
| Fished most often with parents | 1,207 | 6 | *143 | *9 | 512 | 7 |
| Fished most often with other family | 3,021 | 16 | 325 | 21 | 1,155 | 15 |
| Fished most often with other | 366 | 2 | $\ldots$ | $\ldots$ | 298 | 4 |

[^3]Table 11. Information Used by Anglers Fishing from Boats
(Population 16 years old and older. Numbers in thousands)

|  | Freshwater |  | Great Lakes |  | Saltwater |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boaters | Percent | Boaters | Percent | Boaters | Percent |
| Types of Information |  |  |  |  |  |  |
| Directions to boat launch | 1,007 | 7 | *108 | *8 | 404 | 6 |
| Directions to fishing sites | 1,471 | 10 | 146 | 11 | 739 | 11 |
| Boating rules and regulations | 1,295 | 9 | *108 | *8 | 514 | 8 |
| Fishing rules and regulations | 2,102 | 14 | 163 | 12 | 904 | 13 |
| Water attributes (e.g., depth) | 1,557 | 11 | 164 | 12 | 578 | 9 |
| Fish species | 3,530 | 24 | 349 | 25 | 1,579 | 23 |
| Weather conditions | 2,853 | 19 | 303 | 22 | 1,619 | 24 |
| Other | 381 | 3 | ... | $\ldots$ | 221 | 3 |
| None | 621 | 4 | *52 | *4 | 238 | 4 |
| Sources of Information |  |  |  |  |  |  |
| Published boat guide | 736 | 4 | *88 | *6 | 433 | 6 |
| Internet | 2,083 | 12 | 236 | 15 | 1,066 | 14 |
| TV or radio | 1,380 | 8 | 136 | 9 | 816 | 10 |
| Call-in service center | 160 | 1 | ... | $\ldots$ | *62 | *1 |
| State fish and game agency | 1,213 | 7 | *75 | *5 | 350 | 4 |
| Magazines and newspapers | 1,080 | 6 | *77 | *5 | 570 | 7 |
| Boating, fishing, outdoors shows | 281 | 2 | *62 | *4 | 138 | 2 |
| Friends, family, other anglers/boaters | 3,471 | 19 | 328 | 21 | 1,504 | 19 |
| Bait and tackle shop | 1,394 | 8 | 138 | 9 | 649 | 8 |
| Other | 805 | 5 | *75 | *5 | 407 | 5 |
| None | 5,197 | 29 | 354 | 23 | 1,828 | 23 |

*Estimate based on a sample size of 10-29.
.. Sample size too small to report data reliably.
Note: Detail does not add to total because of multiple response and nonresponses.

Table 12. Sources of Information Used by Anglers Fishing from Boats by Age
(Population 16 years old and older)

| Sources of Information (percent) | $16-17$ | $18-24$ | $25-34$ | $35-44$ | $45-54$ | $55-64$ | $65+$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Published boat guide | $\ldots$ | $* 1$ | 3 | 4 | 4 | 6 | 5 |  |
| Internet | $* 5$ | 7 | 12 | 10 | 10 | 10 | 5 |  |
| TV or radio | $* 5$ | 4 | 6 | 5 | 6 | 9 | 10 |  |
| Call-in service center | $\ldots$ | $\ldots$ | $\ldots$ | $* 1$ | $* 1$ | $* 1$ | $\ldots$ |  |
| State fish and game agency | $\ldots$ | $* 3$ | 4 | 5 | 5 | 6 | 5 |  |
| Magazines and newspapers | $* 2$ | $* 3$ | 4 | 4 | 6 | 6 | 8 |  |
| Boating, fishing, outdoors shows | $\ldots$ | $\ldots$ | $* 1$ | $* 1$ | 1 | 2 | $* 1$ |  |
| Friends, family, other anglers/boaters | 12 | 14 | 15 | 13 | 16 | 19 | 17 |  |
| Bait and tackle shop | $* 3$ | 6 | 5 | 6 | 7 | 8 | 6 |  |
| Other | $* 4$ | $* 3$ | 3 | 3 | 4 | 4 | 5 |  |
| None | 27 | 22 | 23 | 22 | 20 | 22 | 2 | 23 |

[^4]
## Boat Launches

A boat launch is a popular way for boaters to access the water. Fifty-eight percent of both freshwater and Great Lakes boaters used a boat launch on at least one of their fishing trips in 2006. Saltwater boaters were less likely to access a boat launch, with $46 \%$ using them.

When a saltwater boater did access a boat launch, they stayed close to home with $26 \%$ traveling 5 miles or less to their preferred launch (Table 13). Great Lakes and freshwater boaters either traveled a relatively short distance or a very long distance to access a boat launch. Forty percent of Great Lakes boaters traveled 20 miles or less to the boat launch they used most often while another 17\% hauled their boats 101 miles or more to their preferred launches. Forty-four percent of freshwater boaters traveled 20 miles or less to reach their preferred boat launch. Another 16\% traveled over 100 miles to reach the launch they used most often.


Table 13. Boat Launches Used by Anglers
(Population 16 years old and older. Numbers in thousands)

|  | Freshwater |  | Great Lakes |  | Saltwater |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Boaters | Percent | Boaters | Percent | Boaters | Percent |
| Total Boaters | 13,073 | 100 | 1,054 | 100 | 5,304 | 100 |
| Used a boat launch | 7,601 | 58 | 615 | 58 | 2,461 | 46 |
| Did not use a boat launch | 5,472 | 42 | 439 | 42 | 2,842 | 54 |
| Distance to Boat Launch Used Most Often |  |  |  |  |  |  |
| 5 Miles or less | 1,244 | 16 | *92 | *15 | 632 | 26 |
| 6 to 20 miles | 2,103 | 28 | *156 | *25 | 634 | 26 |
| 21 to 40 miles | 1,337 | 18 | *52 | * 8 | 352 | 14 |
| 41 to 75 miles | 1,050 | 14 | *52 | *8 | 323 | 13 |
| 76 to 100 miles | 441 | 6 | $\ldots$ | $\ldots$ | 151 | 6 |
| 101 miles or more | 1,208 | 16 | 105 | 17 | 335 | 14 |

[^5]
## State-by-State Launch Use

A state-by-state breakdown provides more information about who is accessing boat launches.

Nationally, $58 \%$ of all freshwater anglers who fished from a boat used a boat launch to access the water (Table 14). While North Dakota topped this at 83\%, another ten states also had more than $58 \%$ of their freshwater anglers using boat launches (Arizona, Iowa, Montana, North Dakota, New Mexico, Oklahoma, Oregon, South Carolina, South Dakota, Tennessee, Utah, and Washington).

Table 14. Launch Usage by Freshwater Boaters
(Population 16 years old and older. Numbers in thousands)

|  | Boaters | Used a Boat Launch | Percent |
| :---: | :---: | :---: | :---: |
| US Total | 13,073 | 7,601 | 58 |
| Alaska | 91 | 43 | 48 |
| Alabama | 465 | 265 | 57 |
| Arkansas | 403 | 166 | 41 |
| Arizona | 195 | 117 | 60 |
| California | 620 | 253 | 41 |
| Colorado | 166 | 81 | 48 |
| Connecticut | 85 | 46 | 54 |
| Delaware | 31 | *7 | *23 |
| Florida | 836 | 473 | 57 |
| Georgia | 559 | 172 | 31 |
| Hawaii | $\ldots$ | $\ldots$ | ... |
| Iowa | 193 | 117 | 60 |
| Idaho | 164 | 92 | 56 |
| Illinois | 359 | 208 | 58 |
| Indiana | 311 | 168 | 54 |
| Kansas | 168 | 71 | 42 |
| Kentucky | 321 | 169 | 53 |
| Louisiana | 324 | 181 | 56 |
| Massachusetts | 133 | 52 | 39 |
| Maryland | 142 | 63 | 44 |
| Maine | 204 | 87 | 43 |
| Michigan | 828 | 412 | 50 |
| Minnesota | 1,086 | 584 | 54 |
| Missouri | 535 | 288 | 54 |
| Mississippi | 253 | 136 | 54 |
| Montana | 148 | 90 | 61 |
| North Carolina | 362 | 165 | 46 |
| North Dakota | 60 | 49 | 83 |
| Nebraska | 69 | 32 | 46 |
| New Hampshire | 125 | 36 | 28 |
| New Jersey | 128 | 53 | 41 |
| New Mexico | 52 | *34 | *65 |
| Nevada | 49 | *22 | *45 |
| New York | 344 | *116 | *34 |
| Ohio | 275 | 134 | 49 |
| Oklahoma | 318 | 214 | 67 |
| Oregon | 253 | 169 | 67 |
| Pennsylvania | 434 | 218 | 50 |
| Rhode Island | 24 | *9 | *35 |
| South Carolina | 386 | 227 | 59 |
| South Dakota | 83 | 54 | 64 |
| Tennessee | 463 | 303 | 65 |
| Texas | 696 | 388 | 56 |
| Utah | 172 | 118 | 68 |
| Virginia | 303 | 128 | 42 |
| Vermont | 64 | 18 | 28 |
| Washington | 308 | 199 | 65 |
| Wisconsin | 885 | 483 | 55 |
| West Virginia | 98 | *45 | *46 |
| Wyoming | 81 | 40 | 50 |

*Estimate based on a sample size of 10-29.
... Sample size too small to report data reliably.
Note: Detail does not add to total because of multiple response and nonresponses.

Figure 4. Percent of Launch Usage by Freshwater Boaters


Saltwater boaters were, on average, the least likely to access a boat launch. Table 15 reveals there is a lot of variability in boat launch usage by state, ranging from a high of $78 \%$ in Georgia to a low of $15 \%$ in Rhode Island. ${ }^{4}$ Coastal Georgia, Texas, and Mississippi had the highest boat launch usage by saltwater anglers.

[^6]Table 15. Launch Usage by Saltwater Boaters
(Population 16 years old and older. Numbers in thousands)

|  | Boaters | Used a Boat Launch | Percent |
| :--- | ---: | ---: | ---: |
| US Total | $\mathbf{5 , 3 0 4}$ | $\mathbf{2 , 4 6 1}$ | $\mathbf{4 6}$ |
| Alaska | 162 | 36 | 22 |
| Alabama | 94 | $* 45$ | $* 48$ |
| California | 542 | 153 | 28 |
| Connecticut | 101 | 46 | 45 |
| Delaware | 70 | 16 | 23 |
| Florida | 1,513 | 545 | 36 |
| Georgia | $* 84$ | $* 66$ | $* 8$ |
| Hawaii | 86 | 18 | 21 |
| Louisiana | 245 | 142 | 58 |
| Massachusetts | 204 | 57 | 28 |
| Maryland | 291 | 99 | 34 |
| Maine | 49 | $* 24$ | $* 68$ |
| Mississippi | $* 37$ | $* 26$ | $* 26$ |
| North Carolina | 250 | $* 65$ | $* 26$ |
| New Hampshire | 32 | 80 | 20 |
| New Jersey | 408 | $* 40$ | $* 18$ |
| New York | 221 | 63 | 58 |
| Oregon | 109 | $* 12$ | $* 15$ |
| Rhode Island | 82 | 69 | 38 |
| South Carolina | 181 | 484 | 76 |
| Texas | 633 | 123 | 48 |
| Virginia | 256 | 118 | 63 |
| Washington | 186 |  |  |

*Estimate based on a sample size of 10-29.
... Sample size too small to report data reliably.
Note: Detail does not add to total because of multiple response and nonresponses.

Figure 5. Percent of Launch Usage by Saltwater Boaters


Fifty-eight percent of boaters in the Great Lakes accessed a boat launch at least once during a fishing trip in 2006 (Table 16). Indiana had the highest usage rate with $68 \%$ of boaters using a boat launch.

Table 16. Launch Usage by Great Lakes Boaters
(Population 16 years old and older. Numbers in thousands)

|  | Boaters | Used a Boat Launch | Percent |
| :--- | ---: | ---: | ---: |
| US Total | $\mathbf{1 , 0 5 4}$ | $\mathbf{6 1 5}$ | $\mathbf{5 8}$ |
| Illinois | 43 | $\ldots$ | $\ldots$ |
| Indiana* | 41 | 28 | 68 |
| Michigan | 350 | 221 | 63 |
| Minnesota | $\ldots$ | $\ldots$ | $\ldots$ |
| New York* | 157 | 87 | 55 |
| Ohio* | 263 | 127 | 48 |
| Pennsylvania | 47 | $\ldots$ | $\ldots$ |
| Wisconsin* | 164 | 65 | 40 |

*States where estimates are based on sample sizes between 10 and 29.
... Sample size too small to report data reliably.
Note: Detail does not add to total because of multiple response and nonresponses.

Figure 6. Percent of Launch Usage by Great Lakes Boaters


## Launch Facility Improvement Opinions

For boaters who used a launch, information on the conditions of their preferred launch can help state agencies assess maintenance or repairs needed for launch facilities.

Questions about whether the conditions needed to be improved at the boaters' preferred boat launch were asked in 2006 (Table 17). Sixty percent of freshwater boaters said launch facilities did not need improvements. Great Lakes boaters were even happier with their boat launch conditions; $66 \%$ claimed facilities did not need improvements. More than half ( $58 \%$ ) of all saltwater boaters claimed their launch facilities did not need improvements.

For those boaters not satisfied with conditions of the facilities at their preferred boat launch, the launch ramp and restrooms were the most frequently mentioned facilities to need improvements. Forty-two percent of freshwater boaters expressed a need to repair launch ramps, $40 \%$ mentioned restroom facilities, and $28 \%$ reported parking lots at launch sites. Saltwater and Great Lakes boaters' expressed similar opinions about the launch ramps and restrooms needing improvements, although $15 \%$ or more of these boaters also reported "other" facilities as needing improvements.

Table 17. Boat Launch Facilities Improvement Opinions
(Population 16 years old and older. Numbers in thousands)

|  | Freshwater |  | Great Lakes |  | Saltwater |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Boat Launch | Boaters | Percent | Boaters | Percent | Boaters | Percent |
| Total boat launch users | 7,601 | 100 | 615 | 100 | 2,461 | 100 |
| Facilities did not need improvements | 4,574 | 60 | 403 | 66 | 1,430 | 58 |
| Facilities that needed improvements: |  |  |  |  |  |  |
| Launch ramp | 1,270 | 42 | *62 | *15 | 389 | 38 |
| Courtesy dock | 623 | 21 | $\ldots$ | ... | 222 | 22 |
| Parking lot | 860 | 28 | *59 | *15 | 302 | 29 |
| Restroom facilities | 1,196 | 40 | *85 | *21 | 377 | 37 |
| Fish cleaning station | 613 | 20 | ... | ... | 245 | 24 |
| Potable water | 378 | 12 | ... | $\ldots$ | 175 | 17 |
| Lights | 555 | 18 | ... | ... | 155 | 15 |
| Other facilities | 368 | 12 | *62 | *15 | 202 | 20 |

[^7]... Sample size too small to report data reliably.
Note: Detail does not add to total because of multiple response and nonresponses.

Another way to examine where boating launch facility improvements are needed is to break down these requests by region. The following maps show which facility improvements are most important to users of boat launches in each U.S. Census division. ${ }^{5}$

The improvements mentioned continued to be restroom facilities and launch ramps. For freshwater boaters $46 \%$ or more in the New England, South Atlantic, and Pacific region said that restroom facilities needed improvements. This was higher than the national average of $40 \%$. Between $46 \%$ and $52 \%$ of boaters in the West North Central, East South Central, West South Central, and Mountain responded that launch ramps needed to be improved, which was higher than the national average of $42 \%$.

In the Pacific region $40 \%$ of saltwater boaters reported that fish cleaning stations needed improvements and $38 \%$ reported restroom facilities needed improvements. In the Mid-Atlantic, over two thirds of boaters reported no improvements necessary to their boat launches. In New England and the West South Central, parking lots and launch ramps were the two facilities needing the most improvement. The South Atlantic saltwater boaters mentioned launch ramps and restrooms as the two facilities needing the most improvements.

When the Great Lakes boaters were broken down by division, the only reportable results came from the East North Central. Here, launch ramps and restroom facilities ranked as the top two facilities that needed improvements.

[^8]Figure 7. Most Requested Freshwater Boat Launch Facility Improvements by Census Region


Figure 8. Most Requested Saltwater Boat Launch Facility Improvements by Census Region


## Boater Expenditures

Freshwater boaters spent over $\$ 6$ billion in 2006 on boats, accessories, rentals and more. This averaged $\$ 480$ per angler. The motorboat, other than a bass boat, captured the most spending by freshwater boaters. Great Lakes boaters spent an average of $\$ 511$ for a year of Great Lakes fishing. Saltwater anglers spent over $\$ 3$ billion on boat rentals, equipment, and purchases in 2006. They had the highest per boater average with $\$ 596$. Due to small sample sizes, expenditures for boat purchases are not reported separately for Great Lakes boaters.


Table 18. Expenditures by Boaters for Freshwater, Great Lakes and Saltwater Fishing

|  | Freshwater |  | Great Lakes |  | Saltwater |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Expenditure Item | Amount (thousands of dollars | Average per boater (dollars) | Amount (thousands of dollars | Average per boater (dollars) | Amount (thousands of dollars | Average per boater (dollars) |
| Total, all boating costs | \$6,276,419 | \$480 | \$538,291 | \$511 | \$3,160,113 | \$596 |
| Boat Rentals | \$171,263 | \$13 | \$11,791 | \$11 | \$148,709 | \$28 |
| Boat fuel | \$1,013,385 | \$78 | \$135,212 | \$128 | \$643,136 | \$121 |
| Boat launch fees | \$84,562 | \$6 | \$13,530 | \$13 | \$36,055 | \$7 |
| Depth finders, fish finders, and other electronic fishing devices | \$246,138 | \$19 | *\$20,140 | *\$19 | \$175,771 | \$33 |
| Other boating costs such as mooring, storage, maintenance, and pumpout fees | \$663,797 | \$51 | \$146,329 | \$139 | \$628,398 | \$118 |
| Boat Purchases |  |  |  |  |  |  |
| Motorboat (other than bass boat) | \$2,066,754 | \$158 | ... | ... | \$1,164,998 | \$220 |
| Bass Boats | \$1,590,640 | \$122 | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |
| Canoes and other nonmotor boats | \$68,739 | \$5 | ... | ... | *\$33,047 | *\$6 |
| Boat motor, trailer or hitch and other boat accessories | \$371,142 | \$28 | ... | $\ldots$ | \$290,174 | \$55 |

[^9]
## Conclusion

Seventeen million anglers (57\% of all anglers) enjoyed recreational fishing from a boat in the United States in 2006. One million fished from a boat on the Great Lakes, 13 million in freshwater (other than the Great Lakes), and 5.3 million in saltwater. These anglers were primarily from urban areas, male, and middle aged.

Anglers fishing from a boat were most often accompanied by friends, but family members and spouses were also popular companions. In preparing for their trips, they mainly sought information on fish species, weather conditions, and fishing rules and regulations. They were most likely to get information from family, friends, or other boaters and anglers, as well as off the internet.

Motorboats were the most popular type of boat used, but the length preferred varied by type of water fished: freshwater anglers favored motorboats 13 to 16 feet long, while Great Lakes and saltwater anglers preferred 20- to 25 -footlong boats.

Fifty-eight percent of anglers used boat launches for access to the water for freshwater, non-Great Lakes fishing and for Great Lakes fishing in 2006. Saltwater anglers were less likely to use a boat launch, but the 46 \% that did so did not travel as far to reach one. Sixty percent of the anglers that used boat launches reported that the facilities they used most often did not need improvements. Where they reported improvements needed, launch ramps and restrooms topped the list.


Anglers spent a lot of money to fish from a boat in 2006 . Almost $\$ 10$ billion was spent on boats and related items purchased primarily for fishing, such as motors, trailers, fuel, launch fees, mooring, and storage. Great Lakes anglers fishing from a boat spent an average of $\$ 511$ per person, freshwater (excluding Great Lakes) anglers spent $\$ 480$ per person, and saltwater anglers spent $\$ 596$ per person.

Boats provided access to areas far beyond the reach of shorelines and anglers will continue to use boats to reach their favorite fishing holes.

## Appendix: Launch Facility Improvement Opinions by Census Region

The following three tables break down the boat launch facility improvement opinions by census region. Respondents were asked if any facilities at their preferred boat launch needed to be improved for more efficient use. A respondent had the flexibility to respond that none of the facilities needed improvements or if improvements were needed for more efficient use, a list of the boat launch facilities was read by the interviewer.


Table A.1. Freshwater Boat Launch Facilities Improvement Opinions By Region
(Population 16 years old and older. Numbers in thousands)

|  | New <br> England | Percent | Middle Atlantic | Percent | East North Central | Percent |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total boat launch users | 248 | 100 | 404 | 100 | 1,470 | 100 |
| Facilities did not need improvements | 142 | 57 | 224 | 55 | 933 | 64 |
| Facilities that needed improvements: |  |  |  |  |  |  |
| Launch ramp | 40 | 38 | *76 | *42 | 200 | 37 |
| Courtesy dock | *26 | *25 | *26 | *14 | *102 | *19 |
| Parking lot | 42 | 40 | *44 | *24 | 118 | 22 |
| Restroom facilities | 50 | 47 | *61 | *34 | 222 | 41 |
| Fish cleaning station | *21 | *20 | ... | ... | *73 | *14 |
| Potable water | *20 | *19 | ... | $\ldots$ | *35 | *7 |
| Lights | *21 | *20 | ... | ... | *84 | *16 |
| Other facilities | *17 | *16 | ... | $\ldots$ | *49 | *9 |
|  | West North Central | Percent | South Atlantic | Percent | East South Central | Percent |
| Total boat launch users | 1,201 | 100 | 1,240 | 100 | 856 | 100 |
| Facilities did not need improvements | 714 | 60 | 725 | 58 | 541 | 63 |
| Facilities that needed improvements: |  |  |  |  |  |  |
| Launch ramp | 221 | 46 | 185 | 36 | 164 | 52 |
| Courtesy dock | 116 | 24 | 107 | 21 | *65 | *21 |
| Parking lot | 157 | 32 | 150 | 29 | 103 | 33 |
| Restroom facilities | 165 | 34 | 246 | 48 | 129 | 41 |
| Fish cleaning station | 85 | 17 | 121 | 23 | *50 | *16 |
| Potable water | *36 | *7 | *77 | *15 | *37 | *12 |
| Lights | 70 | 14 | 86 | 17 | 93 | 30 |
| Other facilities | 49 | 10 | *62 | *12 | *32 | *10 |
|  | West South Central | Percent | Mountain | Percent | Pacific | Percent |
| Total boat launch users | 896 | 100 | 581 | 100 | 706 | 100 |
| Facilities did not need improvements | 524 | 58 | 372 | 64 | 400 | 57 |
| Facilities that needed improvements: |  |  |  |  |  |  |
| Launch ramp | 183 | 49 | 96 | 46 | 105 | 34 |
| Courtesy dock | *79 | *21 | 43 | 20 | *60 | *20 |
| Parking lot | 128 | 35 | 44 | 21 | 75 | 24 |
| Restroom facilities | 114 | 31 | 68 | 32 | 142 | 46 |
| Fish cleaning station | 104 | 28 | 43 | 21 | 97 | 32 |
| Potable water | *48 | *13 | *23 | *11 | *73 | *24 |
| Lights | 89 | 24 | *29 | *14 | *49 | *16 |
| Other facilities | *47 | *13 | *45 | *21 | *56 | *18 |

[^10]... Sample size too small to report data reliably.
Note: Detail does not add to total because of multiple response and nonresponses.

Table A.2. Saltwater Boat Launch Facilities Improvement Opinions By Region
(Population 16 years old and older. Numbers in thousands)
$\left.\begin{array}{lrrrrrr} & \begin{array}{c}\text { New } \\ \text { England }\end{array} & \text { Percent } & \text { Middle } \\ \text { Atlantic }\end{array}\right)$
*Estimate based on a sample size of 10-29.
.. Sample size too small to report data reliably.
Note: Detail does not add to total because of multiple response and nonresponses.

Table A.3. Great Lakes Boat Launch Facilities Improvement Opinions By Region
(Population 16 years old and older. Numbers in thousands)
$\left.\begin{array}{l|rr|r|} & \begin{array}{c}\text { East North } \\ \text { Central }\end{array} & \text { Percent }\end{array}\right]$
*Estimate based on a sample size of 10-29.
.. Sample size too small to report data reliably.
Note: Detail does not add to total because of multiple response and nonresponses.
U.S. Department of the Interior
U.S. Fish \& Wildlife Service
http://wsfrprograms.fws.gov


December 2010


[^0]:    ${ }^{1}$ According to the National Marine Manufacturers Association there were 66 million adult boaters in 2009 (NMMA. 2009 Recreational Boating Statistical Abstract. Chicago, IL).

[^1]:    ... Sample size too small to report data reliably.

[^2]:    ${ }^{2}$ Urban is defined as all territory, population, and housing units located within boundaries that encompass densely settled territory, consisting of core census block groups or blocks that have a population density of at least 1,000 people per square mile and surrounding census blocks that have an overall density of at least 500 people per square mile. See <http://www.census.gov/ geo/www/ua/urbanruralclass.html> for more detailed information.

[^3]:    *Estimate based on a sample size of 10-29.
    ... Sample size too small to report data reliably.

[^4]:    *Estimate based on a sample size of 10-29.
    ... Sample size too small to report data reliably.

[^5]:    *Estimate based on a sample size of 10-29.
    .. Sample size too small to report data reliably.
    Note: Detail does not add to total because of multiple response and nonresponses.

[^6]:    ${ }^{4}$ Because of the small sample size, use these results with caution.

[^7]:    *Estimate based on a sample size of 10-29.

[^8]:    ${ }^{5}$ Please see the appendix for all boat launch facility improvement opinions by region.

[^9]:    *Estimate based on a sample size of 10-29.
    ... Sample size too small to report data reliably.

[^10]:    *Estimate based on a sample size of 10-29.

