

# Responsive Management



## **SOUTH CAROLINA RESIDENTS' ATTITUDES AND BEHAVIORS TOWARD AQUATIC RESOURCES**

**Conducted for the South Carolina Department of Natural Resources  
by Responsive Management**

**December 2002**

# **SOUTH CAROLINA RESIDENTS' ATTITUDES AND BEHAVIORS TOWARD AQUATIC RESOURCES**

**December 2002**

## **Responsive Management National Office**

Mark Damian Duda, Executive Director  
Peter E. De Michele, Ph.D., Director of Research  
Carol Zurawski, Research Associate  
Martin Jones, Research Associate  
Joy Yoder, Research Associate  
William Testerman, Survey Center Manager  
Alison Lanier, Business Manager  
Steven J. Bissell, Ph.D., Qualitative Research Associate  
Ping Wang, Ph.D., Quantitative Research Associate  
James B. Herrick, Ph.D., Research Associate

130 Franklin Street  
Harrisonburg, VA 22801  
Phone: 540/432-1888 Fax: 540/432-1892  
E-mail: [mdduda@rica.net](mailto:mdduda@rica.net)  
[www.responsivemanagement.com](http://www.responsivemanagement.com)



## **EXECUTIVE SUMMARY**

This study was conducted for the South Carolina Department of Natural Resources (SCDNR) to assess South Carolina residents' attitudes and behaviors toward fisheries and aquatic resources. The study entailed a telephone survey of South Carolina residents. A total of 809 completed interviews were obtained. The software used for data collection was Questionnaire Programming Language 4.1. The analyses of data were performed using Statistical Package for the Social Sciences (SPSS) software, a software package specifically designed for statistical analyses.

For this report, a nonparametric analysis examined how the various responses related to demographic characteristics and participation behaviors. Responses for selected questions were tested by means of *z*-scores for relationships to specific characteristics and behaviors. A positive *z*-score means that the response and characteristic/behavior is positively related; a negative *z*-score means that the response and characteristic is negatively related.

Throughout this report, findings of the general population telephone survey are reported at a 95% confidence interval. For the entire sample of South Carolina residents, the sampling error is at most plus or minus 3.45 percentage points. Sampling error was calculated based on a sample size of 809 and a projected population size of 3,066,000 South Carolina residents 16 years of age and older in 2002, obtained from the U.S. Census Bureau.

## **PARTICIPATION IN AQUATIC ACTIVITIES, INTEREST IN FISHING, FISHING BEHAVIORS, AND LICENSE PURCHASING OPINIONS AND BEHAVIORS**

A majority (56%) of respondents had participated in watching wildlife near a lake, stream, or river—the only activity in which a majority had participated. Other results: 38% had been motorized boating, 36% had fished in freshwater, 19% had fished in saltwater, 12% had been canoeing/kayaking, and 7% had been sailing. The *z*-score analysis found that for each activity, there was a positive correlation with participation in all other aquatic activities listed in the survey—in other words, those who participated in any activity were likely to have participated in other activities. Other important demographic characteristics associated with participation in most of the activities are being white, being male, and working in construction/development.

Of those who said that they had fished in both freshwater and saltwater in the past 12 months, 57% had fished more in freshwater, and 26% had fished more in saltwater (17% of respondents to this question had fished in freshwater and saltwater about equally).

Of those who indicated in Question 6 that they had fished in *either* freshwater or saltwater *but had not fished in both* (221 respondents met these criteria), 81% had fished exclusively in freshwater, and 19% had fished exclusively in saltwater. Of those who indicated in Question 6 that they had fished in freshwater and/or saltwater and indicated in Question 7 that they had *not* fished in “both about equally” (313 respondents met these criteria), 91% had fished in freshwater either exclusively or predominantly, and 9% had fished in saltwater either exclusively or predominantly. Finally, in examining those who had fished exclusively in freshwater or saltwater and those who had fished in both in the past 12 months, 54% had fished exclusively in freshwater, 13% had fished exclusively in saltwater, and 33% had fished in both freshwater and saltwater.

The top reasons that those who had not fished in freshwater in the past 12 months had not done so were lack of interest (56%), work obligations (21%), and family obligations (15%). Those who had not fished in freshwater in the past 12 months were asked how interested they would be in doing so in the next 12 months, and 37% expressed interest. The following are some of the characteristics that were associated with those who expressed interest in going freshwater fishing in the next 12 months: had watched wildlife near water; are male; had fished in saltwater; had been motorized boating; were 25 to 34 years old; and had a job in agriculture/farming, construction/development, or industry.

Half of those who had fished in freshwater in the past 12 months indicated that their freshwater fishing activity has remained about the same over the past 5 years, while 29% said it had decreased and 20% said it had increased. Those who said that their fishing activity had declined over the past 5 years said that “no time: work obligations” was a main reason that their freshwater fishing activity had declined (28%), and “family obligations” was also an important reason (18%).

The results show that 36% of respondents had purchased a fishing license in South Carolina in the past 2 years. Those who had purchased a fishing license were likely to have the following characteristics/behaviors: had fished in freshwater and/or saltwater; are male; had participated in motorized boating, watching wildlife near water, canoeing or kayaking, or sailing; were 35 to 54 years old; identified themselves as white; and had a job in industry, construction/development, or agriculture/farming.

Of those who had purchased a fishing license in the past 2 years in South Carolina, 56% had purchased a freshwater license only, 6% had purchased a saltwater license only, and 37% had purchased both types of licenses.

Of those who had not purchased a fishing license in South Carolina in the past 2 years, the leading reasons for not doing so were that they don't fish and were not interested (63%), work obligations (13%), and family obligations (9%). Of those who *had* purchased a fishing license in South Carolina in the past 2 years, 93% said that there had not been anything that hindered their buying a fishing license.

Each respondent who had purchased a fishing license in the past 2 years in South Carolina was asked one of two questions about the likelihood of their purchasing a fishing license in the next year at an increased cost. Large majorities answered each question that they would be very likely to purchase a fishing license the next year at the given cost: 88% said they would be very likely to purchase a license for \$12, and 75% said they would be very likely to purchase a license for \$14 (the current cost is \$10). Respondents saying that they would be not at all likely to purchase a license at an increased cost were 4% for the \$12 cost and 10% for the \$14 cost.

Regarding Internet purchasing, 65% said that they would be not at all likely to purchase a license over the Internet, while only 23% said that they would be very likely to purchase a license in this way.

## VALUES OF FRESHWATER AQUATIC RESOURCES

The survey asked respondents to rate the importance of nine statements, and majorities thought eight of the nine were *very* important. The statement, with the percentages saying the statement was very important and the percentage saying the statement was very or somewhat important are shown in the tabulation below, ranked from highest percentage to lowest saying very important:

### Rating the Importance of Statements (Ranked by Percentage Rating It Very Important)

Statement	Percent Rating It as Very Important	Percent Rating It as Very or Somewhat Important
Q20. Is it important or unimportant that South Carolina's rivers, lakes, and streams provide places for fish and wildlife to live?	92	98
Q23. Is it important or unimportant that freshwater aquatic resources are safe and well protected in South Carolina?	89	98
Q17. Is it important or unimportant that fish and other aquatic animals exist in South Carolina?	87	96
Q24. Is it important or unimportant that people can watch fish and wildlife on and near South Carolina's rivers, lakes, and streams?	76	95
Q18. Is it important or unimportant that there are a lot of freshwater fish to catch in South Carolina?	73	92
Q21. Is it important or unimportant that people in South Carolina receive education about fishing?	63	91
Q22. Is it important or unimportant that people in South Carolina receive education regarding aquatic resources other than fishing?	63	93
Q25. Is it important or unimportant that people have the opportunity to make a living through commercial freshwater fishing in South Carolina?	54	82
Q19. Is it important or unimportant that there are trophy fish to catch in South Carolina's lakes, rivers, and streams?	37	66

Of the 9 questions, 7 of them showed a positive significant correlation between rating the program as very or somewhat important and having watched wildlife near water. Having been motorized boating and having been freshwater fishing were positively significantly correlated with those rating the program as very or somewhat important in 5 of the 9 questions, and being white was positively significantly correlated with those rating the program as very or somewhat important in 4 of the 9 questions.

**KNOWLEDGE OF AND OPINIONS ON SCDNR'S FRESHWATER FISHERIES AND AQUATIC RESOURCES PROGRAMS**

A large majority (80%) of respondents knew little or nothing at all about the SCDNR's freshwater fisheries and aquatic resources programs, while 19% knew a great deal or moderate amount (with only 2% saying they knew a great deal).

A majority (52%) of respondents said that the SCDNR does an excellent or good job of managing the state's freshwater fisheries and aquatic resources, broken down to 10% saying excellent and 42% saying good. Only 1% rated the SCDNR's performance as poor, and a relatively high percentage answered that they did not know (35%).

Regarding the SCDNR's performance of managing the state's freshwater fisheries and aquatic resources, 80% said that they had not heard any *good* things and 95% said that they had not heard any *bad* things about the SCDNR's freshwater fisheries and aquatic resources programs.

Respondents were asked to rate six of the SCDNR's aquatic efforts and responsibilities, as shown in the tabulation below:

**Rating of SCDNR's Efforts (Ranked by Percent Rating Efforts Excellent)**

<b>Aquatic Effort and/or Responsibility</b>	<b>Percent Rating Effort as Excellent</b>	<b>Percent Rating Effort as Excellent or Good</b>	<b>Percent Rating Effort as Poor</b>	<b>Percent Answering "Don't Know"</b>
Q45. Providing fishing opportunities	17	57	2	32
Q49. Enforcing freshwater fishing laws and regulations	16	56	3	32
Q46. Ensuring that there is adequate freshwater habitat	13	52	1	36
Q50. Providing opportunities for watching fish and aquatic wildlife	13	51	4	30
Q47. Educating the public about recreational fishing	9	39	9	31
Q48. Educating the public about freshwater aquatic resources	6	33	10	35



In the rating of the six efforts, some commonalities were found in the z-score analysis. The most important commonality was that having watched wildlife near water was positively significantly correlated with a rating of excellent or good for all six efforts. Those characteristics/behaviors positively significantly correlated with ratings of excellent or good in five of the six efforts were having fished in freshwater, having been motorized boating, having fished in saltwater, being male, and working in construction/development.

A majority (56%) said the SCDNR is very or somewhat efficient in spending its money for freshwater fisheries and aquatic resources (20% saying very efficient). Only 2% said the SCDNR was not at all efficient, and 42% said that they did not know.

### **IMPORTANCE OF VARIOUS SCDNR FRESHWATER FISHERIES AND AQUATIC RESOURCES PROGRAMS**

Respondents were asked to rate the importance of 17 programs that the SCDNR undertakes. There were 13 programs that had a majority of respondents rating it as *very* important, with the top program being “protecting natural areas like rivers, lakes, and wetlands” (91% rated this program as very important). The results are shown in the tabulation on the following page:

**Rating of SCDNR's Programs (Ranked by Percent Rating Program Very Important)**

<b>Program</b>	<b>Percent Rating Program as Very Important</b>	<b>Percent Rating Program as Very or Somewhat Important</b>
Q57. Do you think protecting natural areas like rivers, lakes, and wetlands is an important or unimportant program for the South Carolina DNR?	91	97
Q55. Do you think raising fish in hatcheries for stocking in public lakes and rivers is an important or unimportant program for the South Carolina DNR?	79	94
Q67. Do you think enforcing freshwater fishing regulations is an important or unimportant program for the South Carolina DNR?	79	93
Q69. Do you think being involved with the restoration of nongame fish species that are possibly threatened with extinction is an important or unimportant program for the South Carolina DNR?	77	92
Q65. Do you think maintaining existing boat ramps is an important or unimportant program for the South Carolina DNR?	76	92
Q58. Do you think conducting educational programs on freshwater fishing and aquatic natural resources is an important or unimportant program for the South Carolina DNR?	73	95
Q53. Do you think providing good places to go and catch freshwater fish is an important or unimportant program for the South Carolina DNR?	69	95
Q62. Do you think conducting research to answer questions about the state's freshwater natural resources is an important or unimportant program for the South Carolina DNR?	68	92
Q63. Do you think controlling water plants that bother boaters, anglers, and homeowners using lakes and rivers is an important or unimportant program for the South Carolina DNR?	68	87
Q59. Do you think managing small lakes, accessible by bank or boat anglers, around the state for public fishing is an important or unimportant program for the South Carolina DNR?	66	95
Q68. Do you think producing educational materials about freshwater fish and fishing, such as brochures, is an important or unimportant program for the South Carolina DNR?	66	94
Q66. Do you think developing freshwater fishing regulations is an important or unimportant program for the South Carolina DNR?	61	85
Q61. Do you think building/adding structures to attract more fish in lakes is an important or unimportant program for the South Carolina DNR?	53	77
Q60. Do you think building fishing piers in lakes is an important or unimportant program for the South Carolina DNR?	46	79
Q56. Do you think raising fish for people to buy for their private ponds is an important or unimportant program for the South Carolina DNR?	43	82
Q54. Do you think helping people with their private fishing ponds is an important or unimportant program for the South Carolina DNR?	39	74
Q64. Do you think building more boat ramps is an important or unimportant program for the South Carolina DNR?	27	53

There was a positive significant correlation between a rating of very or somewhat important and having been freshwater fishing in 10 of the 17 questions, and there was a positive significant correlation between a rating of very or somewhat important and having been motorized boating

in 7 of the 17 questions. Other characteristics positively significantly correlated with a rating of very or somewhat important on many questions include being male (a significant positive *z*-score on 6 of the 17 questions), being white (a significant positive *z*-score on 5 of the 17 questions), and having a high school diploma or equivalent but having no further education (a significant positive *z*-score on 5 of the 17 questions).

### **IMPORTANCE OF VARIOUS SCDNR FRESHWATER FISHERIES AND AQUATIC RESOURCES EDUCATION PROGRAMS**

Respondents rated the importance of six educational programs of the SCDNR, and for each program, a majority rated it as *very* important, as shown in the tabulation below:

#### **Importance Rating of SCDNR's Educational Programs (Ranked by Percent Rating Educational Program as Very Important)**

<b>Educational Program</b>	<b>Percent Rating Educational Program as Very Important</b>	<b>Percent Rating Educational Program as Very or Somewhat Important</b>
Q72. Do you think parent-child activities are important or unimportant education programs for the South Carolina DNR?	79	96
Q74. Do you think producing educational brochures for kids is an important or unimportant education program for the South Carolina DNR?	63	89
Q76. Do you think producing other multimedia educational programs, such as TV, an Internet page, etc., is an important or unimportant program for the South Carolina DNR?	62	92
Q75. Do you think producing educational brochures for adults is an important or unimportant education program for the South Carolina DNR?	61	93
Q73. Do you think in-school programs such as teacher workshops are important or unimportant education programs for the South Carolina DNR?	58	86
Q71. Do you think youth programs such as fishing rodeos are important or unimportant education programs for the South Carolina DNR?	54	81

Several characteristics/behaviors were positively correlated with a rating of very or somewhat important for this series of questions: in 5 of the 6 questions, those who gave a rating of very or somewhat important were positively significantly related to having watched wildlife near water; and in 3 of the 6 questions, those who gave a rating of very or somewhat important were positively significantly related to having been motorized boating. Interestingly, fishing was not a strong factor: in only 2 of the 6 questions was having been freshwater fishing positively significantly correlated with those respondents answering very or somewhat important, and in only 1 of the 6 questions was having been saltwater fishing positively significantly correlated with those respondents answering very or somewhat important.

### **FUNDING FOR SCDNR'S FRESHWATER FISHERIES AND AQUATIC RESOURCES PROGRAMS**

The most common answer among respondents regarding where funding for freshwater fishing opportunities comes from in South Carolina was "don't know" (34%). The next most popular answers were fishing licenses (28%) and taxes in general (24%).

Respondents were asked about funding options for the SCDNR's freshwater fisheries and aquatic resources program, and a plurality responded that funds should come from anglers and the general revenue equally (46%). At either end of the spectrum, 4% thought that anglers should pay for all of the funding for the SCDNR, and 4% thought that the general revenue should pay for all of the funding for the SCDNR.

An overwhelming majority (91%) of respondents had not heard of the Federal Aid in Sport Fish Restoration Program, also known as the Dingell-Johnson Program or the Wallop-Breaux Program, before this survey. However, after being informed of the program, 55% indicated that they support the program (25% strongly supporting); only 9% said that they oppose the program.

The survey asked respondents about their likelihood of purchasing a fishing license or stamp in three situations, with fairly consistent results for all three questions. For each situation, a majority (from 53% to 61%) indicated that they would be *very or somewhat* likely to purchase a fishing license or stamp. When looking only at those who said that they would be *very* likely to

purchase a fishing license or stamp, the survey found that 30% would be very likely to purchase a fishing license, even if not to be used, with the proceeds going to improve water quality; 28% would be very likely to purchase a fishing license, even if not to be used, as a way to support freshwater fisheries and aquatic resources conservation; and 25% would be very likely to purchase a fishing stamp to fish for certain hatchery-raised fish, such as striped bass and trout, with the proceeds going toward the SCDNR's freshwater fisheries program.

An analysis was performed on responses to likelihood of purchasing a stamp to fish for certain hatchery-raised species (Question 87) by those who had purchased a license in the past 2 years, those who indicated that they had fished in freshwater in the past 2 years, and those who had fished in saltwater in the past 2 years. Among those who had purchased a license in the past 2 years, 73% indicated that they would be very or somewhat likely to purchase a stamp to fish for certain hatchery-raised species, and 36% indicated that they would be very likely to purchase a stamp. Among those who had fished in freshwater in the past 2 years, 73% indicated that they would be very or somewhat likely to purchase a stamp to fish for certain hatchery-raised species, and 37% indicated that they would be very likely to purchase a stamp. Finally, among those who had fished in saltwater in the past 2 years, 77% indicated that they would be very or somewhat likely to purchase a stamp to fish for certain hatchery-raised species, and 36% indicated that they would be very likely to purchase a stamp. Note that these amounts (ranging from 73% to 77%) indicating that they would be likely to purchase a stamp to fish for certain hatchery-raised species are higher than those among the general population who said they would be likely to purchase a stamp (57%).

## **POTENTIAL REGULATORY CHANGES, INCLUDING REGULATIONS REGARDING DAMS**

A majority (69%) of respondents supported giving the SCDNR the ability to set fishing regulations in lieu of having the South Carolina State Legislature do so, with 39% strongly supporting this action. A majority (64%) also supported giving the SCDNR the ability to set fishing license fees, with 36% strongly supporting this action.

A large majority (78%) of respondents agreed that the SCDNR should require dam owners to put fish passage facilities at the dams so as not to impede migrating fish, with 60% having strongly agreed.

### **SCDNR'S POTENTIAL INVOLVEMENT WITH COMMERCIAL FISHING**

Recreational fishing was perceived to be more important for the SCDNR's involvement than is commercial fishing. In total, 86% of respondents thought the SCDNR should emphasize its recreational fishing efforts (36% saying recreational fishing should be the sole emphasis, 50% saying both recreational and commercial fishing should be emphasized), and 51% thought the SCDNR should emphasize its commercial fishing efforts (1% saying commercial fishing should be the sole emphasis, 50% saying both recreational and commercial fishing should be emphasized).

A majority (52%) supported the practice of having some anglers catch freshwater fish, such as catfish, for the purpose of commercial sale. An even larger majority (70%) supported allowing commercial interests to raise freshwater fish, such as bass or crappie, for sale to the public in grocery stores and restaurants.

### **WAYS FOR THE SCDNR TO PROVIDE INFORMATION ABOUT FRESHWATER FISHERIES AND AQUATIC RESOURCES PROGRAMS**

A majority (52%) of respondents favored direct mail as the best way for them to receive information on fishing and aquatic resources. The next most popular ways were the Internet (16%), television (16%), and newspapers (12%).

### **KNOWLEDGE OF AQUATIC WILDLIFE**

In assessing general knowledge about basic aquatic species, only 1 of the 3 questions asked concerning what types of food did three aquatic species eat was answered correctly by a majority of respondents. Correct knowledge of what type of food sharks eat was the highest of the three species: 68% of respondents correctly named the kind of food that sharks usually eat (saltwater

fish). Correct knowledge about other basic aquatic wildlife was low with less than a majority being able to identify the correct food of largemouth bass or river otters. Less than a majority (42%) of respondents correctly named the kind of food that largemouth bass eat (other fish, including bream), and nearly the same percentage (41%) correctly named the kind of food that river otters usually eat (fish and frogs).

## TABLE OF CONTENTS

Executive Summary .....	i
Introduction and Methodology .....	1
Participation in Aquatic Activities, Interest in Fishing, Fishing Behaviors, and License Purchasing Opinions and Behaviors .....	7
Values of Freshwater Aquatic Resources .....	37
Knowledge of and Opinions on SCDNR's Freshwater Fisheries and Aquatic Resources Programs .....	44
Importance of Various SCDNR Freshwater Fisheries and Aquatic Resources Programs.....	64
Importance of Various SCDNR Freshwater Fisheries and Aquatic Resources Education Programs .....	76
Funding for SCDNR's Freshwater Fisheries and Aquatic Resources Programs .....	82
Potential Regulatory Changes, Including Regulations Regarding Dams .....	102
SCDNR's Potential Involvement with Commercial Fishing .....	108
Ways for the SCDNR to Provide Information About Freshwater Fisheries and Aquatic Resources Programs .....	115
Knowledge of Aquatic Wildlife .....	116
Demographic Data .....	123
Additional Respondent Comments .....	134
Appendix A: Additional Graphs .....	136





## **INTRODUCTION AND METHODOLOGY**

This study was conducted for the South Carolina Department of Natural Resources (SCDNR) to assess South Carolina residents' attitudes and behaviors toward fisheries and aquatic resources. The study entailed a telephone survey of South Carolina residents. Specific aspects of the study methodology are discussed below.

For the general population survey, telephones were selected as the preferred sampling medium because nearly all residents of South Carolina have a telephone. In addition, a central polling site at the Responsive Management office allowed for rigorous quality control over the interviews and data collection. Responsive Management maintains its own in-house telephone interviewing facilities. These facilities are staffed by interviewers with experience conducting computer-assisted telephone interviews on the subjects of natural resources and outdoor recreation for state fish and wildlife agencies. The telephone survey questionnaire was developed cooperatively by Responsive Management and SCDNR. Responsive Management conducted pre-tests of the questionnaire, and revisions were made to the questionnaire based on the pre-tests.

To ensure that the telephone survey data collected were of the highest quality, Responsive Management employs interviewers who have been trained according to the standards established by the Council of American Survey Research Organizations. Methods of instruction included lecture and role-playing. The Survey Center Managers conducted project briefings with the interviewers prior to the administration of the survey. Interviewers were instructed on type of study, study goals and objectives, handling of survey questions, interview length, termination points and qualifiers for participation, interviewer instructions within the survey instrument, reading of the survey instrument, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey instrument. The Survey Center Managers randomly monitored telephone workstations without the interviewers' knowledge to evaluate the performance of each interviewer. After the surveys were obtained by the interviewers, the Survey Center Managers and/or statisticians edited each completed survey to ensure clarity and completeness.

Interviews were conducted Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday noon to 6:00 p.m., and Sunday from 3:00 p.m. to 7:00 p.m., all local time. A five-callback design was used to maintain the representativeness of the sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all to participate. When a respondent could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day. A total of 809 completed interviews were obtained.

The software used for data collection was Questionnaire Programming Language 4.1 (QPL). The survey data were entered into the computer as each interview was being conducted, eliminating manual data entry after the completion of the survey and the concomitant data entry errors that may occur with manual data entry. The survey instrument was programmed so that QPL 4.1 branched, coded, and substituted phrases in the survey based on previous responses to ensure the integrity and consistency of the data collection. The analyses of data were performed using Statistical Package for the Social Sciences (SPSS) software. SPSS is a software package that is specifically designed for statistical analyses.

For this report, a nonparametric analysis examined how the various responses related to demographic characteristics and participation behaviors. Responses for selected questions were tested by means of *z*-scores for relationships to specific characteristics and behaviors. The analysis examined approximately 70 variables regarding demographic characteristics and participation behaviors of the respondents. A positive *z*-score means that the response and characteristic/behavior is positively related; a negative *z*-score means that the response and characteristic is negatively related. For each *z*-score tabulation, only the statistically significant relationships are shown, which are those greater than +1.96 (positive correlation) or those less than -1.96 (negative correlation). If no statistically significant relationships exist for a particular question (i.e., if all the *z*-scores for a particular question were less than +1.96 and more than -1.96), there is no table.

The top of the tabulation shows the strongest *positive* correlation; the bottom of the tabulation shows the strongest *negative* correlation. The arrows show that the positive correlation increases towards the top of the tabulation and the negative correlation increases towards the bottom of the

tabulation. The absence of arrows on some small tables was simply due to lack of room to graphically portray the arrows.

The asterisks on the z-scores show the strength of the relationship between the demographic characteristics and the response to the question. Those z-scores that have an absolute value of 3.30 or above have three asterisks—three asterisks indicate that the relationship is so strong that it would happen by chance only 1 out of 1,000 times. Those z-scores that have an absolute value of 2.58 to 3.29 have two asterisks—two asterisks indicate that the relationship is so strong that it would happen by chance only 1 out of 100 times. Finally, those z-scores that have an absolute value of 1.96 to 2.58 have one asterisk—one asterisk indicates that the relationship is so strong that it would happen by chance only 5 out of 100 times.

The z-scores are calculated as shown in the formula on the following page.

**Equation to calculate z-scores**

$$z = \frac{(p_1 - p_2)}{\sqrt{p(1-p) \left[ \frac{1}{n_1} + \frac{1}{n_2} \right]}}$$

where:

- $n_1$  represents the number of observations in Row 1.
- $n_2$  represents the number of observations in Row 2.
- $p_1 = a/(a + b) = a/n_1$  and represents the proportion of observations in Row 1 that falls in Cell  $a$ . It is employed to estimate the population proportion  $\pi_1$ .
- $p_2 = c/(c + d) = c/n_2$  and represents the proportion of observations in Row 2 that falls in Cell  $c$ . It is employed to estimate the population proportion  $\pi_2$ .
- $p = (a + c)/(n_1 + n_2) = (a + c)/n$  and is a pooled estimate of the proportion of observations in Column 1 in the underlying population.

(Equation from *Handbook of Parametric and Nonparametric Statistical Procedures*, 2<sup>nd</sup> Edition by David J. Sheskin. © 2000, Chapman & Hall/CRC, Boca Raton, FL.)

The demographic characteristics and participation behaviors examined include:

- gender,
- age,
- ethnicity,
- income level,
- education level,
- occupation,
- location of residence (i.e., rural, small city or town, suburban, urban or large city),
- county of residence,
- region of residence and
- participation in outdoor activities.

Throughout this report, findings of the general population telephone survey are reported at a 95% confidence interval. For the entire sample of South Carolina residents, the sampling error is at most plus or minus 3.45 percentage points. This means that if the survey were conducted 100 times on different samples that were selected in the same way, the findings of 95 out of the 100 surveys would fall within plus or minus 3.45% of each other. Sampling error was calculated

using the formula described below, with a sample size of 809 and a projected population size of 3,066,000 South Carolina residents 16 years of age and older in 2002, obtained from the U.S. Census Bureau.

**Sampling error equation:**

$$B = \left( \sqrt{\frac{N_p(.25)}{N_s} - .25} \right) (1.96)$$

Where: B = maximum sampling error (as decimal)

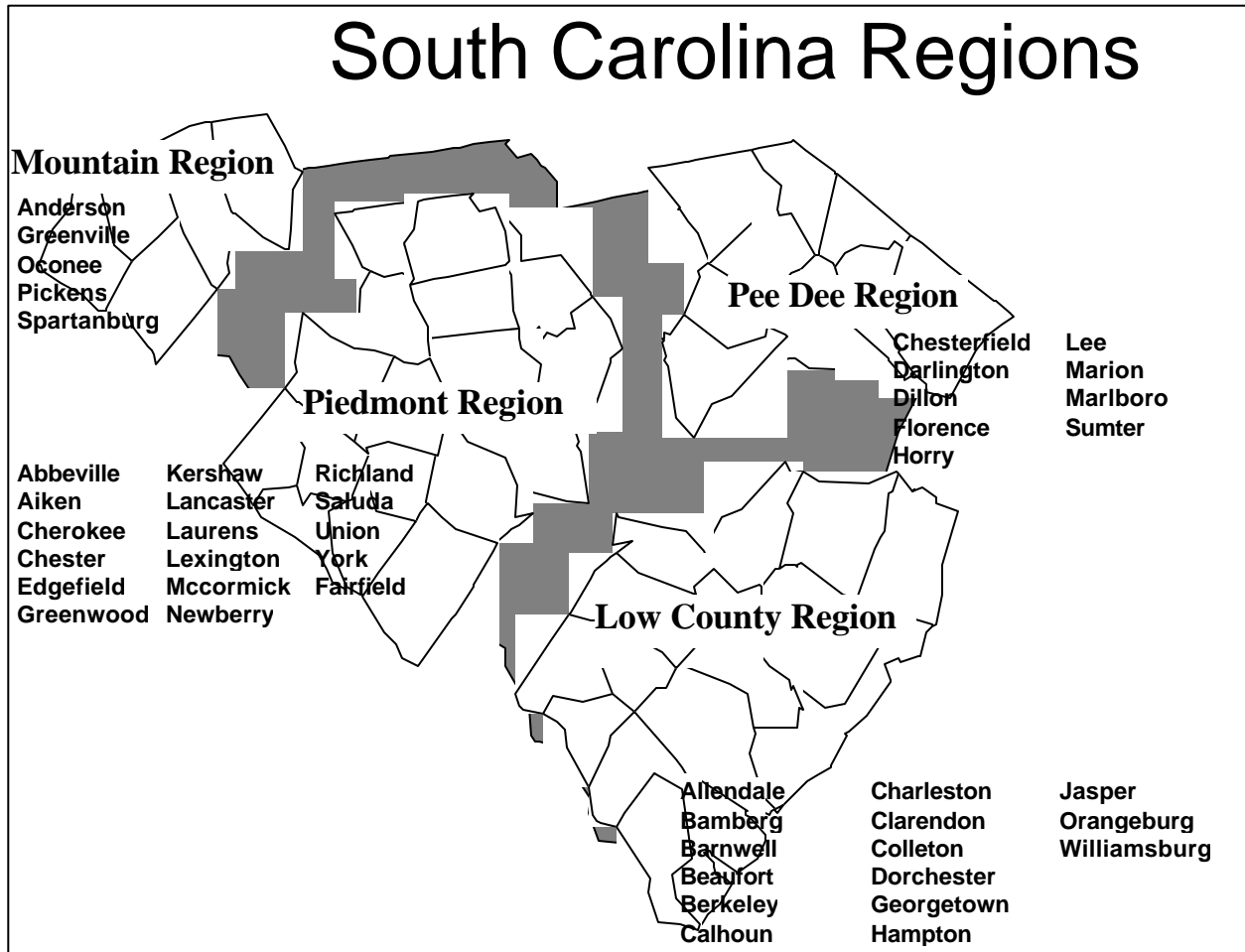
$N_p$  = population size (e.g., total number of residents, total number of license holders)

$N_s$  = sample size

Derived from formula: p. 206 in Dillman, D. A. 2000. *Mail and Internet Surveys*. John Wiley & Sons, NY.

**Note:** This is a simplified version of the formula that calculates the maximum sampling error using a 50:50 split (the most conservative calculation because a 50:50 split would give maximum variation).

Regional data was computed from the county of residence. The following map shows a pictorial of the regions and the counties that comprise each region within South Carolina.



## **PARTICIPATION IN AQUATIC ACTIVITIES, INTEREST IN FISHING, FISHING BEHAVIORS, AND LICENSE PURCHASING OPINIONS AND BEHAVIORS**

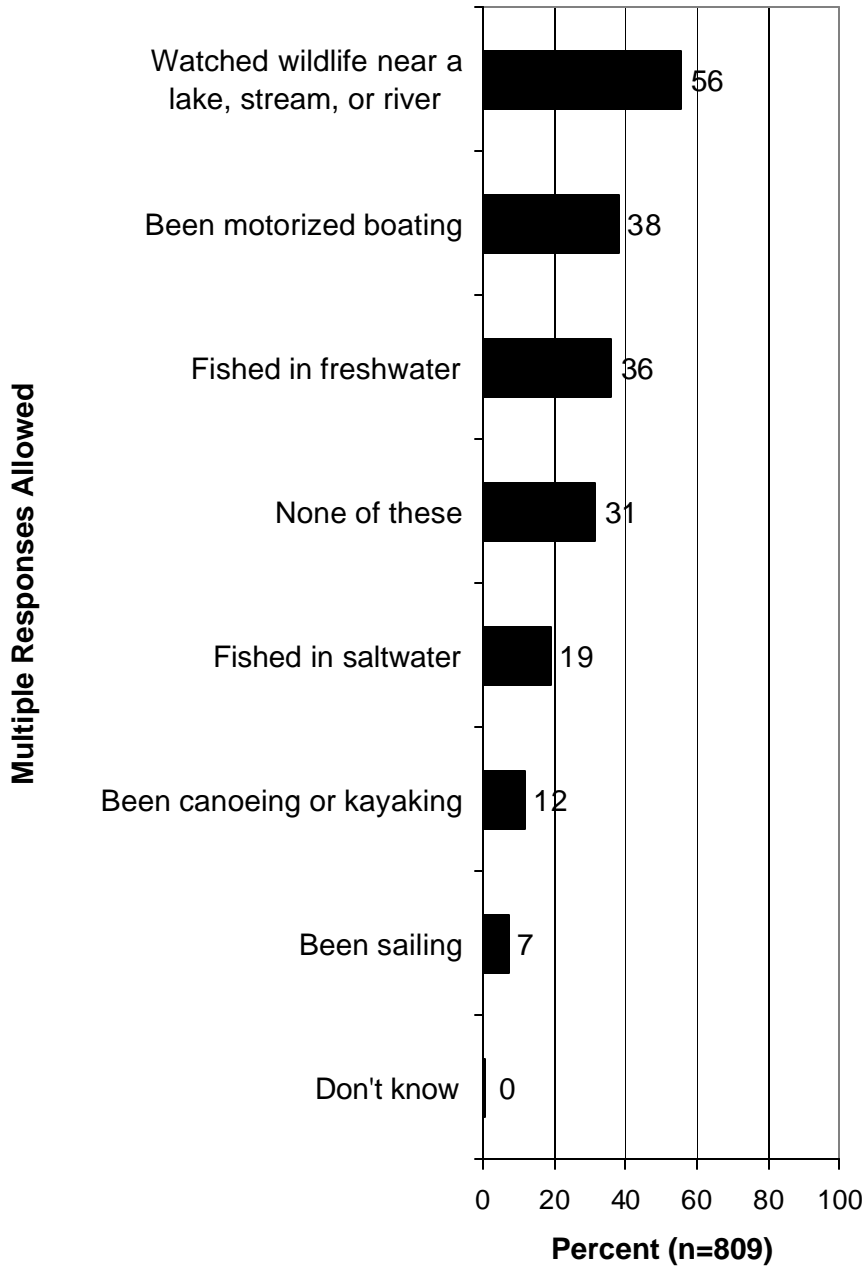
A majority (56%) of respondents had participated in watching wildlife near a lake, stream, or river—the only activity in which a majority had participated. Other results of note: 36% of respondents had fished in freshwater, and 19% had fished in saltwater. (Question 6).

The z-score analysis found that for each activity, there was a positive correlation with participation in all other activities listed in Question 6—in other words, those who participated in any activity were likely to have participated in other aquatic activities. Other important demographic characteristics associated with participation in most of the aquatic activities are being white (positive significant z-score for 5 of the 6 activities), being male (positive significant z-score for 4 of the 6 activities), and working in construction/development (positive significant z-score for 4 of the 6 activities).

The following are some of the characteristics that were specifically associated with those who had participated in freshwater fishing in the past 12 months in South Carolina: had participated in all other aquatic activities listed, are male, work in construction/development or industry, and identified themselves as white. The following are some of the characteristics that were associated with those who had participated in saltwater fishing in the past 12 months in South Carolina: had participated in all other aquatic activities listed, are male, work in construction/development, reside in the Low County Region, identified themselves as white, reside in a suburban area, and reside in the Pee Dee Region.



**Q6. Have you participated in the following activities  
in the past 12 months in South Carolina?**



Q6. Have you participated in the following activities in the past 12 months in South Carolina?  
 (Participated in Watching Wildlife near a Lake, Stream, or River in Past 12 Months in SC)

CHARACTERISTIC	Z-SCORE
Been motorized boating	10.97***
Fished in freshwater	9.25***
Been canoeing or kayaking	7.67***
Fished in saltwater	5.22***
Male	4.6***
Been sailing	4.59***
White	3.77***
Prefer information through regulations handbook	3.19**
Graduate or professional degree	3.02**
Income is \$80,000 to \$99,999	2.53*
Resides in suburban area	2.32*
Income is \$100,000 or more	2.19*
55-64 years old	2.14*
Prefer information through license agent/sporting goods store	2.12*
Some college or trade school	2.06*
Native American	2.02*
18-24 years old	1.97*
Prefer information through newspapers	1.97*
<b>STATISTICALLY INSIGNIFICANT VARIABLES OMITTED</b>	
Income is less than \$19,999	-2.84**
Retired	-2.92**
Job is in clerical	-3.06**
High school graduate or equivalent	-3.18**
Resides in small city or town	-3.2**
65 or older	-3.53***
African-American	-4.18***
Female	-4.6***

Most likely to say they participated in watching wildlife.



Most likely *not* to say they participated in watching wildlife.

Q6. Have you participated in the following activities in the past 12 months in South Carolina?  
(Participated in Motorized Boating in Past 12 Months in SC)

CHARACTERISTIC	Z-SCORE
Fished in saltwater	11.46***
Fished in freshwater	11.32***
Watched wildlife near a lake, stream, or river	10.97***
Been sailing	6.74***
Been canoeing or kayaking	6.4***
Male	6.27***
White	6.19***
Job is in construction/development	3.64***
Income is \$100,000 or more	3.07**
Prefer information through license agent/sporting goods store	2.73**
Prefer information through pamphlets/brochures	2.52*
Graduate or professional degree	2.2*
College graduate	2.18*
Income is \$40,000 to \$59,999	2.16*
Prefer information through regulations handbook	2.09*
<b>STATISTICALLY INSIGNIFICANT VARIABLES OMITTED</b>	
Grades 1-12, but no HS diploma	-1.96*
Homemaker	-2.25*
Retired	-2.3*
65 or older	-2.38*
Income is less than \$19,999	-3.32***
African-American	-5.96***
Female	-6.27***

Most likely to say they participated in motorized boating.

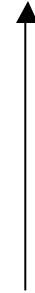


Most likely *not* to say they participated in motorized boating.

Q6. Have you participated in the following activities in the past 12 months in South Carolina?  
 (Participated in Fishing in Freshwater in Past 12 Months in SC)

CHARACTERISTIC	Z-SCORE
Been motorized boating	11.32***
Male	10.58***
Fished in saltwater	10.51***
Watched wildlife near a lake, stream, or river	9.25***
Been canoeing or kayaking	5.33***
Job is in construction/development	4.31***
Prefer information through regulations handbook	4.06***
Prefer information through license agent/sporting goods store	3.78***
Been sailing	3.19**
Job is in industry	3.02**
White	2.79**
Prefer information through direct mail	2.07*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Graduate or professional degree	-2.1*
African-American	-2.31*
Homemaker	-2.5*
Job is in clerical	-2.99**
Female	-10.58***

Most likely to say they participated in freshwater fishing.



Most likely *not* to say they participated in freshwater fishing.



Q6. Have you participated in the following activities in the past 12 months in South Carolina?  
(Participated in Fishing in Saltwater in Past 12 Months in SC)

CHARACTERISTIC	Z-SCORE	
Been motorized boating	11.46***	Most likely to say they participated in saltwater fishing.
Fished in freshwater	10.51***	
Male	6.62***	
Been sailing	5.58***	
Watched wildlife near a lake, stream, or river	5.22***	
Been canoeing or kayaking	5.11***	
Prefer information through license agent/sporting goods store	4.74***	
Prefer information through regulations handbook	3.95***	
College graduate	3.76***	
Job is in construction/development	3.33***	
Resides in Low County Region	3.17**	
White	2.74**	
Resides in suburban area	2.29*	
Income is \$80,000 to \$99,999	2.25*	
Resides in Pee Dee Region	2.09*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Income is \$20,000 to \$39,999	-1.97*	Most likely <i>not</i> to say they participated in saltwater fishing.
Income is less than \$19,999	-2.19*	
African-American	-2.22*	
Homemaker	-2.43*	
Resides in Mountain Region	-2.86**	
Female	-6.62***	

Q6. Have you participated in the following activities in the past 12 months in South Carolina?  
(Participated in Canoeing or Kayaking in Past 12 Months in SC)

CHARACTERISTIC	Z-SCORE	
Watched wildlife near a lake, stream, or river	7.67***	Most likely to say they participated in canoeing or kayaking.
Been sailing	6.92***	
Been motorized boating	6.4***	
Fished in freshwater	5.33***	
Fished in saltwater	5.11***	
Income is \$60,000 to \$79,999	3.33***	
Resides in large city or urban area	3.33***	
White	2.45*	
Job is in construction/development	2.37*	
Prefer information through Internet	2.32*	
College graduate	2.2*	
Under 18 years old	2.16*	
Resides in suburban area	2.14*	
18-24 years old	2.08*	
Student	2.04*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Income is less than \$19,999	-1.98*	Most likely <i>not</i> to say they participated in canoeing or kayaking.
African-American	-2.44*	

Q6. Have you participated in the following activities in the past 12 months in South Carolina?  
 (Participated in Sailing in Past 12 Months in SC)

CHARACTERISTIC	Z-SCORE
Been canoeing or kayaking	6.92***
Been motorized boating	6.74***
Fished in saltwater	5.58***
Watched wildlife near a lake, stream, or river	4.59***
Fished in freshwater	3.19**
Under 18 years old	2.5*
Resides in suburban area	2.42*
Job is in teaching/education	2.08*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
High school graduate or equivalent	-2.15*
Resides in rural area	-2.27*

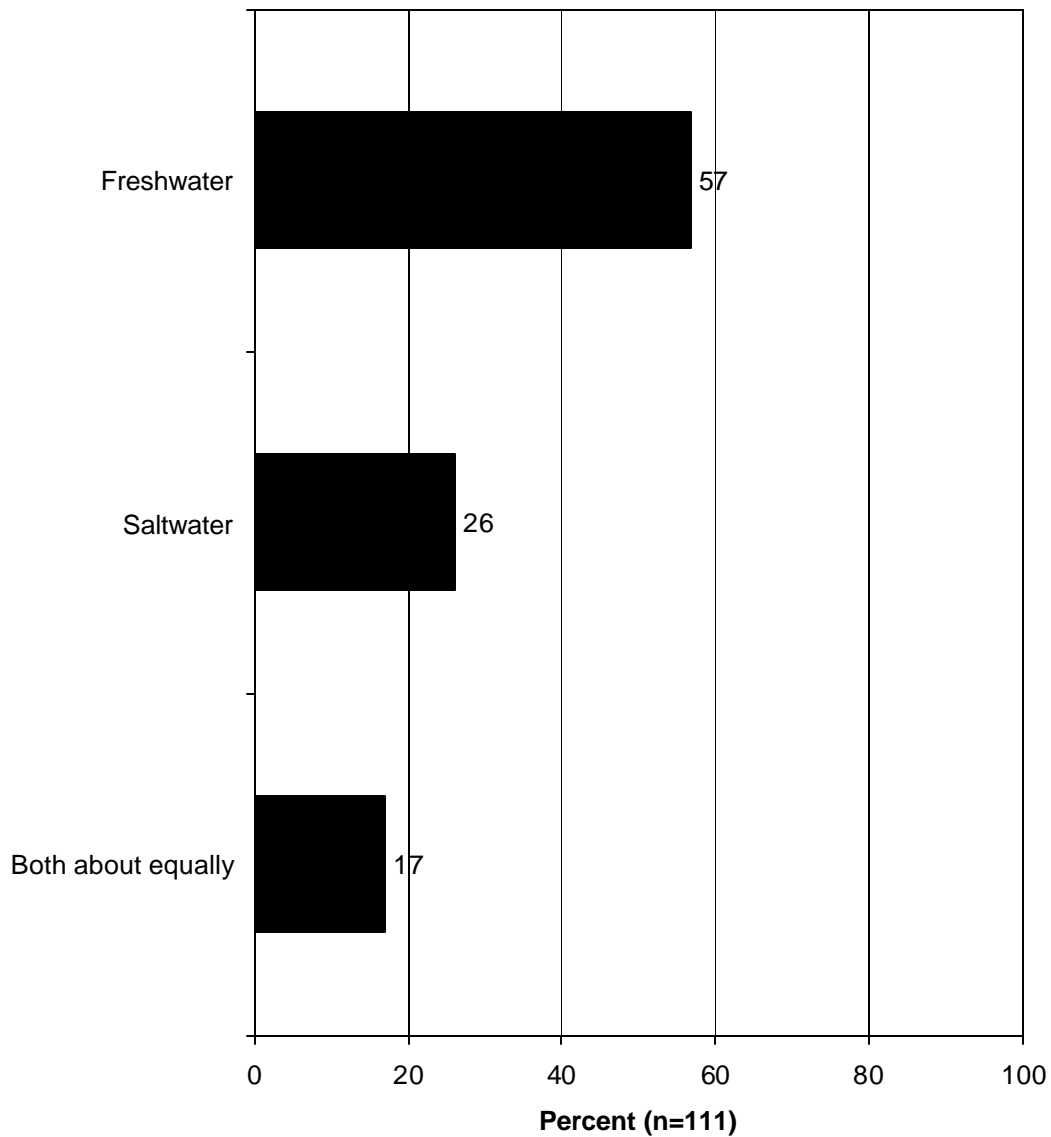
Most likely to say they participated in sailing.



Most likely *not* to say they participated in sailing.

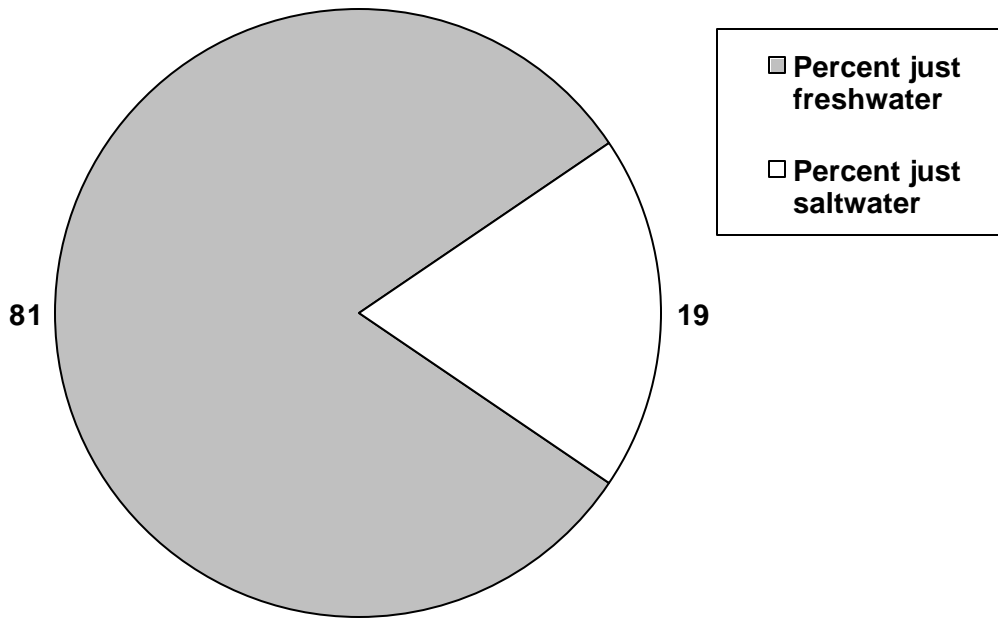
Of those who said that they had fished in both freshwater and saltwater in the past 12 months, 57% had fished more in freshwater, and 26% had fished more in saltwater (17% of respondents to this question had fished in freshwater and saltwater about equally). (Question 7).

**Q7. Would you say you fish more in freshwater, saltwater, or do you fish in both about equally? (Asked of those who said that they fished in both freshwater and saltwater in the past 12 months.)**



The data from Questions 6 and 7 were analyzed in several additional ways. One way the data were examined was to look at the percentages who had fished in freshwater or saltwater but had *not* fished in both in the past 12 months. Of those who indicated in Question 6 that they had fished in *either* freshwater or saltwater *but had not fished in both* (221 respondents met these criteria), 81% had fished exclusively in freshwater, and 19% had fished exclusively in saltwater.

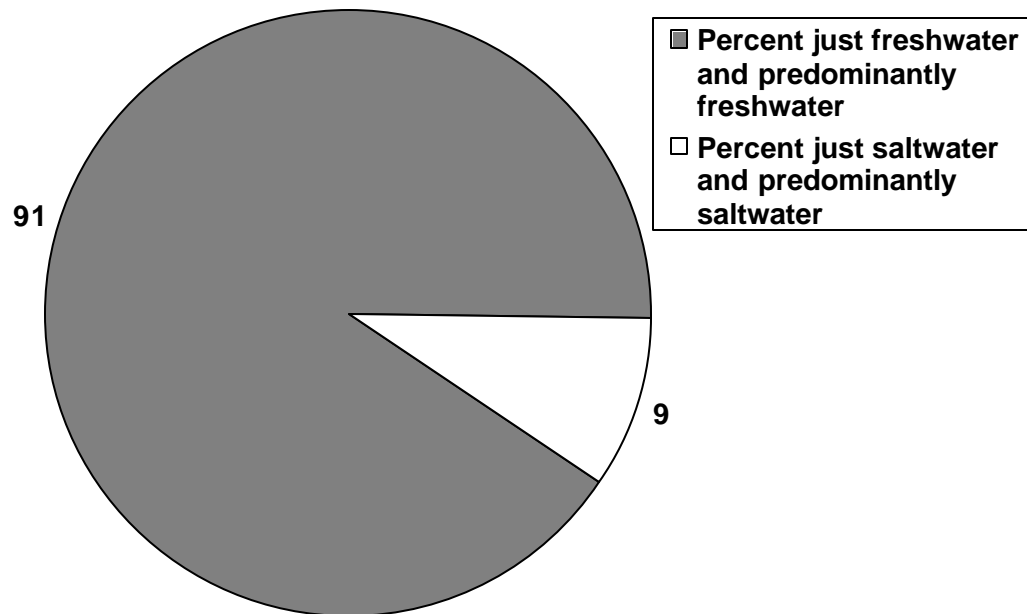
**Fishing participation among those who fished exclusively freshwater or saltwater (data from Question 6)**





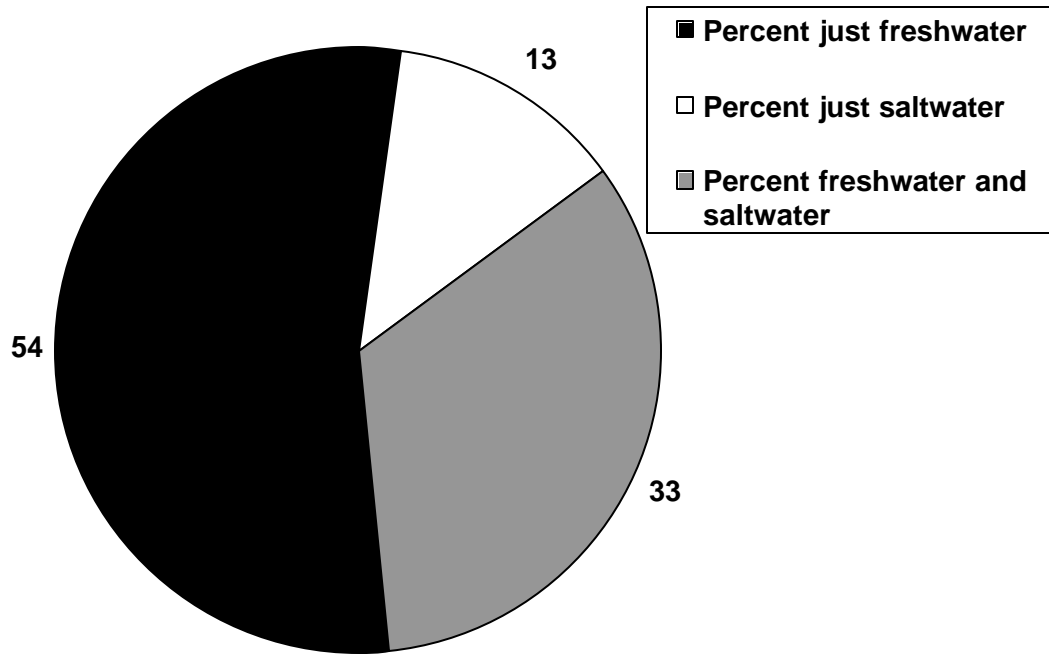
Another way the data were examined was to look at the percentages who had fished in freshwater or saltwater either exclusively or predominantly in the past 12 months. Of those who indicated in Question 6 that they had fished in freshwater and/or saltwater and indicated in Question 7 that they had *not* fished in “both about equally” (313 respondents met these criteria), 91% had fished in freshwater either exclusively or predominantly, and 9% had fished in saltwater either exclusively or predominantly.

**Fishing participation with all responses assigned to preponderant type of fishing (data from Questions 6 and 7)**



Finally, another way to examine the data regarding fishing in freshwater and/or saltwater from the responses to Question 6 was to examine those who had fished exclusively in freshwater or saltwater and those who had fished in both in the past 12 months (332 respondents had fished in freshwater and/or saltwater). In this analysis, 54% had fished exclusively in freshwater, 13% had fished exclusively in saltwater, and 33% had fished in both freshwater and saltwater.

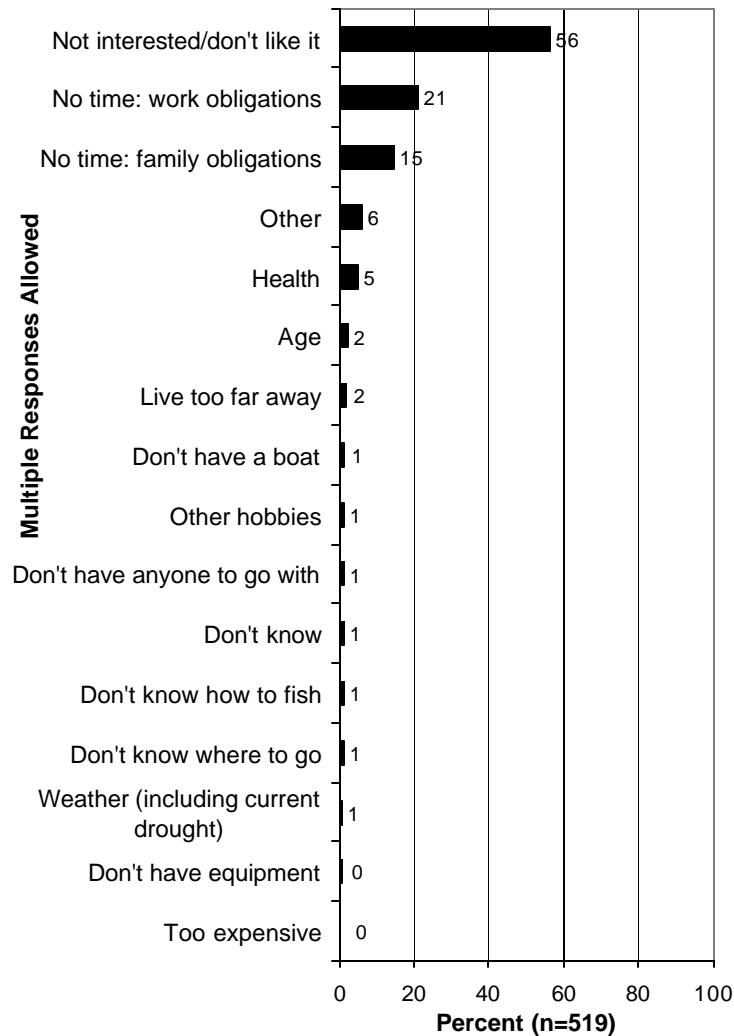
**Fishing participation (data from Question 6)**



Those who had not fished in freshwater in the past 12 months were asked for the main reasons that they had not done so, and lack of interest was the leading reason (56%). Otherwise, work and family obligations were relatively important reasons (21% said work obligations; 15% said family obligations). (Question 9).

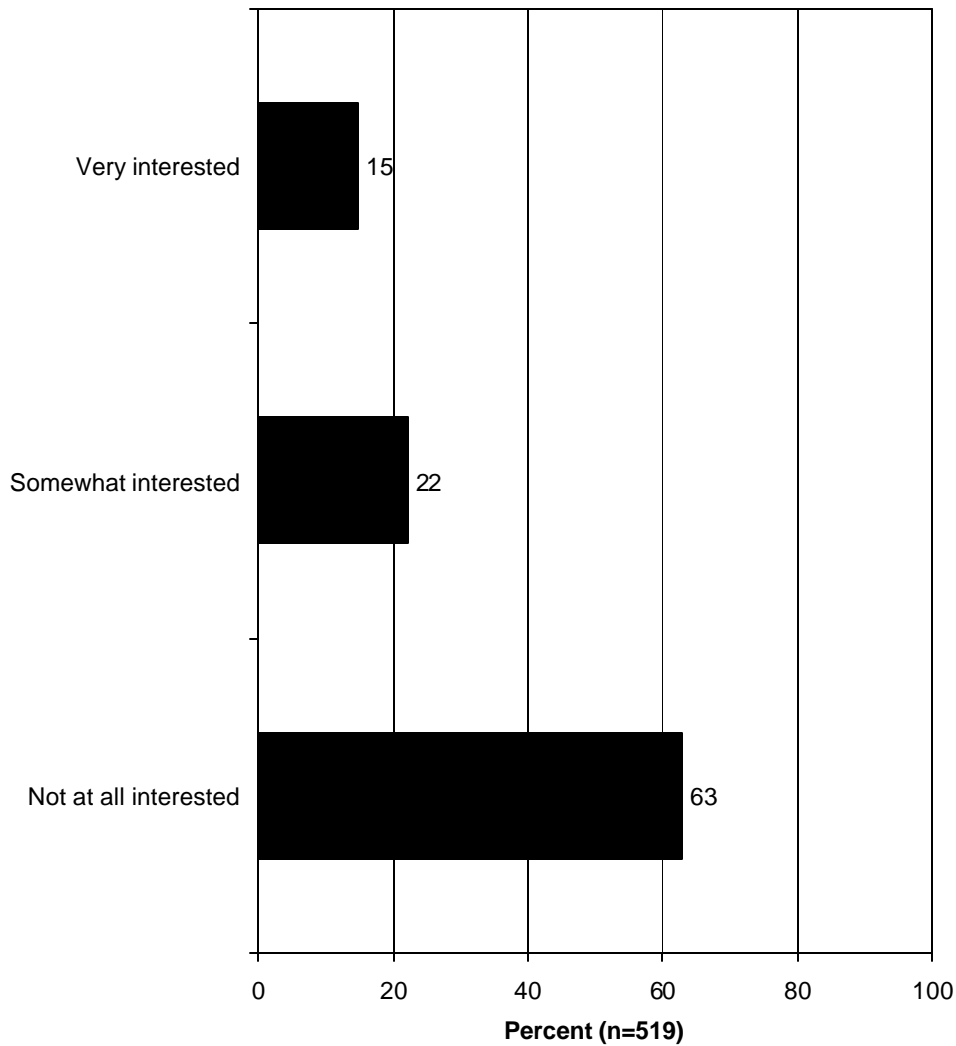
No statistically significant associations were found in characteristics and responses to Question 9.

**Q9. What are the main reasons you have not fished in freshwater in the past 12 months? (Asked of those who did not fish in freshwater in the past 12 months.)**



Those who had not fished in freshwater in the past 12 months were asked how interested they would be in doing so in the next 12 months, and 37% expressed interest. The following are some of the characteristics that were associated with those who expressed interest in going freshwater fishing in the next 12 months: had watched wildlife near water; are male; had fished in saltwater; had been motorized boating; were 25 to 34 years old; and had a job in agriculture/farming, construction/development, or industry. (Question 11).

**Q11. How interested are you in going freshwater fishing in South Carolina in the next 12 months? (Asked of those who did not fish in freshwater in the past 12 months.)**



Q11. How interested are you in going freshwater fishing in South Carolina in the next 12 months? (Asked of those who did not fish in freshwater in the past 12 months.) (Very or Somewhat Interested in Going Freshwater Fishing in SC in next 12 Months)

CHARACTERISTIC	Z-SCORE
Watched wildlife near a lake, stream, or river	5.76***
Male	4.84***
Fished in saltwater	4.49***
Been motorized boating	3.4***
25-34 years old	3.19**
Job is in agriculture/farming	2.92**
Prefer information through direct mail	2.42*
Job is in construction/development	2.41*
Job is in industry	2*
<b>STATISTICALLY INSIGNIFICANT VARIABLES OMITTED</b>	
Homemaker	-2.24*
Retired	-2.6**
Resides in small city or town	-2.63**
65 or older	-3.31***
Female	-4.84***

Most likely to say very or somewhat interested in going freshwater fishing.

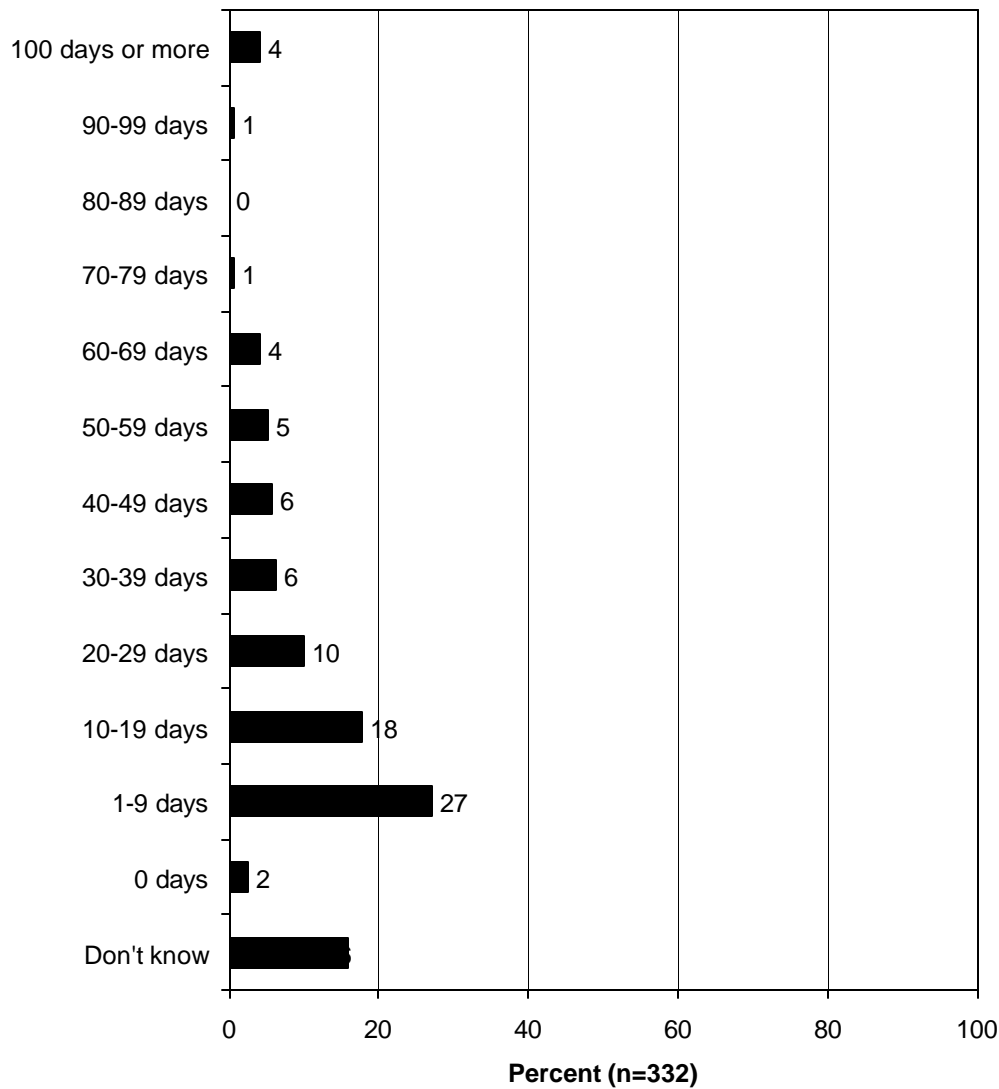


Most likely *not* to say very or somewhat interested in going freshwater fishing.

Most commonly, those who had fished in freshwater in the past 12 months did so for 1 to 9 days (27%) or 10 to 19 days (18%). A majority (55%) had fished 1 to 29 days. (Question 12).

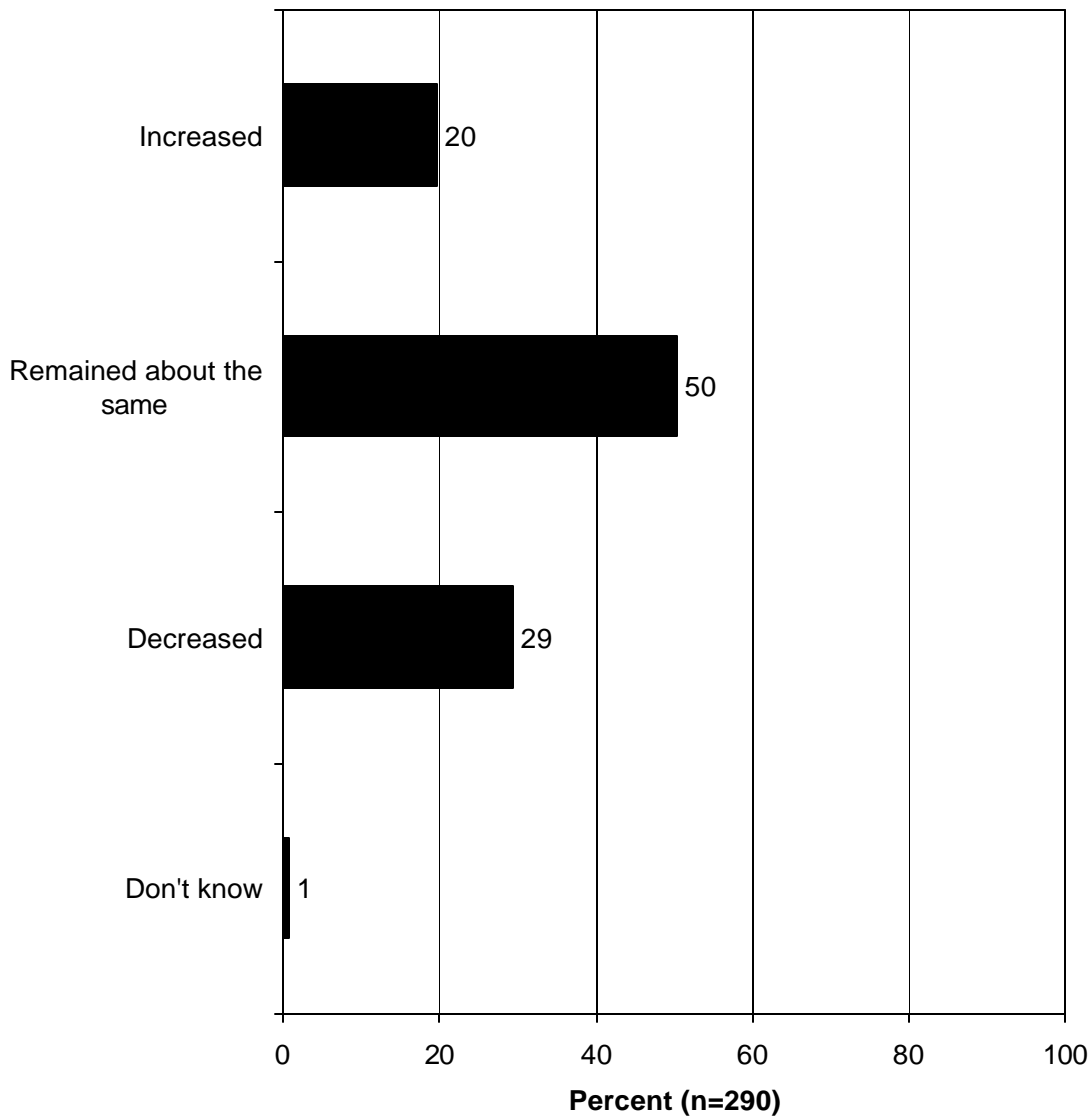
No statistically significant associations were found in characteristics and response categories to Question 12.

**Q12. How many days did you fish in freshwater in the past 12 months in South Carolina? (Asked of those who fished in freshwater in the past 12 months.)**



Half (50%) of those who had fished in freshwater in the past 12 months indicated that their freshwater fishing activity has remained about the same over the past 5 years, while 29% said it had decreased and 20% said it had increased. (Question 13).

**Q13. Over the past 5 years, would you say your freshwater fishing activity has declined, increased, or remained about the same? (Asked of those who fished in freshwater in the past 12 months.)**



Q13. Over the past 5 years, would you say your freshwater fishing activity has declined, increased, or remained about the same? (Asked of those who fished in freshwater in the past 12 months.) (Increased Fishing in Past 5 Years)

CHARACTERISTIC	Z-SCORE
Prefer information through TV	3.33***
Prefer information through radio	2.75**
Job is in teaching/education	2.7**
Resides in small city or town	2.47*
Prefer information through pamphlets/brochures	2.35*
Participated in none of the activities listed in Q6	2.03*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	

Most likely to say their freshwater fishing had increased.



Q13. Over the past 5 years, would you say your freshwater fishing activity has declined, increased, or remained about the same? (Asked of those who fished in freshwater in the past 12 months.) (Decreased fishing in past 5 years)

CHARACTERISTIC	Z-SCORE
Retired	3.23**
Prefer information through regulations handbook	3.06**
Prefer information through license agent/sporting goods store	2.41*
Been canoeing or kayaking	2.04*
Male	2.01*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Under 18 years old	-1.96*
Female	-2.01*
Income is \$40,000 to \$59,999	-2.1*
Resides in small city or town	-2.11*
Job is in public service	-2.26*

Most likely to say fishing had declined.



Most likely *not* to say fishing had declined.

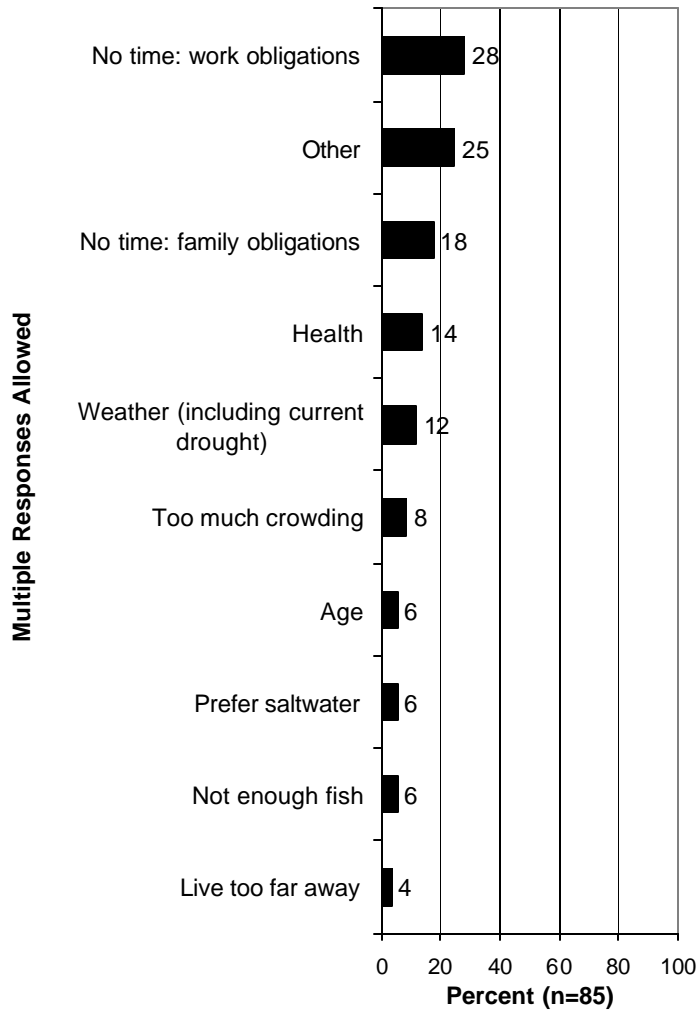


Those who said that their fishing activity had declined over the past 5 years most often said that “no time: work obligations” was a main reason that their freshwater fishing activity had declined (28%). “Family obligations” was also an important reason (18%). (Question 15).

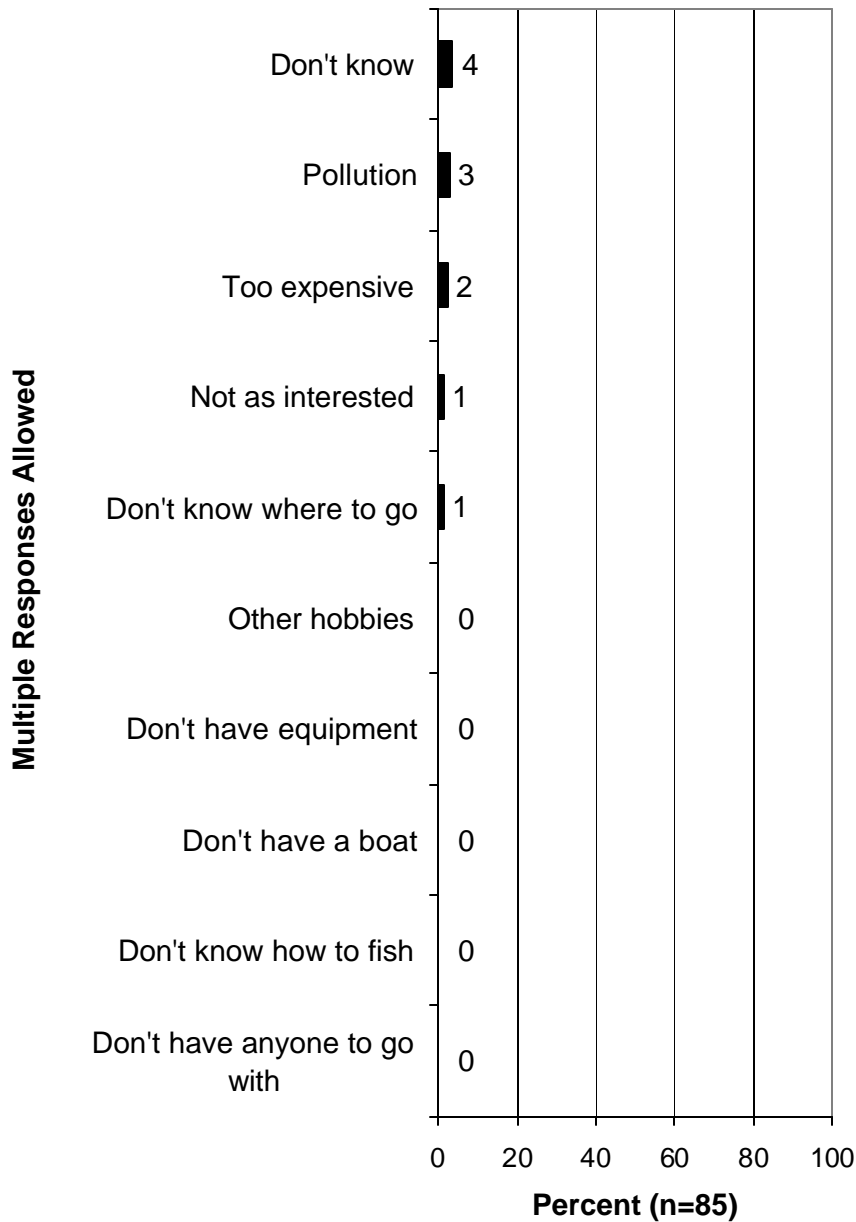
No statistically significant associations were found in characteristics and responses to Question 15.

**Q15. What are the main reasons your freshwater fishing activity has declined? (Asked of those who fished in freshwater in the past 12 months but whose fishing activity has declined in the past 5 years.)**

**Part 1**

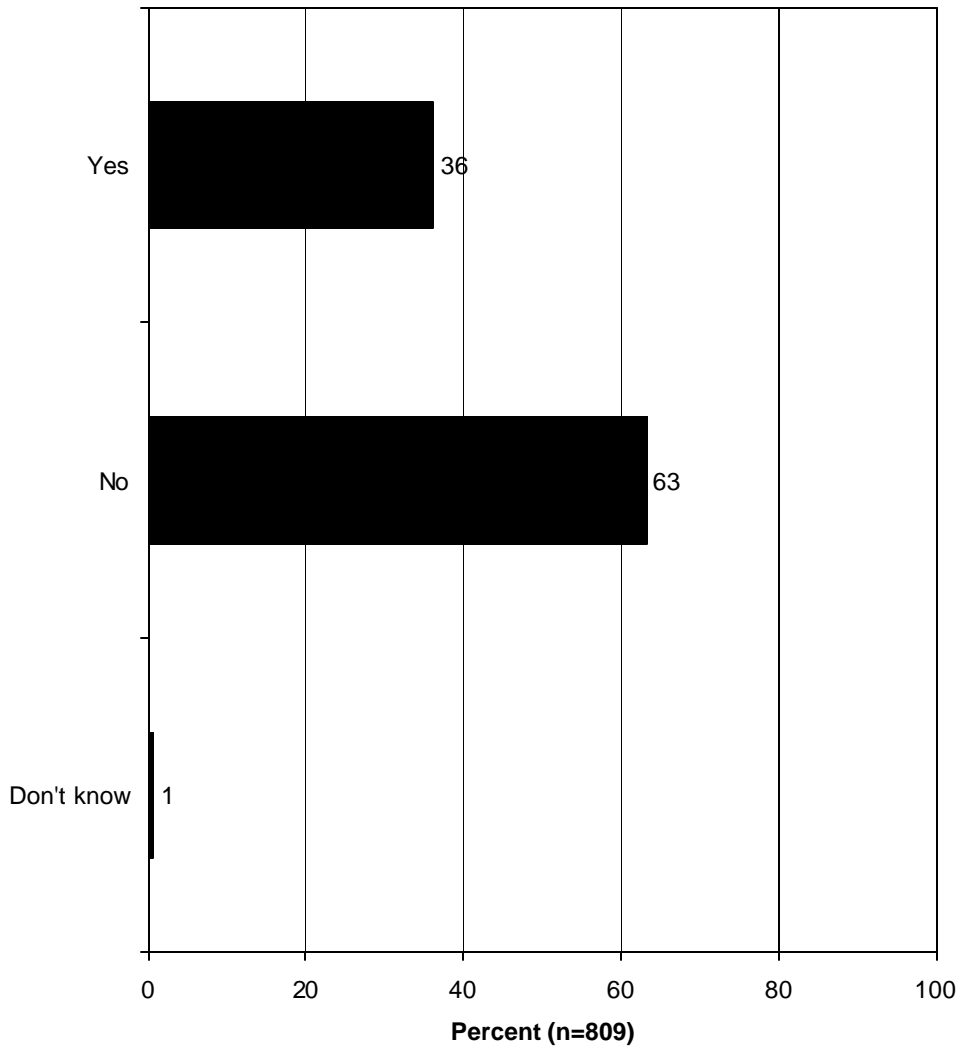


**Q15. What are the main reasons your freshwater fishing activity has declined? (Asked of those who fished in freshwater in the past 12 months but whose fishing activity has declined in the past 5 years.)**  
**Part 2**



The results show that 36% of respondents had purchased a fishing license in South Carolina in the past 2 years. The following are some of the characteristics that were associated with those who had purchased a fishing license in the past 2 years in South Carolina: had fished in freshwater and/or saltwater; are male; had participated in motorized boating, watching wildlife near water, canoeing or kayaking, or sailing; were 35 to 54 years old; identified themselves as white; and had a job in industry, construction/development, or agriculture/farming. (Question 90).

**Q90. Have you purchased a fishing license in the past 2 years in South Carolina?**



Q90. Have you purchased a fishing license in the past 2 years in South Carolina? (Have Purchased a Fishing License in the Past 2 Years in SC)

CHARACTERISTIC	Z-SCORE
Fished in freshwater	18.76***
Male	11.66***
Fished in saltwater	11.32***
Been motorized boating	10.98***
Watched wildlife near a lake, stream, or river	7.07***
Job is in industry	5.17***
Prefer information through license agent/sporting goods store	4.87***
Job is in construction/development	3.95***
35-44 years old	3.78***
Been canoeing or kayaking	3.64***
White	3.6***
Prefer information through direct mail	3.44***
Been sailing	3.4***
Prefer information through regulations handbook	3.15**
Income is \$40,000 to \$59,999	2.65**
45-54 years old	2.53*
Some college or trade school	2.4*
Job is in agriculture/farming	2.37*
<b>STATISTICALLY INSIGNIFICANT VARIABLES OMITTED</b>	
Grades 1-12, but no HS diploma	-2.06*
African-American	-2.18*
Student	-2.27*
Homemaker	-2.55*
Income is less than \$19,999	-3.01**
Job is in clerical	-3.38***
Retired	-3.49***
65 or older	-4.66***
Female	-11.66***
Participated in none of the activities listed in Q6	-11.66***

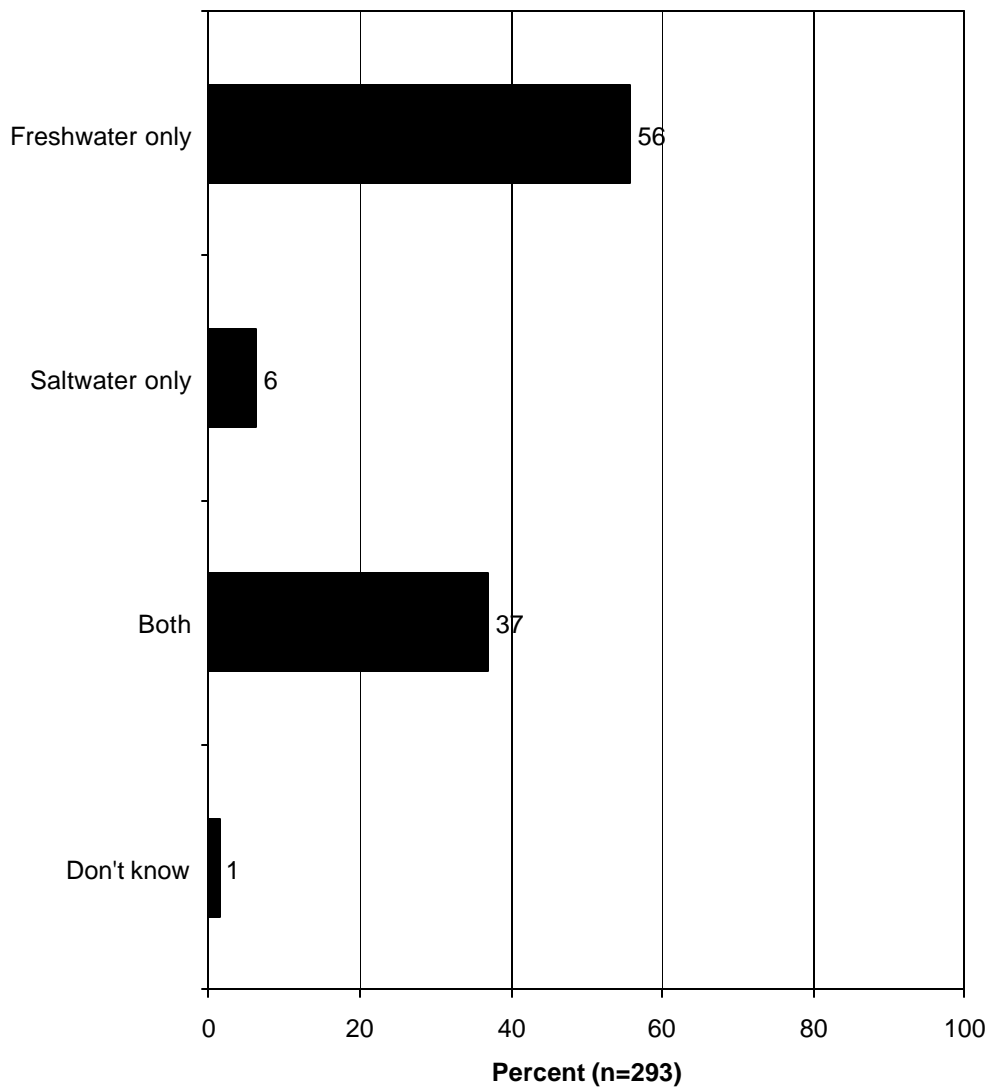
Most likely to have purchased a license.



Most likely *not* to have purchased a license.

Of those who had purchased a fishing license in the past 2 years in South Carolina, 56% had purchased a freshwater license only, 6% had purchased a saltwater license only, and 37% had purchased both types of licenses. A grand total of 93% of South Carolinians who had purchased a fishing license purchased a freshwater license and a total of 43% of South Carolinians who had purchased a fishing license had purchased a saltwater license. (Question 94).

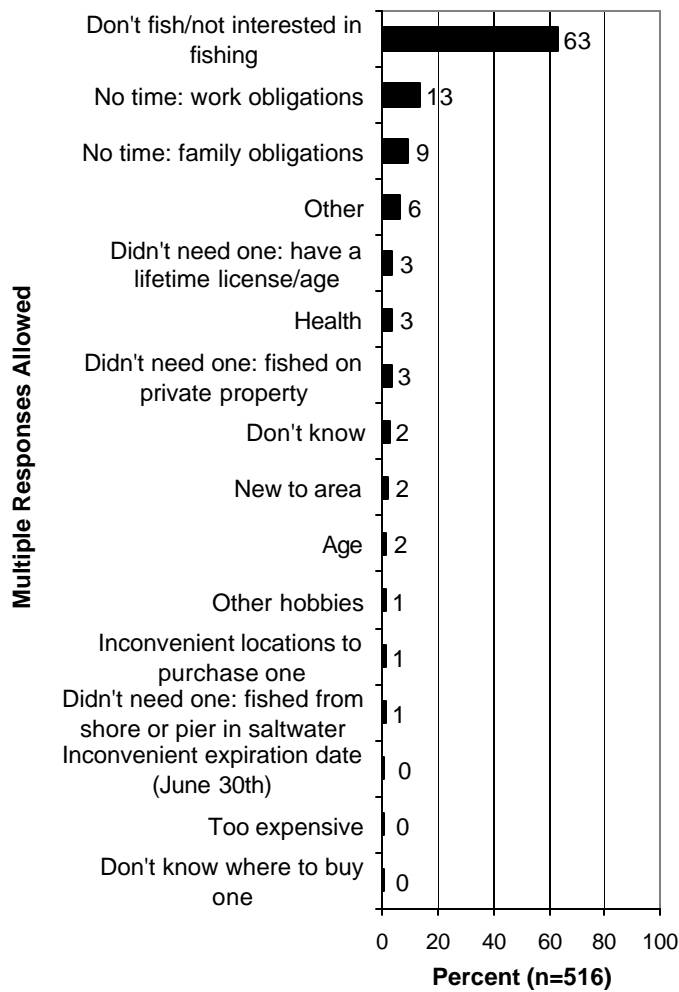
**Q94. Did you purchase a freshwater license, saltwater license, or both? (Asked of those who have purchased a fishing license in the past 2 years in South Carolina.)**



Of those who had not purchased a fishing license in South Carolina in the past 2 years, the leading reason for not doing so was that they don't fish and were not interested (63%). "Work obligations" was the second leading reason that respondents did not purchase a fishing license (13%), and "family obligations" was the third leading reason (9%). (Question 92).

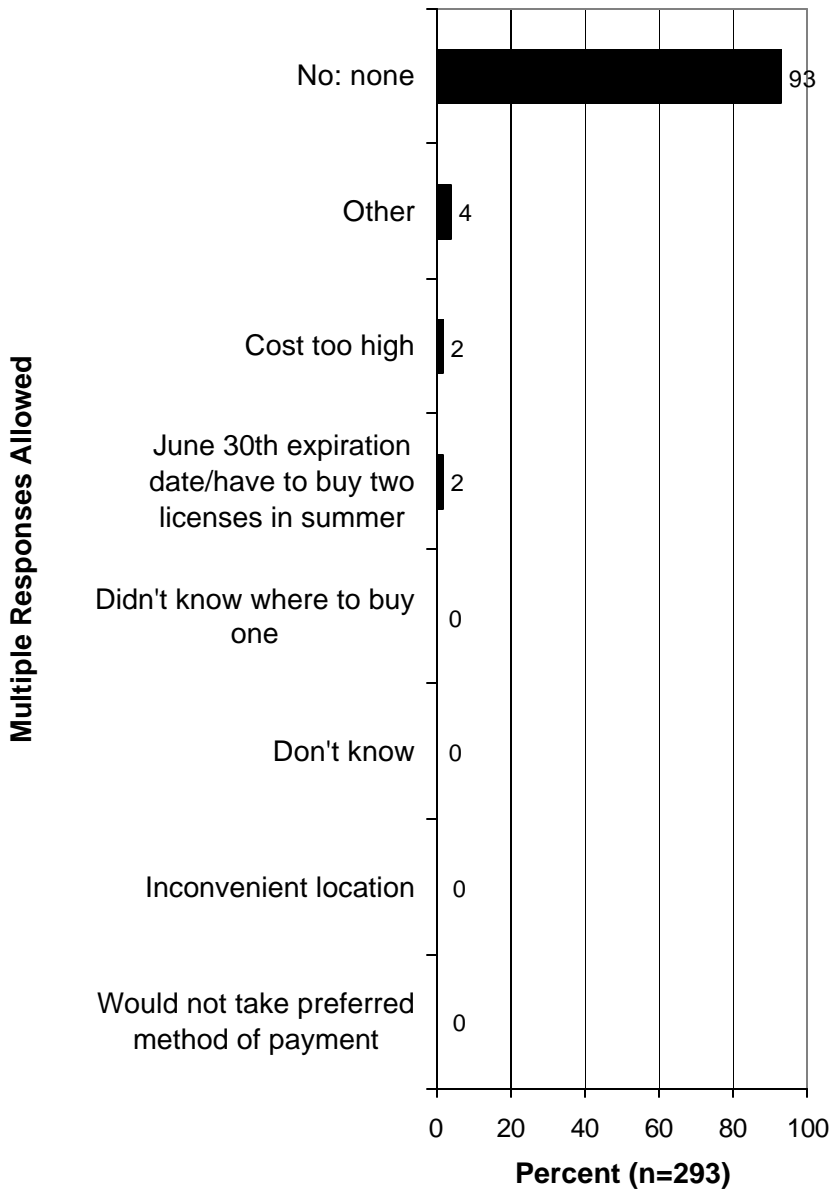
No statistically significant associations were found in characteristics and responses to Question 92.

**Q92. What are the main reasons you have not purchased a fishing license in the past 2 years in South Carolina? (Asked of those who have not purchased a fishing license in the past 2 years in South Carolina.)**



Of those who *had* purchased a fishing license in South Carolina in the past 2 years, 93% said that there had not been anything that hindered their buying a fishing license. (Question 96).

**Q96. Has anything ever hindered you from buying a fishing license? If yes: What was it? (Asked of those who have purchased a fishing license in the past 2 years in South Carolina.)**

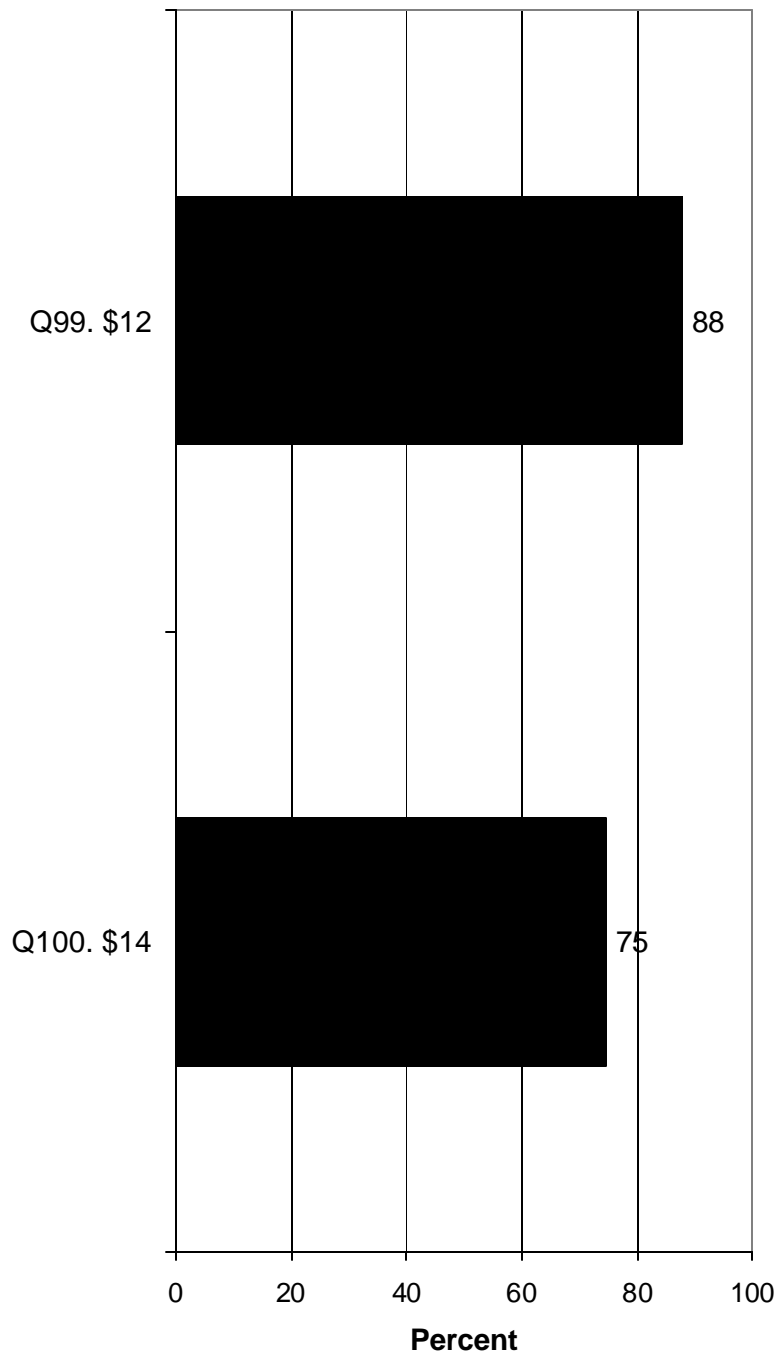


Each respondent who had purchased a fishing license in the past 2 years in South Carolina was asked one of two questions about the likelihood of their purchasing a fishing license in the next year at an increased cost. Large majorities answered each question that they would be very likely to purchase a fishing license the next year at the given cost: 88% said they would be very likely to purchase a license for \$12, and 75% said they would be very likely to purchase a license for \$14 (the current cost is \$10). Those saying that they would be not at all likely to purchase a license at the increased cost were at 4% for the \$12 cost and 10% for the \$14 cost. (Question 99 and Question 100).

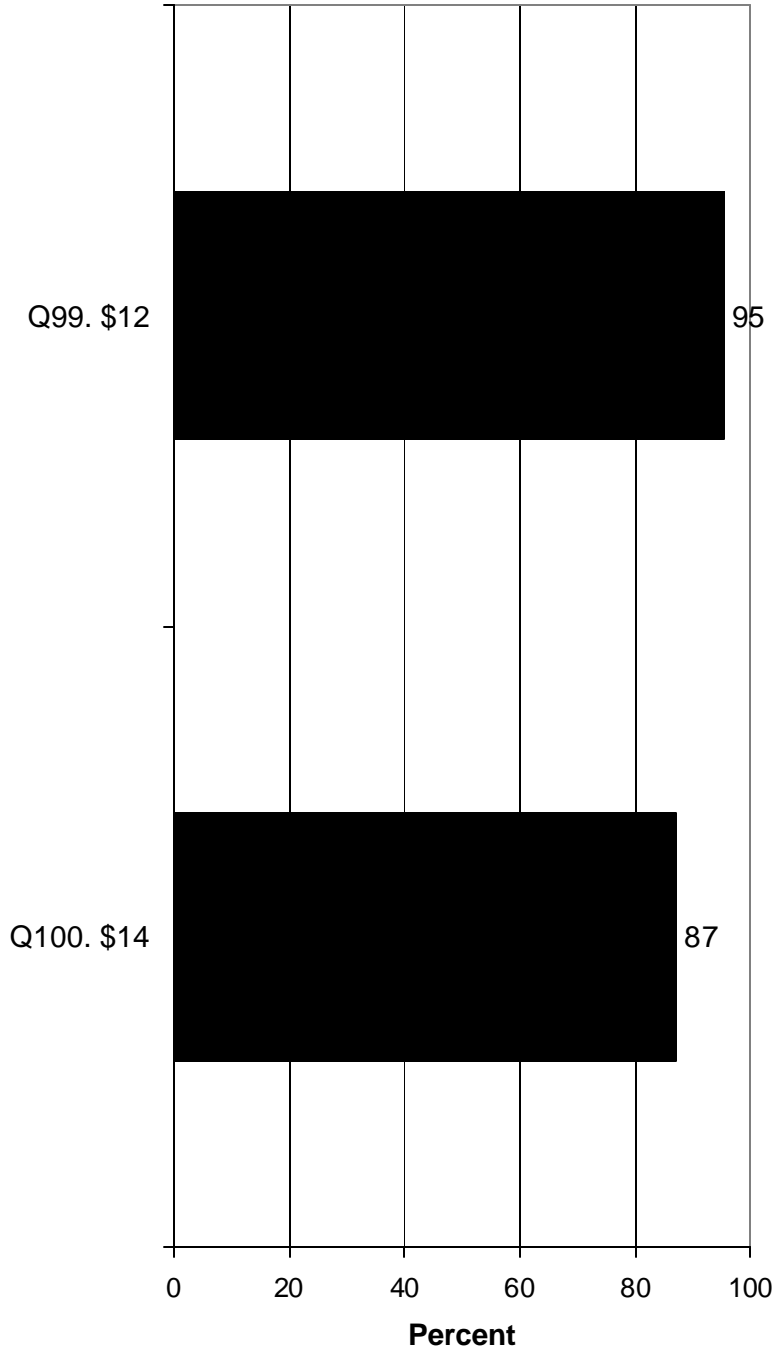
Following the graph showing the percentages saying that they would be very likely to purchase a license is the graph showing the percentages saying that they would be very or somewhat likely to purchase a license. The appendix contains the individual graphs for each question.



**Q99-100. Percent Saying They Would Be Very Likely to Purchase a License at the Following Cost**



**Q99-100. Percent Saying They Would Be Very or Somewhat Likely to Purchase a License at the Following Cost**



Q99. Currently, the price of a resident fishing license is \$10 in South Carolina. How likely would you be to purchase a license for next year if the cost increased to \$12? (Asked of approximately half of those who had purchased a fishing license in the past 2 years in SC) (Very or Somewhat Likely to Purchase a License at \$12)

STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
CHARACTERISTIC	Z-SCORE
Prefer information through magazines	-2.02*
Prefer information through license agent/sporting goods store	-2.02*
Prefer information through newspapers	-2.12*
Job is in agriculture/farming	-2.17*
Prefer information through SCDNR offices	-5.09***

↓

Most likely *not* to say very or somewhat likely.

Q99. Currently, the price of a resident fishing license is \$10 in South Carolina. How likely would you be to purchase a license for next year if the cost increased to \$12? (Asked of approximately half of those who have purchased a fishing license in the past 2 years in SC) (Not at All Likely to Purchase a License at \$12)

CHARACTERISTIC	Z-SCORE
Prefer information through SCDNR offices	5.54***
Job is in agriculture/farming	2.46*
Prefer information through newspapers	2.46*
Prefer information through license agent/sporting goods store	2.3*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	

Most likely to say that they would be not at all likely to purchase a license.

Q100. Currently, the price of a resident fishing license is \$10 in South Carolina. How likely would you be to purchase a license for next year if the cost increased to \$14? (Asked of approximately half of those who had purchased a fishing license in the past 2 years in SC) (Very or Somewhat Likely to Purchase a License at \$14)

STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
CHARACTERISTIC	Z-SCORE
Retired	-2.57*
Job is in military	-2.59**
Income is \$20,000 to \$39,999	-2.61**
65 or older	-3.09**

↓

Most likely *not* to say very or somewhat likely.


Q100. Currently, the price of a resident fishing license is \$10 in South Carolina. How likely would you be to purchase a license for next year if the cost increased to \$14? (Asked of approximately half of those who have purchased a fishing license in the past 2 years in SC) (Not at All Likely to Purchase a License at \$14)

CHARACTERISTIC	Z-SCORE
Job is in military	2.97**
65 or older	2.93**
Income is \$20,000 to \$39,999	2.06*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	

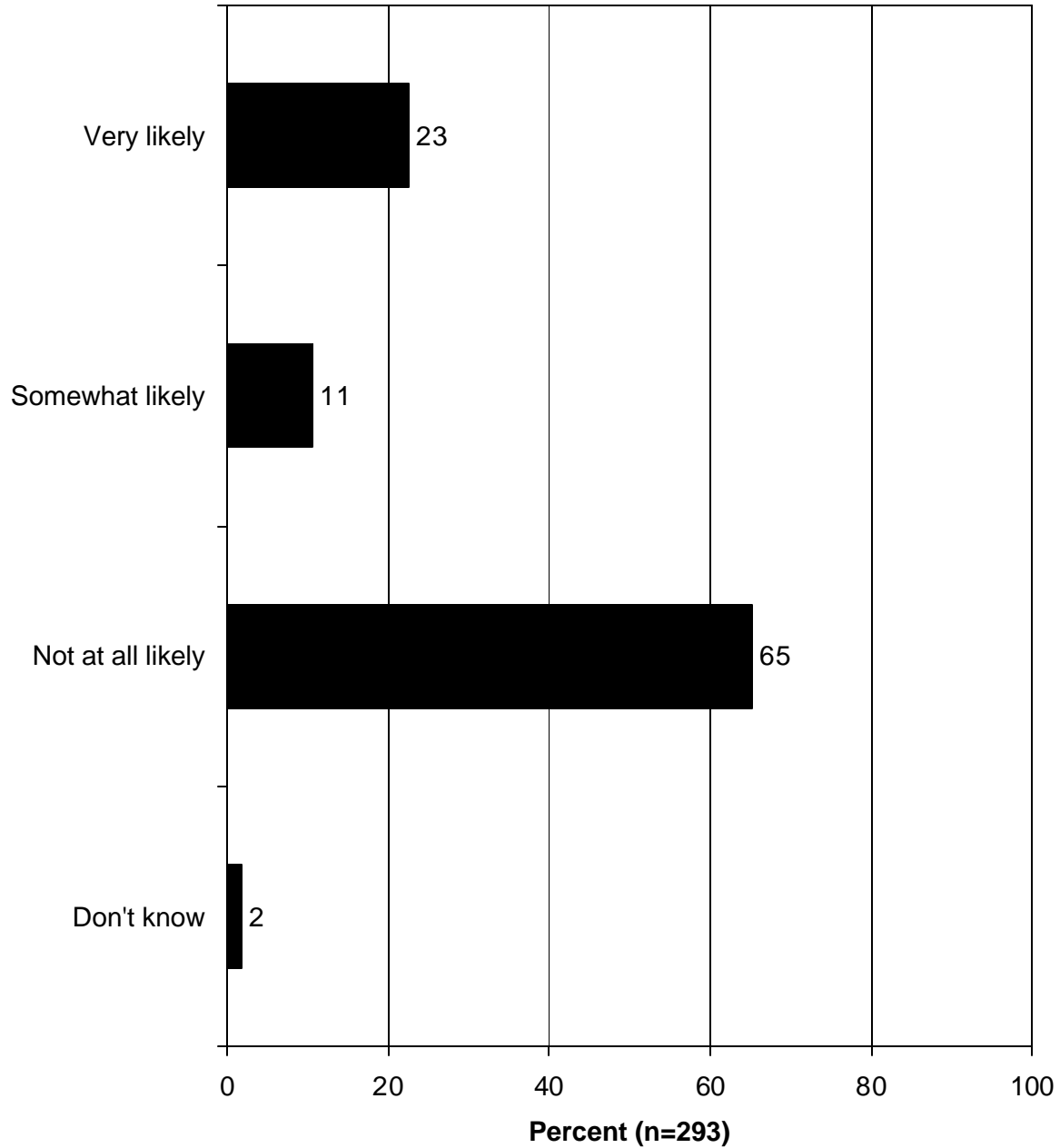
Most likely to say that they would be not at all likely to purchase a license.

Purchasing a license on the Internet using a credit card was not an appealing method to purchase a license for most respondents (those who had purchased a fishing license in the past 2 years): 65% said that they would be not at all likely to purchase a license this way, while only 23% said that they would be very likely to purchase a license in this way. A total of 34% said that they would be very or somewhat likely to purchase a license this way. The following are some of the characteristics that were associated with those who would purchase a license over the Internet using a credit card: they prefer getting information through the Internet; had fished in saltwater; had been sailing; had an household income of \$100,000 or more. (Question 101).

Q101. How likely would you be to purchase your license on the Internet using a credit card? (Asked of those who have purchased a fishing license in the past 2 years in South Carolina.) (Very or Somewhat Likely to Purchase a License on the Internet Using a Credit Card)

CHARACTERISTIC	Z-SCORE	
Prefer information through Internet	4.4***	Most likely to say very or somewhat likely. 
Fished in saltwater	3.2**	
Job is in consulting	2.89**	
Resides in small city or town	2.42*	
Been sailing	2.39*	
Income is \$100,000 or more	2.29*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Resides in rural area	-2.89**	Most likely <i>not</i> to say very or somewhat likely.

**Q101. How likely would you be to purchase your license on the Internet using a credit card? (Asked of those who have purchased a fishing license in the past 2 years in South Carolina.)**



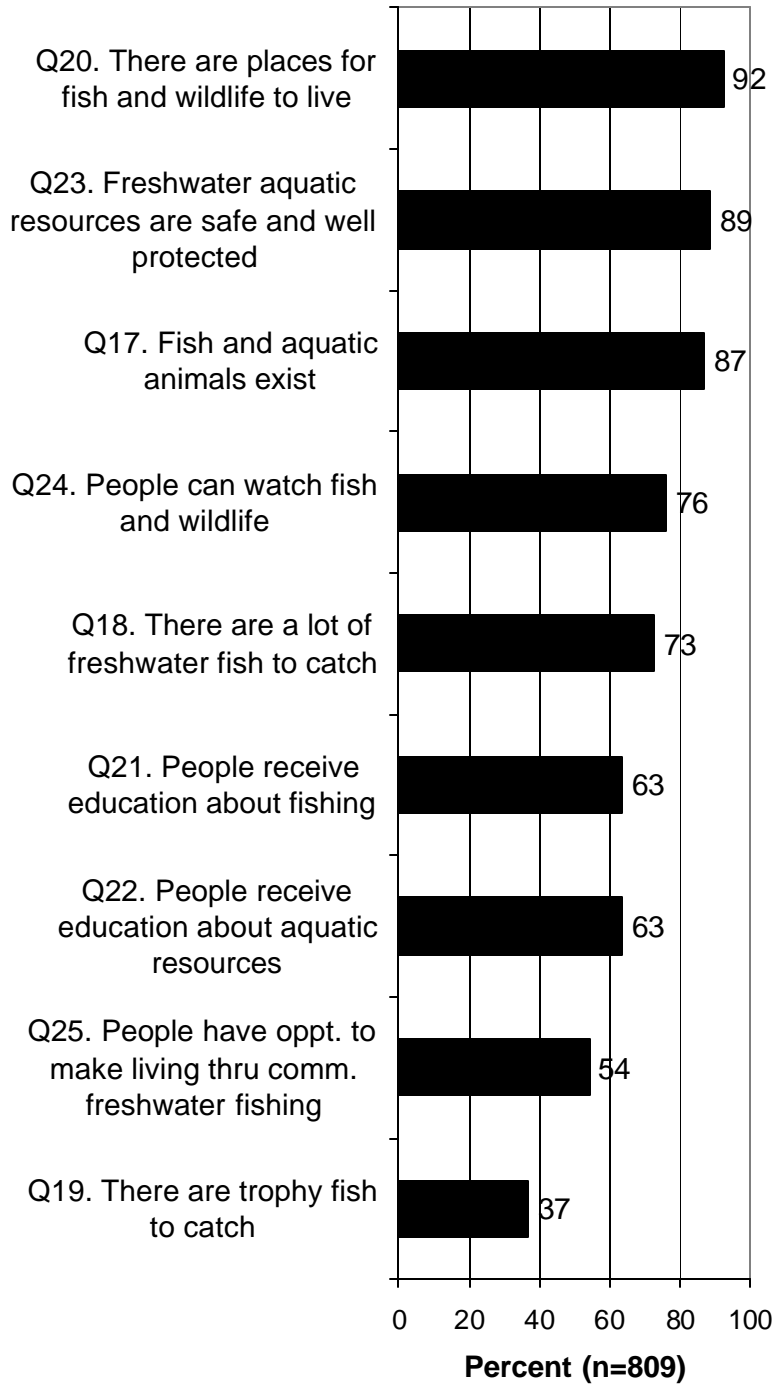
## **VALUES OF FRESHWATER AQUATIC RESOURCES**

The survey asked respondents to rate the importance of nine statements that assessed respondents values toward South Carolina's aquatic resources, and majorities thought all of them with the exception of one were *very* important. The top statement, with 92% saying it was very important, was that South Carolina's rivers, lakes, and streams provide places for fish and wildlife to live. Also with high percentages saying that the statements were very important were that freshwater aquatic resources are safe and well protected (89% saying this was very important) and that fish and aquatic animals exist in South Carolina (87%). The least valued statement was that there are trophy fish to catch, with only 37% saying this was very important. (Question 17 – Question 25).

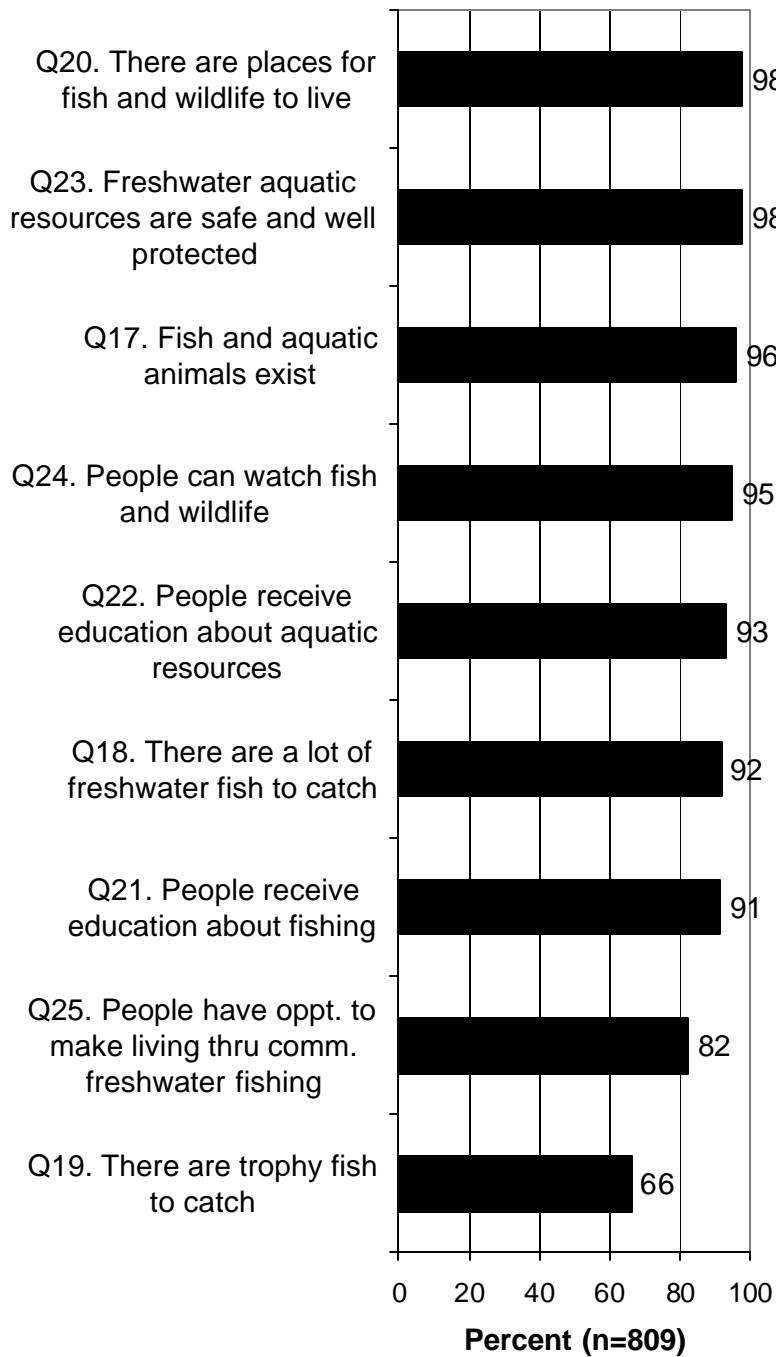
For each question, the z-score tabulation shows those characteristics/behaviors associated with the response that the statement is very or somewhat important. Of the 9 questions, 7 of them showed a positive significant correlation between those rating the program as very or somewhat important and having watched wildlife near water. Having been motorized boating and having been freshwater fishing were positively significantly correlated with those rating the program as very or somewhat important in 5 of the 9 questions, and being white was positively significantly correlated with those rating the program as very or somewhat important in 4 of the 9 questions.

Following the graph showing the percentages who said that the statements are very important is the graph showing the percentages who said that the statements are very or somewhat important. Each statement had a majority saying it was very or somewhat important. The appendix contains the individual graphs for each question.

### Q17-25. Percent Rating the Following as Very Important



### Q17-25. Percent Rating the Following as Very or Somewhat Important





Q20. Is it important or unimportant that South Carolina's rivers, lakes, and streams provide places for fish and wildlife to live? (Very or Somewhat Important that SC's Rivers, Lakes, and Streams Provide Places for Fish and Wildlife to Live)

CHARACTERISTIC	Z-SCORE
Watched wildlife near a lake, stream, or river	3.07**
Income is \$20,000 to \$39,999	2.11*
White	2.04*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Prefer information through regulations handbook	-1.97*
65 or older	-2.32*
Grades 1-12, but no HS diploma	-2.66**
Participated in none of the activities listed in Q6	-3.52***

Most likely to say very or somewhat important.



Most likely *not* to say very or somewhat important.



Q23. Is it important or unimportant that freshwater aquatic resources are safe and well protected in South Carolina? (Very or Somewhat Important that Freshwater Aquatic Resources Are Safe and Well Protected in SC)

STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
CHARACTERISTIC	Z-SCORE
Participated in none of the activities listed in Q6	-3.28**

Most likely *not* to say very or somewhat important.

Q17. Is it important or unimportant that fish and other aquatic animals exist in South Carolina? (Very or Somewhat Important that Fish and Other Aquatic Animals Exist in SC)

CHARACTERISTIC	Z-SCORE
Watched wildlife near a lake, stream, or river	3.92***
Been motorized boating	2.66**
White	2.46*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Income is less than \$19,999	-2.28*
65 or older	-3.14**
Other race	-3.36***
Retired	-4.01***
Participated in none of the activities listed in Q6	-4.26***

Most likely to say very or somewhat important.




Most likely *not* to say very or somewhat important.



Q24. Is it important or unimportant that people can watch fish and wildlife on and near South Carolina's rivers, lakes, and streams? (Very or Somewhat Important that People Can Watch Fish and Wildlife on and near SC's Rivers, Lakes, and Streams)

CHARACTERISTIC	Z-SCORE
Watched wildlife near a lake, stream, or river	3.81***
White	3.32***
Prefer information through direct mail	3**
Fished in freshwater	2.57*
Been motorized boating	2.17*
Some college or trade school	2.02*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Prefer information through regulations handbook	-2.63**
African-American	-3.08**
Participated in none of the activities listed in Q6	-4.19***

Most likely to say very or somewhat important.




Most likely *not* to say very or somewhat important.

Q18. Is it important or unimportant that there are a lot of freshwater fish to catch in South Carolina? (Very or Somewhat Important that There Are a lot of Freshwater Fish to Catch in SC)

CHARACTERISTIC	Z-SCORE
Watched wildlife near a lake, stream, or river	4.29***
Fished in freshwater	3.27**
Male	3.15**
Been motorized boating	2.82**
White	2.28*
Job is in industry	2.06*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Under 18 years old	-2.14*
Resides in small city or town	-2.32*
Student	-3**
Female	-3.15**
Participated in none of the activities listed in Q6	-5.36***

Most likely to say very or somewhat important.

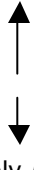


Most likely *not* to say very or somewhat important.

Q21. Is it important or unimportant that people in South Carolina receive education about fishing? (Very or Somewhat Important that People in SC Receive Education About Fishing)

CHARACTERISTIC	Z-SCORE
Resides in Mountain Region	2.61**
Prefer information through direct mail	2.5*
Watched wildlife near a lake, stream, or river	2.38*
Fished in freshwater	2.03*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Job is in agriculture/farming	-2.29*
Resides in small city or town	-2.45*
Homemaker	-2.47*
Participated in none of the activities listed in Q6	-2.8**

Most likely to say very or somewhat important.



Most likely *not* to say very or somewhat important.

Q22. Is it important or unimportant that people in South Carolina receive education regarding aquatic resources other than fishing? (Very or Somewhat Important that People in SC Receive Education Regarding Aquatic Resources Other than Fishing)

CHARACTERISTIC	Z-SCORE	
Watched wildlife near a lake, stream, or river	3.39***	Most likely to say very or somewhat important.
Fished in freshwater	2.91**	
Been motorized boating	2.64**	
25-34 years old	2.44*	
Resides in Mountain Region	2.28*	
Income is \$100,000 or more	2.12*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Participated in none of the activities listed in Q6	-3.71***	Most likely <i>not</i> to say very or somewhat important.

Q25. Is it important or unimportant that people have the opportunity to make a living through commercial freshwater fishing in South Carolina? (Very or Somewhat Important that People Have the Opportunity to Make a Living Through Commercial Freshwater Fishing in SC)

CHARACTERISTIC	Z-SCORE	
Income is \$60,000 to \$79,999	2.18*	Most likely to say very or somewhat important.
Job is in industry	2.11*	
Prefer information through direct mail	2.11*	
Under 18 years old	1.99*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Prefer information through license agent/sporting goods store	-2.65**	Most likely <i>not</i> to say very or somewhat important.
Grades 1-12, but no HS diploma	-3.08**	
65 or older	-3.33***	
Retired	-3.55***	

Q19. Is it important or unimportant that there are trophy fish to catch in South Carolina's lakes, rivers, and streams? (Very or Somewhat Important that There Are Trophy Fish to Catch in SC's Lakes, Rivers, and Streams)

CHARACTERISTIC	Z-SCORE
Male	7.46***
Fished in freshwater	5.61***
Been motorized boating	5.05***
Watched wildlife near a lake, stream, or river	3.95***
Fished in saltwater	3.38***
Job is in industry	3.29**
Some college or trade school	2.84**
Job is in construction/development	2.62**
Resides in Piedmont Region	2.09*
Prefer information through pamphlets/brochures	2.07*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Resides in small city or town	-2*
Unemployed	-2.19*
Homemaker	-3.27**
Participated in none of the activities listed in Q6	-5.6***
Female	-7.46***

Most likely to say very or somewhat important.



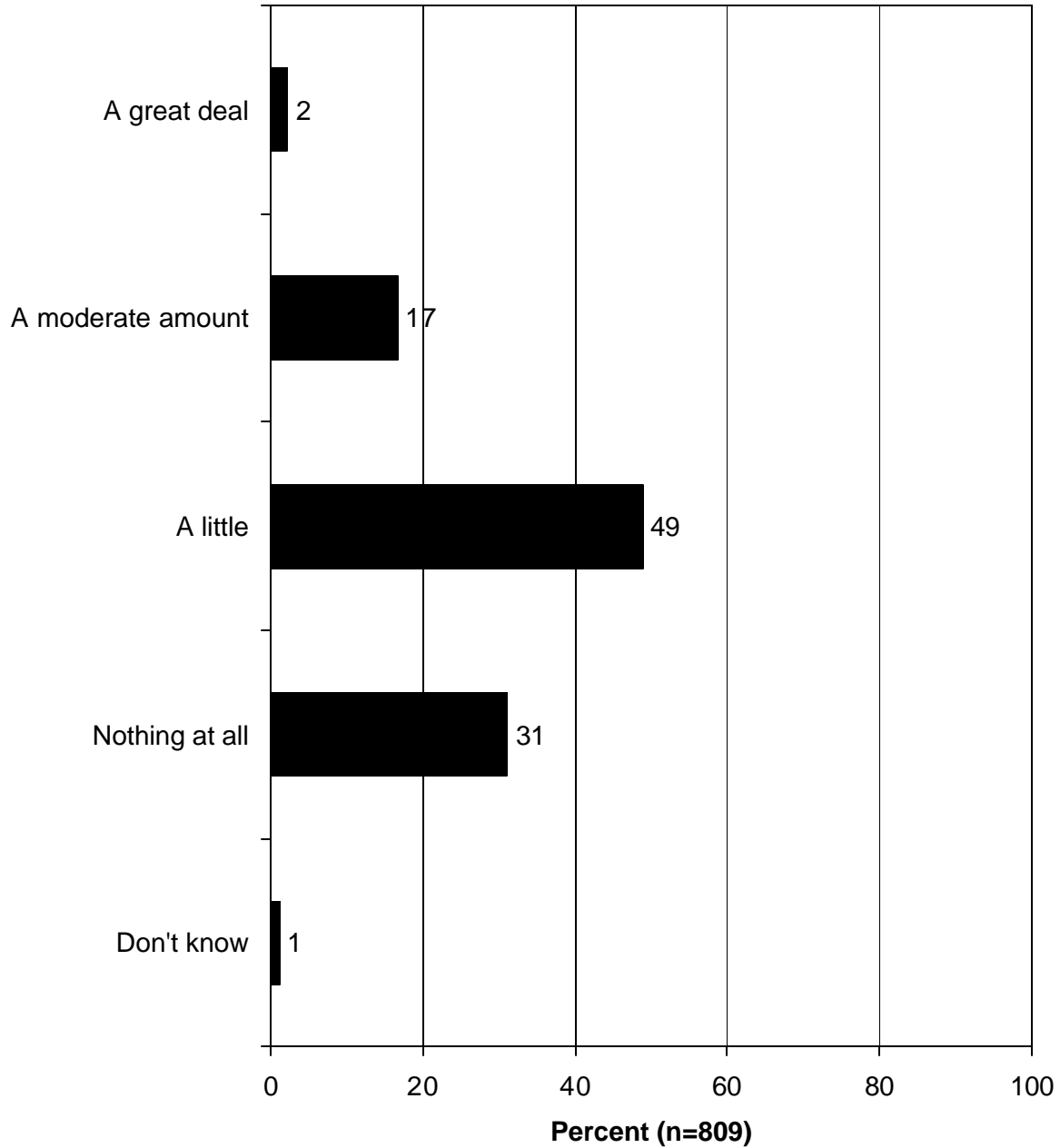
Most likely *not* to say very or somewhat important.



## **KNOWLEDGE OF AND OPINIONS ON SCDNR'S FRESHWATER FISHERIES AND AQUATIC RESOURCES PROGRAMS**

A large majority (80%) of respondents knew little or nothing at all about the SCDNR's freshwater fisheries and aquatic resources programs, while 19% knew a great deal or moderate amount (with only 2% saying they knew a great deal). The following are some of the characteristics that are associated with those who knew a great deal or moderate amount about the SCDNR's freshwater fisheries and aquatic resources programs: had fished in freshwater and/or saltwater; are male; had participated in motorized boating, watching wildlife near water, canoeing or kayaking, or sailing; had a job in construction/development or public service; and identified themselves as native American or white. (Question 37).

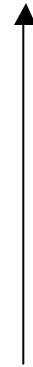
**Q37. Overall, how much would you say you know about the South Carolina DNR's freshwater fisheries and aquatic resources programs?**



Q37. Overall, how much would you say you know about the South Carolina DNR's freshwater fisheries and aquatic resources programs? (Knew a Great Deal or Moderate Amount About SCDNR's Freshwater Fisheries and Aquatic Resources Programs)

CHARACTERISTIC	Z-SCORE
Fished in freshwater	9.02***
Fished in saltwater	8.27***
Male	6.65***
Been motorized boating	6.28***
Watched wildlife near a lake, stream, or river	4.86***
Been canoeing or kayaking	3.14**
Job is in construction/development	2.97**
Native American	2.82**
Been sailing	2.79**
White	2.74**
45-54 years old	2.55*
Job is in public service	2.47*
Income is \$40,000 to \$59,999	2.31*
College graduate	2.24*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Grades 1-12, but no HS diploma	-2.58**
Job is in clerical	-2.63**
Student	-2.7**
Homemaker	-3.12**
African-American	-3.28**
Female	-6.65***
Participated in none of the activities listed in Q6	-6.78***


Most likely to say they knew a great deal or moderate amount.



Most likely *not* to say they knew a great deal or moderate amount.



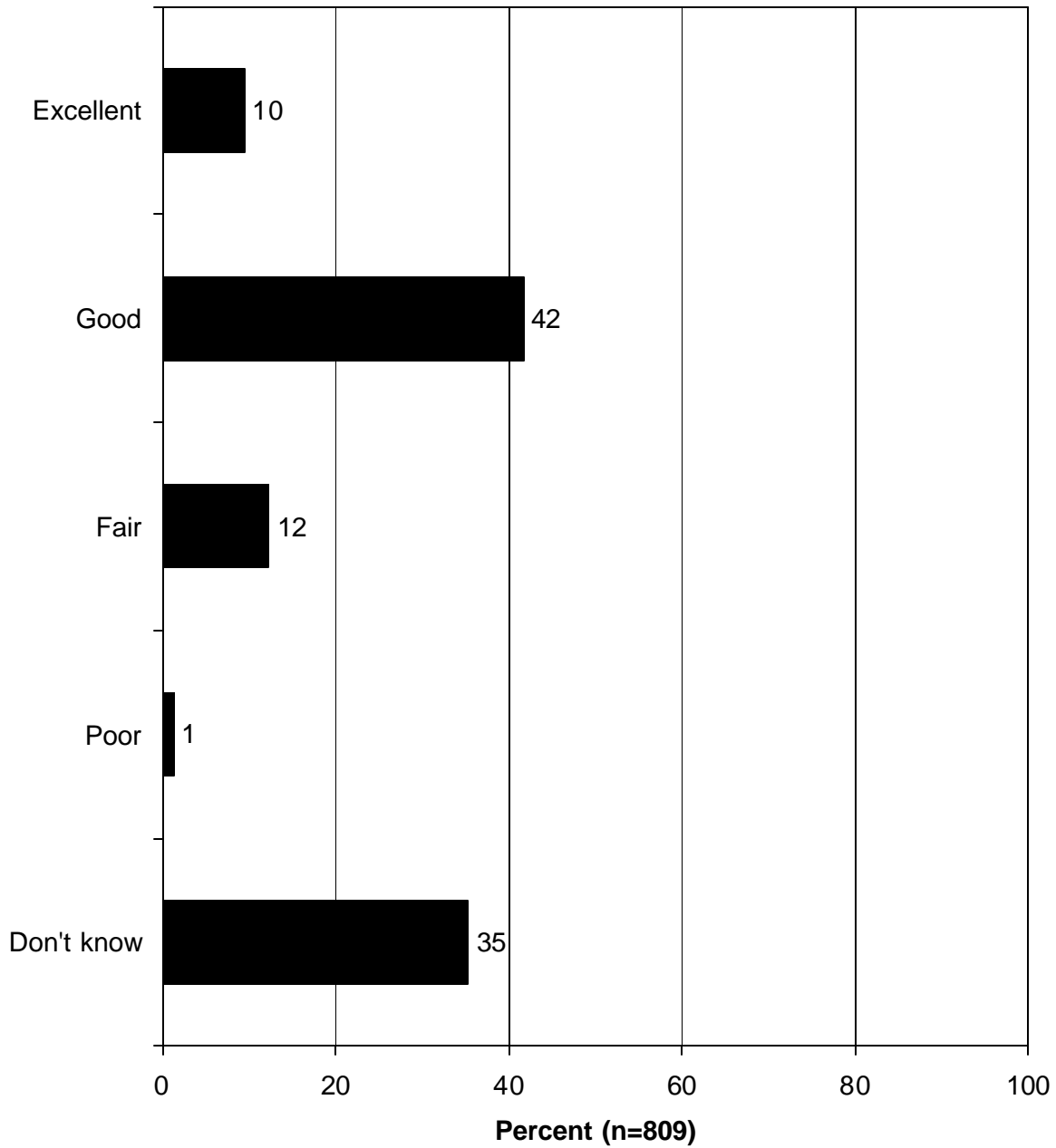
Q37. Overall, how much would you say you know about the South Carolina DNR's freshwater fisheries and aquatic resources programs? (Knew Nothing at All About the SCDNR's Freshwater Fisheries and Aquatic Resources Programs)

CHARACTERISTIC	Z-SCORE	
Participated in none of the activities listed in Q6	9.14***	Most likely to say they knew nothing at all. 
Female	6.35***	
25-34 years old	3.84***	
African-American	3.65***	
Other race	2.31*	
Grades 1-12, but no HS diploma	2.29*	
Student	2.27*	
Job is in clerical	2.21*	
<b>STATISTICALLY INSIGNIFICANT VARIABLES OMITTED</b>		
Been sailing	-2.08*	
Been canoeing or kayaking	-2.44*	
Prefer information through SCDNR offices	-2.63**	
Prefer information through license agent/sporting goods store	-2.63**	
45-54 years old	-3.1**	
Fished in freshwater	-4.59***	
White	-5.38***	
Been motorized boating	-5.89***	
Male	-6.35***	
Fished in saltwater	-6.7***	
Watched wildlife near a lake, stream, or river	-7.51***	



A majority (52%) of respondents said that the SCDNR does an excellent or good job of managing the state's freshwater fisheries and aquatic resources, broken down to 10% saying excellent and 42% saying good. Only 1% rated the SCDNR's performance as poor, and a relatively high percentage answered that they did not know (35%). The following are some of the characteristics that are associated with those who rated the SCDNR's performance at managing the state's freshwater fisheries and aquatic resources as excellent or good: are male; had fished in freshwater or saltwater; had a job in construction/development; had participated in motorized boating and/or watching wildlife near water; and identified themselves as white. (Question 38).

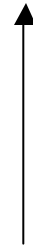
**Q38. Overall, would you say the South Carolina DNR does an excellent, good, fair, or poor job of managing the state's freshwater fisheries and aquatic resources?**



Q38. Overall, would you say the South Carolina DNR does an excellent, good, fair, or poor job of managing the state's freshwater fisheries and aquatic resources? (Rated the Performance of the SCDNR in Managing the State's Freshwater Fisheries and Aquatic Resources as Excellent or Good)

CHARACTERISTIC	Z-SCORE
Male	6.85***
Fished in freshwater	6.83***
Job is in construction/development	4.53***
Fished in saltwater	3.9***
Been motorized boating	3.61***
Watched wildlife near a lake, stream, or river	3.36***
White	3.05**
Prefer information through SCDNR offices	2.78**
Income is \$40,000 to \$59,999	2.77**
Resides in large city or urban area	2.26*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Other race	-1.96*
Grades 1-12, but no HS diploma	-2.09*
African-American	-2.33*
Homemaker	-3.18**
Participated in none of the activities listed in Q6	-3.94***
Female	-6.85***

Most likely to say excellent or good.



Most likely *not* to say excellent or good.



Q38. Overall, would you say the South Carolina DNR does an excellent, good, fair, or poor job of managing the state's freshwater fisheries and aquatic resources? (Rated the Performance as Poor)

CHARACTERISTIC	Z-SCORE
Homemaker	2.82**
65 or older	2.79**
Retired	2.46*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	

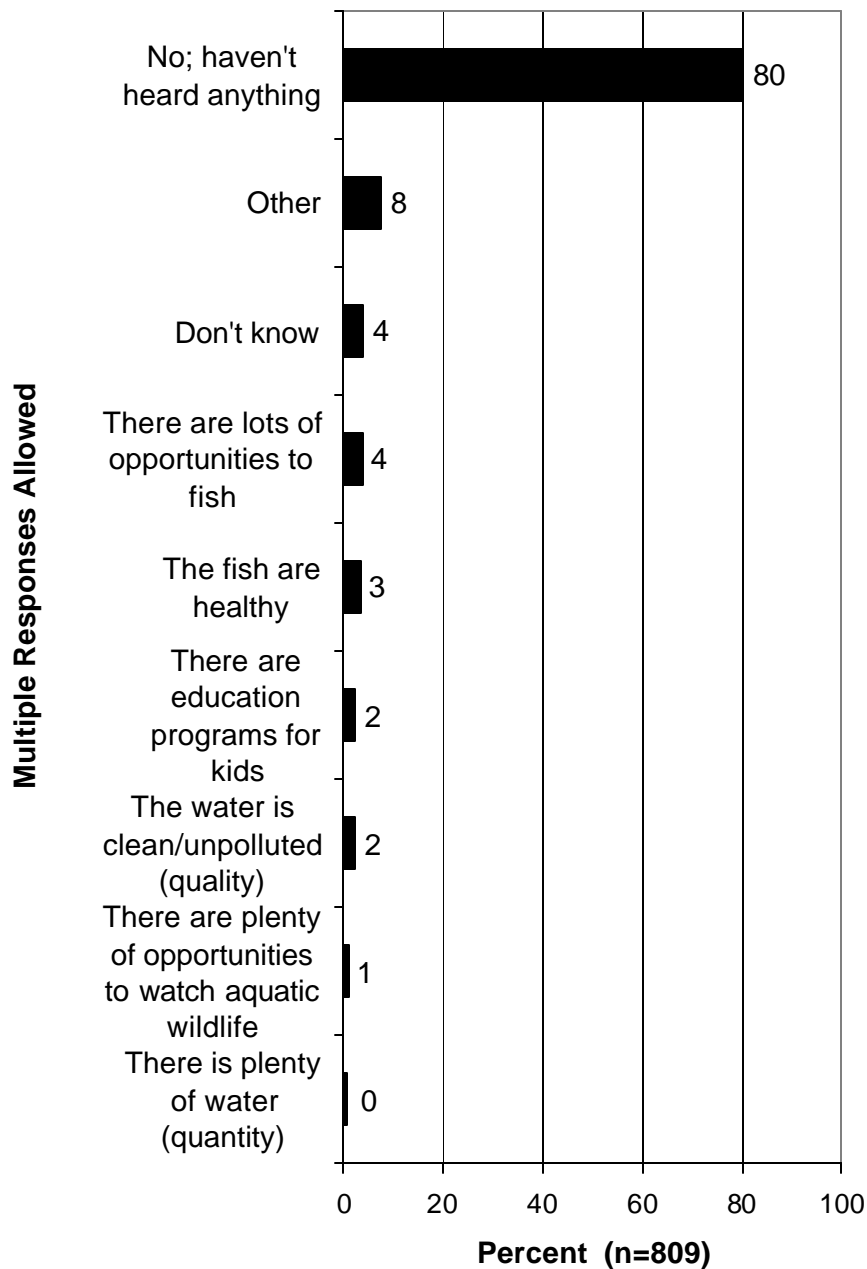
Most likely to rate performance as poor.



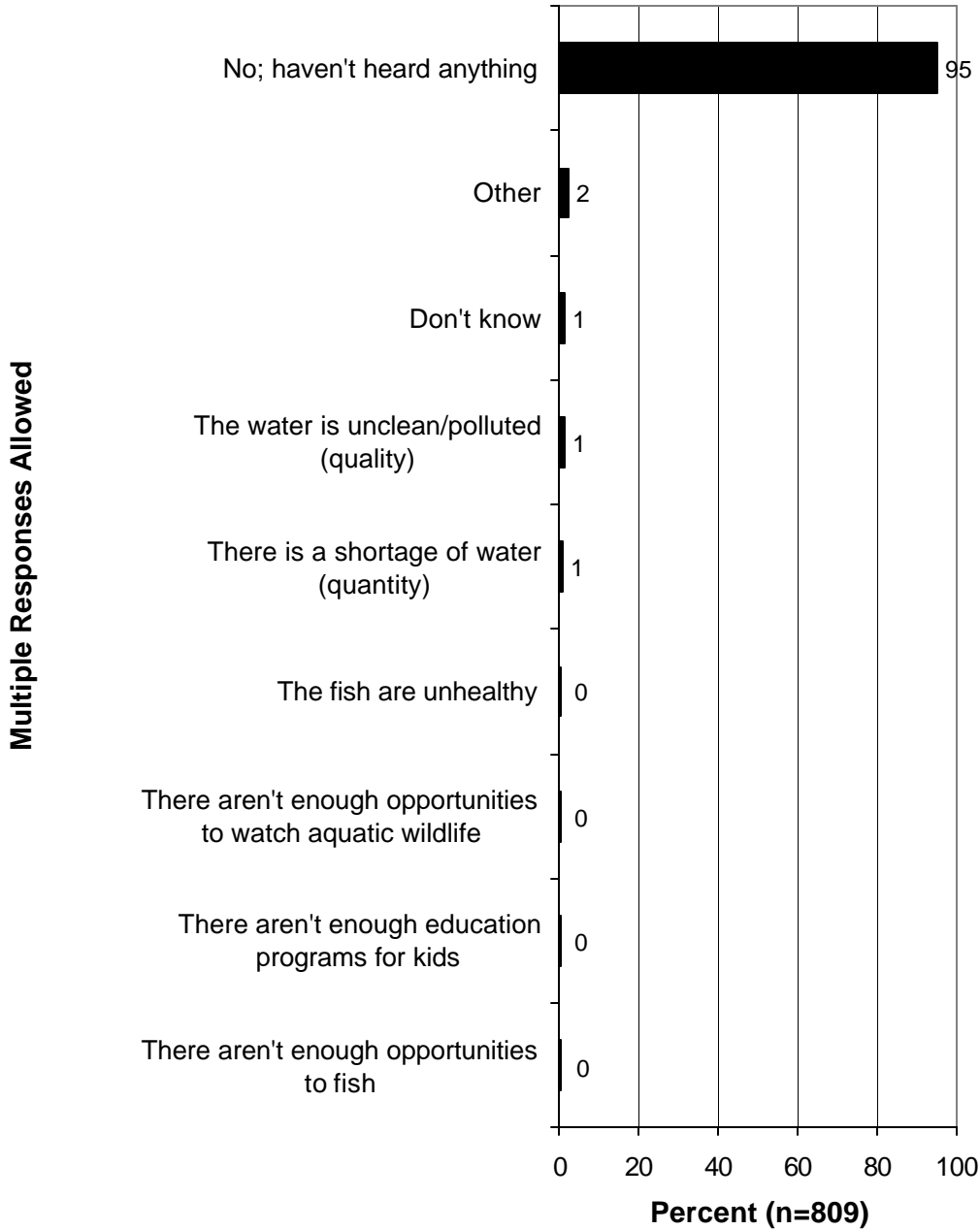
Despite the fact that a slight majority of respondents rated the SCDNR's performance of managing the state's freshwater fisheries and aquatic resources as excellent or good, 80% said that they had not heard any good things about the SCDNR's freshwater fisheries and aquatic resources programs. On the other hand, 95% said that they had not heard any *bad* things about the SCDNR's freshwater fisheries and aquatic resources programs. (Question 40 and Question 43).

No statistically significant associations were found in characteristics and responses to Questions 40 and 43.

**Q40. Have you heard any good things about the South Carolina DNR's freshwater fisheries and aquatic resource programs? If yes: What did you hear?**



**Q43. Have you heard any bad things about the South Carolina DNR's freshwater fisheries and aquatic resource programs? If yes: What did you hear?**



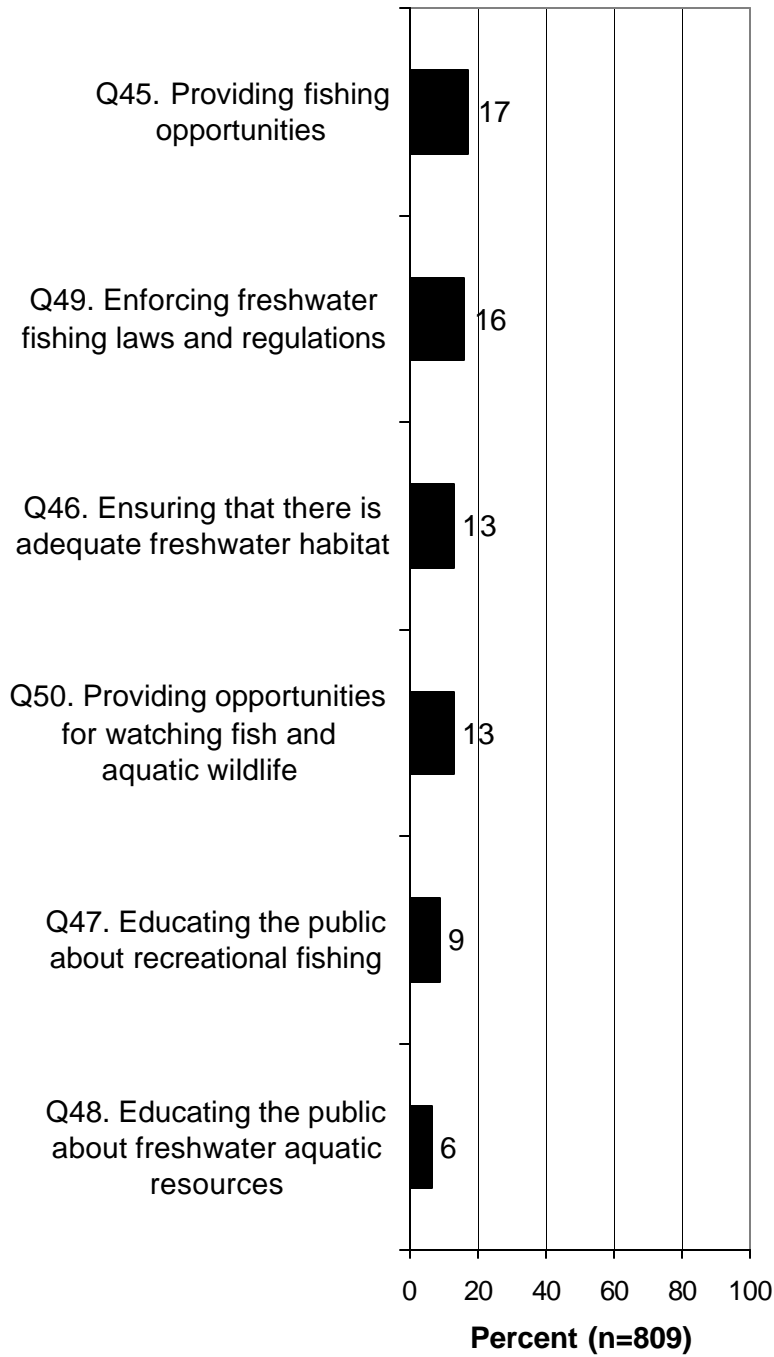
Respondents were asked to rate six of the SCDNR's efforts, as summarized in the tabulation on the following page. Roughly a third answered "don't know" for each question. Otherwise, the lowest ratings were for educational efforts, and the highest ratings were for providing opportunities to fish, enforcing fishing laws and regulations, ensuring that there is adequate habitat, and providing opportunities to watch aquatic wildlife. (Question 45 – Question 50).

The z-scores associated with those who rated the performance as excellent or good for each question are shown below, as well. In the rating of the 6 efforts, some commonalities were found in the z-score analysis. The most important commonality was that having watched wildlife near water was positively significantly correlated with a rating of excellent or good for all 6 efforts. Those characteristics/behaviors positively significantly correlated with ratings of excellent or good in 5 of the 6 efforts were having fished in freshwater and/or saltwater, having been motorized boating, being male, and working in construction/development.

Regarding those who rated the efforts as poor, the only commonality in the z-score analysis was that having been sailing was positively significantly correlated with those rating the efforts as poor in 3 of the 6 efforts.

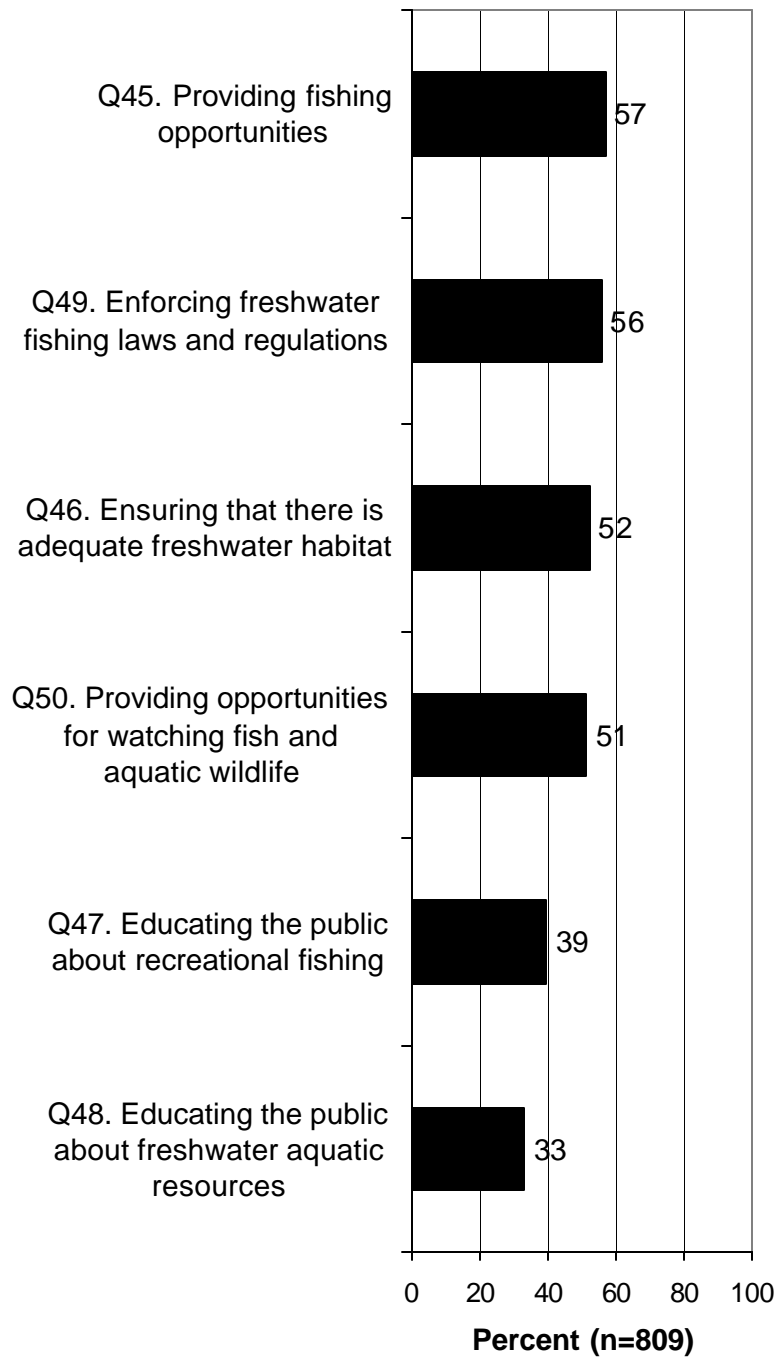
Following the graph showing the percentages rating the efforts as excellent is the graph showing the percentages rating the efforts as excellent or good. The appendix contains the individual graphs for each question.

### Q45-50. Percent Rating the Following DNR Efforts as Excellent





### Q45-50. Percent Rating the Following DNR Efforts as Excellent or Good



**Rating of SCDNR's Aquatic Efforts and Responsibilities (Ranked by Percent Rating It as Excellent)**

Effort	Percent Rating Effort as Excellent	Percent Rating Effort as Excellent or Good	Percent Rating Effort as Poor	Percent Answering "Don't Know"
Q45. Providing fishing opportunities	17	57	2	32
Q49. Enforcing freshwater fishing laws and regulations	16	56	3	32
Q46. Ensuring that there is adequate freshwater habitat	13	52	1	36
Q50. Providing opportunities for watching fish and aquatic wildlife	13	51	4	30
Q47. Educating the public about recreational fishing	9	39	9	31
Q48. Educating the public about freshwater aquatic resources	6	33	10	35

Q45. Overall, how would you rate the performance of the South Carolina DNR in providing fishing opportunities in South Carolina's freshwaters? (Rated the Performance of the SCDNR in Providing Fishing Opportunities in SC's Freshwaters as Excellent or Good)

CHARACTERISTIC	Z-SCORE
Fished in freshwater	6.93***
Watched wildlife near a lake, stream, or river	6.46***
Male	5.25***
Been motorized boating	4.41***
Job is in construction/development	3.16**
High school graduate or equivalent	2.66**
Prefer information through pamphlets/brochures	2.59**
45-54 years old	2.3*
Fished in saltwater	2.24*
Resides in Mountain Region	2.15*
Prefer information through license agent/sporting goods store	2.01*
Job is in public service	1.98*
<b>STATISTICALLY INSIGNIFICANT VARIABLES OMITTED</b>	
65 or older	-2.1*
Homemaker	-2.15*
Resides in Low County Region	-2.65**
Female	-5.25***
Participated in none of the activities listed in Q6	-6.69***

Most likely to say excellent or good.



Most likely *not* to say excellent or good.

Q45. Overall, how would you rate the performance of the South Carolina DNR in providing fishing opportunities in South Carolina's freshwaters? (Rated the Performance as Poor)

CHARACTERISTIC	Z-SCORE	
Hispanic	2.94**	Most likely to rate performance as poor.
Grades 1-12, but no HS diploma	2.1*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Prefer information through direct mail	-2.67**	Most likely <i>not</i> to rate performance as poor.

Q49. How would you rate the performance of the South Carolina DNR in enforcing freshwater fishing laws and regulations? (Rated the Performance as Poor)

CHARACTERISTIC	Z-SCORE	
Retired	2.96**	Most likely to rate performance as poor.
Been sailing	2.75**	
Prefer information through radio	2.71**	
Resides in Low County Region	2.44*	
Prefer information through license agent/sporting goods store	2.33*	
Fished in saltwater	2.1*	↑
Fished in freshwater	1.97*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Prefer information through Internet	-2.14*	Most likely <i>not</i> to rate performance as poor.

Q46. How would you rate the performance of the South Carolina DNR's efforts to ensure there is adequate aquatic freshwater habitat in South Carolina? (Rated the Performance of the SCDNR in Ensuring There Is Adequate Aquatic Habitat in SC as Excellent or Good)

CHARACTERISTIC	Z-SCORE	
Male	5.38***	Most likely to say excellent or good.
Fished in freshwater	5.24***	
Watched wildlife near a lake, stream, or river	5***	
Been motorized boating	3.17**	
Job is in construction/development	2.99**	
45-54 years old	2.59**	
High school graduate or equivalent	2.28*	↑
Fished in saltwater	2.01*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
25-34 years old	-2.2*	↓
Income is \$100,000 or more	-2.28*	
Homemaker	-4.43***	
Participated in none of the activities listed in Q6	-5.08***	
Female	-5.38***	

Q46. How would you rate the performance of the South Carolina DNR's efforts to ensure there is adequate aquatic freshwater habitat in South Carolina? (Rated the Performance as Poor)

CHARACTERISTIC	Z-SCORE
Job is in public service	2.33*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	

Most likely to rate performance as poor.

Q50. How would you rate the performance of the South Carolina DNR in providing opportunities to watch fish and wildlife on and near South Carolina's rivers, lakes, and streams? (Rated the Performance of the SCDNR in Providing Opportunities to Watch Fish and Wildlife on and near SC's Rivers, Lakes, and Streams as Excellent or Good)

CHARACTERISTIC	Z-SCORE
Watched wildlife near a lake, stream, or river	5.62***
Fished in freshwater	4.49***
Been motorized boating	4.04***
Male	3.75***
Prefer information through pamphlets/brochures	3.24**
Fished in saltwater	2.64**
Prefer information through SCDNR offices	2.25*
18-24 years old	2.08*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Resides in Piedmont Region	-2.41*
Income is \$100,000 or more	-2.95**
Female	-3.75***
Participated in none of the activities listed in Q6	-5.3***

Most likely to say excellent or good.



Most likely *not* to say excellent or good.


Q50. How would you rate the performance of the South Carolina DNR in providing opportunities to watch fish and wildlife on and near South Carolina's rivers, lakes, and streams? (Rated the Performance as Poor)

CHARACTERISTIC	Z-SCORE
Resides in Piedmont Region	3.41***
Retired	2.39*
Prefer information through magazines	2.32*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Prefer information through direct mail	-2.35*


Most likely to rate performance as poor.

Most likely *not* to rate performance as poor.

Q47. How would you rate the performance of the South Carolina DNR in educating the public about recreational fishing in South Carolina's freshwaters? (Rated the Performance of the SCDNR in Educating the Public About Recreational Fishing in SC's Freshwaters as Excellent or Good)

CHARACTERISTIC	Z-SCORE	
Fished in freshwater	4.05***	Most likely to say excellent or good.  Most likely <i>not</i> to say excellent or good.
Been motorized boating	3.46***	
Prefer information through SCDNR offices	3.26**	
Watched wildlife near a lake, stream, or river	3.2**	
Job is in construction/development	3.12**	
Prefer information through pamphlets/brochures	3.05**	
Male	2.49*	
High school graduate or equivalent	2.47*	
Prefer information through radio	2.36*	
Income is \$40,000 to \$59,999	2.17*	
Income is \$20,000 to \$39,999	2.15*	
Resides in rural area	2*	
Fished in saltwater	2*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Job is in consulting	-2.01*	
Female	-2.49*	
Income is \$100,000 or more	-3.69***	
Participated in none of the activities listed in Q6	-3.7***	

Q47. How would you rate the performance of the South Carolina DNR in educating the public about recreational fishing in South Carolina's freshwaters? (Rated the Performance as Poor)

CHARACTERISTIC	Z-SCORE	
Job is in teaching/education	3.45***	Most likely to rate performance as poor.  Most likely <i>not</i> to rate performance as poor.
High school graduate or equivalent	2.53*	
Been sailing	2.41*	
35-44 years old	2.36*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
45-54 years old	-2.19*	

Q48. How would you rate the performance of the South Carolina DNR in educating the public about freshwater aquatic resources other than fishing? (Rated the Performance of the SCDNR in Educating the Public About Freshwater Aquatic Resources Other than Fishing as Excellent or Good)

CHARACTERISTIC	Z-SCORE
Job is in construction/development	3.39***
Watched wildlife near a lake, stream, or river	2.93**
Prefer information through pamphlets/brochures	2.41*
Prefer information through SCDNR offices	2.24*
Unemployed	2.24*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Job is in teaching/education	-1.99*
Participated in none of the activities listed in Q6	-3.03**
Income is \$100,000 or more	-3.09**

Most likely to say excellent or good.



Most likely *not* to say excellent or good.

Q48. How would you rate the performance of the South Carolina DNR in educating the public about freshwater aquatic resources other than fishing? (Rated the Performance as Poor)

CHARACTERISTIC	Z-SCORE
Job is in teaching/education	2.61**
Fished in saltwater	2.1*
Male	2.09*
Been sailing	2.08*
Student	1.99*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Female	-2.09*
Job is in public service	-2.31*

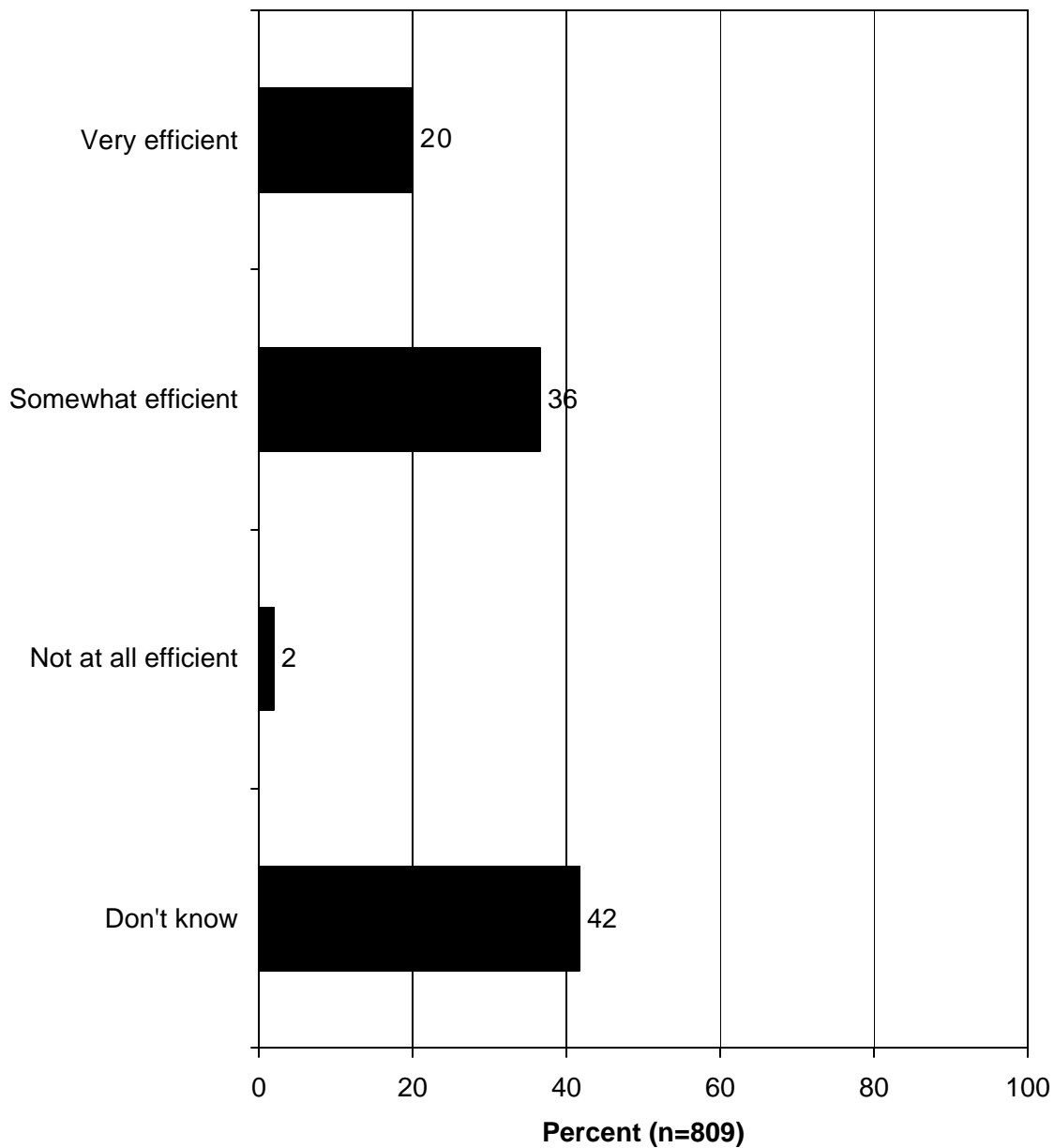
Most likely to rate performance as poor.



Most likely *not* to rate performance as poor.

A majority (56%) said the SCDNR is very or somewhat efficient in spending its money for freshwater fisheries and aquatic resources (20% saying very efficient). Only 2% said the SCDNR is not at all efficient, and 42% said that they did not know. (Question 80).

**Q80. Overall, would you say the South Carolina DNR is very efficient, somewhat efficient, or not at all efficient in spending its money for freshwater fisheries and aquatic resources?**



Q80. Overall, would you say the South Carolina DNR is very efficient, somewhat efficient, or not at all efficient in spending its money for freshwater fisheries and aquatic resources? (Rated the SCDNR as Very or Somewhat Efficient in Spending Its Money for Freshwater Fisheries and Aquatic Resources)

CHARACTERISTIC	Z-SCORE
Fished in freshwater	8.46***
Male	7.53***
Fished in saltwater	3.91***
Been motorized boating	3.88***
Income is \$40,000 to \$59,999	3.29**
Job is in construction/development	2.9**
Job is in industry	2.83**
Income is \$20,000 to \$39,999	2.68**
Watched wildlife near a lake, stream, or river	2.54*
Prefer information through SCDNR offices	2.38*
Resides in Mountain Region	2.36*
Prefer information through direct mail	2.3*
Job is in agriculture/farming	2.27*
Prefer information through magazines	2.15*
Prefer information through pamphlets/brochures	2.1*
Prefer information through license agent/sporting goods store	2.03*
Job is in military	1.97*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Resides in suburban area	-2.06*
Job is in consulting	-2.51*
Job is in teaching/education	-2.55*
Income is \$100,000 or more	-3.25**
Homemaker	-3.51***
Graduate or professional degree	-4.04***
Participated in none of the activities listed in Q6	-4.51***
Female	-7.53***

Most likely to say very or somewhat efficient.



Most likely *not* to say very or somewhat efficient.





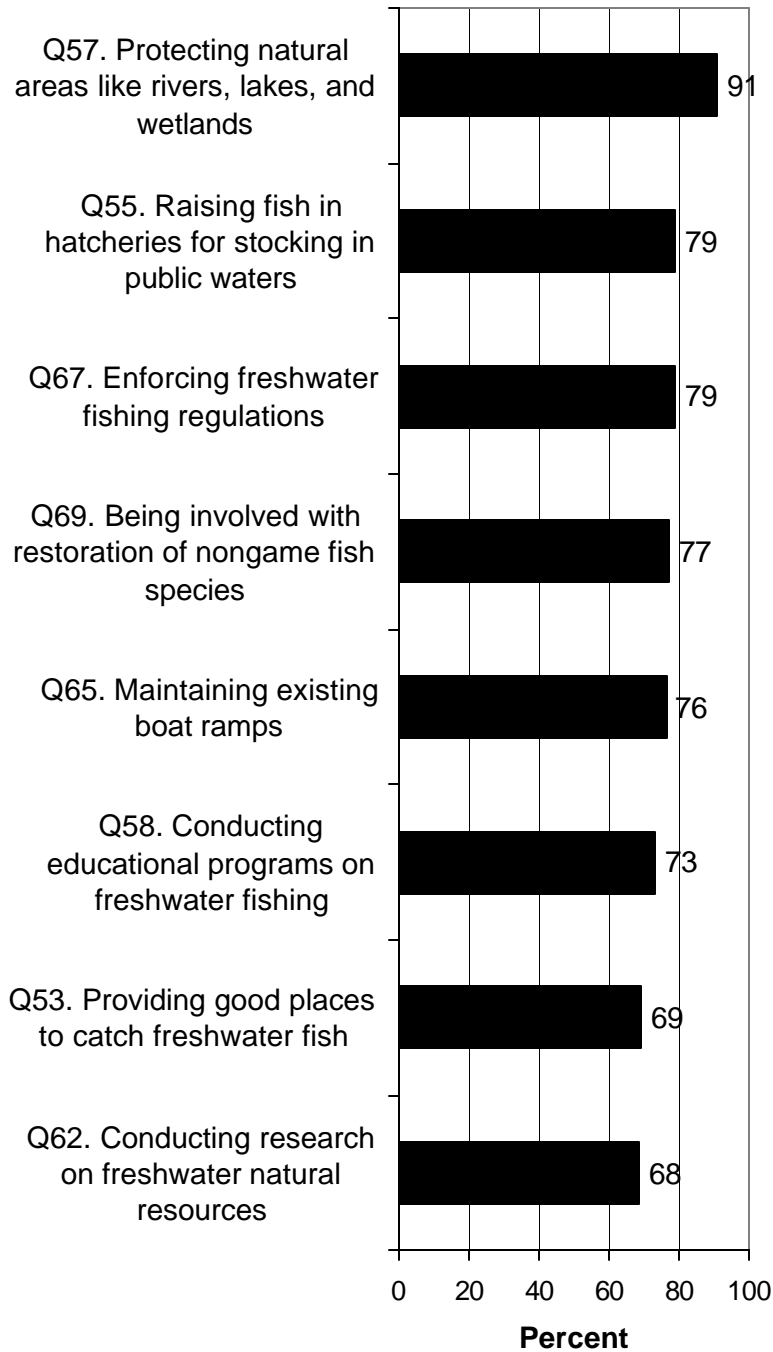
## IMPORTANCE OF VARIOUS SCDNR FRESHWATER FISHERIES AND AQUATIC RESOURCES PROGRAMS

Respondents were asked to rate the importance of 17 programs that the SCDNR undertakes. There were 13 programs that had a majority of respondents rating it as *very* important, with the top program being “protecting natural areas like rivers, lakes, and wetlands” (91% rated this program as very important). Other programs with very high percentages rating them as very important are “raising fish in hatcheries for stocking in public waters” (79%), “enforcing freshwater fishing regulations” (79%), “being involved with restoration of nongame fish species” (77%), and “maintaining existing boat ramps” (76%). The four lowest-rated programs, each with less than a majority who rated it as very important, are “building more boat ramps” (27%), “helping people with private fishing ponds” (39%), “raising fish for people to buy for private ponds” (43%), and “building more fishing piers in lakes” (46%). (Question 53 – Question 69).

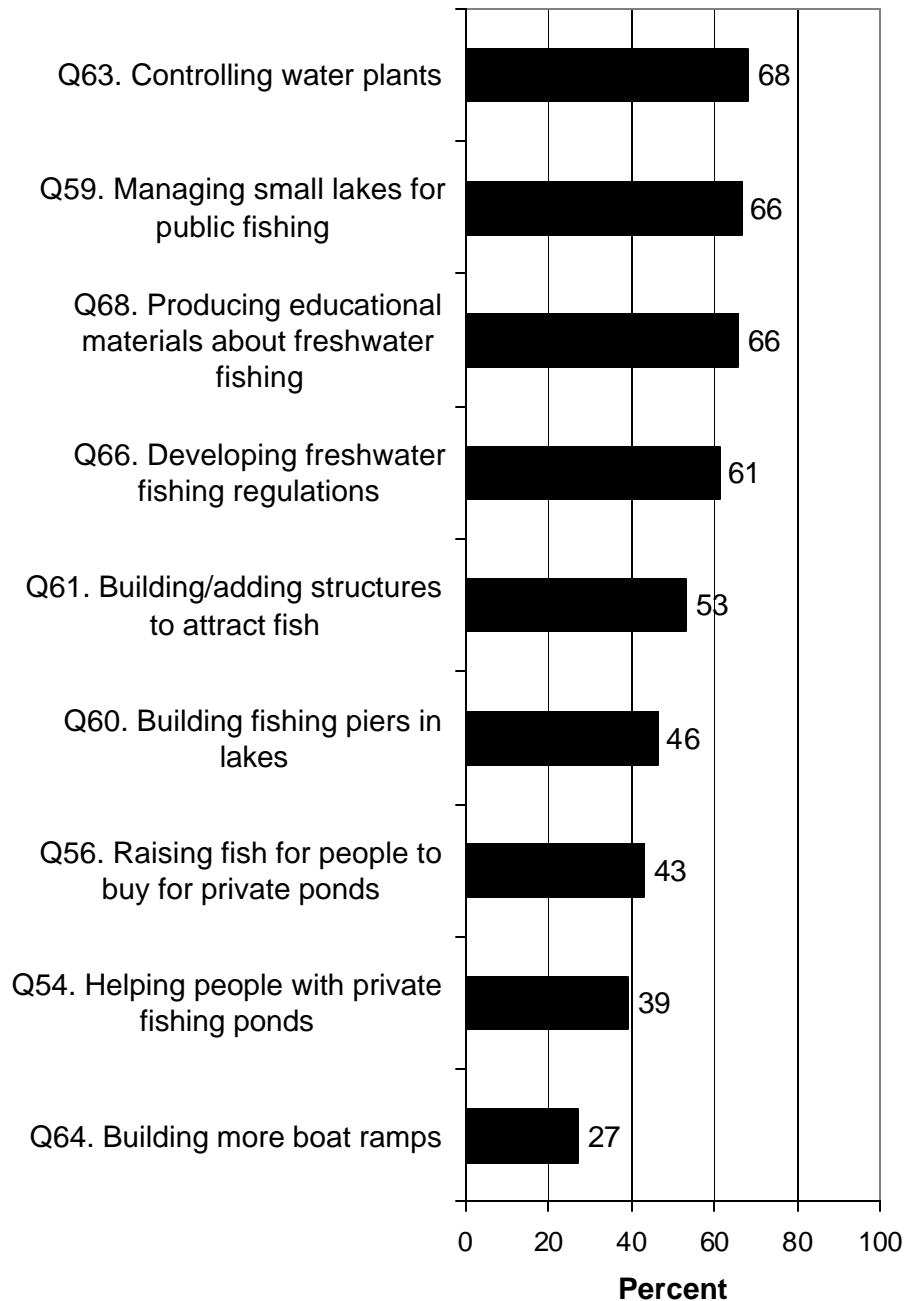
The z-score tabulations show the characteristics associated with a response that the given program is very or somewhat important. There was a positive significant correlation between a rating of very or somewhat important and having been freshwater fishing in 10 of the 17 questions, and there was a positive significant correlation between a rating of very or somewhat important and having been motorized boating in 7 of the 17 questions. Other characteristics positively significantly correlated with a rating of very or somewhat important on many questions include being male (a significant positive z-score on 6 of the 17 questions), being white (a significant positive z-score on 5 of the 17 questions), and having a high school diploma or equivalent but having no further education (a significant positive z-score on 5 of the 17 questions).

Following the graphs showing the percentages rating the programs as *very* important are the graphs showing the percentages rating the programs as very or somewhat important. The appendix contains the individual graphs for each question.

### Q53-69. Percent Rating the Following Programs as Very Important Part 1

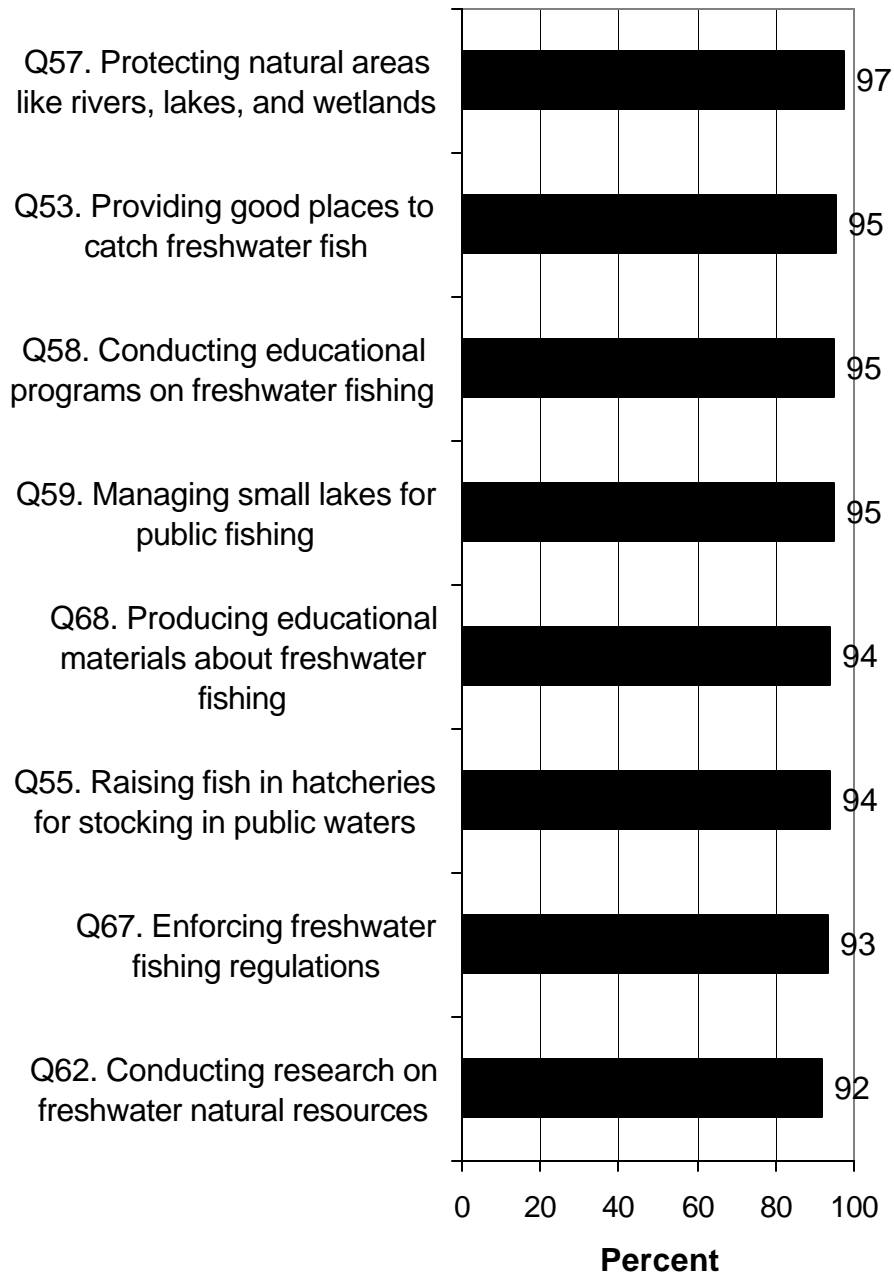


**Q53-69. Percent Rating the Following Programs as  
Very Important  
Part 2**

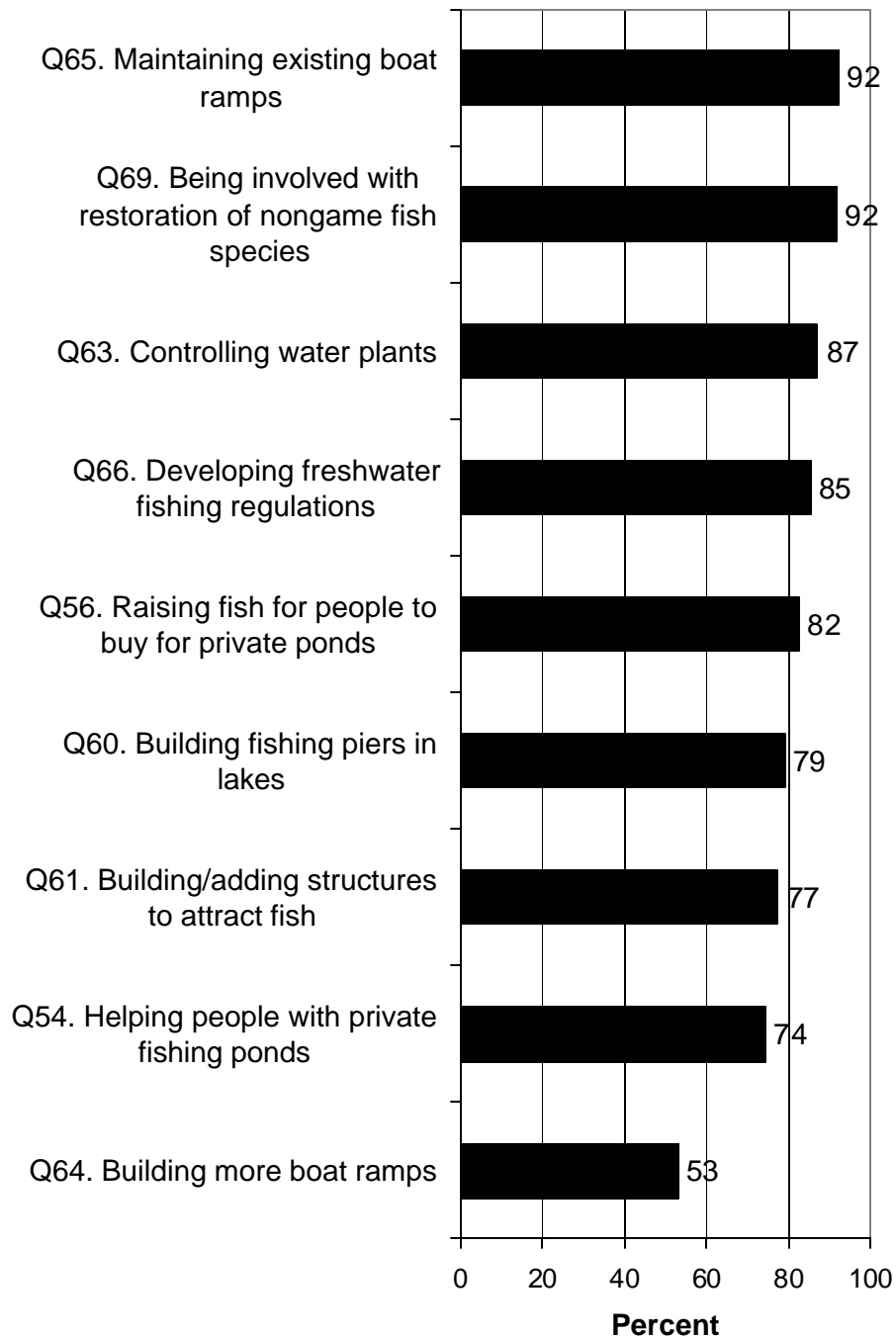


### Q53-69. Percent Rating the Following Programs as Very or Somewhat Important

#### Part 1



**Q53-69. Percent Rating the Following Programs as  
Very or Somewhat Important  
Part 2**



Q57. Do you think protecting natural areas like rivers, lakes, and wetlands is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Protecting Natural Areas Like Rivers, Lakes, and Wetlands Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE
White	2.66**
Fished in freshwater	2.63**
Prefer information through direct mail	2.05*
Watched wildlife near a lake, stream, or river	1.99*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Refused Income	-2.03*
55-64 years old	-2.25*
Participated in none of the activities listed in Q6	-2.52*
African-American	-2.61**
Grades 1-12, but no HS diploma	-2.9**

Most likely to say very or somewhat important.



Most likely *not* to say very or somewhat important.

Q55. Do you think raising fish in hatcheries for stocking in public lakes and rivers is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Raising Fish in Hatcheries for Stocking in Public Lakes and Rivers Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE
White	3.3***
Male	3.11**
Watched wildlife near a lake, stream, or river	3**
Been motorized boating	2.26*
45-54 years old	2.08*
Fished in freshwater	1.97*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Unemployed	-1.96*
Asian-American	-1.96*
Grades 1-12, but no HS diploma	-1.99*
Participated in none of the activities listed in Q6	-2.22*
55-64 years old	-2.26*
African-American	-2.77**
Job is in consulting	-3.03**
Female	-3.11**
Other race	-3.9***

Most likely to say very or somewhat important.



Most likely *not* to say very or somewhat important.

Q67. Do you think enforcing freshwater fishing regulations is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Enforcing Freshwater Fishing Regulations Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE	
Male	2.97**	Most likely to say very or somewhat important. ↑
White	2.54*	
Resides in Piedmont Region	2.17*	
High school graduate or equivalent	2.04*	
Fished in freshwater	1.98*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Prefer information through radio	-2.06*	↓ Most likely <i>not</i> to say very or somewhat important.
Prefer information through newspapers	-2.09*	
Been canoeing or kayaking	-2.83**	
Female	-2.97**	
Resides in Low County Region	-3.24**	

Q69. Do you think being involved with the restoration of nongame fish species that are possibly threatened with extinction is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Being Involved with the Restoration of Nongame Fish Species that Are Possibly Threatened with Extinction Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE	
35-44 years old	2.06*	Most likely to say very or somewhat important.
Some college or trade school	2.03*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
65 or older	-2.33*	Most likely <i>not</i> to say very or somewhat important.
Job is in agriculture/farming	-2.93**	
Prefer information through SCDNR offices	-3.37***	
Grades 1-12, but no HS diploma	-3.7***	

Q65. Do you think maintaining existing boat ramps is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Maintaining Existing Boat Ramps Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE		
Been motorized boating	2.47*	Most likely to say very or somewhat important.	
Resides in Piedmont Region	2.21*		
High school graduate or equivalent	2.07*		
Fished in freshwater	2.07*		
Income is \$40,000 to \$59,999	2.05*		
Male	1.98*		
Been canoeing or kayaking	1.97*		
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED			
Female	-1.98*		Most likely <i>not</i> to say very or somewhat important.
Income is less than \$19,999	-2.29*		
55-64 years old	-2.4*		
Graduate or professional degree	-2.44*		
Homemaker	-2.55*		
Participated in none of the activities listed in Q6	-3.08**		
Grades 1-12, but no HS diploma	-3.35***		

Q58. Do you think conducting educational programs on freshwater fishing and aquatic natural resources is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Conducting Educational Programs on Freshwater Fishing and Aquatic Natural Resources Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE	
Been motorized boating	2.42*	Most likely to say very or somewhat important.
White	2.36*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
African-American	-2.37*	Most likely <i>not</i> to say very or somewhat important.
Grades 1-12, but no HS diploma	-2.71**	

Q53. Do you think providing good places to go and catch freshwater fish is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Providing Good Places to Go and Catch Freshwater Fish Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE	
Prefer information through direct mail	2.72**	Most likely to say very or somewhat important.
45-54 years old	2.07*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Disabled	-1.99*	Most likely <i>not</i> to say very or somewhat important.
Income is less than \$19,999	-2.15*	
Student	-2.45*	
Job is in sales/retail	-4.11***	



Q62. Do you think conducting research to answer questions about the state's freshwater natural resources is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Conducting Research to Answer Questions About the State's Freshwater Natural Resources Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE	
Fished in freshwater	3.26**	Most likely to say very or somewhat important.
Male	2.36*	
Resides in Low County Region	2.34*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Participated in none of the activities listed in Q6	-2.25*	Most likely <i>not</i> to say very or somewhat important.
Female	-2.36*	

Q63. Do you think controlling water plants that bother boaters, anglers, and homeowners using lakes and rivers is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Controlling Water Plants that Bother Boaters, Anglers, and Homeowners Using Lakes and Rivers Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE	
Been motorized boating	2.4*	Most likely to say very or somewhat important.
High school graduate or equivalent	2.18*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Grades 1-12, but no HS diploma	-2.09*	Most likely <i>not</i> to say very or somewhat important.
Homemaker	-2.29*	
Prefer information through TV	-3.06**	

Q59. Do you think managing small lakes, accessible by bank or boat anglers, around the state for public fishing is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Managing Small Lakes Around the State for Public Fishing Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE	
White	3.19**	Most likely to say very or somewhat important.
Watched wildlife near a lake, stream, or river	2.9**	
Fished in freshwater	2.73**	
45-54 years old	2.71**	
Been motorized boating	2.53*	
35-44 years old	2.03*	
Resides in Low County Region	2.02*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Resides in Pee Dee Region	-2.18*	Most likely <i>not</i> to say very or somewhat important.
Student	-2.27*	
African-American	-2.84**	
Participated in none of the activities listed in Q6	-3.57***	
Grades 1-12, but no HS diploma	-5.12***	

Q68. Do you think producing educational materials about freshwater fish and fishing, such as brochures, is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Producing Educational Materials About Freshwater Fish and Fishing Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE
Fished in freshwater	2.94**
High school graduate or equivalent	2.61**
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	

Most likely to say very or somewhat important.

Q66. Do you think developing freshwater fishing regulations is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Developing Freshwater Fishing Regulations Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE
High school graduate or equivalent	2.41*
Income is \$40,000 to \$59,999	2.08*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Prefer information through radio	-2.07*
65 or older	-2.08*
Resides in Low County Region	-2.23*
Income is \$80,000 to \$99,999	-2.45*

Most likely to say very or somewhat important.

Most likely *not* to say very or somewhat important.

Q61. Do you think building/adding structures to attract more fish in lakes is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Building/Adding Structures to Attract More Fish in Lakes Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE
Fished in freshwater	3.61***
Male	3.59***
Fished in saltwater	3.47***
Been motorized boating	2.84**
Job is in industry	2.8**
Income is \$40,000 to \$59,999	2.75**
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Participated in none of the activities listed in Q6	-2.85**
Female	-3.59***
Homemaker	-3.72***

Most likely to say very or somewhat important.



Most likely *not* to say very or somewhat important.

Q60. Do you think building fishing piers in lakes is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Building Fishing Piers in Lakes Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE	
Watched wildlife near a lake, stream, or river	2.77**	Most likely to say very or somewhat important.  ↑
Resides in rural area	2.45*	
Prefer information through magazines	2.22*	
Resides in suburban area	1.99*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Job is in agriculture/farming	-2.48*	Most likely <i>not</i> to say very or somewhat important.
Resides in small city or town	-3.33***	

Q56. Do you think raising fish for people to buy for their private ponds is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Raising Fish for People to Buy for Their Private Ponds Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE	
Male	2.75**	Most likely to say very or somewhat important.
Income is \$20,000 to \$39,999	2.47*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Income is \$100,000 or more	-2.09*	Most likely <i>not</i> to say very or somewhat important.
African-American	-2.29*	
Female	-2.75**	
Prefer information through newspapers	-2.8**	

Q54. Do you think helping people with their private fishing ponds is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Helping People with Their Private Fishing Ponds Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE	
Income is \$20,000 to \$39,999	2.65**	Most likely to say very or somewhat important.  ↑
Job is in construction/development	2.56*	
Resides in rural area	2.15*	
Prefer information through direct mail	2.07*	
Fished in freshwater	2.05*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Income is \$40,000 to \$59,999	-1.96*	Most likely <i>not</i> to say very or somewhat important.
Homemaker	-2.43*	
Asian-American	-2.95**	

Q64. Do you think building more boat ramps is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.) (Building More Boat Ramps Is a Very or Somewhat Important Program for the SCDNR)

CHARACTERISTIC	Z-SCORE
Been motorized boating	3.33***
55-64 years old	2.36*
Fished in freshwater	2.25*
Fished in saltwater	2.02*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	

Most likely to say very or somewhat important.



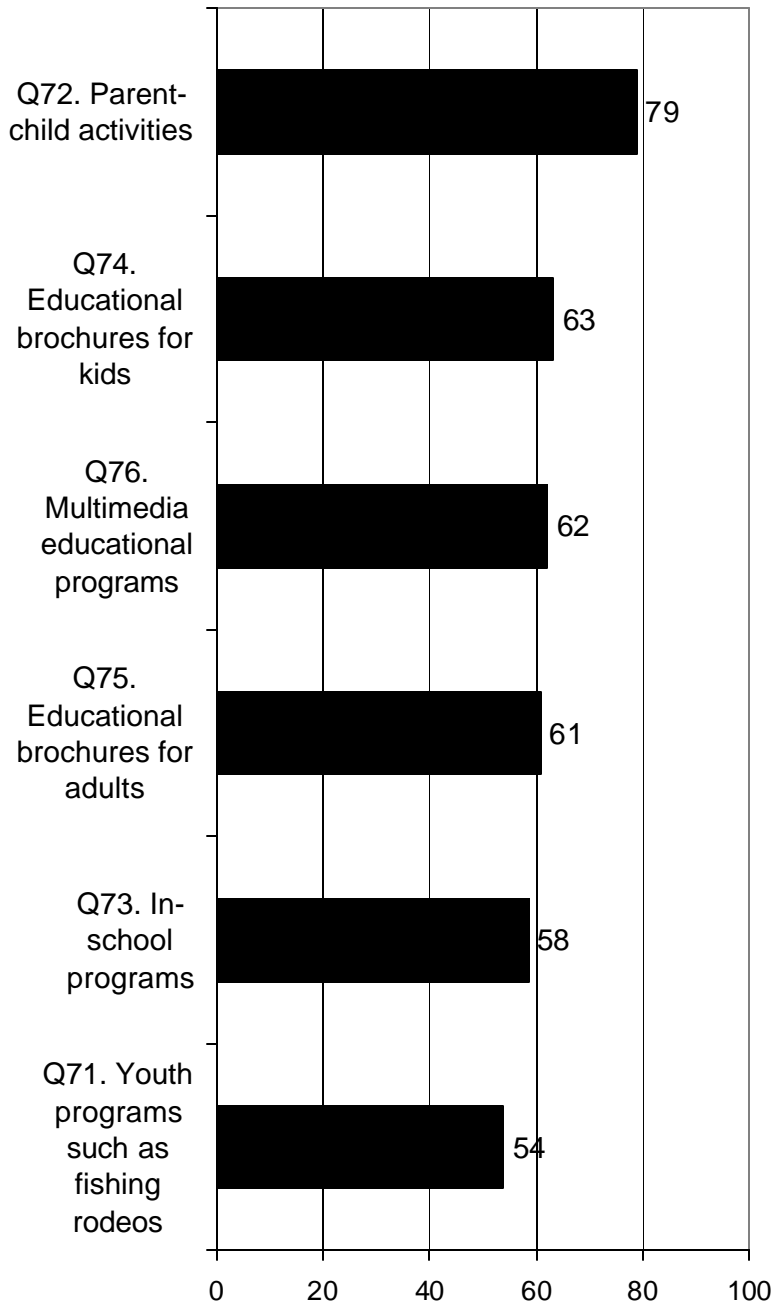
## **IMPORTANCE OF VARIOUS SCDNR FRESHWATER FISHERIES AND AQUATIC RESOURCES EDUCATION PROGRAMS**

Respondents rated the importance of six educational programs of the SCDNR, and for each program, a majority rated it as *very* important, as shown in the tabulation on the following page. The leading program was “parent-child activities,” with 79% having rated it as very important. The program with the lowest percentage having rated it as very important, although still a majority, was “youth programs such as fishing rodeos” (54%). (Question 71 – Question 76).

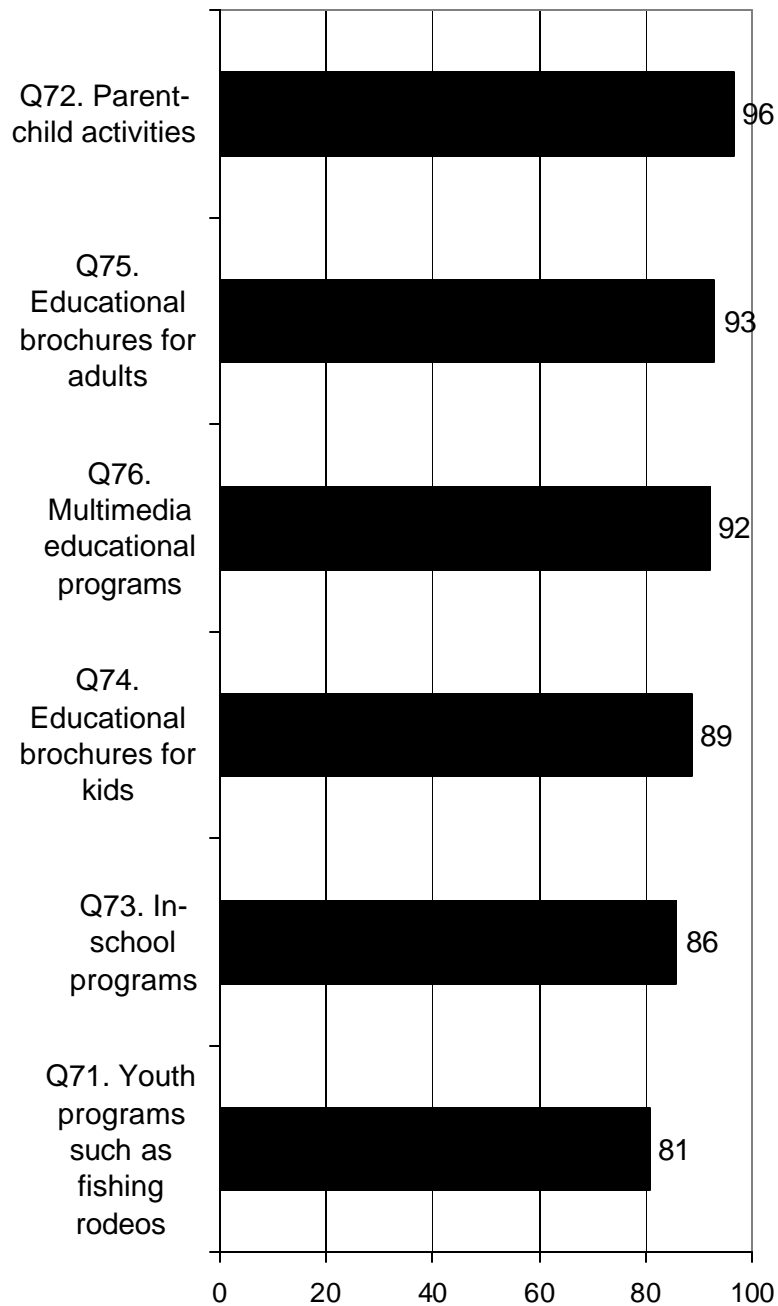
The z-score tabulations show the characteristics associated with a response that the given educational program is very or somewhat important. Several characteristics/behaviors were positively correlated with a rating of very or somewhat important for this series of questions: in 5 of the 6 questions, those who gave a rating of very or somewhat important were positively significantly related to having watched wildlife near water; and in 3 of the 6 questions, those who gave a rating of very or somewhat important were positively significantly related to having been motorized boating. Interestingly, fishing was not a strong factor: in only 2 of the 6 questions was having been freshwater fishing positively significantly correlated with those respondents answering very or somewhat important, and in only 1 of the 6 questions was having been saltwater fishing positively significantly correlated with those respondents answering very or somewhat important.

Following the graph showing the percentages rating the educational programs as very important is the graph showing the percentages rating the educational programs as very or somewhat important. The appendix contains the individual graphs for each question.

### Q71-76. Percent Rating the Following Educational Programs Very Important



### Q71-76. Percent Rating the Following Educational Programs Very or Somewhat Important



**Importance Rating of SCDNR's Educational Programs (Ranked by Percent Rating It as Very Important)**

<b>Educational Program</b>	<b>Percent Rating Educational Program as Very Important</b>	<b>Percent Rating Educational Program as Very or Somewhat Important</b>	<b>Percent Rating Educational Program as Very Unimportant</b>	<b>Percent Rating Educational Program as Very or Somewhat Unimportant</b>
Q72. Parent-child activities	79	96	1	2
Q74. Educational brochures for kids	63	89	2	9
Q76. Multimedia educational programs	62	92	2	5
Q75. Educational brochures for adults	61	93	2	6
Q73. In-school programs	58	86	3	10
Q71. Youth programs such as fishing rodeos	54	81	5	12

Q72. Do you think parent-child activities are important or unimportant education programs for the South Carolina DNR? (Parent-Child Activities Are Very or Somewhat Important Education Programs for the SCDNR)

CHARACTERISTIC	Z-SCORE	
Fished in freshwater	2.62**	Most likely to say very or somewhat important.
Watched wildlife near a lake, stream, or river	2.5*	
Been motorized boating	2.06*	
<b>STATISTICALLY INSIGNIFICANT VARIABLES OMITTED</b>		
Prefer information through radio	-2.15*	Most likely <i>not</i> to say very or somewhat important.
Job is in consulting	-2.23*	

Q75. Do you think producing educational brochures for adults is an important or unimportant education program for the South Carolina DNR? (Producing Educational Brochures for Adults Is a Very or Somewhat Important Education Program for the SCDNR)

CHARACTERISTIC	Z-SCORE	
Watched wildlife near a lake, stream, or river	2.81**	Most likely to say very or somewhat important.
Income is less than \$19,999	2.18*	
Been motorized boating	1.97*	
<b>STATISTICALLY INSIGNIFICANT VARIABLES OMITTED</b>		
Job is in agriculture/farming	-2.05*	Most likely <i>not</i> to say very or somewhat important.
35-44 years old	-2.06*	
Participated in none of the activities listed in Q6	-3.17**	



Q76. Do you think producing other multimedia educational programs, such as TV, an Internet page, etc., is an important or unimportant program for the South Carolina DNR? (Producing Other Multimedia Educational Programs Is a Very or Somewhat Important Education Program for the SCDNR)

CHARACTERISTIC	Z-SCORE	
Prefer information through Internet	3.03**	Most likely to say very or somewhat important.
Prefer information through direct mail	2.4*	
Some college or trade school	2.13*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Resides in Pee Dee Region	-2.2*	Most likely <i>not</i> to say very or somewhat important.
Grades 1-12, but no HS diploma	-2.8**	
Income is \$100,000 or more	-3.25**	

Q74. Do you think producing educational brochures for kids is an important or unimportant education program for the South Carolina DNR? (Producing Educational Brochures for Kids Is a Very or Somewhat Important Education Program for the SCDNR)

CHARACTERISTIC	Z-SCORE	
Watched wildlife near a lake, stream, or river	3.27**	Most likely to say very or somewhat important.
Prefer information through pamphlets/brochures	2.68**	
Resides in rural area	2.62**	
Resides in Pee Dee Region	2.57*	
Student	2.01*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
College graduate	-2.8**	Most likely <i>not</i> to say very or somewhat important.
Income is \$40,000 to \$59,999	-3.22**	
Participated in none of the activities listed in Q6	-3.28**	
Resides in small city or town	-3.52***	
35-44 years old	-3.53***	

Q73. Do you think in-school programs such as teacher workshops are important or unimportant education programs for the South Carolina DNR? (In-School Programs Are Very or Somewhat Important Education Programs for the SCDNR)

CHARACTERISTIC	Z-SCORE	
Watched wildlife near a lake, stream, or river	2.43*	Most likely to say very or somewhat important.
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Participated in none of the activities listed in Q6	-2.36*	Most likely <i>not</i> to say very or somewhat important.
Asian-American	-2.94**	

Q71. Do you think youth programs such as fishing rodeos are important or unimportant education programs for the South Carolina DNR? (Youth Programs such as Fishing Rodeos Are Very or Somewhat Important Education Programs for the SCDNR)

CHARACTERISTIC	Z-SCORE
White	4.3***
Fished in freshwater	3.39***
Prefer information through direct mail	3.15**
Watched wildlife near a lake, stream, or river	2.92**
Job is in construction/development	2.76**
Fished in saltwater	2.65**
Male	2.61**
Income is \$60,000 to \$79,999	2.49*
Been motorized boating	2.3*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Prefer information through newspapers	-1.96*
Disabled	-2.04*
African-American	-2.1*
Income is less than \$19,999	-2.16*
Female	-2.61**
Under 18 years old	-2.72**
Participated in none of the activities listed in Q6	-3.01**
Grades 1-12, but no HS diploma	-3.88***

Most likely to say very or somewhat important.



Most likely *not* to say very or somewhat important.

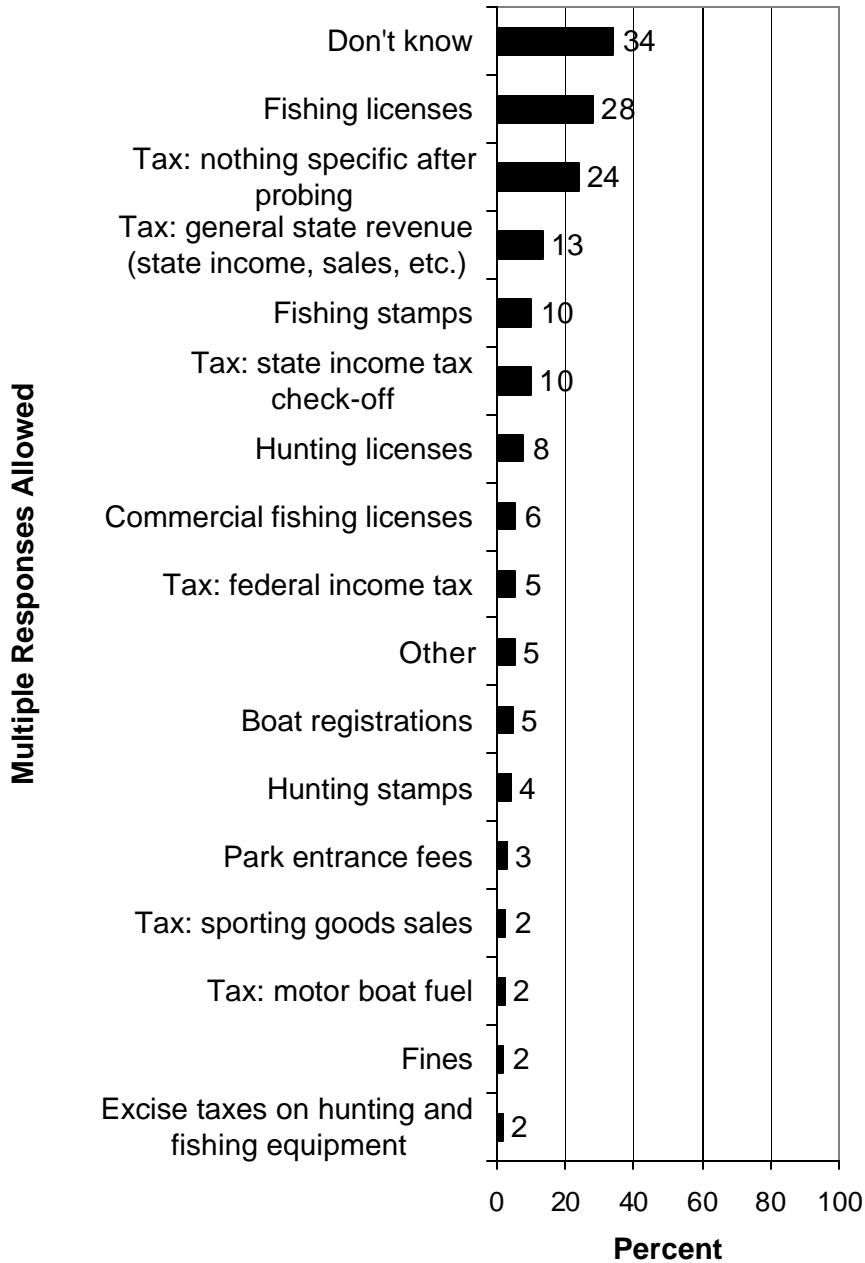


## **FUNDING FOR SCDNR'S FRESHWATER FISHERIES AND AQUATIC RESOURCES PROGRAMS**

Regarding funding, recall that 20% of respondents said that the SCDNR was *very* efficient and 36% said that the SCDNR was somewhat efficient in spending its money for freshwater fisheries and aquatic resources (a total of 56% saying very or somewhat efficient), while 2% said that the SCDNR was not at all efficient. A relatively large percentage (42%) said that they did not know. (The graph and z-score tabulation for this question are presented in the section, "Knowledge of and Opinions on SCDNR's Freshwater Fisheries and Aquatic Resources Programs.") (Question 80).

Q82. The most common answer among respondents regarding where funding for freshwater fishing opportunities comes from in South Carolina was "don't know" (34%). The next most popular answers were fishing licenses (28%) and taxes in general (24%). The following characteristics are associated with those who knew that fishing license fees were a source of funding: are male; had fished in freshwater and/or saltwater; identified themselves as white; had participated in motorized boating and/or watching wildlife near water; and had a job in industry or consulting.

**Q82. Where do you think funding for freshwater fishing opportunities comes from in South Carolina?**



Q82. Where do you think funding for freshwater fishing opportunities comes from in South Carolina? (Said that Funding for Freshwater Fishing Opportunities Comes from Fishing License Fees)

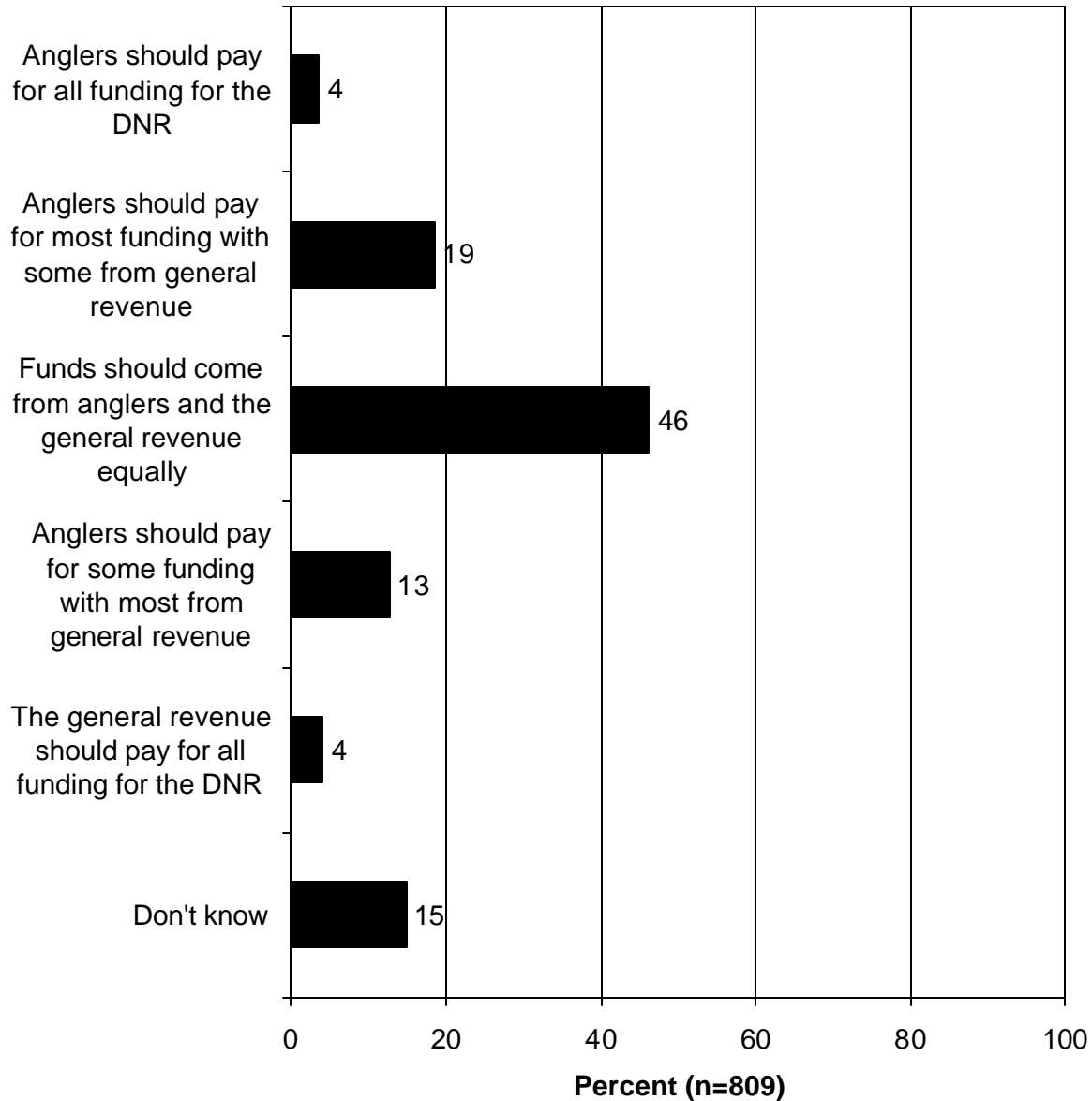
CHARACTERISTIC	Z-SCORE
Male	7.14***
Fished in freshwater	6.3***
White	5.34***
Been motorized boating	5.14***
Fished in saltwater	4.61***
Job is in industry	3.63***
Watched wildlife near a lake, stream, or river	3.27**
45-54 years old	3.15**
Income is \$40,000 to \$59,999	3.11**
Prefer information through direct mail	2.64**
Job is in consulting	2.25*
Prefer information through SCDNR offices	2.2*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Job is in sales/retail	-2.18*
Homemaker	-2.51*
Under 18 years old	-2.68**
Prefer information through TV	-3.08**
18-24 years old	-3.18**
Student	-3.49***
Grades 1-12, but no HS diploma	-4.15***
African-American	-4.21***
Participated in none of the activities listed in Q6	-5.1***
Female	-7.14***

Most likely to say  
funding comes from  
fishing license fees.



Most likely *not* to say  
funding comes from  
fishing license fees.

**Q84. The South Carolina DNR freshwater fisheries program receives only limited funding from the general state revenue. Recognizing that all state spending comes from the taxes that South Carolinians pay, which of the following options do you support?**



Respondents were asked about funding options for the SCDNR's freshwater fisheries and aquatic resources program, and a plurality responded that funds should come from anglers and the general revenue equally (46%). At either end of the spectrum, 4% thought that anglers should pay for all of the funding for the SCDNR, and 4% thought that the general revenue should pay for all of the funding for the SCDNR. (Question 84).

Q84. Which of the following options do you support regarding funding for the SCDNR? (Said Anglers Should Pay for All Funding for the SCDNR)

CHARACTERISTIC	Z-SCORE	
Disabled	2.05*	Most likely to say anglers should pay for all funding.
Participated in none of the activities listed in Q6	1.99*	
Unemployed	1.98*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Prefer information through newspapers	-2.02*	Most likely <i>not</i> to say anglers should pay for all funding.

Q84. Which of the following options do you support regarding funding for the SCDNR? (Said Anglers Should Pay for Most Funding for the SCDNR with Some from General Revenue)

CHARACTERISTIC	Z-SCORE	
35-44 years old	2.96**	Most likely to say anglers should pay for some funding with some from general revenue.
Income is \$40,000 to \$59,999	2.93**	
Male	2.69**	
Been sailing	2.54*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
18-24 years old	-2.54*	Most likely <i>not</i> to say anglers should pay for some funding with some from general revenue.
Female	-2.69**	

Q84. Which of the following options do you support regarding funding for the SCDNR? (Said Funds for the SCDNR Should Come from Anglers and General Revenue About Equally)

CHARACTERISTIC	Z-SCORE	
18-24 years old	2.55*	Most likely to say anglers and general revenue should fund about equally.
Watched wildlife near a lake, stream, or river	2.12*	
Prefer information through newspapers	1.99*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Participated in none of the activities listed in Q6	-2.04*	Most likely <i>not</i> to say anglers and general revenue should fund about equally.
Unemployed	-2.08*	

Q84. Which of the following options do you support regarding funding for the SCDNR? (Said Anglers Should Pay for Some Funding, with Most from General Revenue, for the SCDNR)

CHARACTERISTIC	Z-SCORE
Income is \$100,000 or more	4.1***
45-54 years old	2.71**
Prefer information through regulations handbook	2.45*
College graduate	2.38*
Job is in consulting	2.33*
Fished in saltwater	2.29*
Prefer information through license agent/sporting goods store	2.23*
Graduate or professional degree	2.07*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Been sailing	-2.2*
65 or older	-2.4*
Grades 1-12, but no HS diploma	-2.71**

Most likely to say anglers should pay for some funding with most from general revenue.



Most likely *not* to say anglers should pay for some funding with most from general revenue.

Q84. Which of the following options do you support regarding funding for the SCDNR? (Said General Revenue Should Pay for All Funding for the SCDNR)

CHARACTERISTIC	Z-SCORE
Native American	2.77**
Resides in rural area	2.4*
Grades 1-12, but no HS diploma	2.21*
55-64 years old	2.15*
Retired	2.07*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	

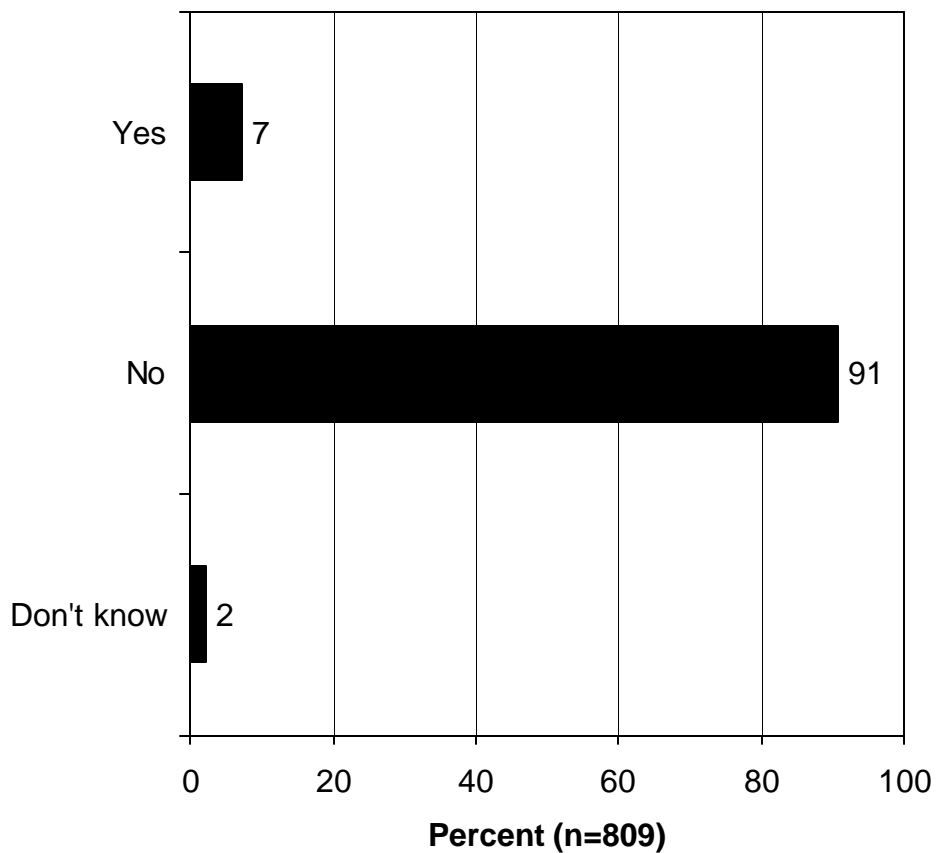
Most likely to say general revenue should pay for all funding.





An overwhelming majority (91%) of respondents had not heard of the Federal Aid in Sport Fish Restoration Program, also known as the Dingell-Johnson Program or the Wallop-Breaux Program, before this survey. However, after being informed of the program, 55% indicated that they support the program (25% strongly supporting); only 9% said that they oppose the program. (Question 85 and Question 86).

**Q85. Before this survey, had you ever heard of the Federal Aid in Sport Fish Restoration Program, sometimes referred to as the Dingell-Johnson Program, and more recently as the Wallop-Breaux Program? (Asked after program was explained)**



Q85. Before this survey, had you ever heard of the Federal Aid in Sport Fish Restoration Program, sometimes referred to as the Dingell-Johnson Program, and more recently as the Wallop-Breaux Program? (Had Heard of the Federal Aid in Sport Fish Restoration Program Before the Survey)

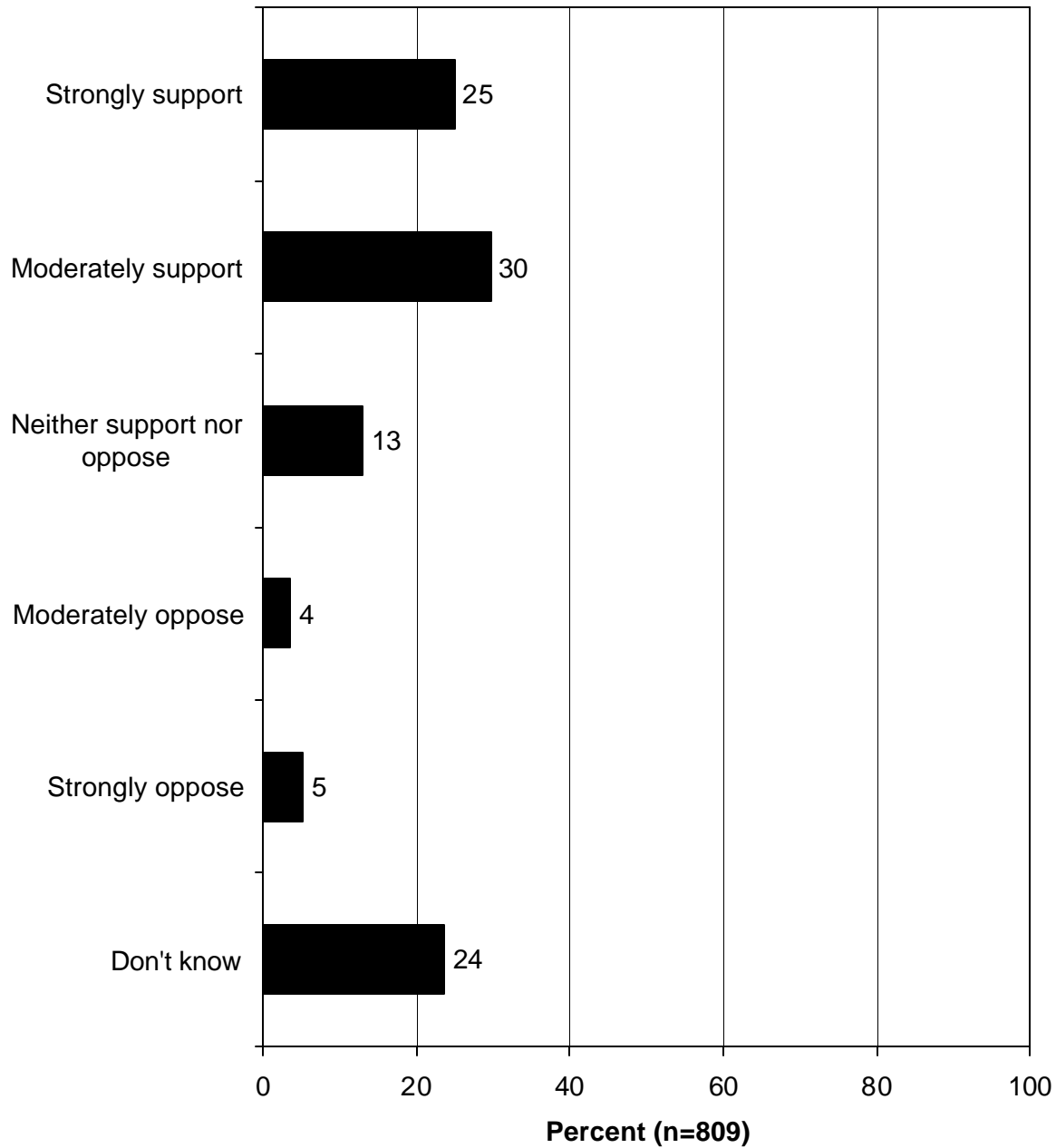
CHARACTERISTIC	Z-SCORE
Watched wildlife near a lake, stream, or river	4.32***
Fished in saltwater	3.49***
Male	3.41***
Fished in freshwater	3.19**
Asian-American	2.85**
Been motorized boating	2.81**
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Female	-3.41***
Participated in none of the activities listed in Q6	-3.59***

Most likely to say they had heard of the Program before the survey.





Most likely *not* to say they had heard of the Program before the survey.



**Q86. Do you support or oppose the Federal Aid in Sport Fish Restoration Program? (Asked after program was explained)**



Q86. Do you support or oppose the Federal Aid in Sport Fish Restoration Program? (Supports the Federal Aid in Sport Fish Restoration Program)

CHARACTERISTIC	Z-SCORE	
		Most likely to support the Federal Aid in Sport Fish Restoration Program.  Most likely <i>not</i> to support the Federal Aid in Sport Fish Restoration Program. 
Male	5.5***	
Been motorized boating	2.95**	
Fished in freshwater	2.88**	
Income is \$20,000 to \$39,999	2.81**	
Job is in industry	2.78**	
Fished in saltwater	2.78**	
Income is \$40,000 to \$59,999	2.63**	
Watched wildlife near a lake, stream, or river	2.58*	
Job is in construction/development	2.34*	
Been sailing	2.28*	
Job is in agriculture/farming	2.1*	
Resides in Mountain Region	2.03*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Prefer information through Other	-1.96*	
Disabled	-2.2*	
Homemaker	-2.65**	
Participated in none of the activities listed in Q6	-4.68***	
Female	-5.5***	

Q86. Do you support or oppose the Federal Aid in Sport Fish Restoration Program? (Opposed the Program)

CHARACTERISTIC	Z-SCORE	
		Most likely to oppose the Federal Aid in Sport Fish Restoration Program.  Most likely <i>not</i> to oppose the Federal Aid in Sport Fish Restoration Program. 
Fished in saltwater	2.99**	
Been motorized boating	2.32*	
Watched wildlife near a lake, stream, or river	2.13*	
Fished in freshwater	2.09*	
55-64 years old	2.01*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Resides in small city or town	-2.08*	
Prefer information through Internet	-2.53*	
Income is \$40,000 to \$59,999	-2.7**	

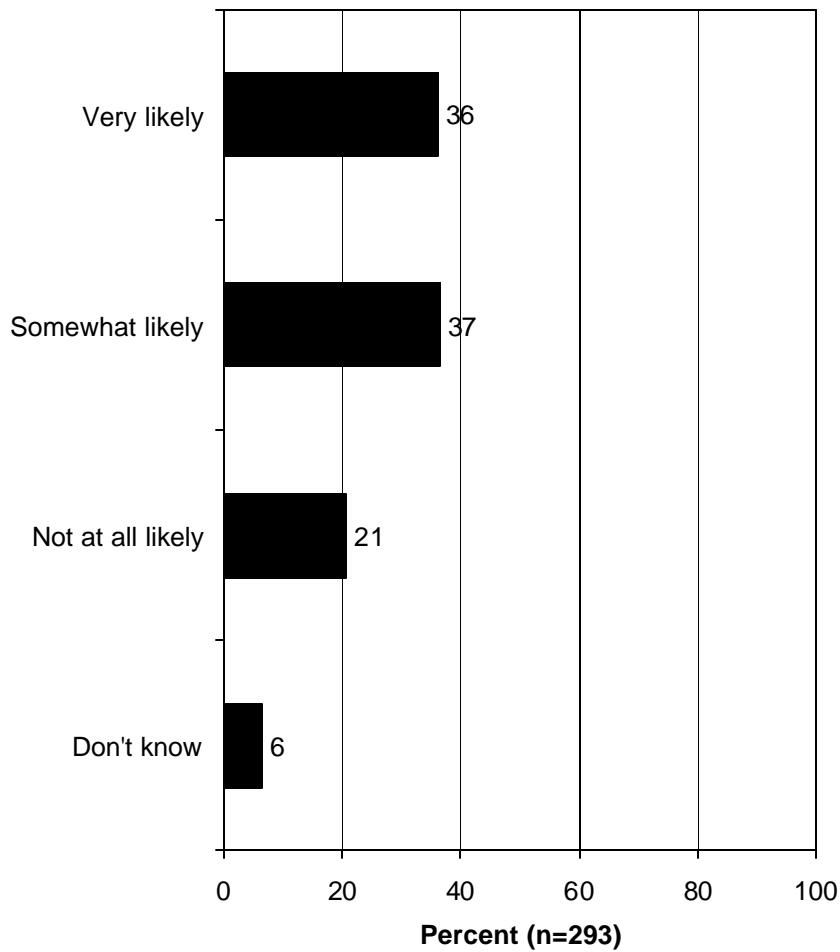
The survey asked respondents about their likelihood of purchasing a fishing license or stamp in three situations, with fairly consistent results for all three questions. For each situation, a majority (from 53% to 61%) indicated that they would be *very or somewhat* likely to purchase a fishing license or stamp. When looking only at those who said that they would be *very* likely to purchase a fishing license or stamp, the survey found that 30% would be very likely to purchase a fishing license, even if not to be used, with the proceeds going to improve water quality; 28% would be very likely to purchase a fishing license, even if not to be used, as a way to support freshwater fisheries and aquatic resources conservation; and 25% would be very likely to purchase a fishing stamp to fish for certain hatchery-raised fish, such as striped bass and trout, with the proceeds going toward the SCDNR's freshwater fisheries program. (Question 87 - Question 89).

An analysis was performed on responses to likelihood of purchasing a stamp to fish certain hatchery-raised species (Question 87) by those who had purchased a license in the past 2 years (from Question 90), those who indicated that they had fished in freshwater in the past 2 years (from Question 6), and those who had fished in saltwater in the past 2 years (from Question 6). Among those who had purchased a license in the past 2 years, 73% indicated that they would be very or somewhat likely to purchase a stamp to fish certain hatchery-raised species, and 36% indicated that they would be very likely to purchase a stamp. Among those who had fished in freshwater in the past 2 years, 73% indicated that they would be very or somewhat likely to purchase a stamp to fish certain hatchery-raised species, and 37% indicated that they would be very likely to purchase a stamp. Finally, among those who had fished in saltwater in the past 2 years, 77% indicated that they would be very or somewhat likely to purchase a stamp to fish certain hatchery-raised species, and 36% indicated that they would be very likely to purchase a stamp. Note that these amounts (ranging from 73% to 77%) indicating that they would be likely to purchase a stamp to fish certain hatchery-raised species are higher than those among the general population who said they would be likely to purchase a stamp (57%).

The z-score tabulations show the characteristics associated with those who said they would be very or somewhat likely to purchase a license or stamp in the specific situation.

Following the graph showing the percentages saying that they would be very likely to purchase a license or stamp is the graph showing the percentages saying that they would be very or somewhat likely to purchase a license or stamp. The appendix contains the individual graphs for each question.

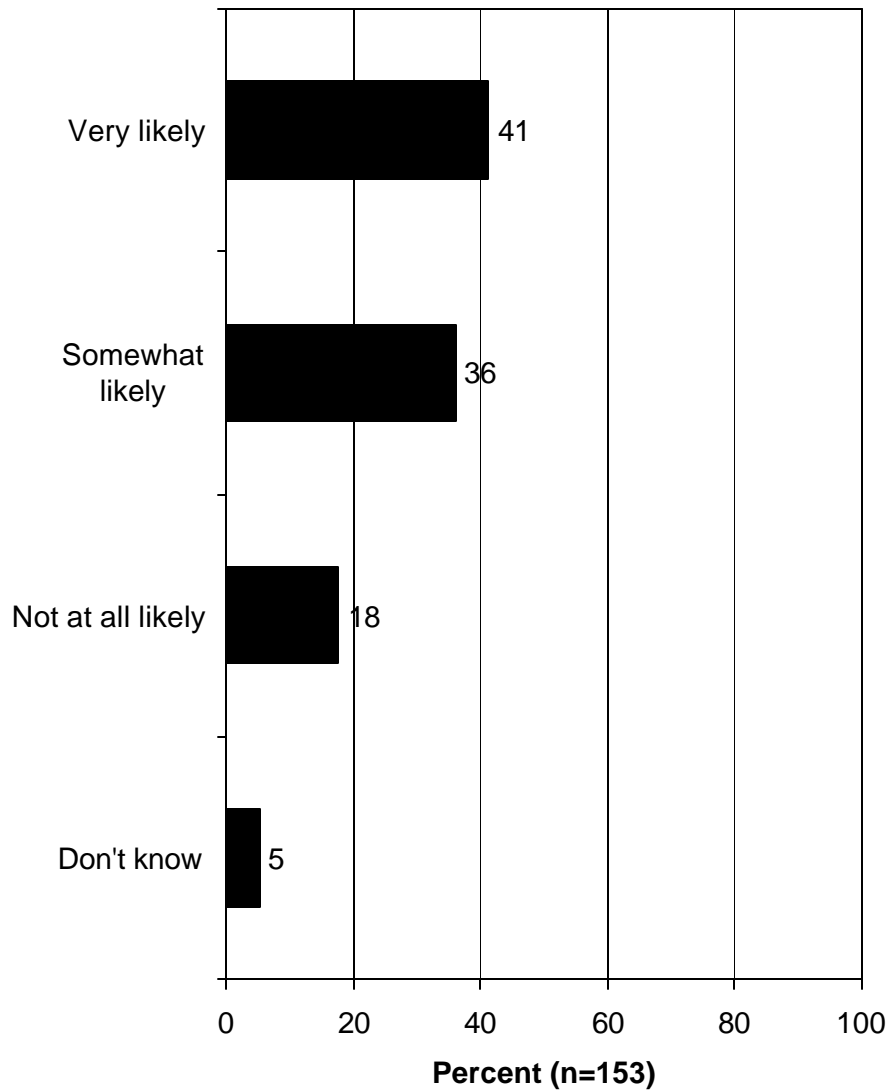
**Q87. How likely would you be to purchase a stamp required to fish for certain hatchery-raised species with the proceeds going to the South Carolina DNR's freshwater fisheries program? (Analysis of those who had purchased a fishing license from Question 90)**



**Q87. How likely would you be to purchase a stamp required to fish for certain hatchery-raised species with the proceeds going to the South Carolina DNR's freshwater fisheries program? (Analysis of those who fished in freshwater from Question 6)**

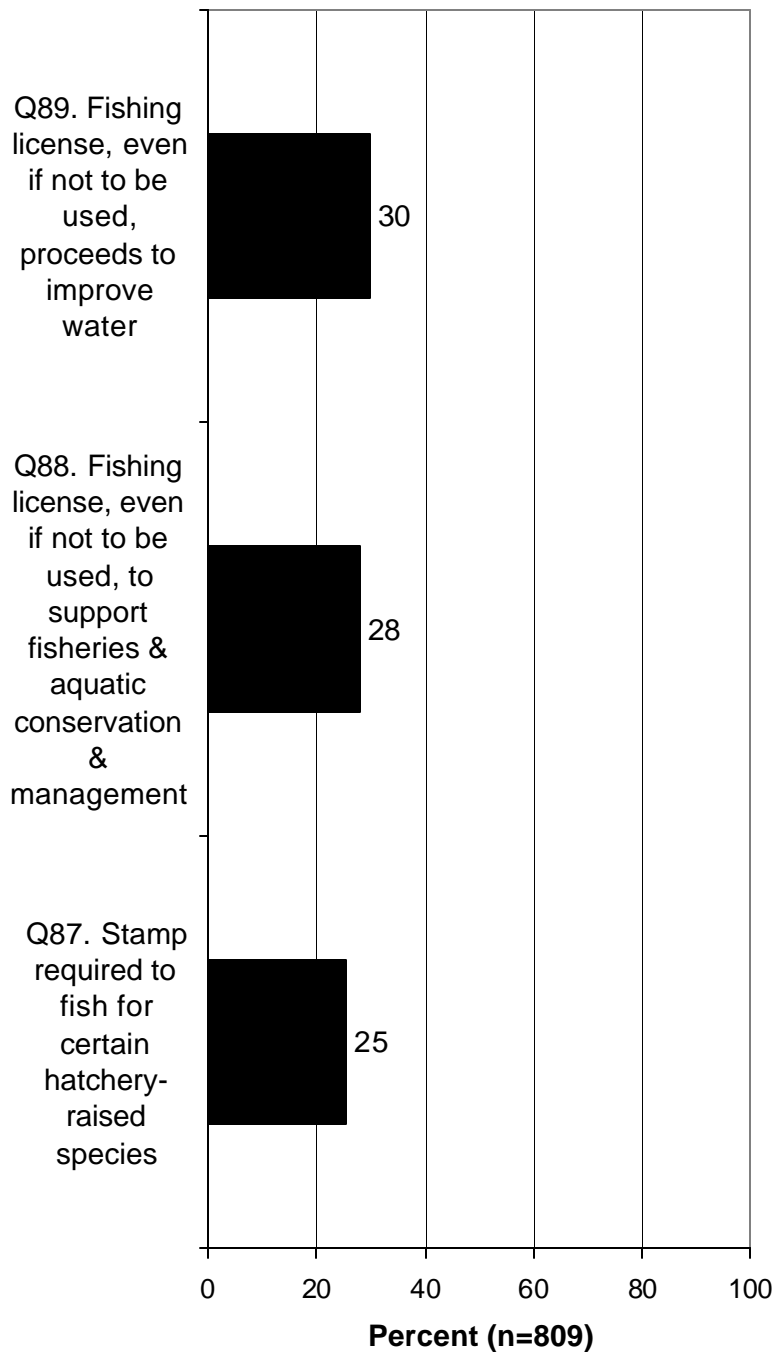


**Q87. How likely would you be to purchase a stamp required to fish for certain hatchery-raised species with the proceeds going to the South Carolina DNR's freshwater fisheries program? (Analysis of those who fished in saltwater from Question 6)**

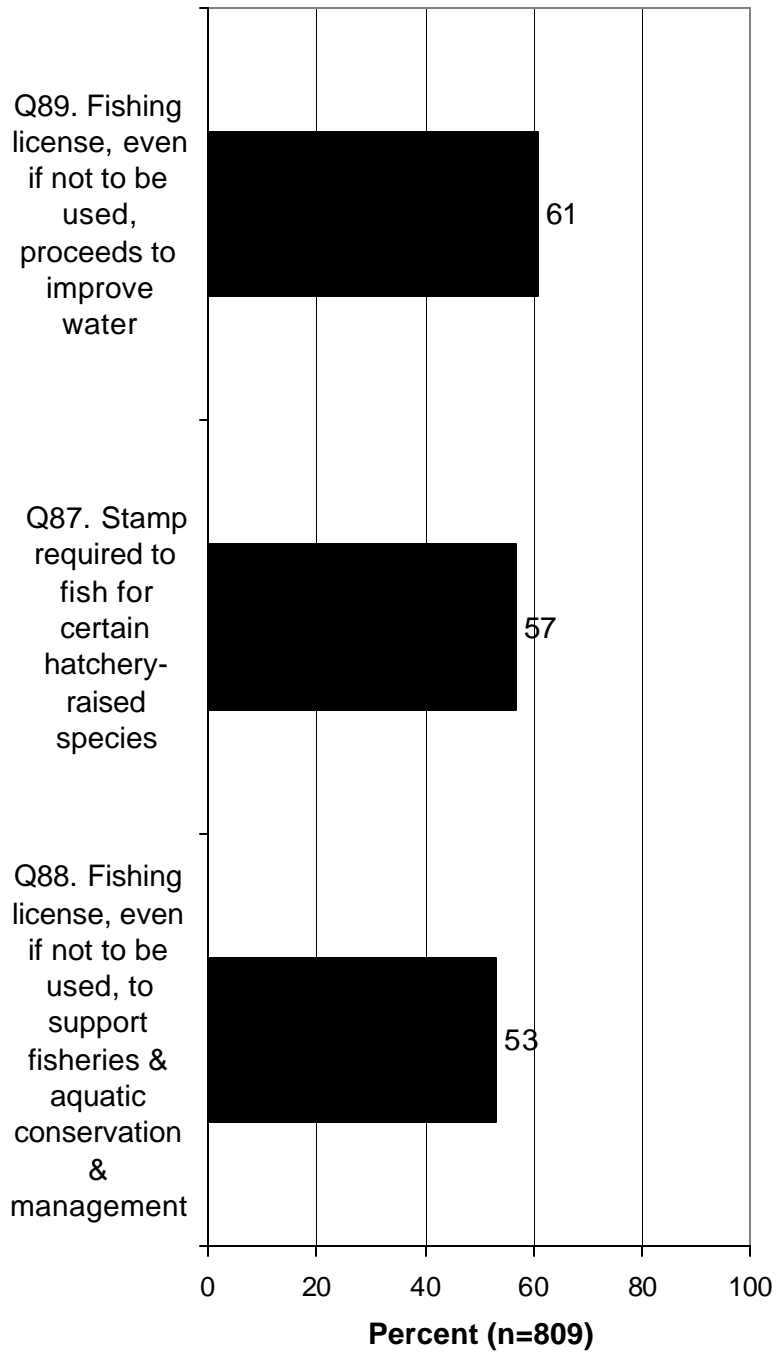




### Q87-89. Percent Saying They Would Be Very Likely to Purchase the Following



### Q87-89. Percent Saying They Would Be Very or Somewhat Likely to Purchase the Following





Q89. How likely would you be to purchase a fishing license, even if you did not plan on fishing, where the proceeds would help improve water quality? (Very or Somewhat Likely to Purchase a Fishing License, Even If Not to Be Used, Where the Proceeds Would Help Improve Water Quality)

CHARACTERISTIC	Z-SCORE	
Fished in freshwater	6.35***	Most likely to say very or somewhat likely.
Fished in saltwater	3.55***	
Job is in construction/development	3.14**	
High school graduate or equivalent	3.09**	
Male	3.06**	
Watched wildlife near a lake, stream, or river	2.67**	
Income is \$40,000 to \$59,999	2.63**	
Income is \$20,000 to \$39,999	2.5*	
Been canoeing or kayaking	2.48*	
Job is in industry	2.42*	
Prefer information through license agent/sporting goods store	2.33*	
Been motorized boating	2.23*	
45-54 years old	2.16*	
Prefer information through direct mail	2.16*	Most likely <i>not</i> to say very or somewhat likely.
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Female	-3.06**	
Retired	-3.11**	
65 or older	-3.55***	
Participated in none of the activities listed in Q6	-4.63***	

Q89. How likely would you be to purchase a fishing license, even if you did not plan on fishing, where the proceeds would help improve water quality? (Not at All Likely to Purchase a Fishing License, Even If Not to Be Used, Where the Proceeds Would Help Improve Water Quality)

CHARACTERISTIC	Z-SCORE	
Participated in none of the activities listed in Q6	4.37***	Most likely to say that they would be not at all likely to purchase a license.
Job is in teaching/education	2.41*	
Female	2.31*	
Job is in consulting	2.3*	
Graduate or professional degree	2.24*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		Most likely <i>not</i> to say that they would be not at all likely to purchase a license.
Been motorized boating	-1.96*	
45-54 years old	-2.1*	
Job is in industry	-2.29*	
Male	-2.31*	
Income is \$20,000 to \$39,999	-2.48*	
Watched wildlife near a lake, stream, or river	-2.71**	
Job is in construction/development	-2.71**	
High school graduate or equivalent	-3.2**	
Fished in freshwater	-3.36***	
Fished in saltwater	-5.86***	

Q88. How likely would you be to purchase a fishing license, even if you did not plan on using it, as a way to support freshwater fisheries and aquatic resources conservation and management? (Very or Somewhat Likely to Purchase a Fishing License, Even If Not to Be Used, as a Way to Support Freshwater Fisheries and Aquatic Resources Conservation and Management)

CHARACTERISTIC	Z-SCORE	
Fished in freshwater	10.02***	Most likely to say very or somewhat likely.  
Male	7.02***	
Fished in saltwater	5.73***	
Been motorized boating	5.11***	
Watched wildlife near a lake, stream, or river	4.02***	
Job is in construction/development	3.69***	
Job is in industry	3.55***	
Prefer information through direct mail	3.49***	
Prefer information through regulations handbook	2.6**	
Income is \$20,000 to \$39,999	2.52*	
Been canoeing or kayaking	2.45*	
High school graduate or equivalent	2.43*	
Job is in agriculture/farming	2.27*	
Been sailing	2.25*	
Under 18 years old	2.13*	
18-24 years old	2.08*	
Prefer information through license agent/sporting goods store	2.04*	
<b>STATISTICALLY INSIGNIFICANT VARIABLES OMITTED</b>		
Graduate or professional degree	-1.97*	Most likely <i>not</i> to say very or somewhat likely.
Retired	-2.54*	
Job is in clerical	-3.05**	
65 or older	-3.22**	
Participated in none of the activities listed in Q6	-6.02***	
Female	-7.02***	

Q88. How likely would you be to purchase a fishing license, even if you did not plan on using it, as a way to support freshwater fisheries and aquatic resources conservation and management?  
(Not at All Likely to Purchase a Fishing License, Even If Not to Be Used, as a Way to Support Freshwater Fisheries and Aquatic Resources Conservation and Management)



CHARACTERISTIC	Z-SCORE
Female	5.98***
Participated in none of the activities listed in Q6	5.93***
Job is in clerical	3.58***
Graduate or professional degree	2.31*
65 or older	2.01*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Income is \$20,000 to \$39,999	-2*
18-24 years old	-2.06*
Prefer information through regulations handbook	-2.23*
Been canoeing or kayaking	-2.31*
Prefer information through license agent/sporting goods store	-2.34*
High school graduate or equivalent	-2.52*
African-American	-2.6**
Prefer information through direct mail	-2.71**
Job is in industry	-3.16**
Job is in construction/development	-3.38***
Watched wildlife near a lake, stream, or river	-3.94***
Been motorized boating	-4.4***
Fished in freshwater	-5.41***
Male	-5.98***
Fished in saltwater	-9.59***

Most likely to say that they would be not at all likely to purchase a license.




Most likely *not* to say that they would be not at all likely to purchase a license.

Q87. How likely would you be to purchase a stamp required to fish for certain hatchery-raised species, such as striped bass and trout, with the proceeds going to the South Carolina DNR's freshwater fisheries program? (Very or Somewhat Likely to Purchase a Stamp)

CHARACTERISTIC	Z-SCORE	
Fished in freshwater	7.07***	Most likely to say very or somewhat likely.  Most likely <i>not</i> to say very or somewhat likely. 
Fished in saltwater	5.68***	
Male	5.26***	
Been motorized boating	5***	
Watched wildlife near a lake, stream, or river	4.6***	
Prefer information through direct mail	4.07***	
Income is \$40,000 to \$59,999	3.82***	
Job is in industry	3.02**	
Been canoeing or kayaking	2.83**	
Native American	2.64**	
45-54 years old	2.13*	
Job is in construction/development	2.04*	
Been sailing	1.97*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Retired	-2.13*	
65 or older	-2.48*	
Homemaker	-3.8***	
Female	-5.26***	
Participated in none of the activities listed in Q6	-6.24***	

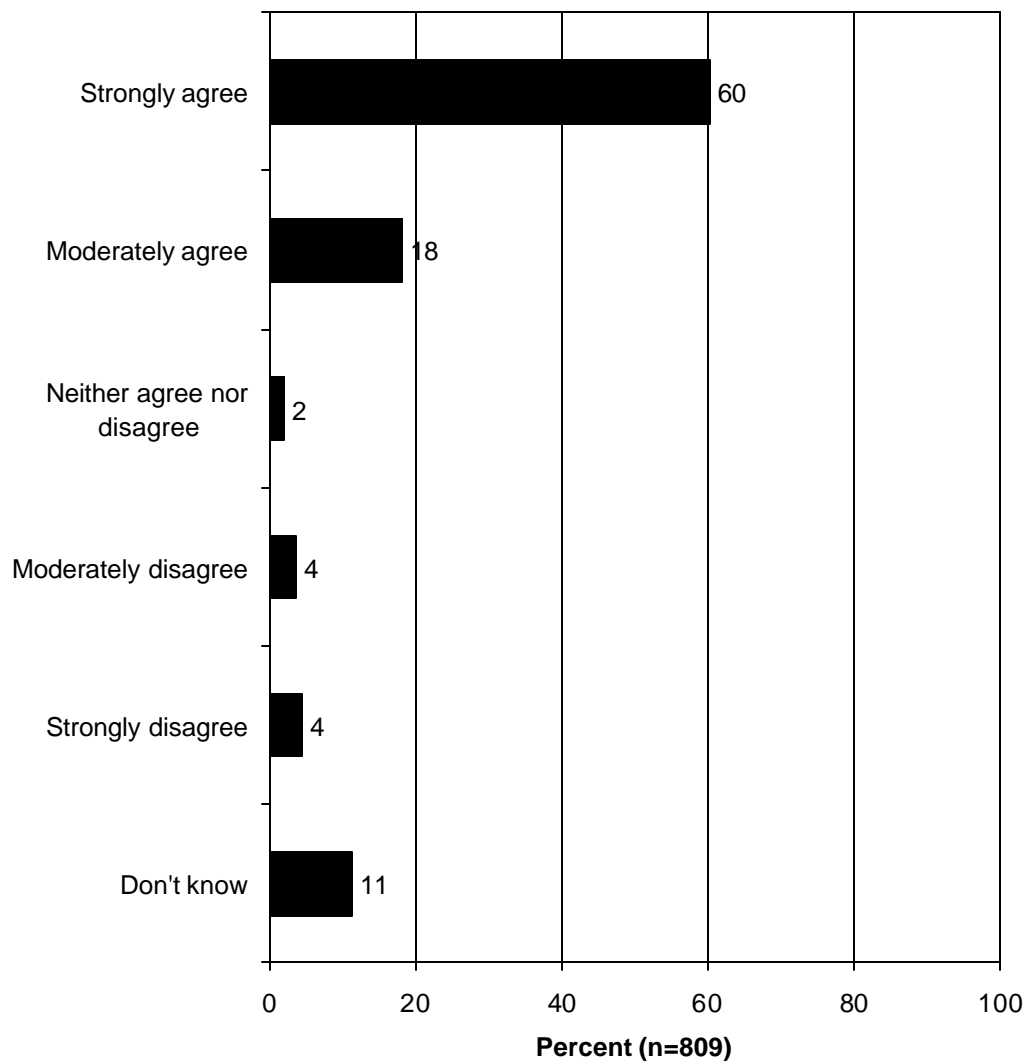
Q87. How likely would you be to purchase a stamp required to fish for certain hatchery-raised species, such as striped bass and trout, with the proceeds going to the South Carolina DNR's freshwater fisheries program? (Not at All Likely to Purchase a Stamp)

CHARACTERISTIC	Z-SCORE	
Participated in none of the activities listed in Q6	6.32***	Most likely to say that they would be not at all likely to purchase a stamp.  Most likely <i>not</i> to say that they would be not at all likely to purchase a stamp.
Female	3.92***	
Homemaker	3.32***	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Prefer information through magazines	-1.96	
African-American	-2.15*	
Job is in industry	-2.19*	
Native American	-2.22*	
Been sailing	-2.39*	
Been canoeing or kayaking	-2.53*	
Prefer information through direct mail	-3.36***	
Male	-3.92***	
Been motorized boating	-4.37***	
Watched wildlife near a lake, stream, or river	-4.74***	
Fished in freshwater	-5.02***	
Fished in saltwater	-7.34***	

## POTENTIAL REGULATORY CHANGES, INCLUDING REGULATIONS REGARDING DAMS

A large majority (78%) of respondents agreed that the SCDNR should require dam owners to put fish passage facilities at the dams so as not to impede migrating fish, with 60% having strongly agreed. (Question 70).

### Q70. Some dams block the migration of fish, which negatively impacts these fish. Do you agree or disagree that the South Carolina DNR should require dam owners to put fish passage facilities at these dams?



Q70. Some dams block the migration of fish, which negatively impacts these fish. Do you agree or disagree that the South Carolina DNR should require dam owners to put fish passage facilities at these dams? (Agreed that the SCDNR Should Require Dam Owners to Put Fish Passage Facilities at Dams)

CHARACTERISTIC	Z-SCORE	
Resides in small city or town	2.89**	Most likely to agree. ↑
Prefer information through Internet	2.36*	
Income is \$40,000 to \$59,999	2.24*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
65 or older	-2.35*	Most likely <i>not</i> to agree.

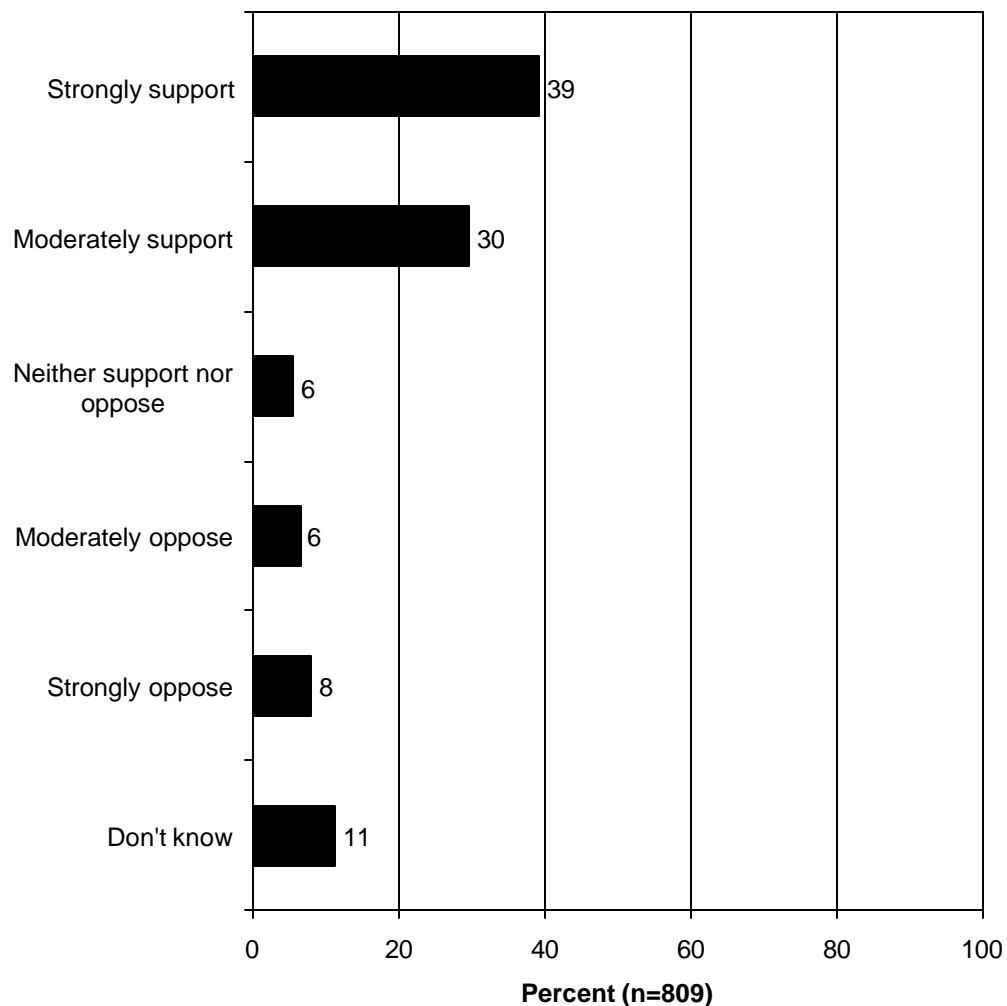
Q70. Some dams block the migration of fish, which negatively impacts these fish. Do you agree or disagree that the South Carolina DNR should require dam owners to put fish passage facilities at these dams? (Disagreed that Dam Owners Should Be Required to Put Fish Passage Facilities at These Dams)

CHARACTERISTIC	Z-SCORE	
Prefer information through regulations handbook	2.3*	Most likely to disagree with requirement.
Resides in Piedmont Region	2*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Resides in Low County Region	-2.07*	Most likely <i>not</i> to disagree with requirement.
Resides in small city or town	-2.13*	




A majority (69%) of respondents supported giving the SCDNR the ability to set fishing regulations in lieu of having the South Carolina State Legislature do so, with 39% strongly supporting this action. A majority (64%) also supported giving the SCDNR the ability to set fishing license fees, with 36% strongly supporting this action. The z-score tabulations show the characteristics associated with those who support and oppose each action. (Question 102 and Question 103).

**Q102. The SC State Legislature makes all decisions regarding fisheries and aquatic resources, including setting fishing regulations and license fees. Would you support or oppose giving the South Carolina DNR the ability to set fishing regulations?**



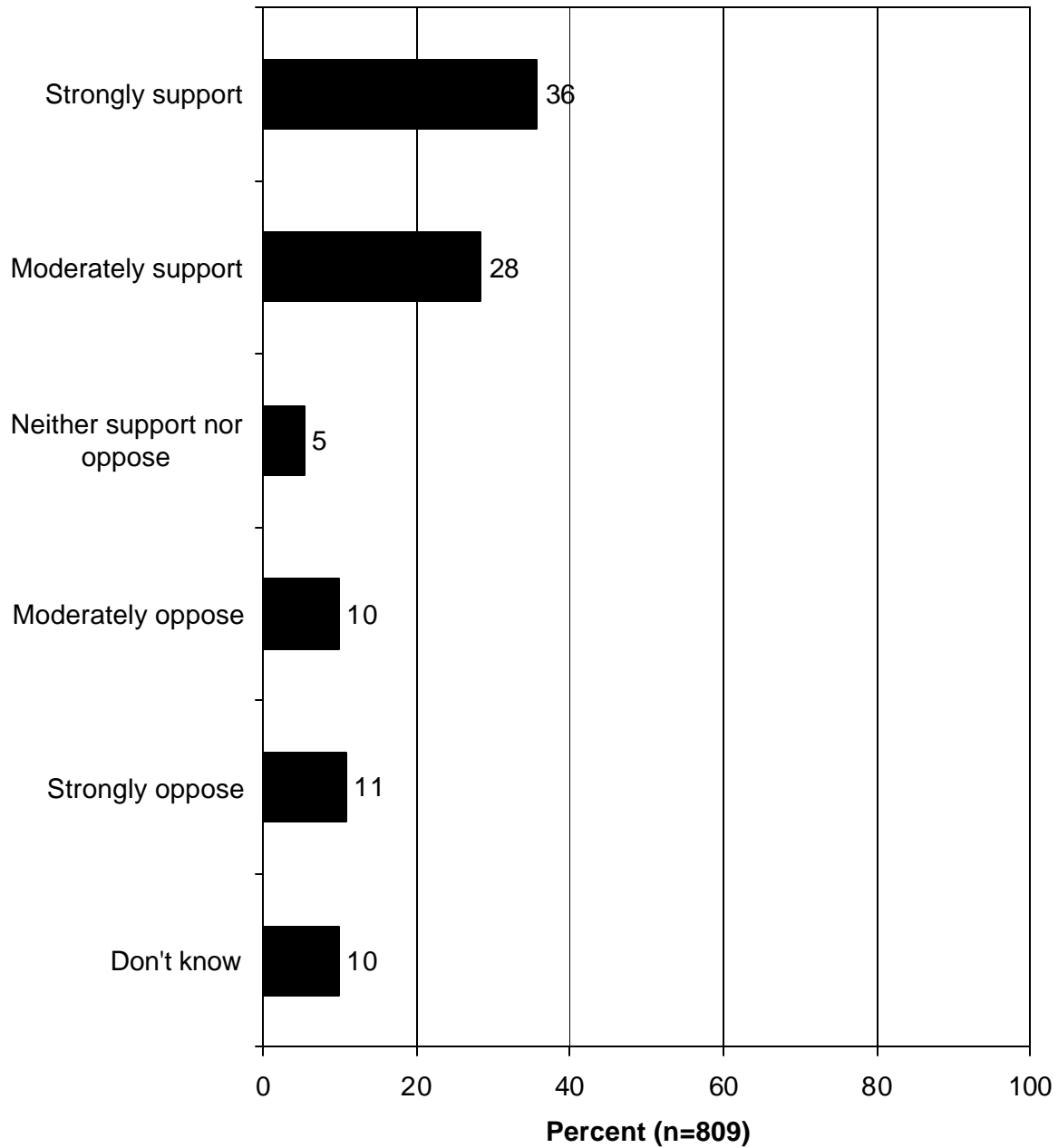
Q102. Would you support or oppose giving the South Carolina DNR the ability to set fishing regulations? (Strongly or Moderately Support Giving the SCDNR the Ability to Set Fishing Regulations)

CHARACTERISTIC	Z-SCORE	
Watched wildlife near a lake, stream, or river	2.71**	Most likely to support.  Most likely <i>not</i> to support.
Prefer information through Internet	2.67**	
Been motorized boating	2.66**	
Resides in small city or town	2.49*	
Male	2.32*	
Income is \$40,000 to \$59,999	2.31*	
18-24 years old	2.09*	
Income is \$20,000 to \$39,999	1.99*	
Been canoeing or kayaking	1.99*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Job is in medical	-2.01*	
Female	-2.32*	
Retired	-2.67**	
65 or older	-2.79**	
Grades 1-12, but no HS diploma	-2.96**	
Participated in none of the activities listed in Q6	-3.52***	

Q102. Would you support or oppose giving the South Carolina DNR the ability to set fishing regulations? (Opposed Giving the SCDNR the Ability to Set Fishing Regulations)

CHARACTERISTIC	Z-SCORE	
Job is in medical	3.26**	Most likely to oppose.
Resides in large city or urban area	2.31*	
Fished in saltwater	2.31*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Resides in small city or town	-2.06*	Most likely <i>not</i> to oppose.

**Q103. Would you support or oppose giving the South Carolina DNR the ability to set fishing license fees?**



Q103. Would you support or oppose giving the South Carolina DNR the ability to set fishing license fees? (Strongly or Moderately Support Giving the SCDNR the Ability to Set Fishing License Fees)

CHARACTERISTIC	Z-SCORE
Prefer information through direct mail	2.48*
Graduate or professional degree	2.34*
Watched wildlife near a lake, stream, or river	2.11*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
Prefer information through regulations handbook	-2.33*
Participated in none of the activities listed in Q6	-2.84**

Most likely to support.

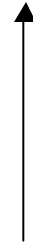


Most likely *not* to support.

Q103. Would you support or oppose giving the South Carolina DNR the ability to set fishing license fees? (Oppose Giving the SCDNR the Ability to Set Fishing License Fees)

CHARACTERISTIC	Z-SCORE
Male	3.64***
Fished in freshwater	3.64***
Prefer information through regulations handbook	3.1**
Prefer information through license agent/sporting goods store	2.99**
Job is in industry	2.8**
College graduate	2.57*
Fished in saltwater	2.56*
45-54 years old	2.25*
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED	
55-64 years old	-1.97*
Graduate or professional degree	-2.18*
Prefer information through direct mail	-2.24*
Female	-3.64***

Most likely to oppose.

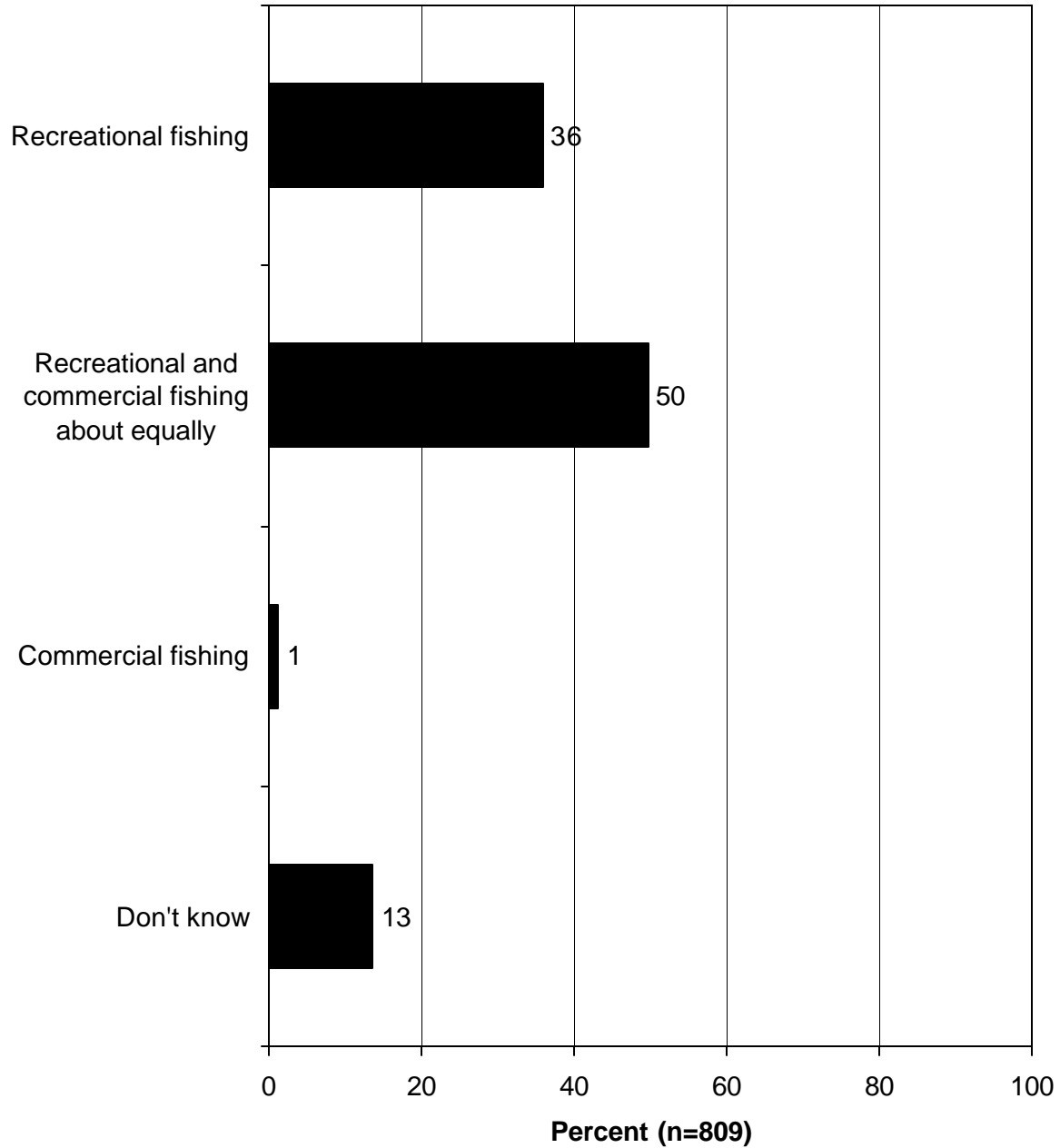


Most likely *not* to oppose.

## **SCDNR'S POTENTIAL INVOLVEMENT WITH COMMERCIAL FISHING**

Recreational fishing was perceived to be more important for the SCDNR's involvement than is commercial fishing. In total, 86% of respondents thought the SCDNR should emphasize its recreational fishing efforts (36% saying recreational fishing should be the sole emphasis, 50% saying both recreational and commercial fishing should be emphasized), and 51% thought the SCDNR should emphasize its commercial fishing efforts (1% saying commercial fishing should be the sole emphasis, 50% saying both recreational and commercial fishing should be emphasized). The z-score tabulations show the characteristics associated with a response that the SCDNR should emphasize the specific area related to fishing. (Question 77).

**Q77. In your opinion, do you think the South Carolina DNR should emphasize recreational fishing or do you think the DNR should be involved with commercial fishing as well?**



Q77. In your opinion, do you think the South Carolina DNR should emphasize recreational fishing or do you think the DNR should be involved with commercial fishing as well? (SCDNR Should Emphasize Recreational Fishing)

CHARACTERISTIC	Z-SCORE	
Male	4.77***	Most likely to say the SCDNR should emphasize recreational fishing. ↑
Fished in freshwater	4.29***	
High school graduate or equivalent	3.37***	
Been motorized boating	2.86**	
White	2.62**	
Job is in agriculture/farming	2.42*	
Resides in Mountain Region	2.42*	
Prefer information through pamphlets/brochures	2.39*	
Job is in sales/retail	2.24*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Resides in Pee Dee Region	-2.33*	Most likely <i>not</i> to say the SCDNR should emphasize recreational fishing.
Participated in none of the activities listed in Q6	-2.85**	
Grades 1-12, but no HS diploma	-3.33***	
Female	-4.77***	

Q77. In your opinion, do you think the South Carolina DNR should emphasize recreational fishing or do you think the DNR should be involved with commercial fishing as well? (SCDNR Should Emphasize Recreational and Commercial Fishing About Equally)

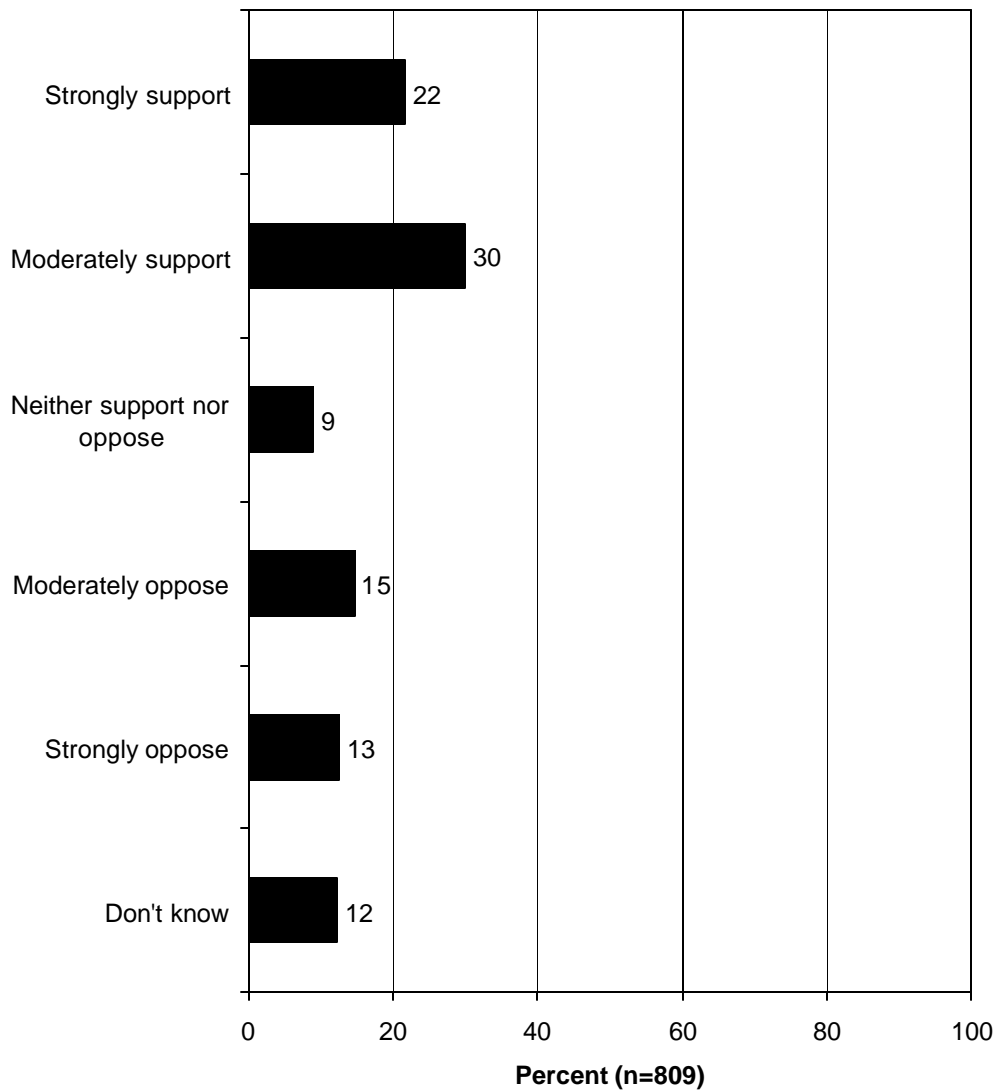
CHARACTERISTIC	Z-SCORE	
Been canoeing or kayaking	2.5*	Most likely to say the SCDNR should emphasize recreational and commercial fishing about equally.
Watched wildlife near a lake, stream, or river	2.4*	
Job is in military	2.26*	
Asian-American	2.26*	
Resides in Pee Dee Region	2.21*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Retired	-2.28*	Most likely <i>not</i> to say the SCDNR should emphasize recreational and commercial fishing about equally.
Resides in Mountain Region	-2.9**	
65 or older	-3.07**	

Q77. In your opinion, do you think the South Carolina DNR should emphasize recreational fishing or do you think the DNR should be involved with commercial fishing as well? (SCDNR Should Emphasize Commercial Fishing)

CHARACTERISTIC	Z-SCORE	
Hispanic	3.65***	Most likely to say the SCDNR should emphasize commercial fishing.
Grades 1-12, but no HS diploma	1.98*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		


A majority (52%) supported the practice of having some anglers catch freshwater fish, such as catfish, for the purpose of commercial sale. An even larger majority (70%) supported allowing commercial interests to raise freshwater fish, such as bass or crappie, for sale to the public in grocery stores and restaurants. The z-score tabulations show the characteristics associated with those who support and oppose the given positions. (Question 78 and Question 79).

**Q78. Some anglers in South Carolina catch freshwater fish such as catfish for the purpose of commercial sale. In general, do you support or oppose this practice?**





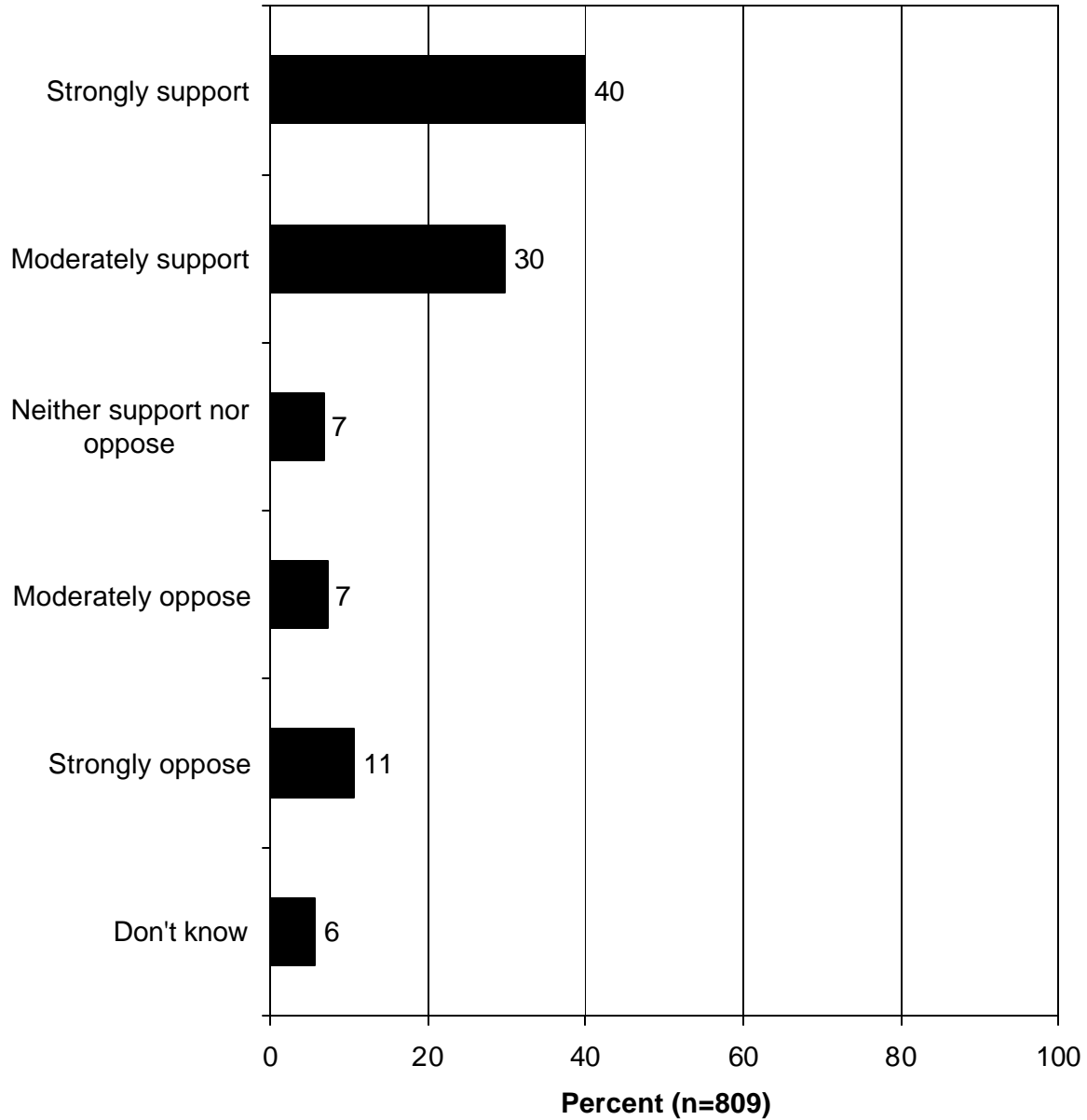
Q78. Some anglers in South Carolina catch freshwater fish such as catfish for the purpose of commercial sale. In general, do you support or oppose this practice? (Support Allowing Some Anglers to Catch Freshwater Fish for Commercial Sale)

CHARACTERISTIC	Z-SCORE	
Job is in agriculture/farming	2.79**	Most likely to support. 
Male	2.34*	
Fished in saltwater	2.33*	
Asian-American	2.17*	
Income is \$40,000 to \$59,999	2.09*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Job is in consulting	-2*	Most likely <i>not</i> to support.
Female	-2.34*	

Q78. Some anglers in South Carolina catch freshwater fish such as catfish for the purpose of commercial sale. In general, do you support or oppose this practice? (Opposed Allowing Some Anglers to Catch Freshwater Fish for Commercial Sale)

CHARACTERISTIC	Z-SCORE	
Male	2.12*	Most likely to oppose.
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Female	-2.12*	Most likely <i>not</i> to oppose.
Prefer information through newspapers	-2.28*	
25-34 years old	-2.53*	

**Q79. Do you support or oppose allowing commercial interests to raise freshwater fish, such as largemouth bass, crappie, or striped bass, for sale to the public in restaurants and grocery stores?**



Q79. Do you support or oppose allowing commercial interests to raise freshwater fish, such as largemouth bass, crappie, or striped bass, for sale to the public in restaurants and grocery stores?  
(Support Allowing Commercial Interests to Raise Freshwater Fish for Sale to the Public in Restaurants and Grocery Stores)

CHARACTERISTIC	Z-SCORE	
Job is in agriculture/farming	2.46*	Most likely to support. ↑
Resides in large city or urban area	2.1*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Grades 1-12, but no HS diploma	-2.03*	↓ Most likely <i>not</i> to support.
Resides in small city or town	-2.05*	
Income is less than \$19,999	-2.41*	
Retired	-2.8**	
65 or older	-3.3**	

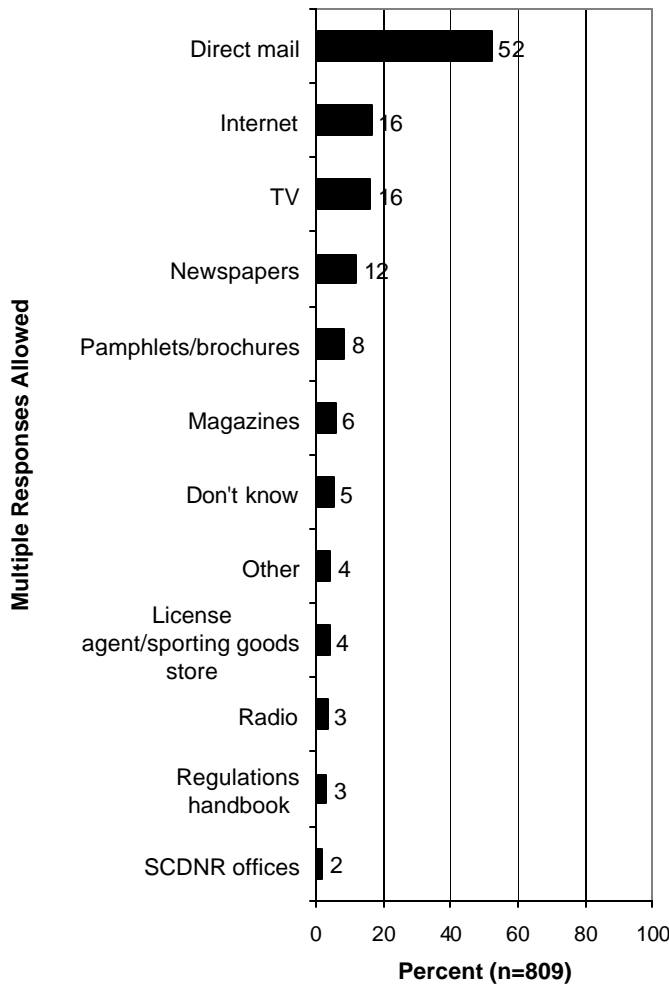
Q79. Do you support or oppose allowing commercial interests to raise freshwater fish, such as largemouth bass, crappie, or striped bass, for sale to the public in restaurants and grocery stores?  
(Opposed Allowing Commercial Interests to Raise Freshwater Fish for Sale to the Public in Restaurants and Grocery Stores)

CHARACTERISTIC	Z-SCORE	
Fished in saltwater	3.33***	Most likely to oppose. ↑
Retired	2.8**	
Male	2.45*	
Prefer information through magazines	2.31*	
65 or older	2.31*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Female	-2.45*	Most likely <i>not</i> to oppose.

## WAYS FOR THE SCDNR TO PROVIDE INFORMATION ABOUT FRESHWATER FISHERIES AND AQUATIC RESOURCES PROGRAMS

A majority (52%) of respondents favored direct mail as the best way for them to receive information on fishing and aquatic resources. The next most popular ways to receive information on fishing and aquatic resources were the Internet (16%), television (16%), and newspapers (12%). (Question 105).

**Q105. What is the best way for you to receive information on fishing or aquatic resources?**



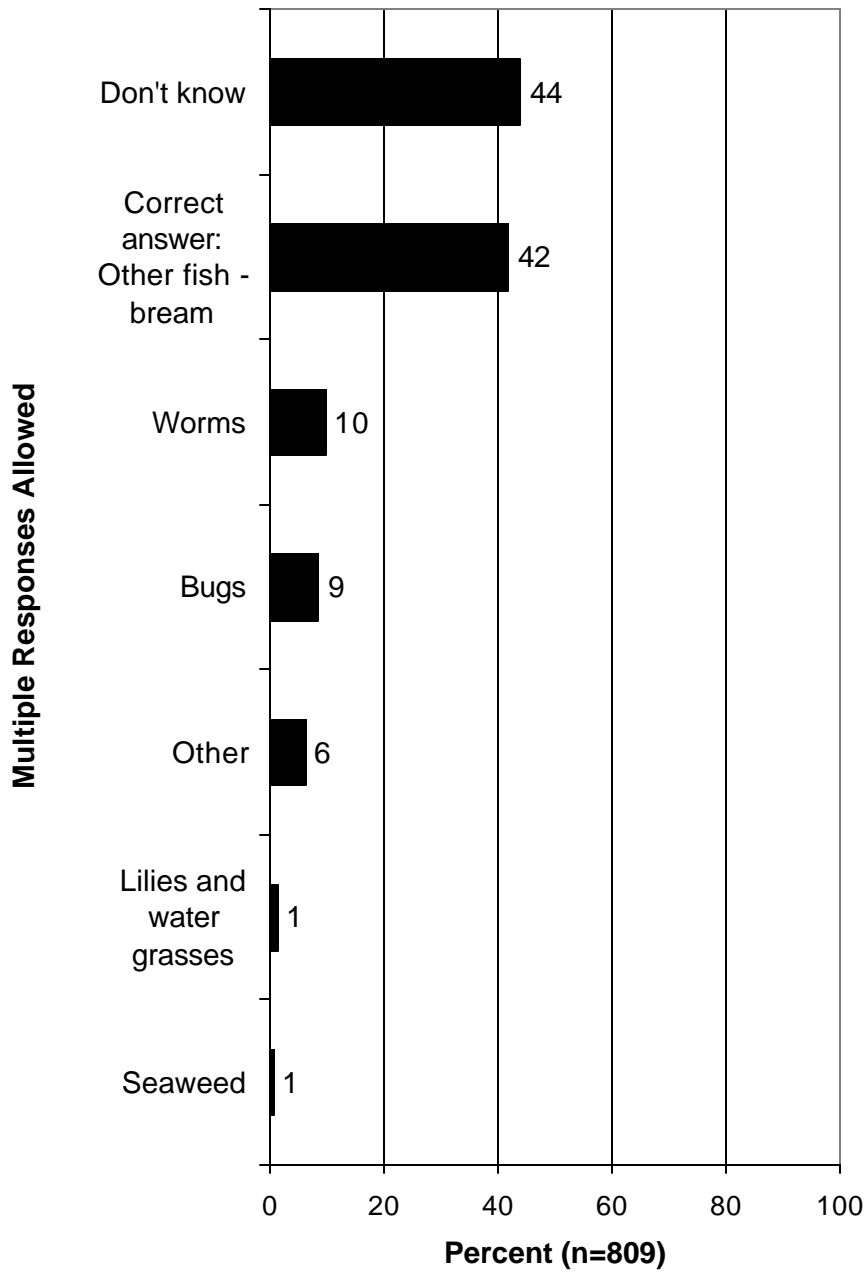
## **KNOWLEDGE OF AQUATIC WILDLIFE**

In assessing general knowledge about basic aquatic species, only 1 of the 3 questions asked concerning what types of food did three aquatic species eat was answered correctly by a majority of respondents. Correct knowledge of what type of food sharks eat was the highest of the three species: 68% of respondents correctly named the kind of food that sharks usually eat (saltwater fish). Correct knowledge about other basic aquatic wildlife was low with less than a majority being able to identify the correct food of largemouth bass or river otters. Less than a majority (42%) of respondents correctly named the kind of food that largemouth bass eat (other fish, including bream), and nearly the same percentage (41%) correctly named the kind of food that river otters usually eat (fish and frogs).

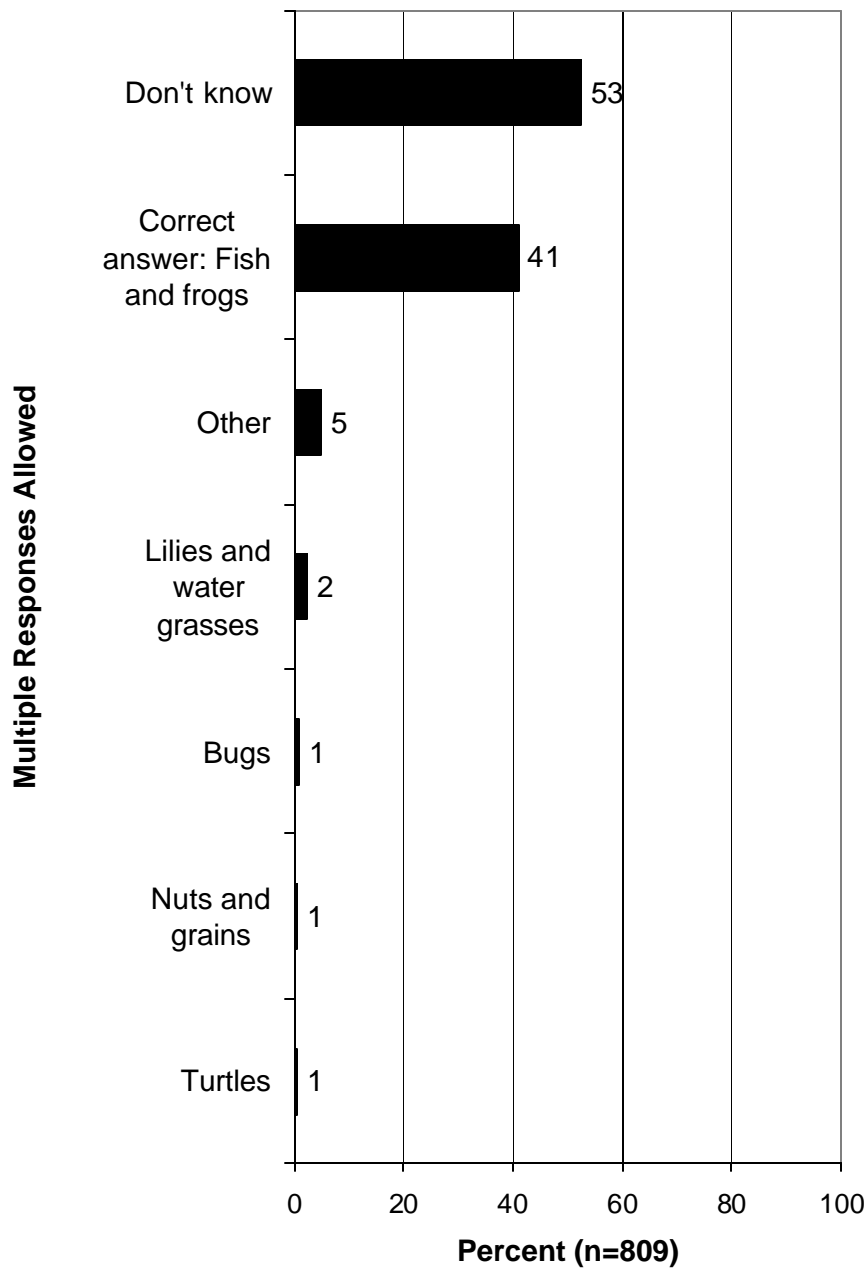
The z-score tabulations show the characteristics associated with a correct response to the aquatic wildlife knowledge questions are shown below. (Question 29, Question 32, and Question 35).

**Q29, 32, and 35. Percent Providing the Correct Answer Regarding the Kind of Food the Species Eats**

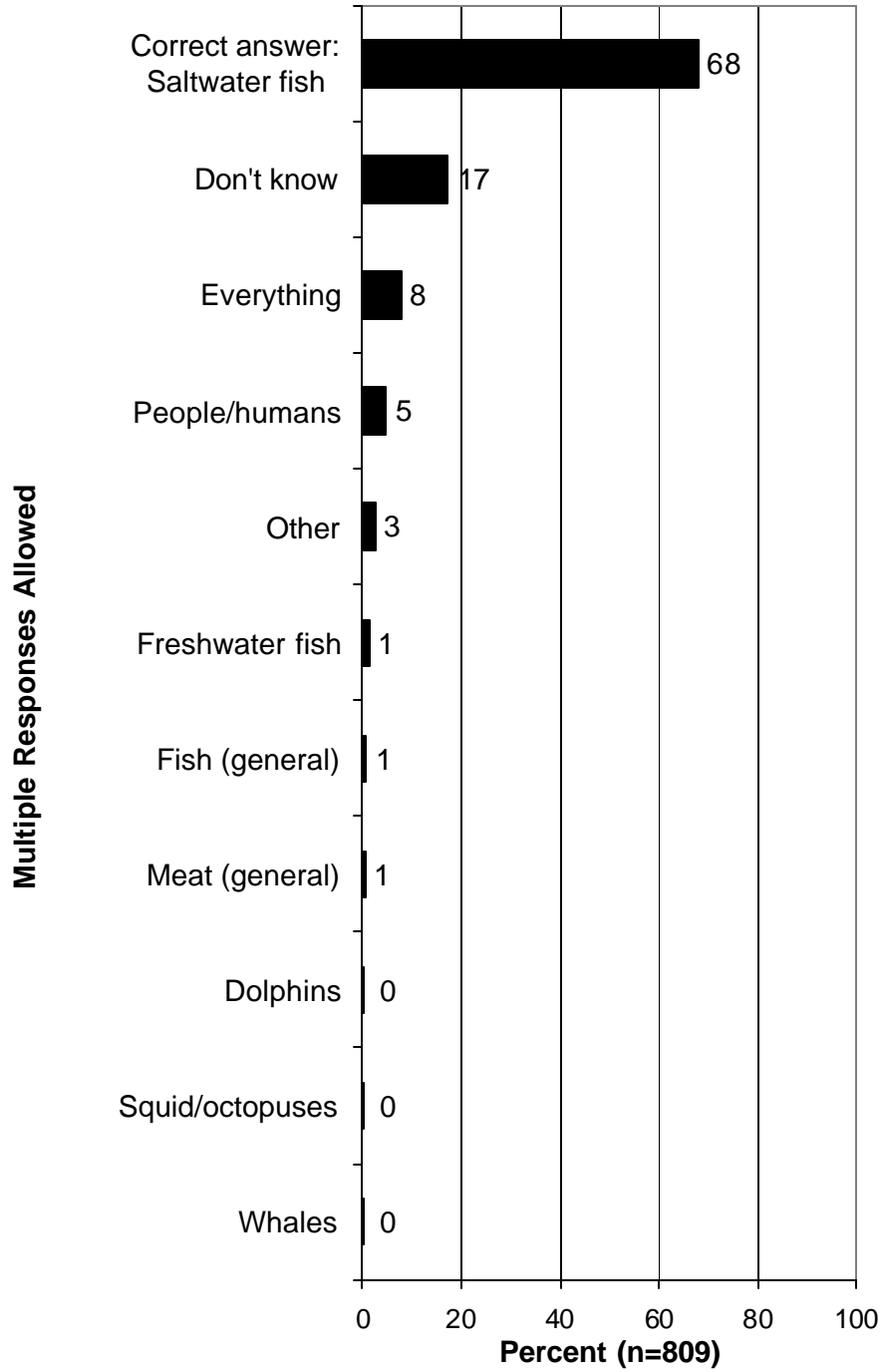


**Q29. What kind of food do largemouth bass eat?**

**Q32. What does a river otter usually eat?**





**Q35. What type of food do sharks usually eat?**

Q29. What kind of food do largemouth bass eat? (Answered Correctly by Saying Other Fish – Bream)	Z-SCORE
<b>CHARACTERISTIC</b>	
Male	8.06***
Fished in freshwater	7.44***
Fished in saltwater	5.95***
Been motorized boating	4.84***
White	4.3***
Job is in industry	3.56***
Income is \$40,000 to \$59,999	3.32***
Job is in construction/development	2.66**
65 or older	2.65**
Watched wildlife near a lake, stream, or river	2.56*
35-44 years old	2.51*
Job is in agriculture/farming	2.41*
Resides in Pee Dee Region	2.39*
Retired	2.16*
Income is \$80,000 to \$99,999	2.03*
Prefer information through direct mail	2.01*
<b>STATISTICALLY INSIGNIFICANT VARIABLES OMITTED</b>	
Refused age	-2.01*
Refused income	-2.09*
Under 18 years old	-2.2*
Don't know which medium prefer information through	-2.24*
Refused race	-2.26*
Student	-2.87**
Don't know income	-2.87**
African-American	-3.01**
Homemaker	-3.14**
18-24 years old	-3.34***
Participated in none of the activities listed in Q6	-4.87***
Female	-8.06***

Most likely to say correct answer.



Most likely *not* to say correct answer.

Q32. What does a river otter usually eat? (Answered Correctly by Saying Fish and Frogs)	Z-SCORE	Most likely to say correct answer.
CHARACTERISITC		
Fished in freshwater	5.51***	↑
Male	4.85***	
Fished in saltwater	4.42***	
Been motorized boating	3.98***	
Watched wildlife near a lake, stream, or river	3.64***	
Job is in industry	2.26*	
Prefer information through direct mail	2.18*	
Job is in consulting	1.96	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Job is in sales/retail	-2.32*	
Don't know which medium prefer information through	-2.77**	
Refused age	-2.9**	
Female	-4.85***	
Participated in none of the activities listed in Q6	-5.43***	

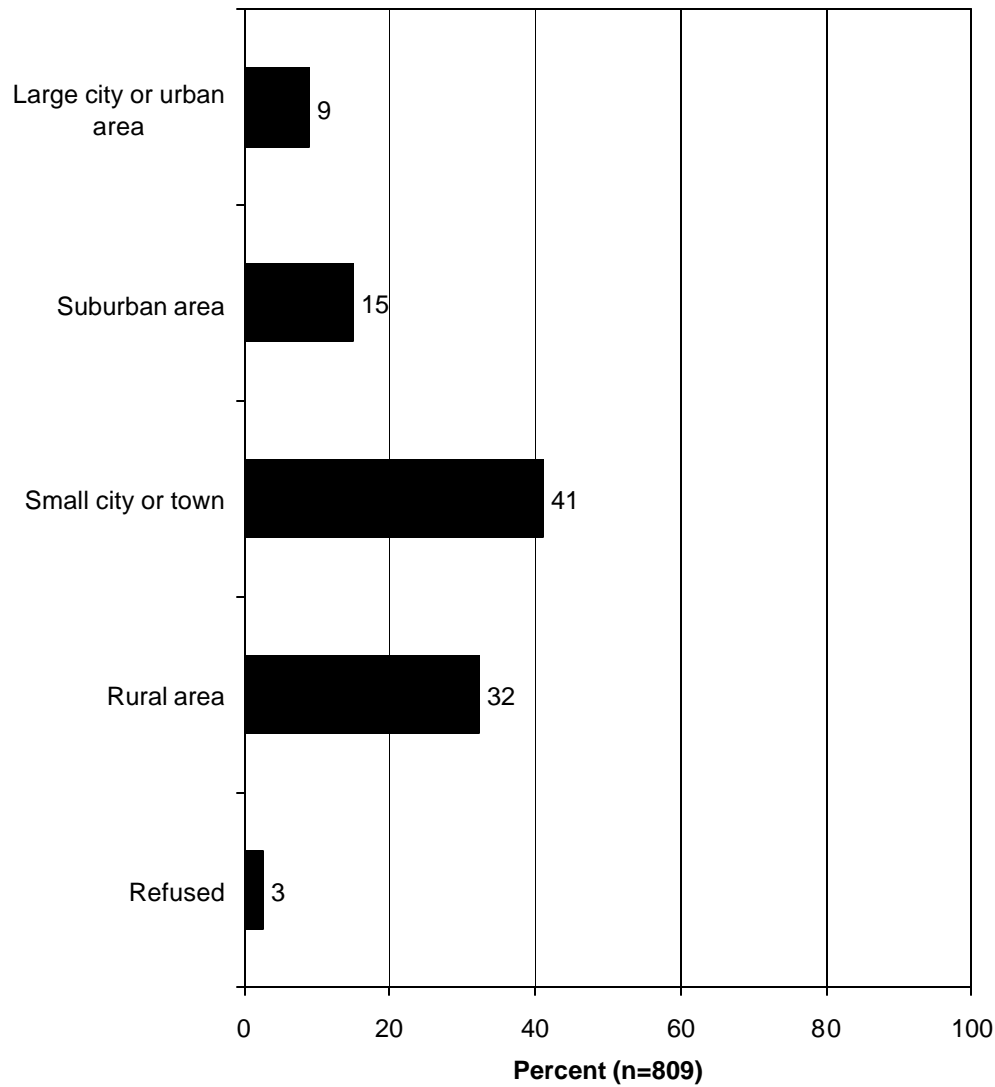
Most likely *not* to say correct answer.

Q35. What type of food do sharks usually eat? (Answered Correctly Saying Saltwater Fish)	Z-SCORE	Most likely to say correct answer.
CHARACTERISTIC		
White	4.87***	↑
Prefer information through direct mail	3.59***	
Fished in freshwater	2.96**	
Been motorized boating	2.37*	
Been canoeing or kayaking	2.37*	
Income is \$40,000 to \$59,999	2.3*	
Watched wildlife near a lake, stream, or river	2.29*	
Resides in small city or town	2.24*	
Some college or trade school	2.09*	
STATISTICALLY INSIGNIFICANT VARIABLES OMITTED		
Job is in sales/retail	-1.97*	↓
Graduate or professional degree	-2.07*	
Grades 1-12, but no HS diploma	-2.08*	
Don't know what activities participated in	-2.53*	
Don't know income	-3.02**	
Refused race	-3.02**	
Participated in none of the activities listed in Q6	-3.03**	
African-American	-3.2**	
Don't know which medium prefer information through	-3.54***	
Refused to indicate type of residence	-3.92***	Most likely <i>not</i> to say correct answer.

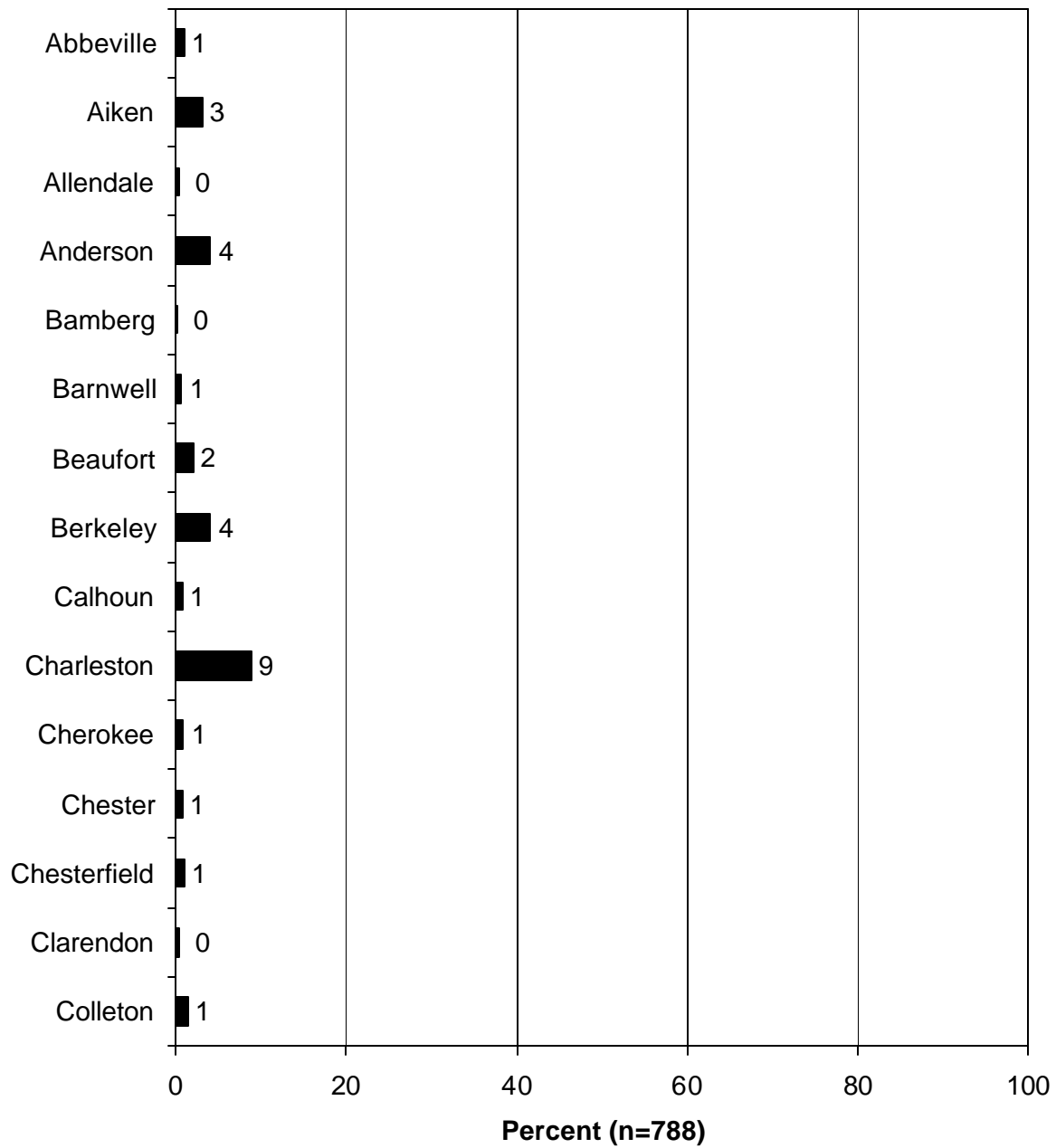
## DEMOGRAPHIC DATA

A plurality indicated that their place of residence is a small city or town (41%), followed by rural area (32%). Following the graph of place of residence are the graphs for the county of residence and the graph of region of residence. (Question 108 and Question 109).

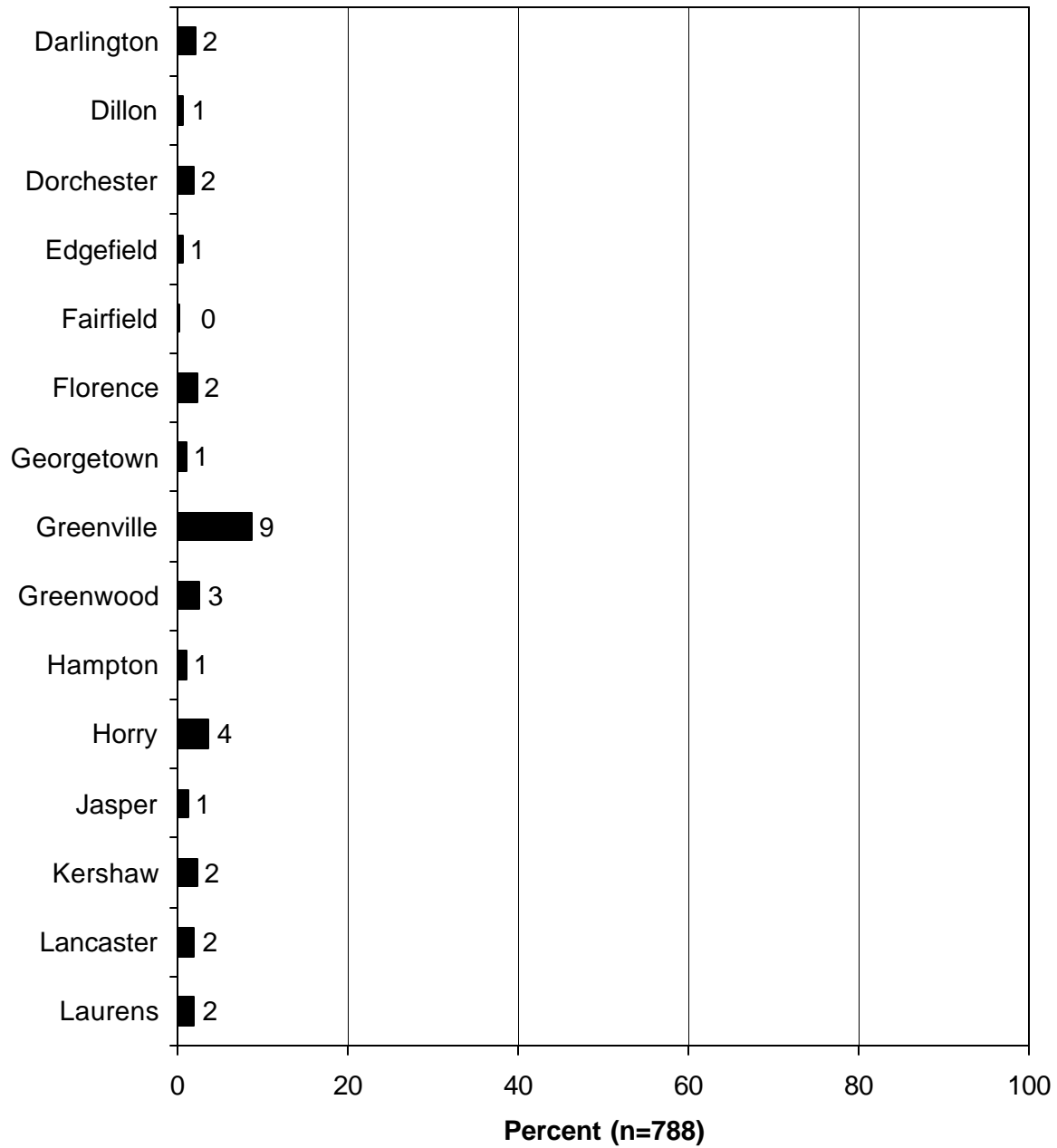
### Q108. Do you consider your place of residence to be in a large city or urban area, a suburban area, a small city or town, or a rural area?



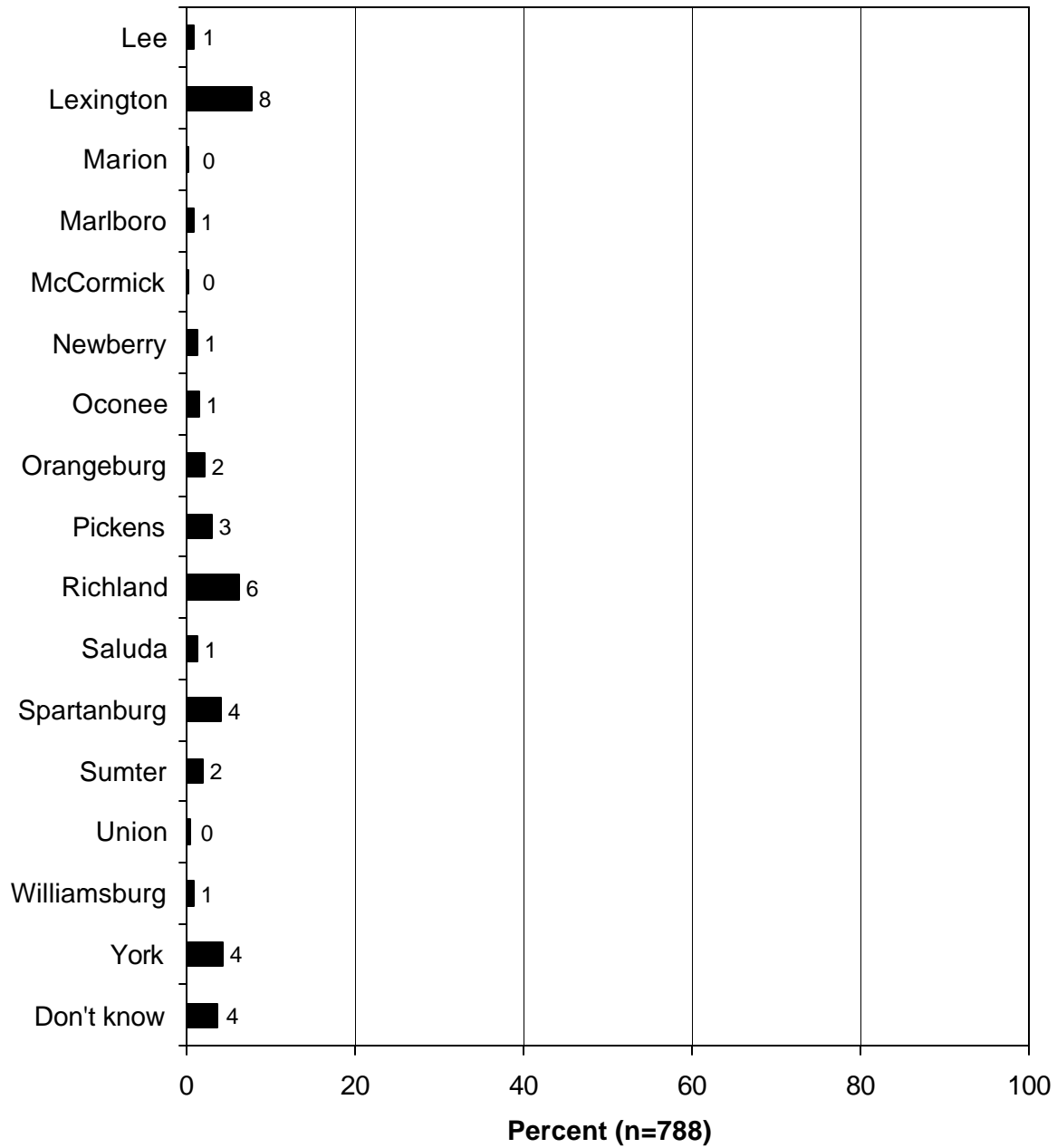
**Q109. In what county do you live?  
Part 1**



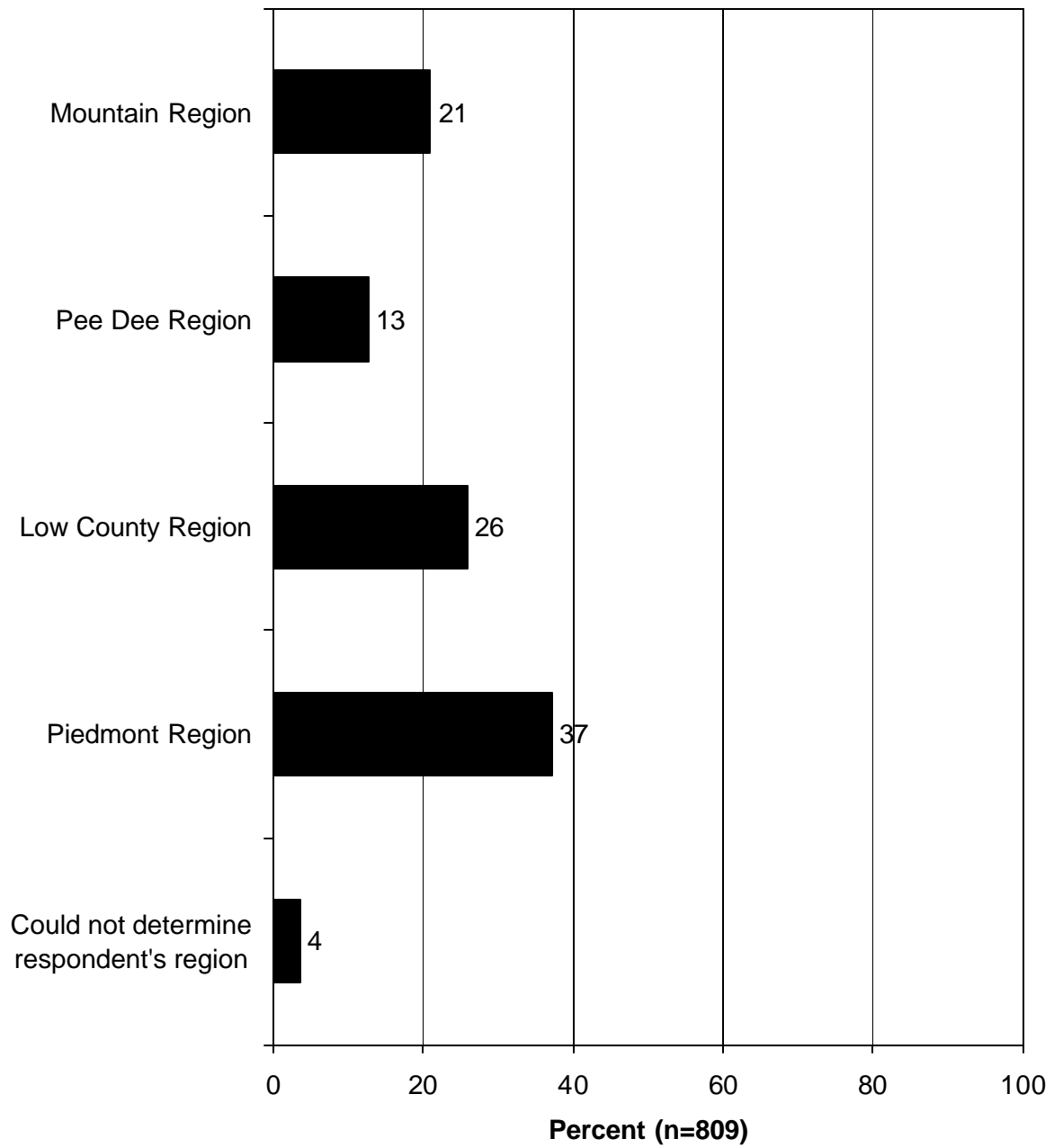
### Q109. In what county do you live? Part 2



**Q109. In what county do you live?**  
**Part 3**



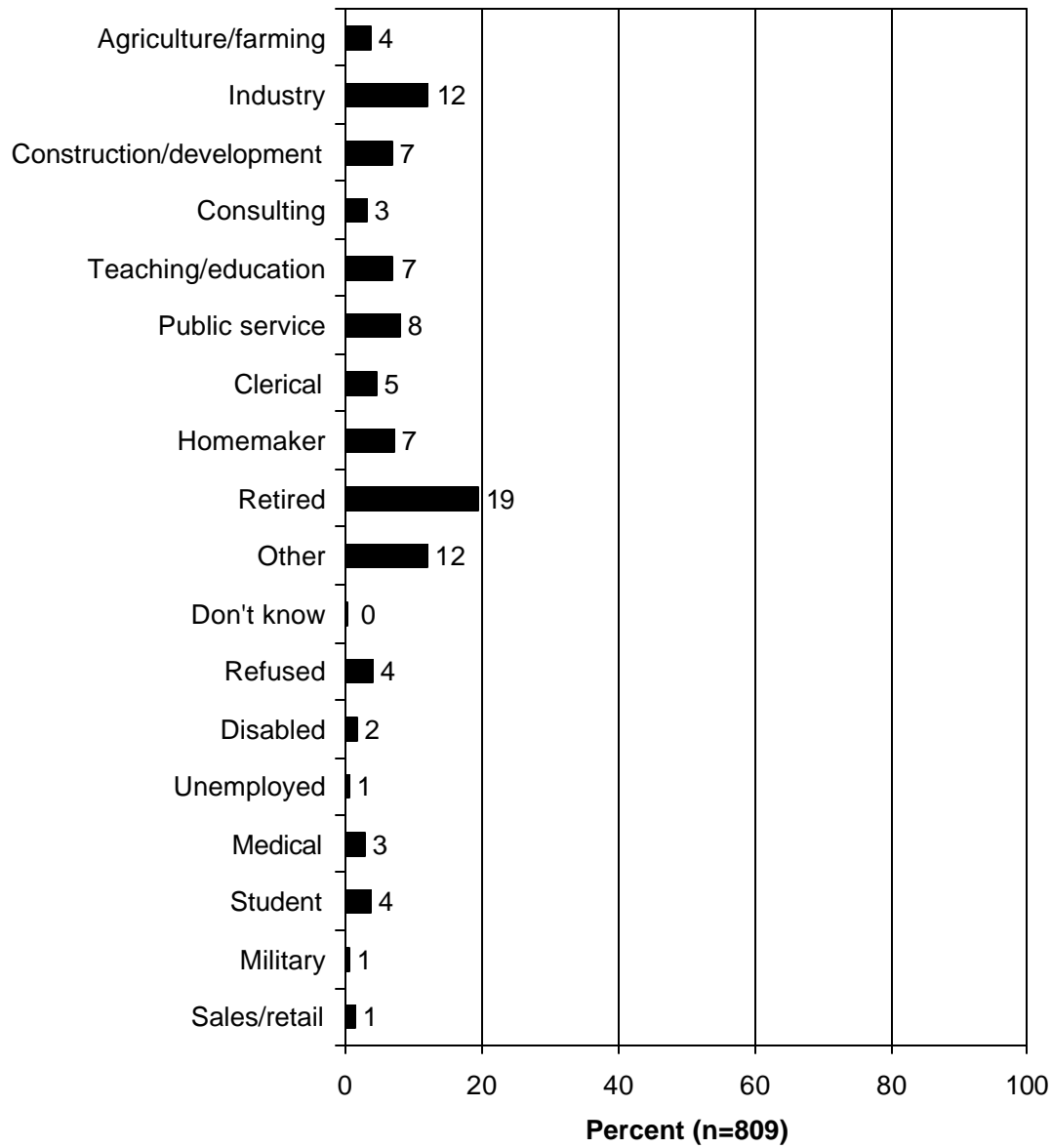
### South Carolina Regions





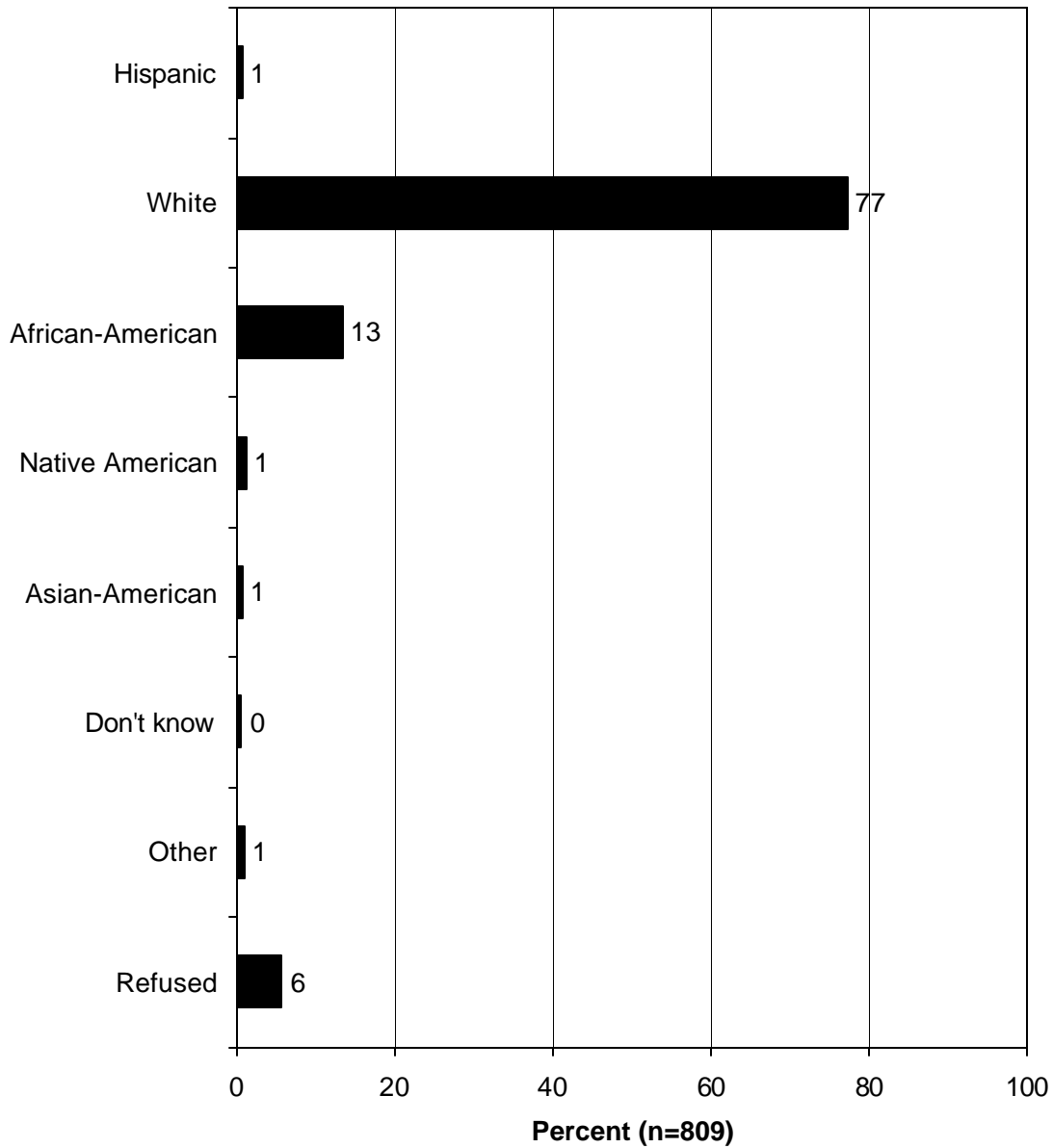
The most popular answer regarding occupation was retired (19%). Industry was also an important answer (12%). (Question 110).

**Q110. Which of the following best describes your occupation?**



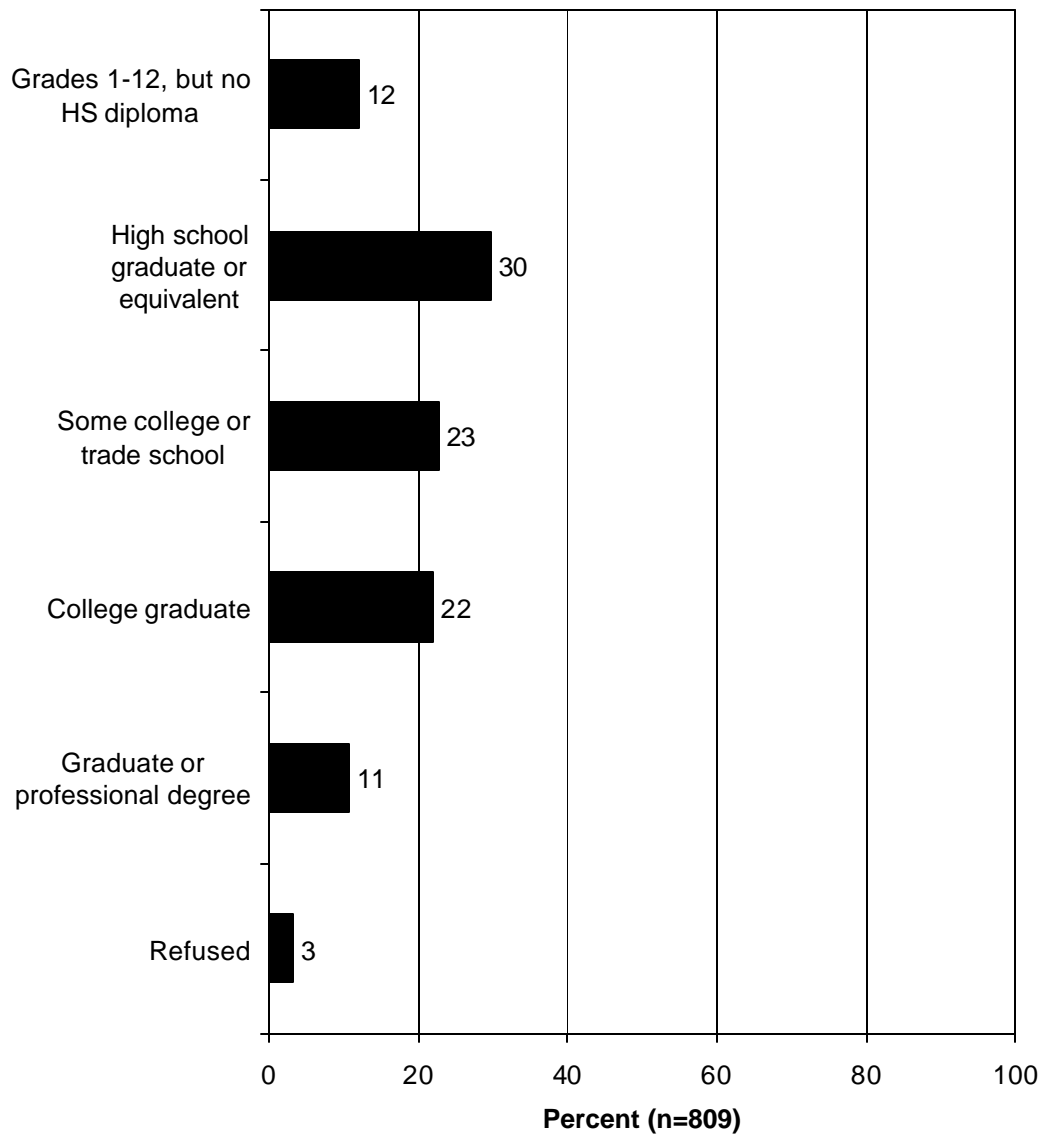
A large majority (77%) of respondents indicated that their race or ethnic background is white. African-American is the next largest ethnic group (13%). (Question 112).

**Q112. What is your race or ethnic background?**



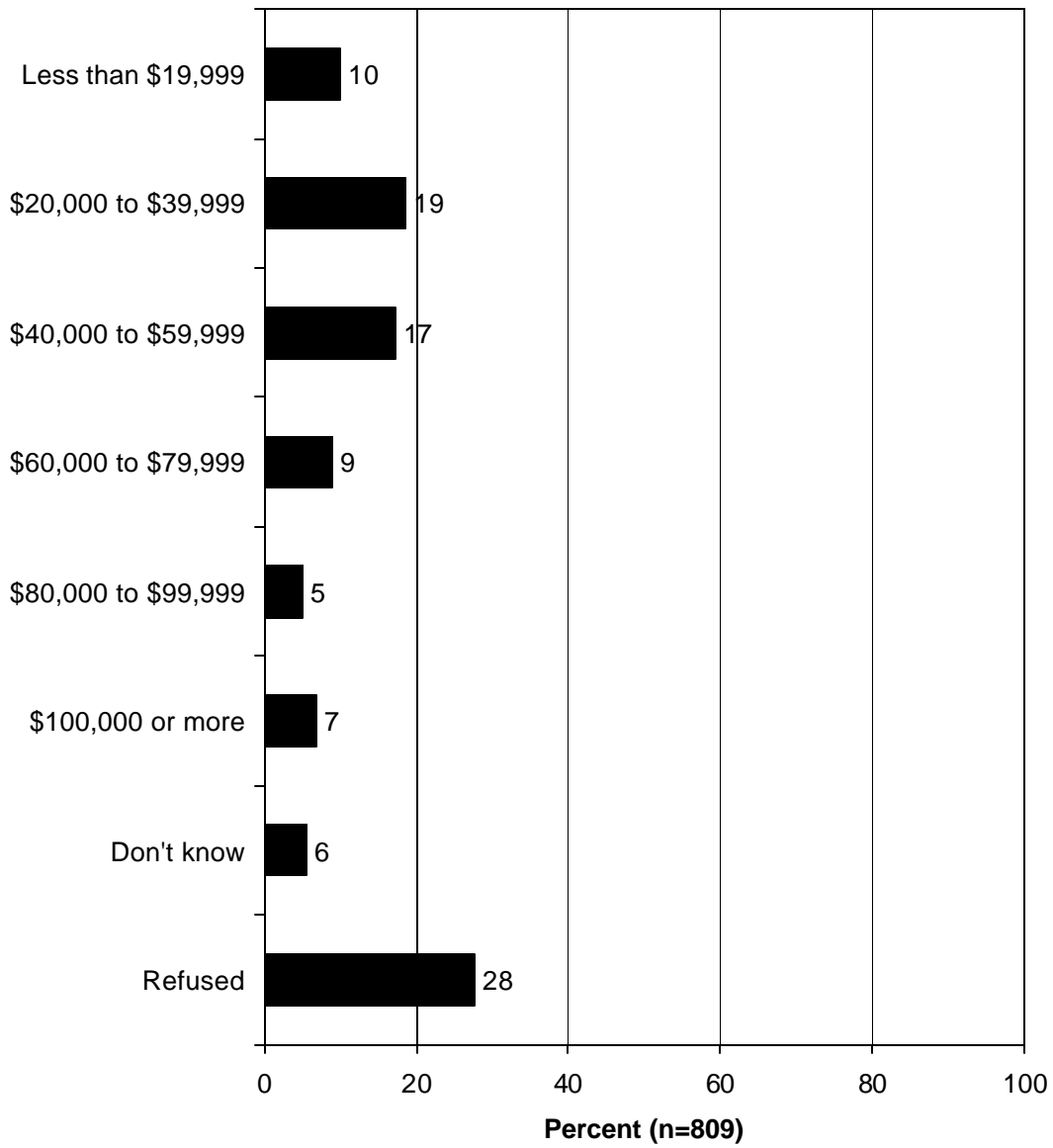
Regarding educational levels, 56% of respondents indicated that they had attended some college, with or without obtaining a degree, and 33% had graduated college, with or without post-graduate courses. (Question 114).

**Q114. What is the highest grade level you have completed in school?**



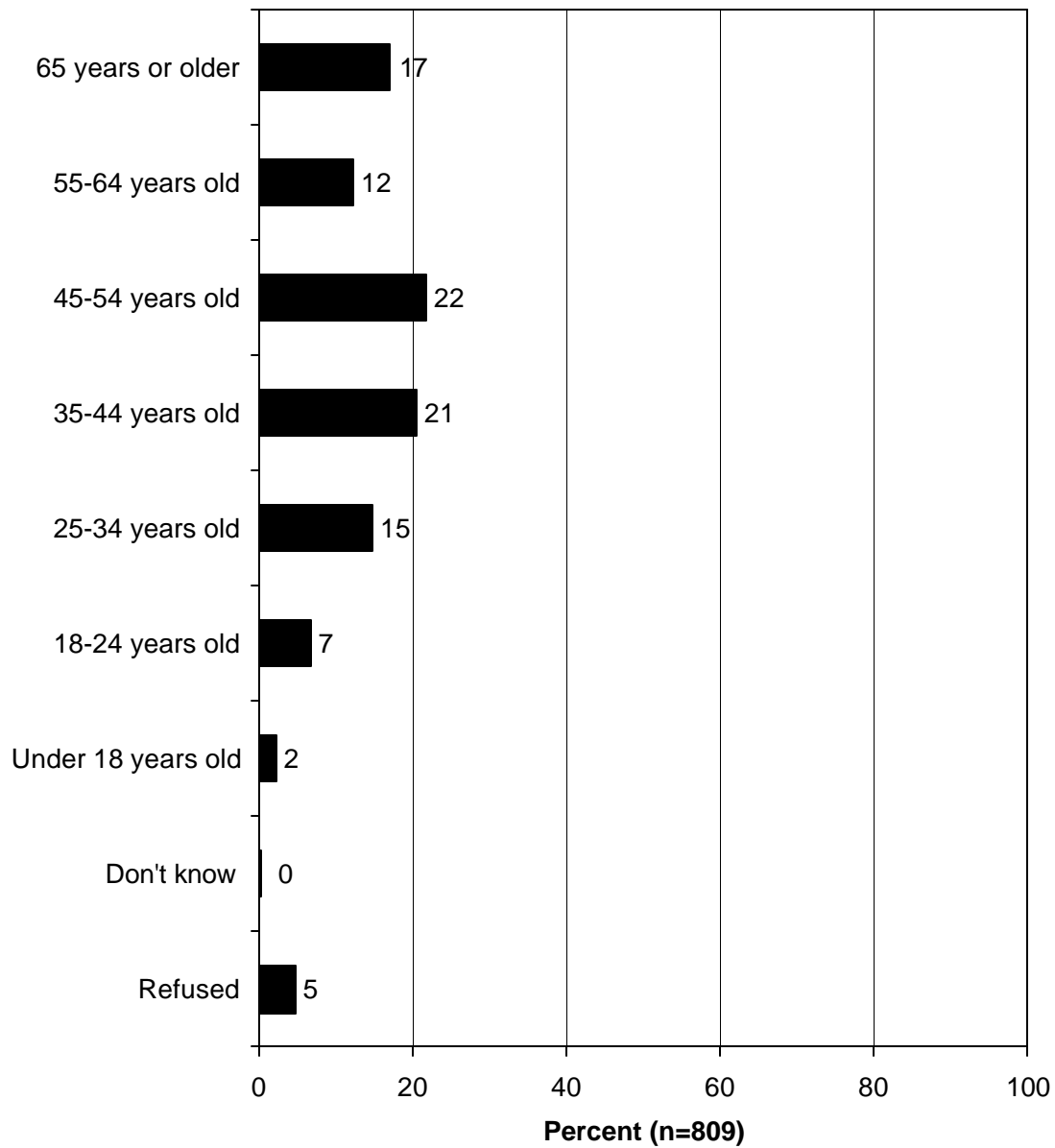
Household incomes, in general, follow a bell curve, with the peak in the \$20,000 to \$39,999 category. (Question 115).

**Q115. Which of these categories best describes your total household income before taxes last year?**



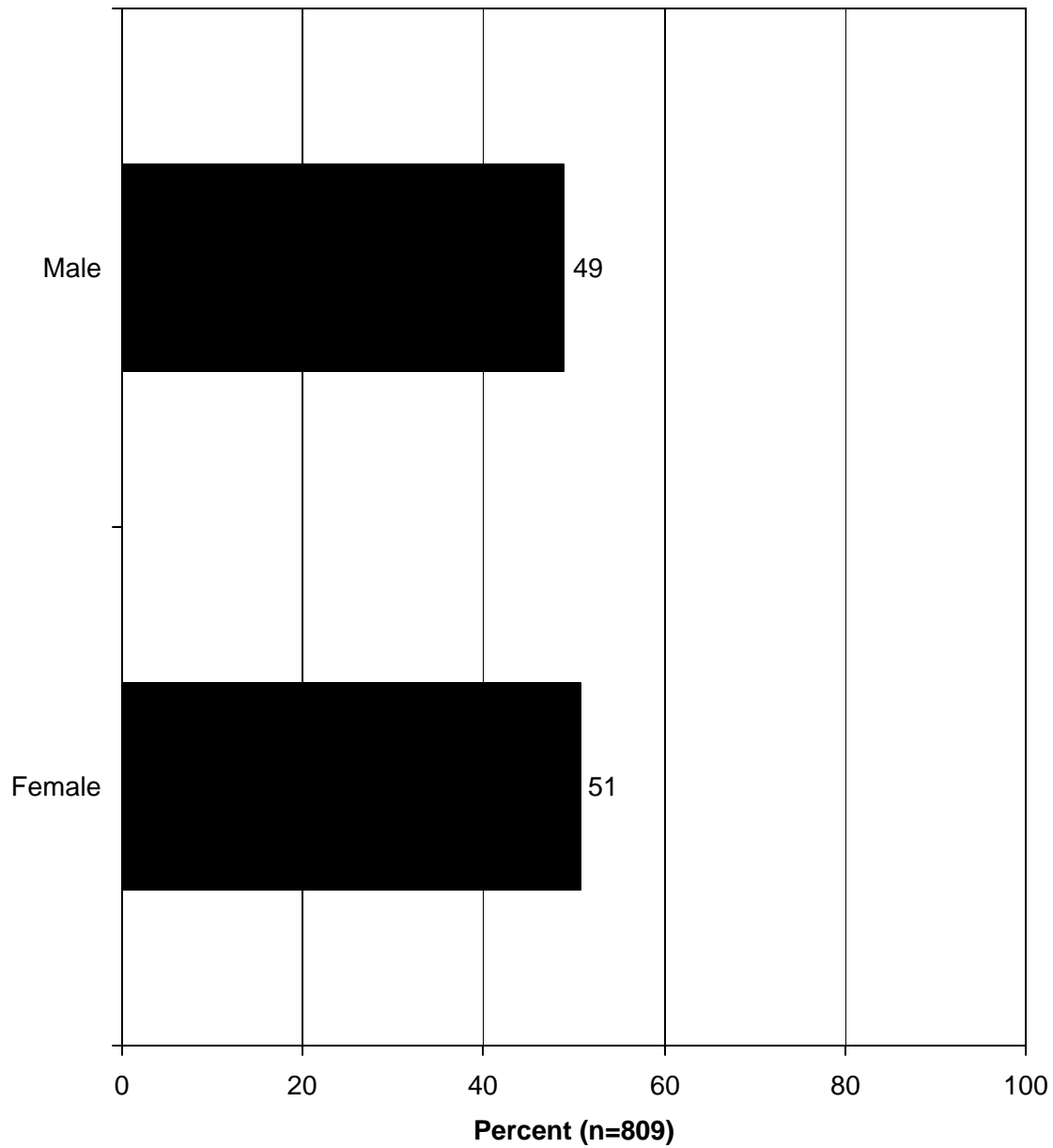
Ages of respondents, in general, follow a bell curve, with a peak in the 45 to 54 years old and 35 to 44 years old categories. (Question 115).

### Q116. What is your age?



Finally, 49% of respondents were male; 51% of respondents were female. (Question 118).

**Q118. Respondent's gender (not asked, but recorded by interviewer).**



## ADDITIONAL RESPONDENT COMMENTS

**Q117. That's the end of the questionnaire. Thank you very much for your time and cooperation. (Enter additional comments.)**

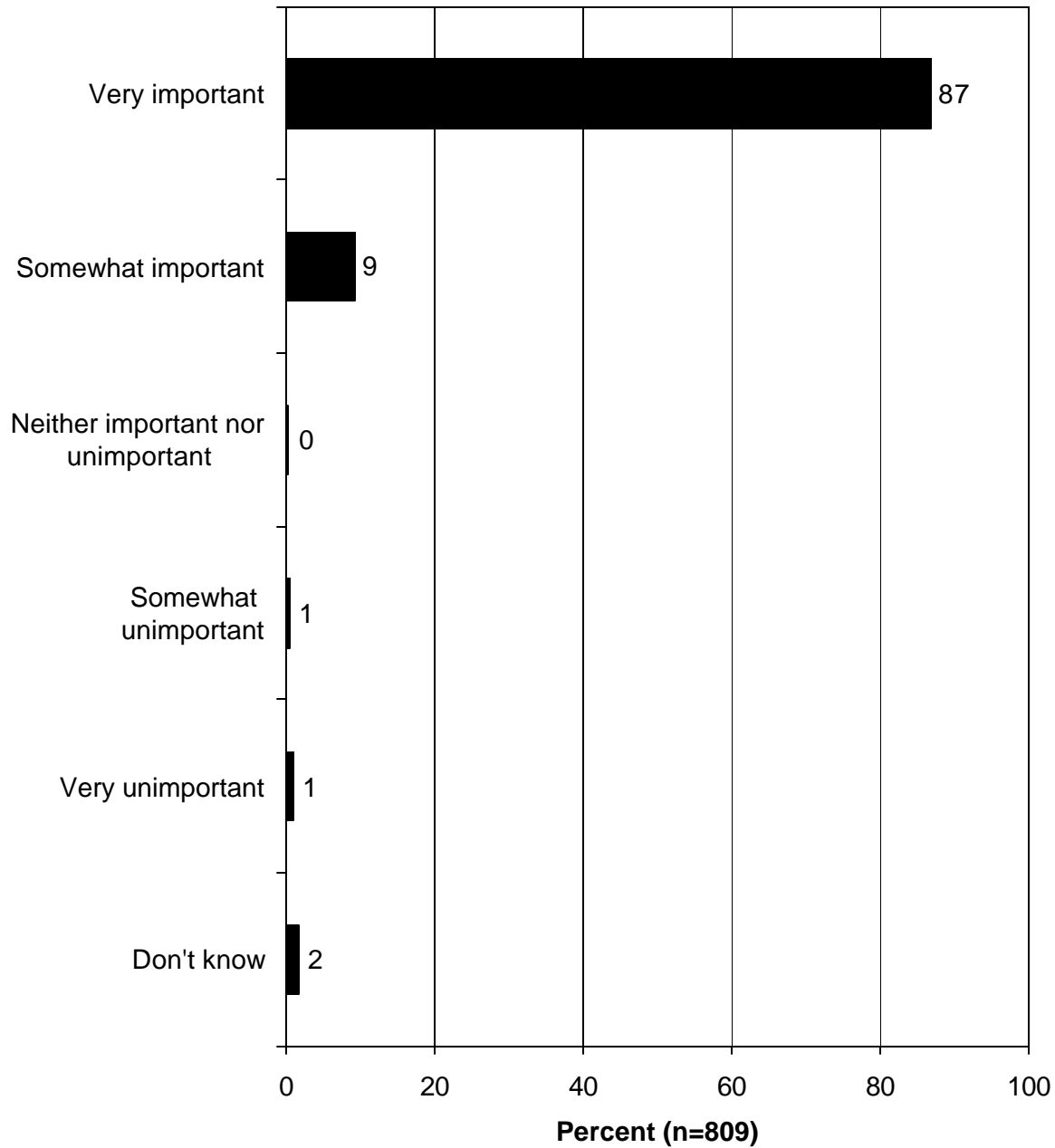
[Survey should] ask more about the ocean.
DNR's budget cuts have affected their ability to be effective; should not be cut.
DNR needs more funding, state needs to stay out of nature's business. More enforcement out in the water.
I am not a fisherman at all, so I didn't know many of the answers to these question. I feel more education is needed.
Good survey.
DNR needs to fix the rivers, such as dredging, for the water table to help raise fish.
Do more advertisement on the fishing rodeos.
No aquarium!
Educating the kids about the environment will keep them off drugs.
Everybody needs to take care of the water.
Cost of licenses should be done the same way as taxes: based on people's incomes.
I have no information on where to fish and would like some.
More of the funds for the DNR's freshwater fisheries should go towards water quality. The freshwater here is very bad.
I am not a fisherman, but I believe public education on fish and wildlife is very important, especially for young people.
I don't really fish.
If you fish off a pier (ocean) and catch a shark, you shouldn't go to jail.
I'm glad you are doing this survey. My son works for the DNR and has told me a great deal about it.
It is nice for the DNR to do this.
My family and I are not at all into fishing, but we appreciate what you are trying to do, especially with water quality.
It was good.
Lake Murray is not kept up for fishing. Needs to improve for my support of the DNR.
I like the DNR; they should have more power in regulation, less state power.
The DNR needs to maintain the clean-up on Goose Lake because I believe that [pollution] is hurting the fish.
Good questions and good interviewer.
The interview was kind of fun. Lake Hartwell is polluted.
Money should be spent to create more places where you can fish without a boat, such as piers.
Very informative. Also very important to conduct this survey.
NC, GA, and SC should have some sort of license where you could fish in all three areas.
Licenses are better in NC. I fish a lot in NC.
The Freshwater Division of DNR should concentrate more on the commercial portion of freshwater fishing to increase revenue.
Need more access points for freshwater fishing (Waccamaw area).
I am not a fisherman, but I enjoyed your survey.

[The state has] poor land management policies.
Public needs some sort of monthly or seasonal publication to inform them on information like this.
The controlling body of our fish and wildlife should be people in that field, such as the DNR's specific divisions.
Work with kids and commercials to take care of land; show that South Carolina cares and supports the DNR.
I would like to see regulations on amount of fish you can catch from small ponds.
The hunting licenses are getting so high [in cost] that it's a money activity instead of a sporting activity.
The reason we sold the boat is overcrowding of boat landings.
You're doing an excellent job with this survey.
Try to do more in educating the public about fishing and wildlife.
Very good survey, but a little long.
What about the saltwater? We need some crabs! There are none left!
Very much opposed to commercial fishing. Address members at the RFA about it!
I would like to have a wildlife magazine again. I can't find any information on it.

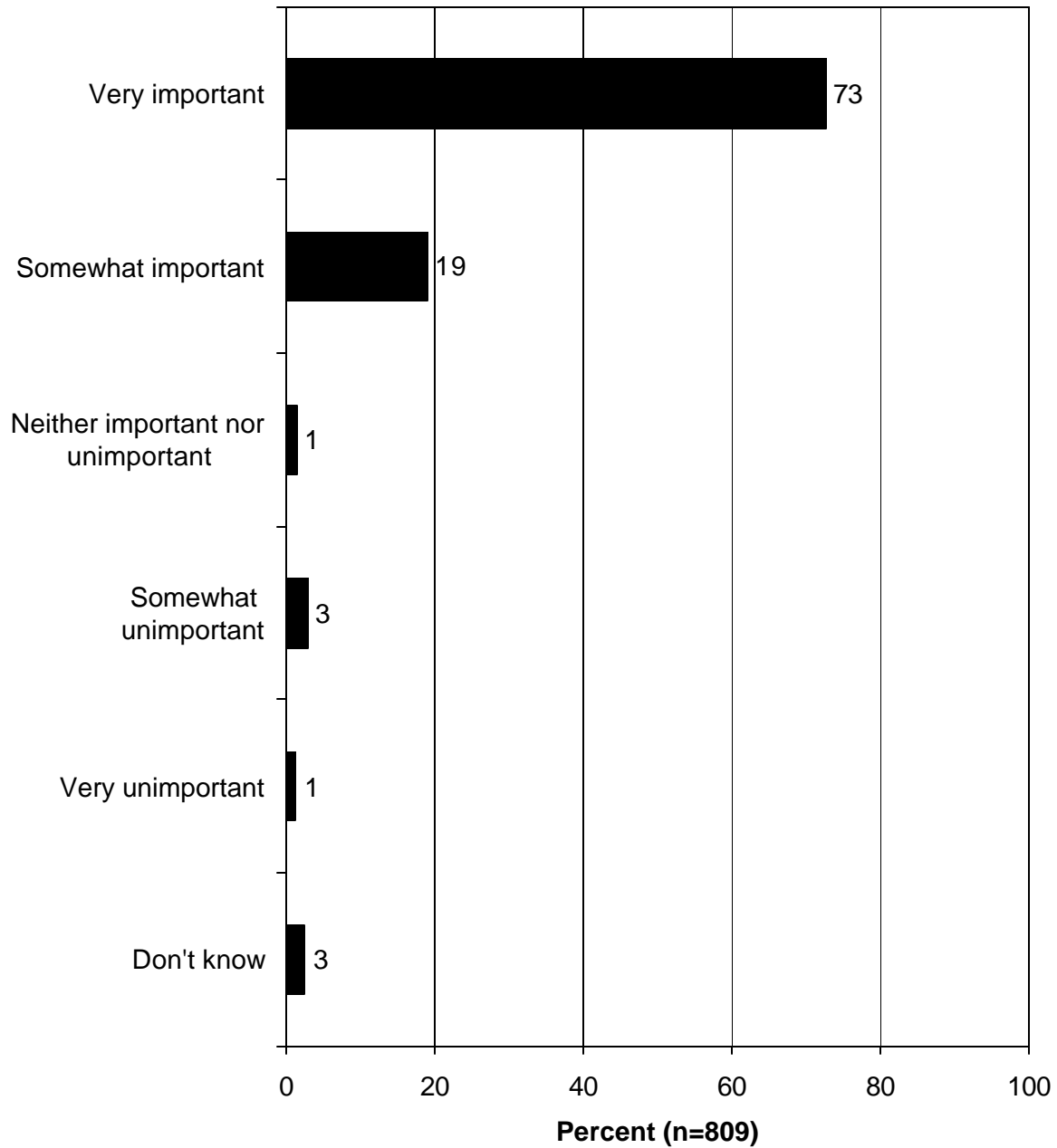


**APPENDIX A: ADDITIONAL GRAPHS**

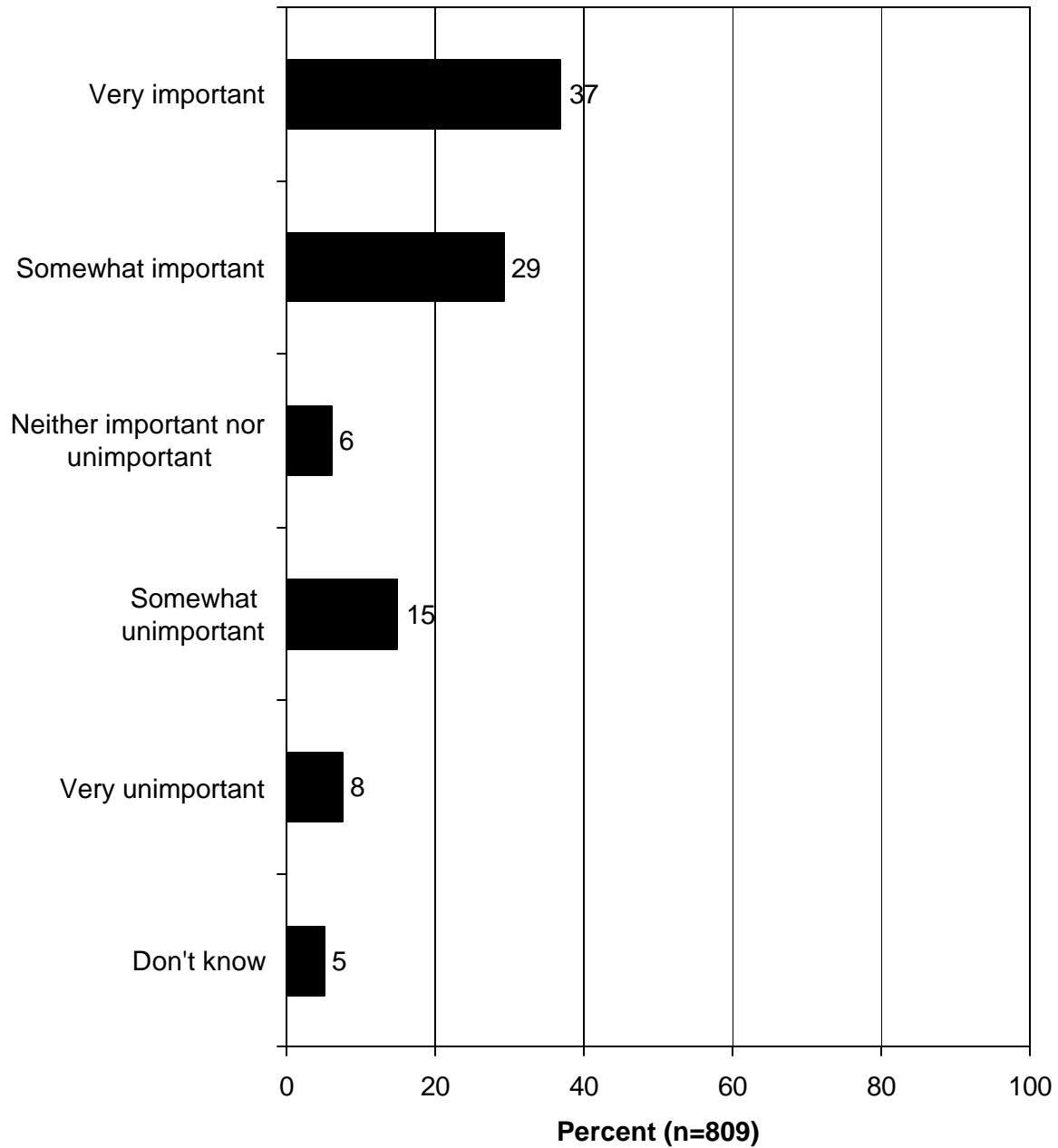
**Q17. Is it important or unimportant that fish and other aquatic animals exist in South Carolina?**



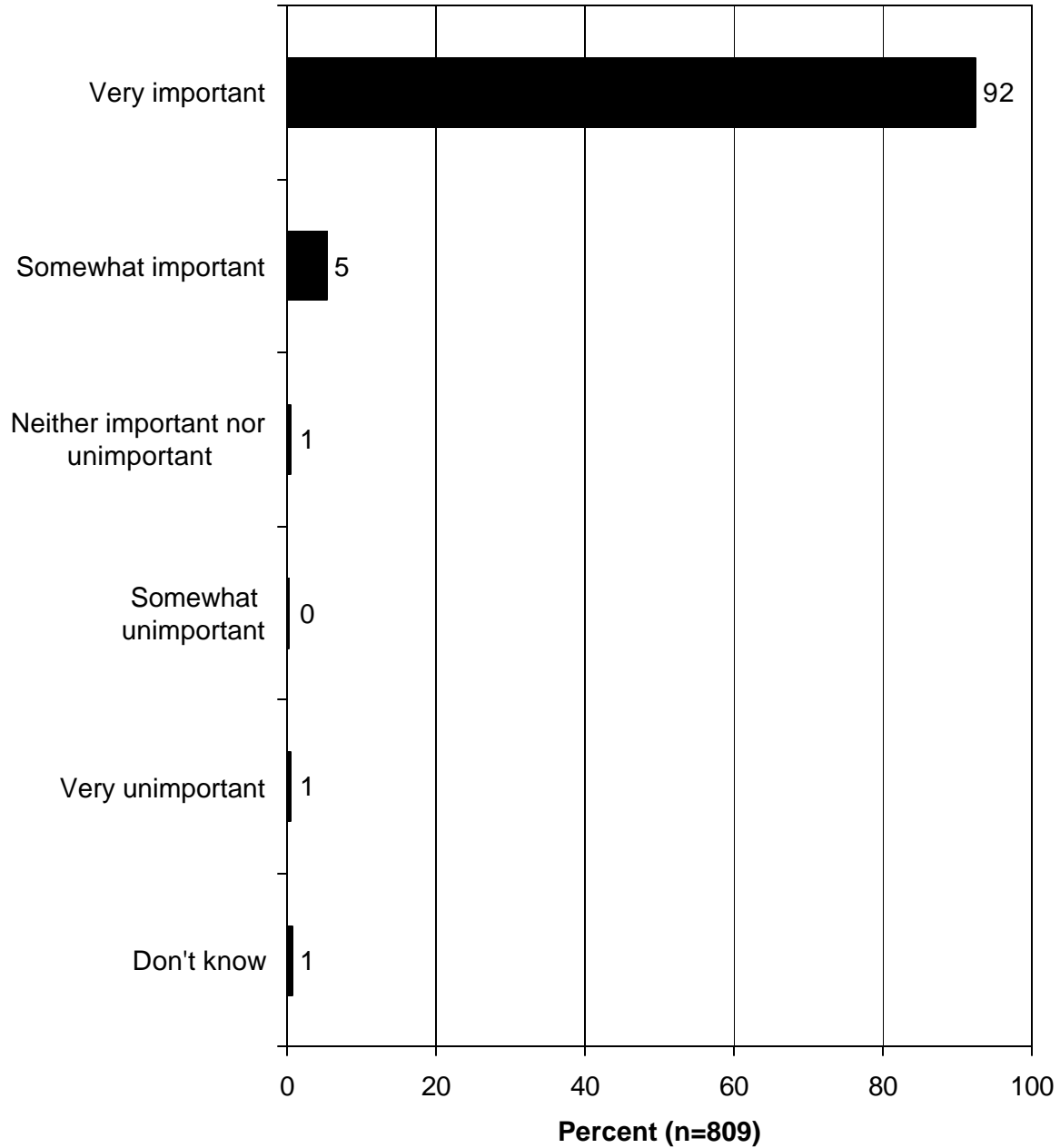
**Q18. Is it important or unimportant that there are a lot of freshwater fish to catch in South Carolina?**



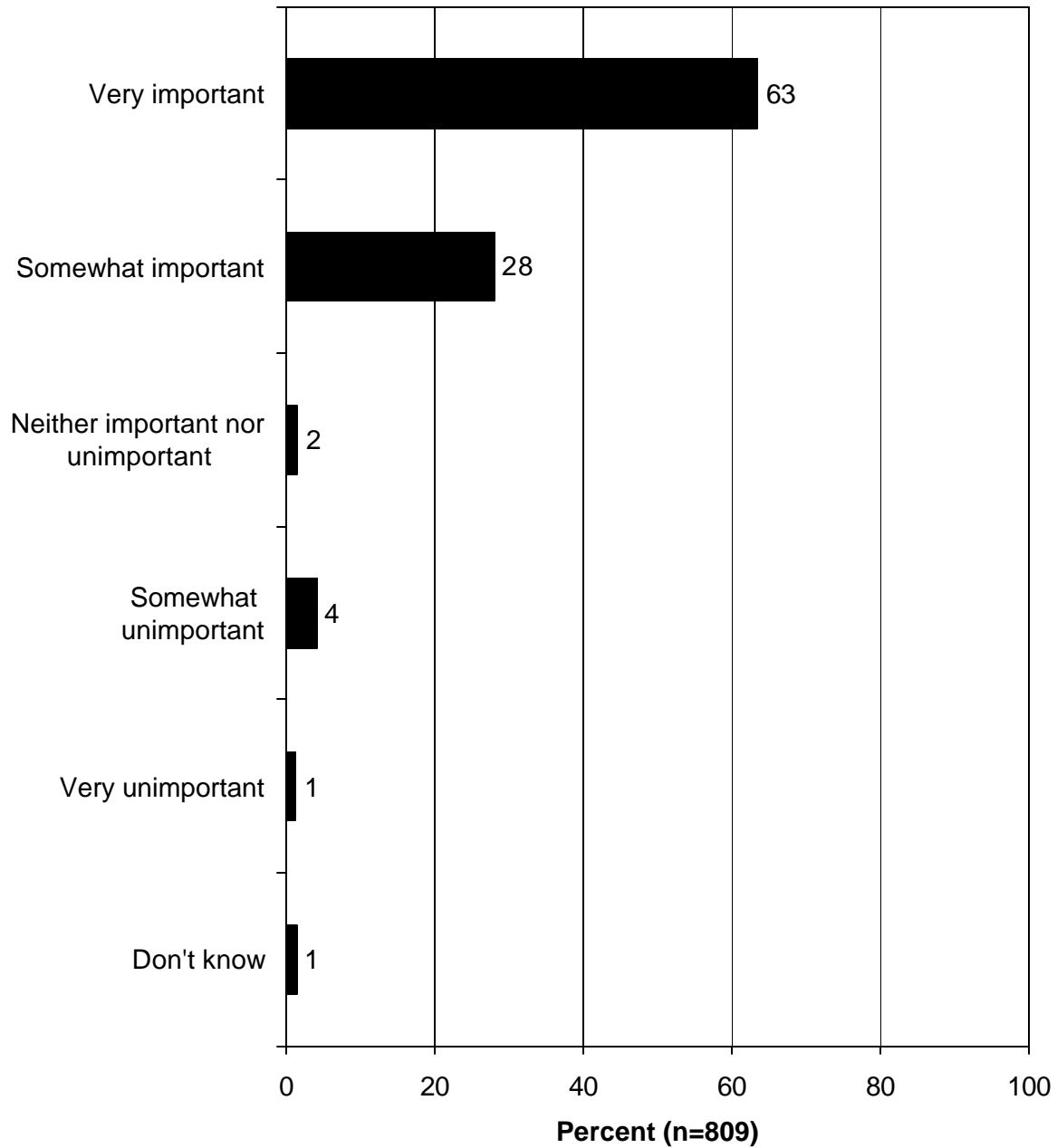
**Q19. Is it important or unimportant that there are trophy fish to catch in South Carolina's lakes, rivers, and streams?**



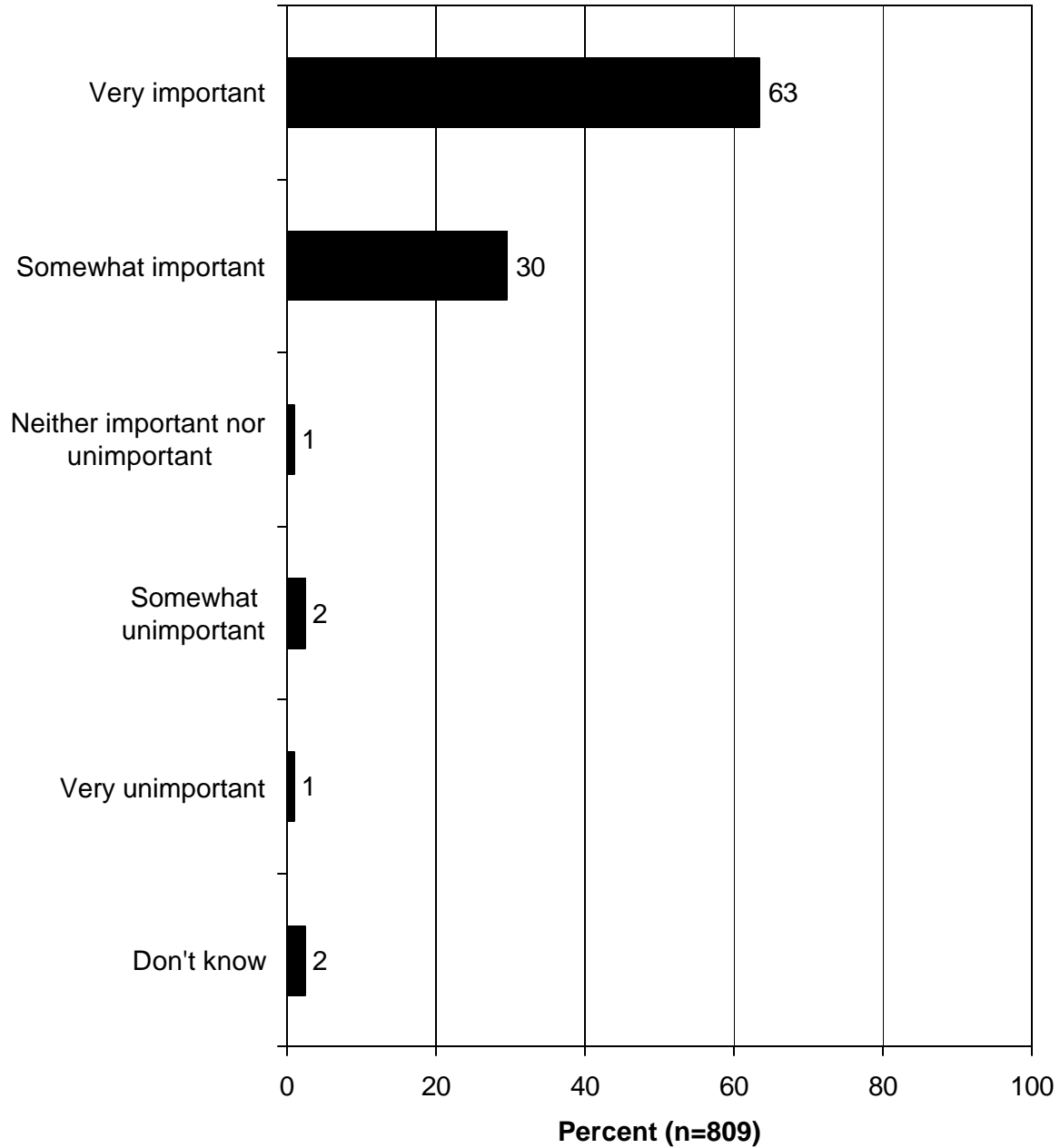
**Q20. Is it important or unimportant that South Carolina's rivers, lakes, and streams provide places for fish and wildlife to live?**



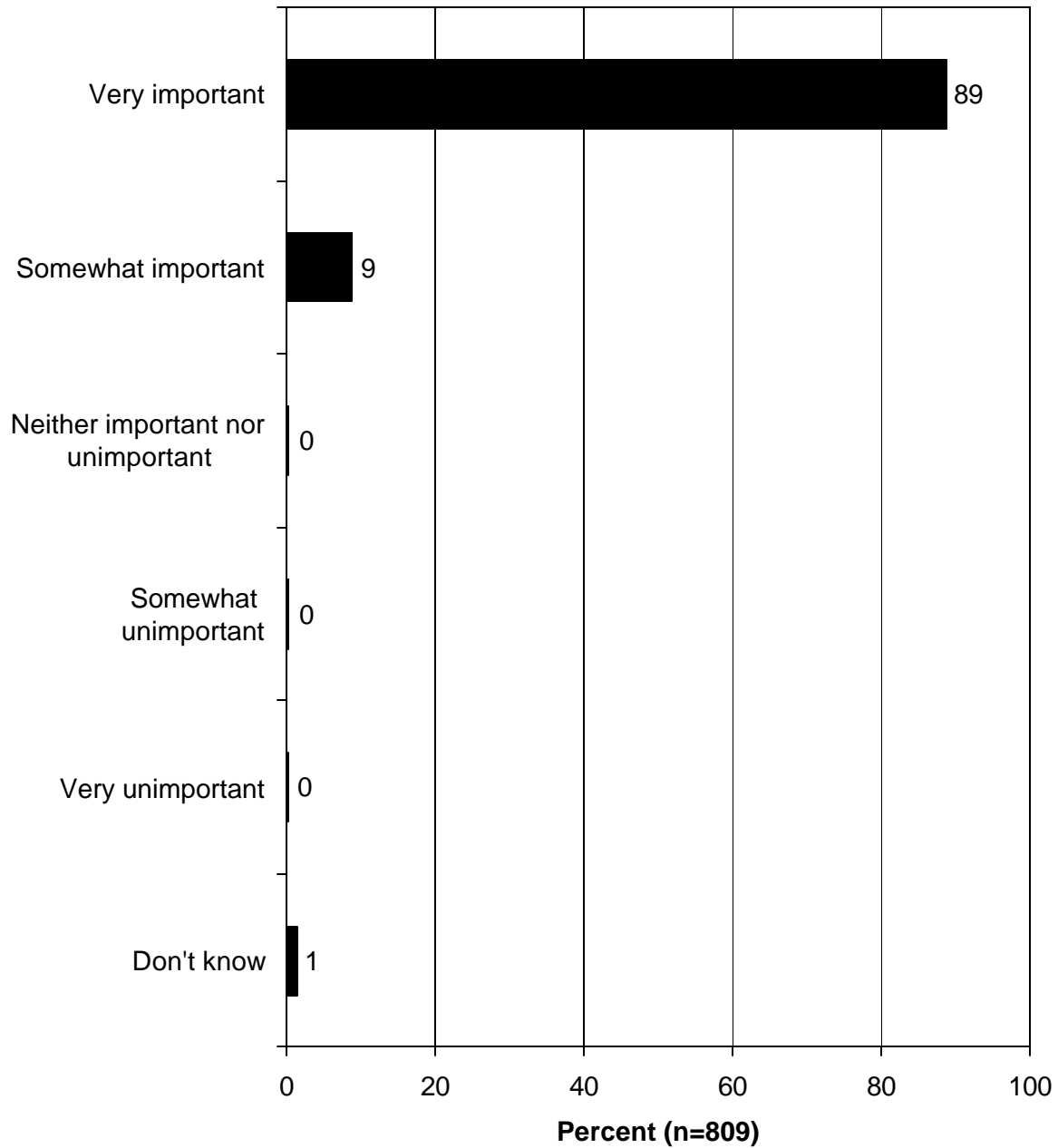
**Q21. Is it important or unimportant that people in South Carolina receive education about fishing?**



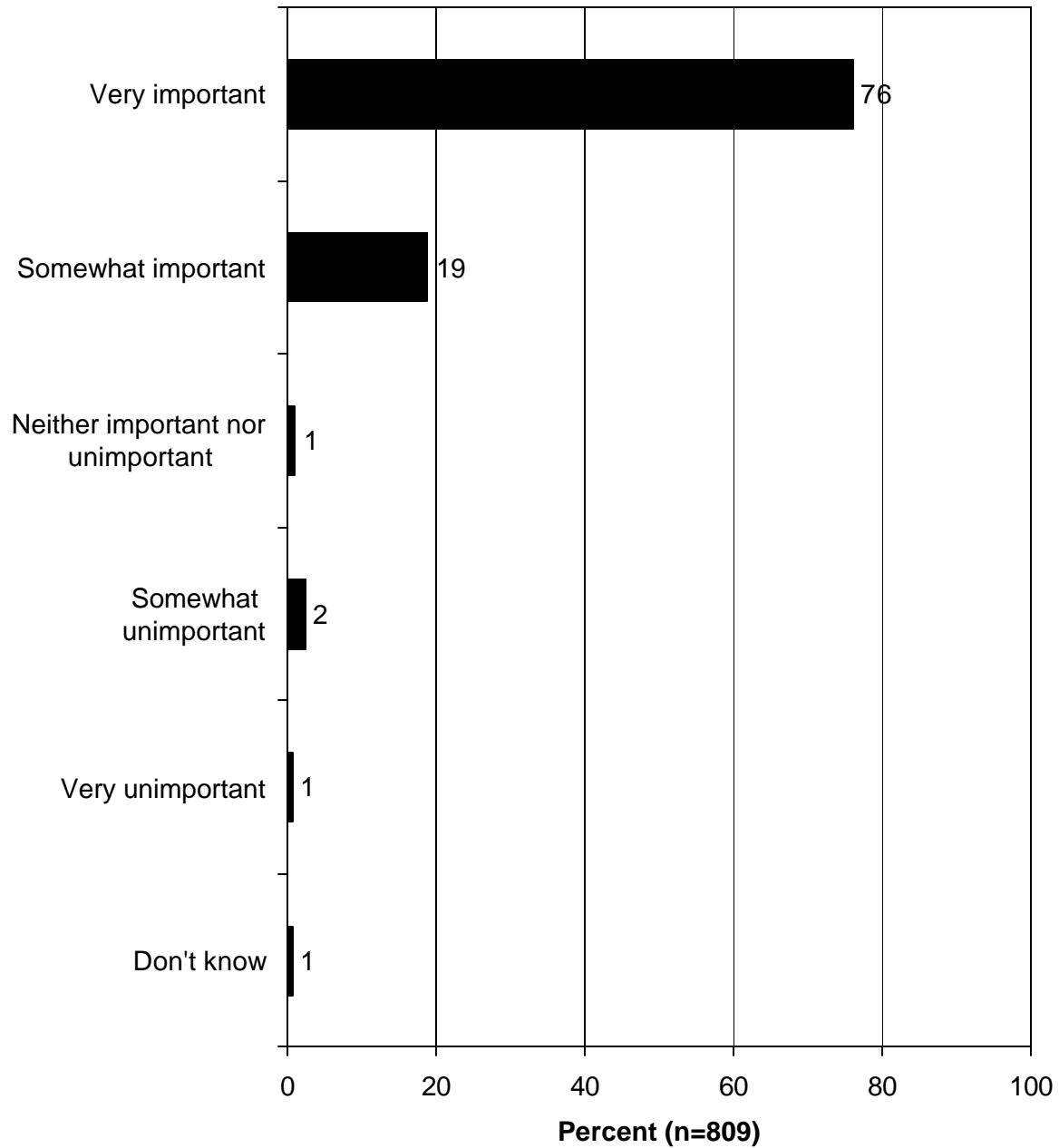
**Q22. Is it important or unimportant that people in South Carolina receive education regarding aquatic resources other than fishing?**



**Q23. Is it important or unimportant that freshwater aquatic resources are safe and well protected in South Carolina?**

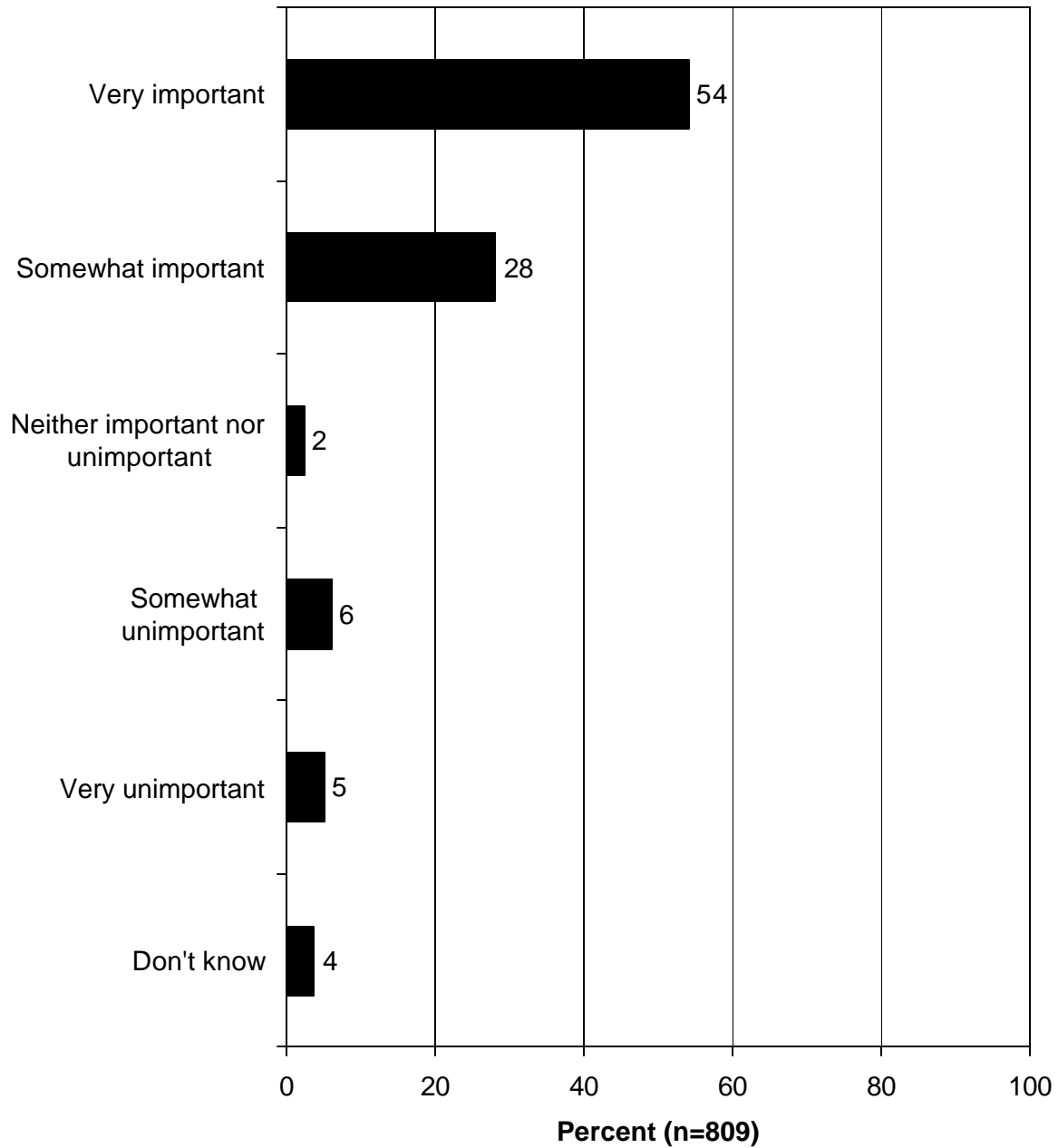


**Q24. Is it important or unimportant that people can watch fish and wildlife on and near South Carolina's rivers, lakes, and streams?**

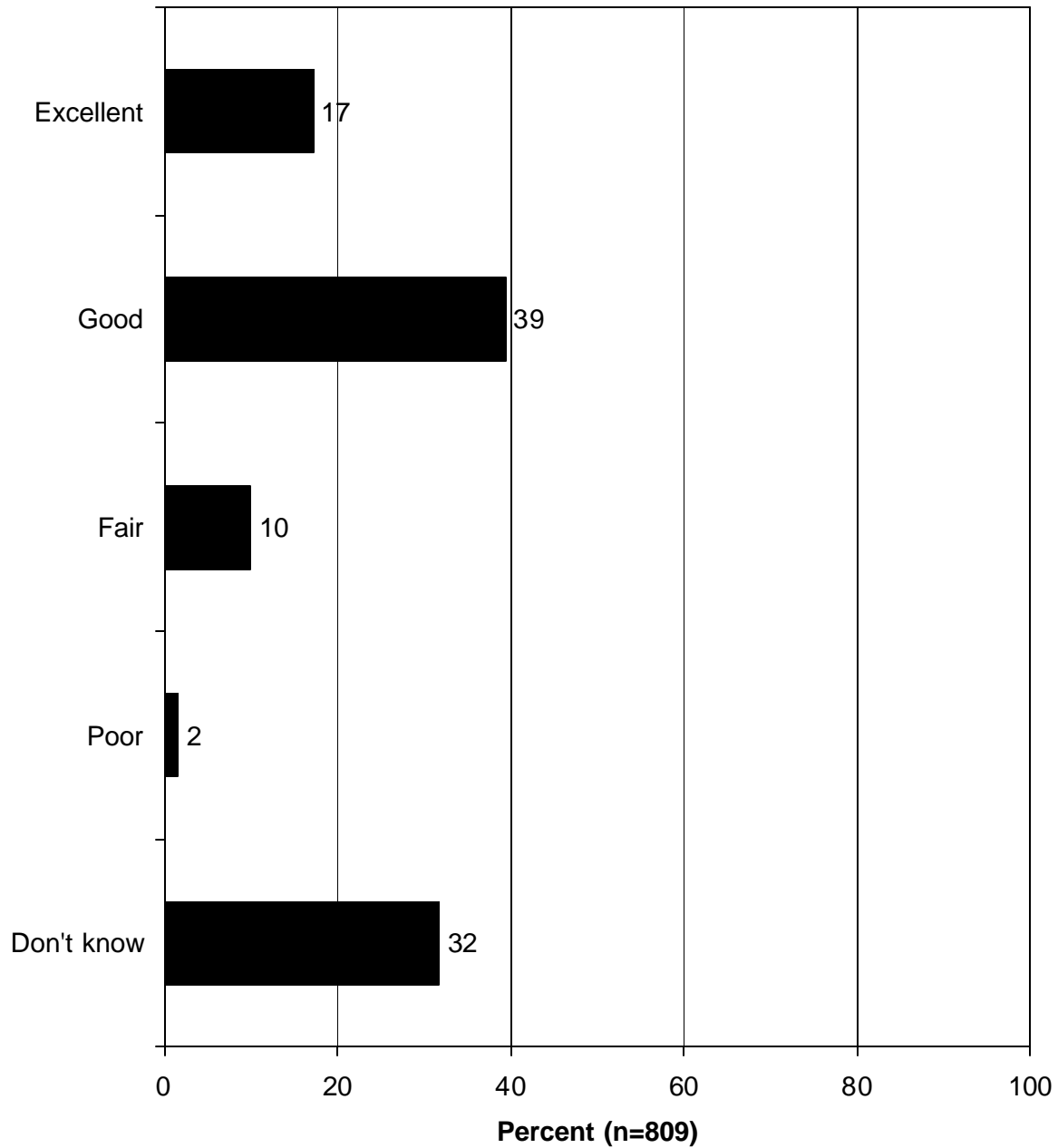




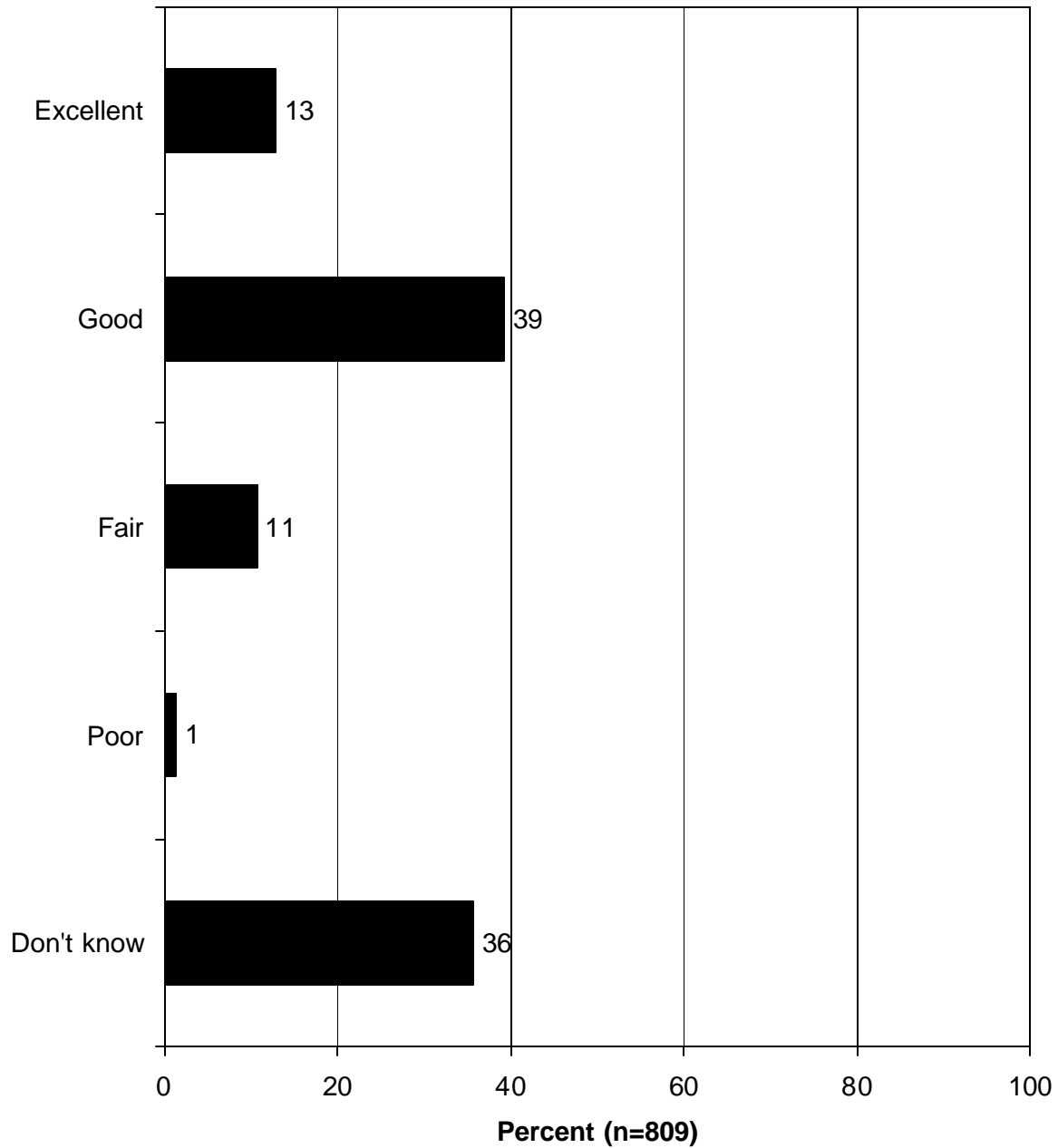
**Q25. Is it important or unimportant that people have the opportunity to make a living through commercial freshwater fishing in South Carolina?**



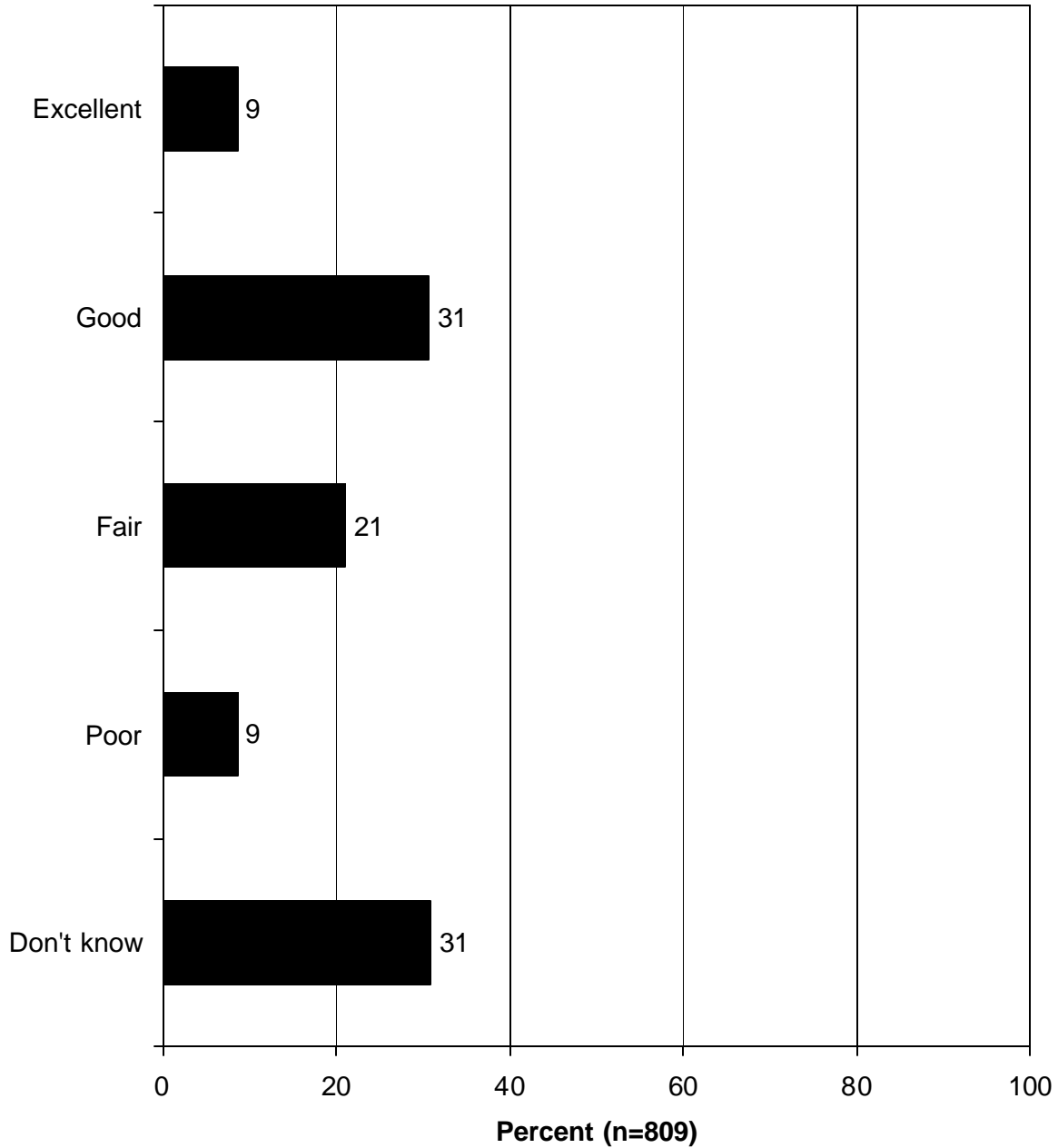
**Q45. Overall, how would you rate the performance of the South Carolina DNR in providing fishing opportunities in South Carolina's freshwaters?**



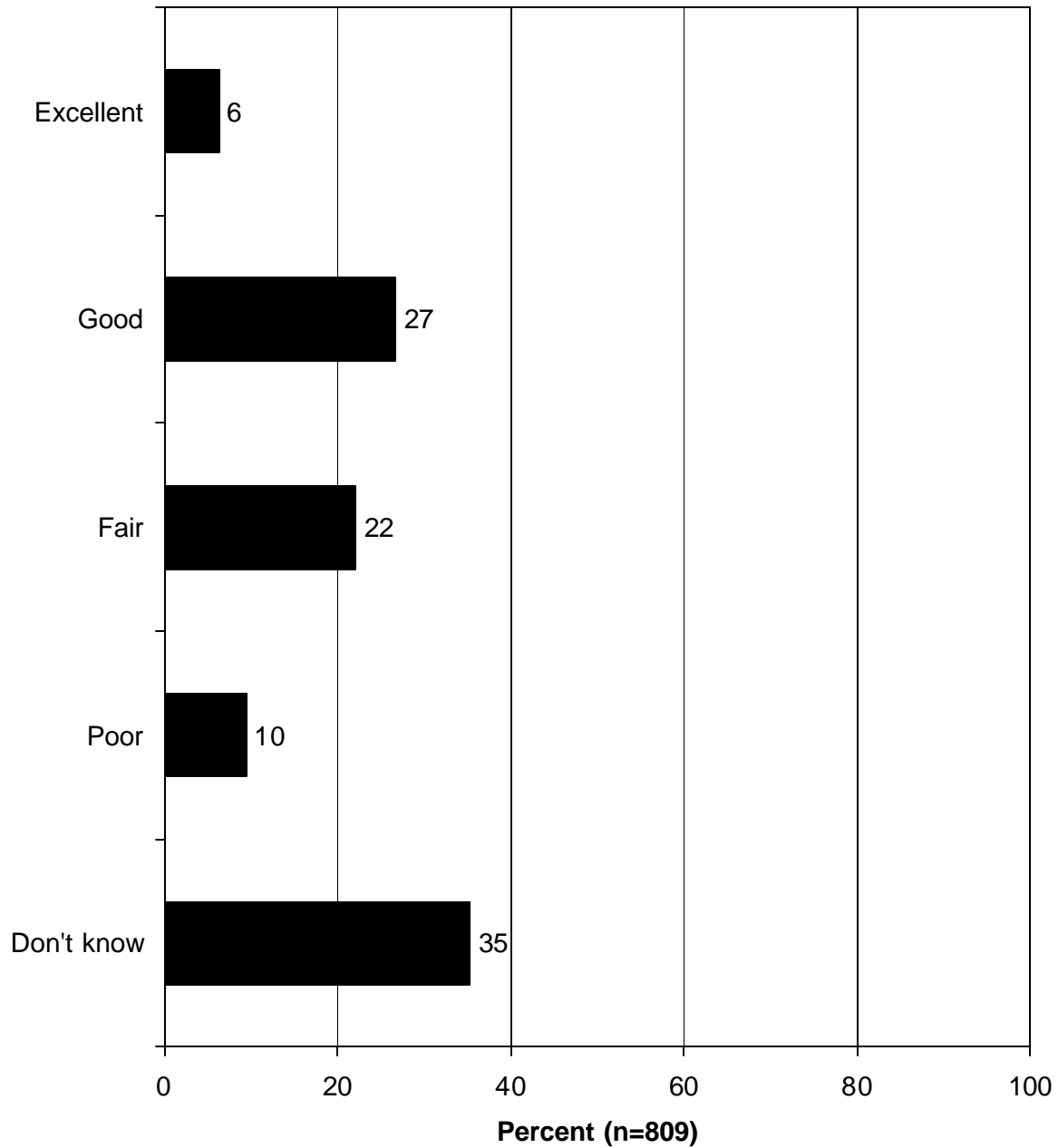
**Q46. How would you rate the performance of the South Carolina DNR's efforts to ensure there is adequate aquatic freshwater habitat in South Carolina?**



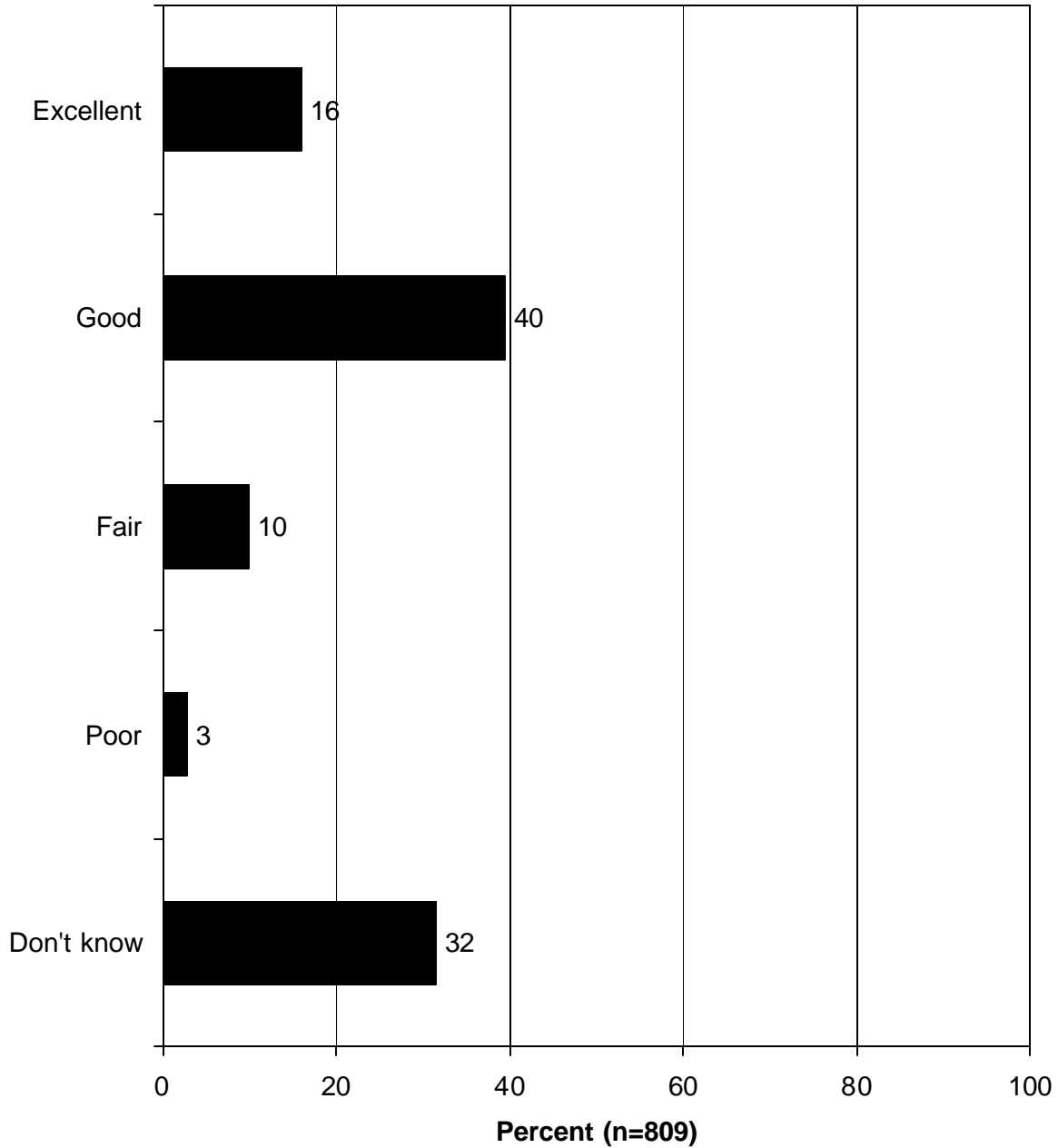
**Q47. How would you rate the performance of the South Carolina DNR in educating the public about recreational fishing in South Carolina's freshwaters?**



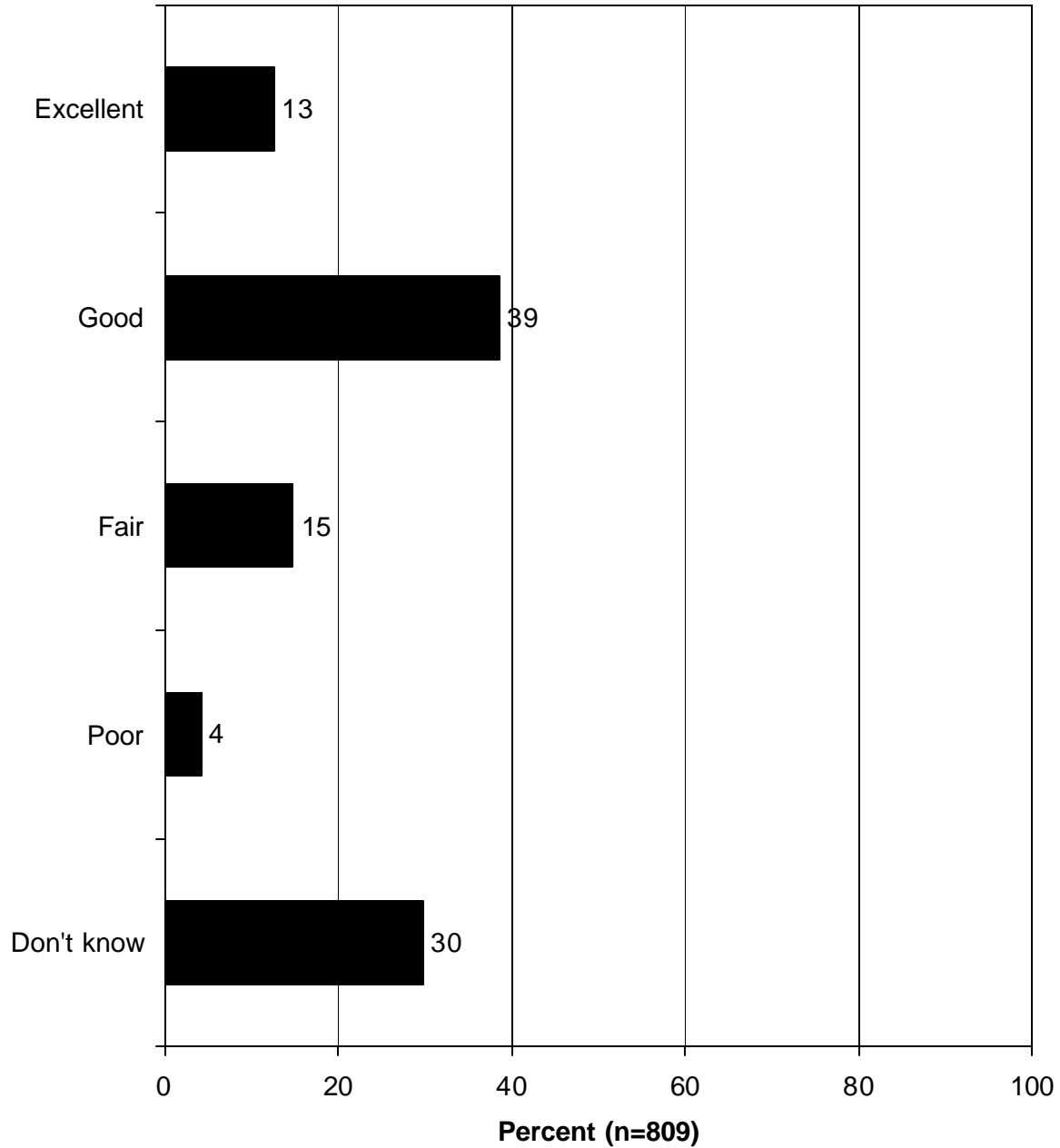
**Q48. How would you rate the performance of the South Carolina DNR in educating the public about freshwater aquatic resources other than fishing?**



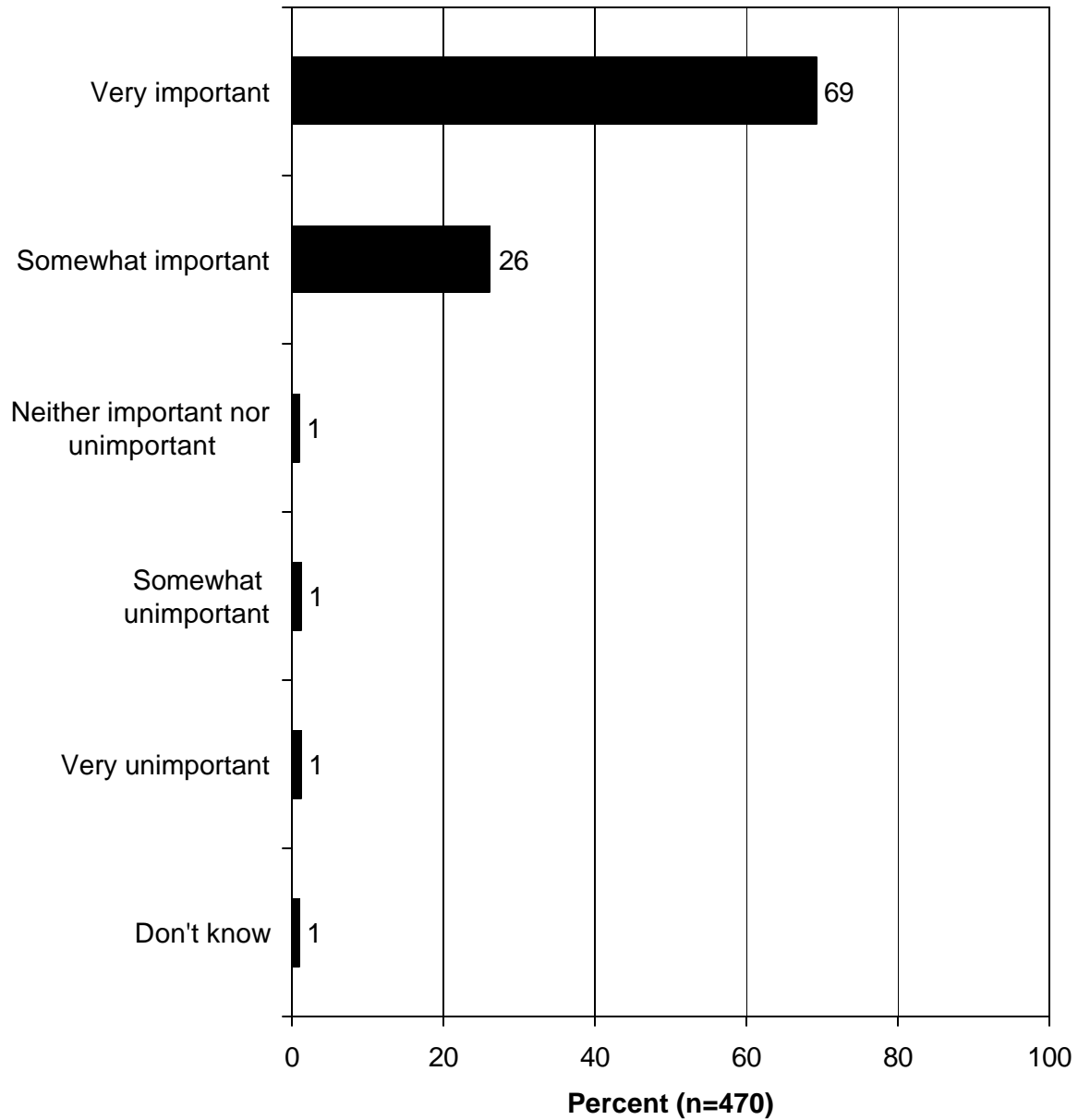
**Q49. How would you rate the performance of the South Carolina DNR in enforcing freshwater fishing laws and regulations?**



**Q50. How would you rate the performance of the South Carolina DNR in providing opportunities to watch fish and wildlife on and near South Carolina's rivers, lakes, and streams?**

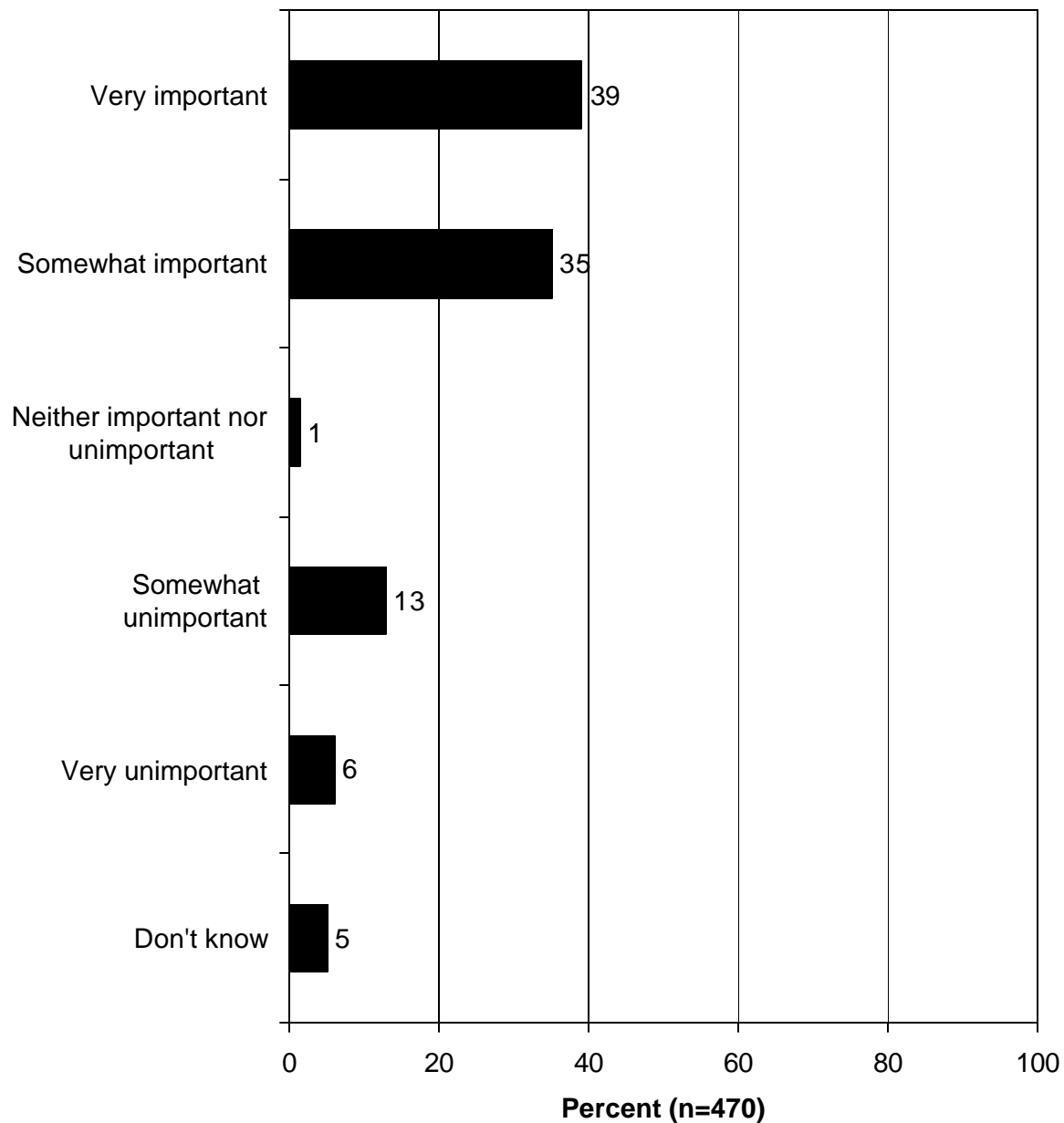


**Q53. Do you think providing good places to go and catch freshwater fish is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**

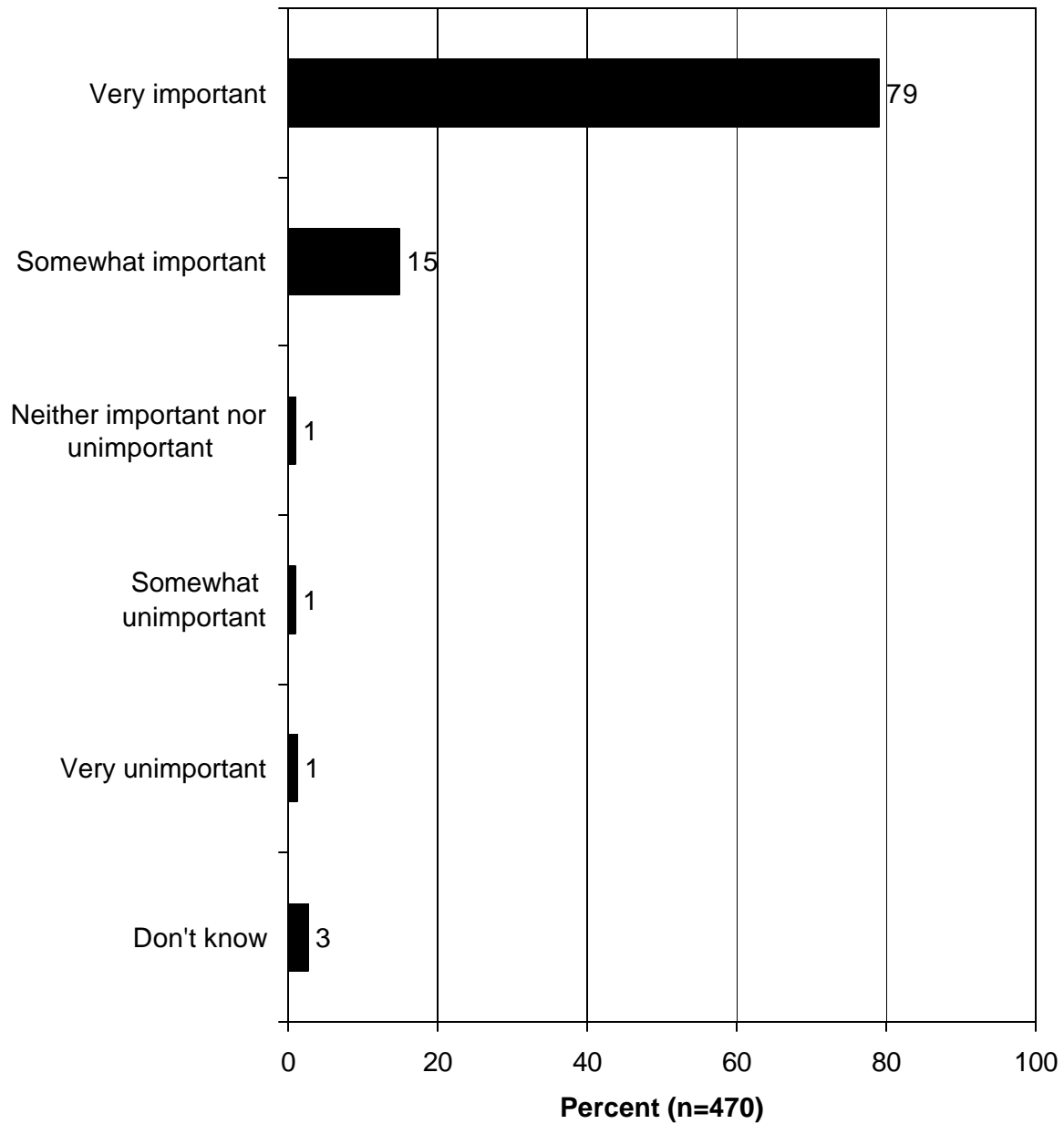




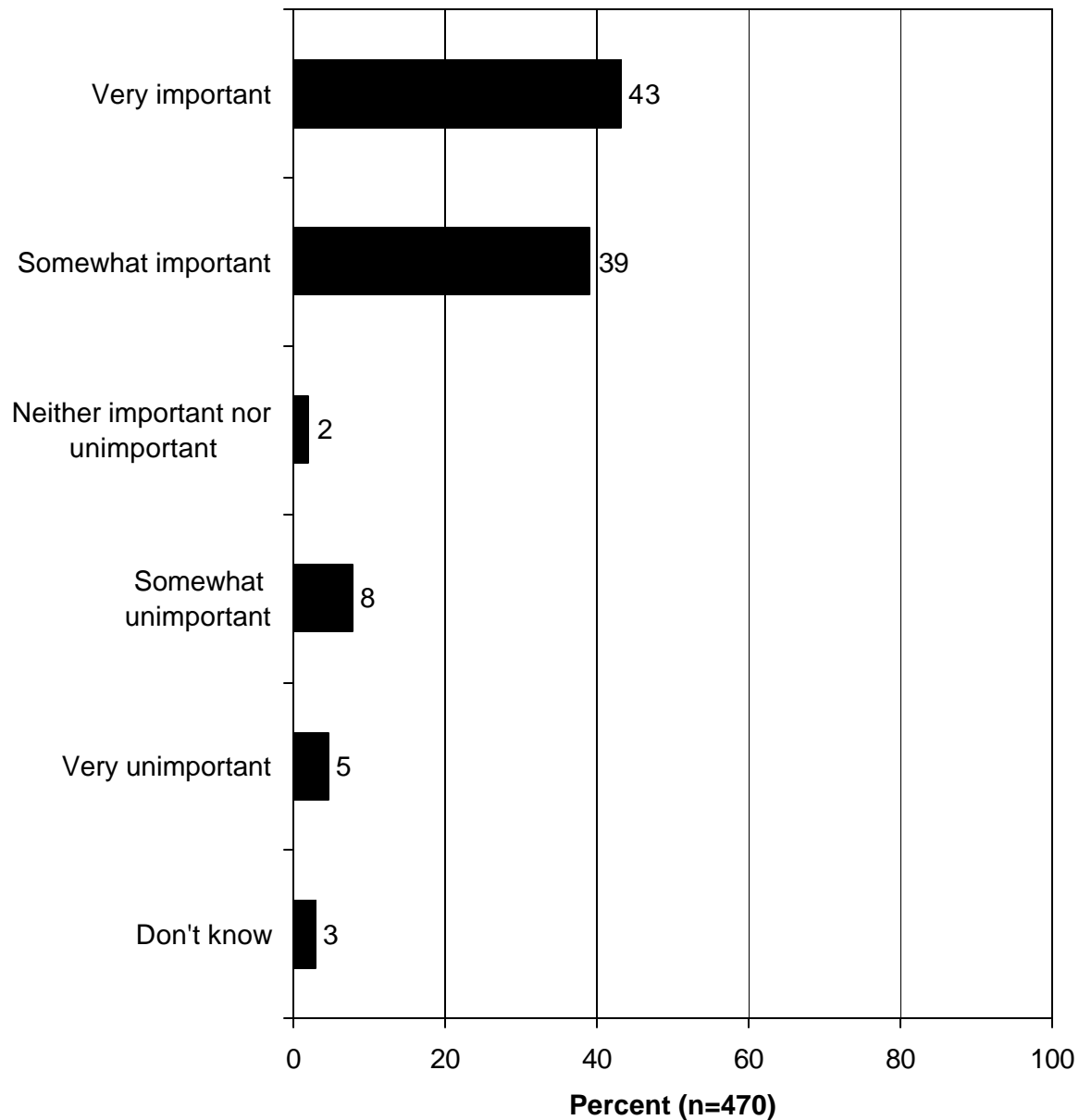
**Q54. Do you think helping people with their private fishing ponds is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**



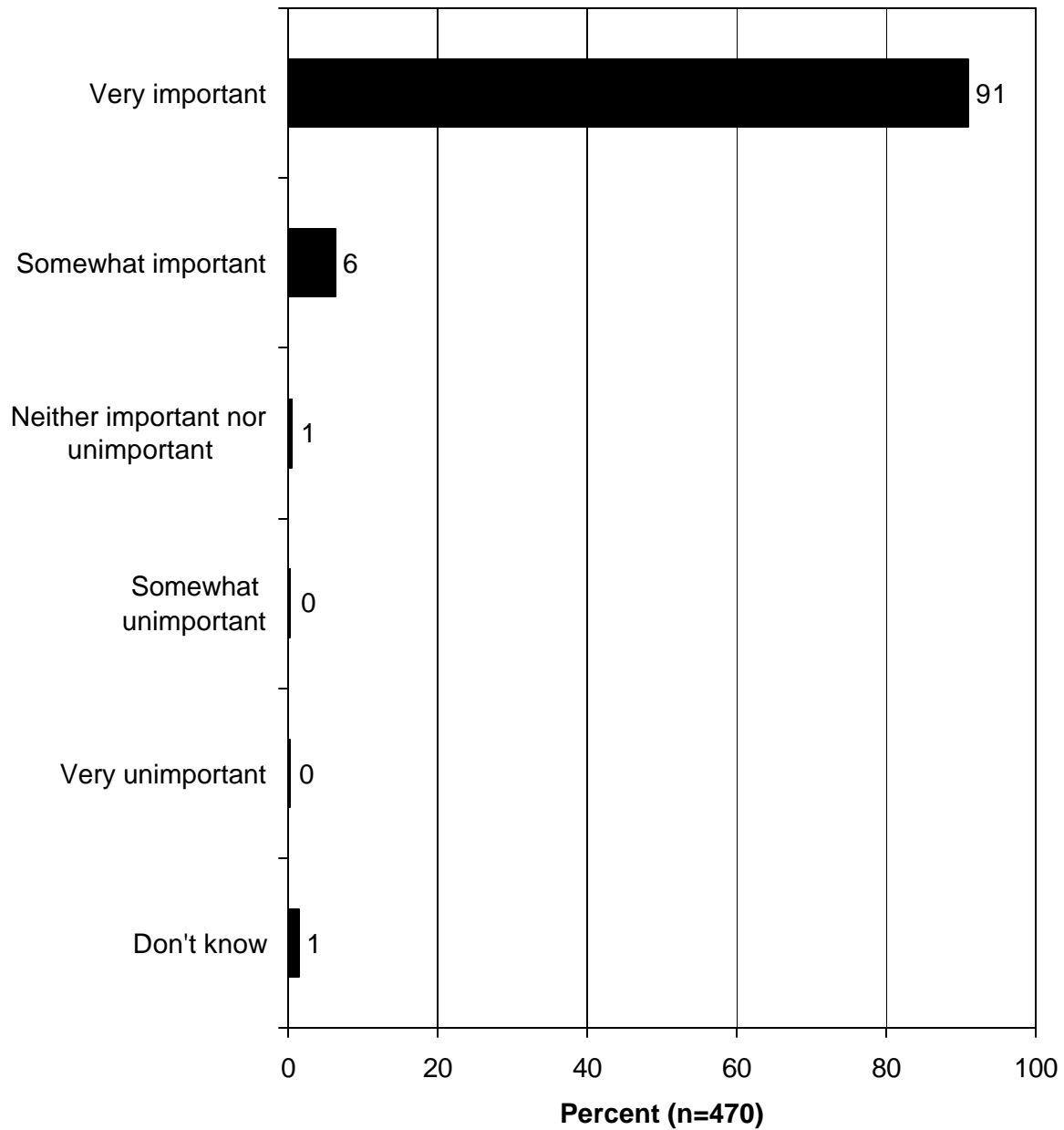
**Q55. Do you think raising fish in hatcheries for stocking in public lakes and rivers is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**



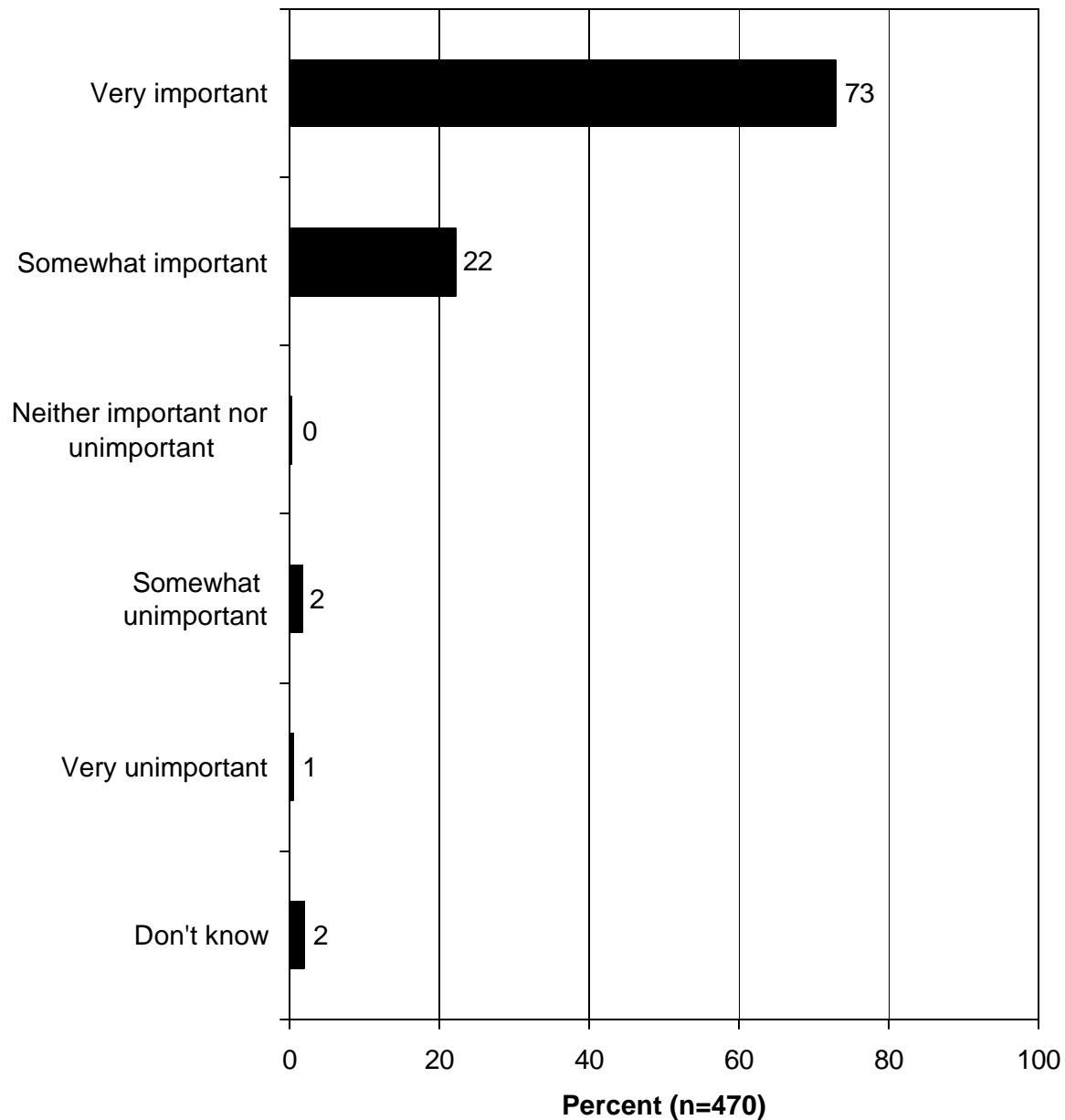
**Q56. Do you think raising fish for people to buy for their private ponds is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**



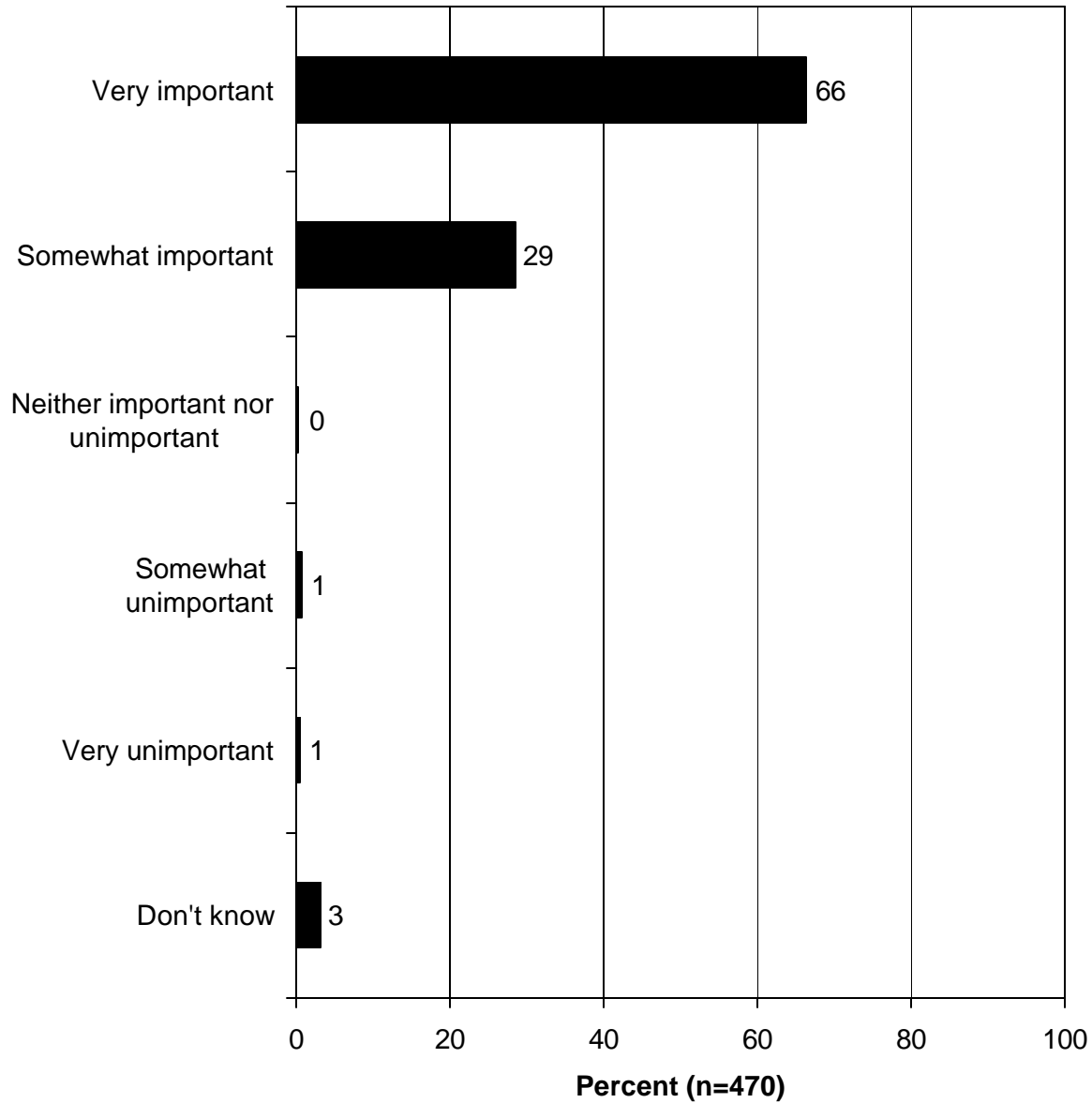
**Q57. Do you think protecting natural areas like rivers, lakes, and wetlands is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**



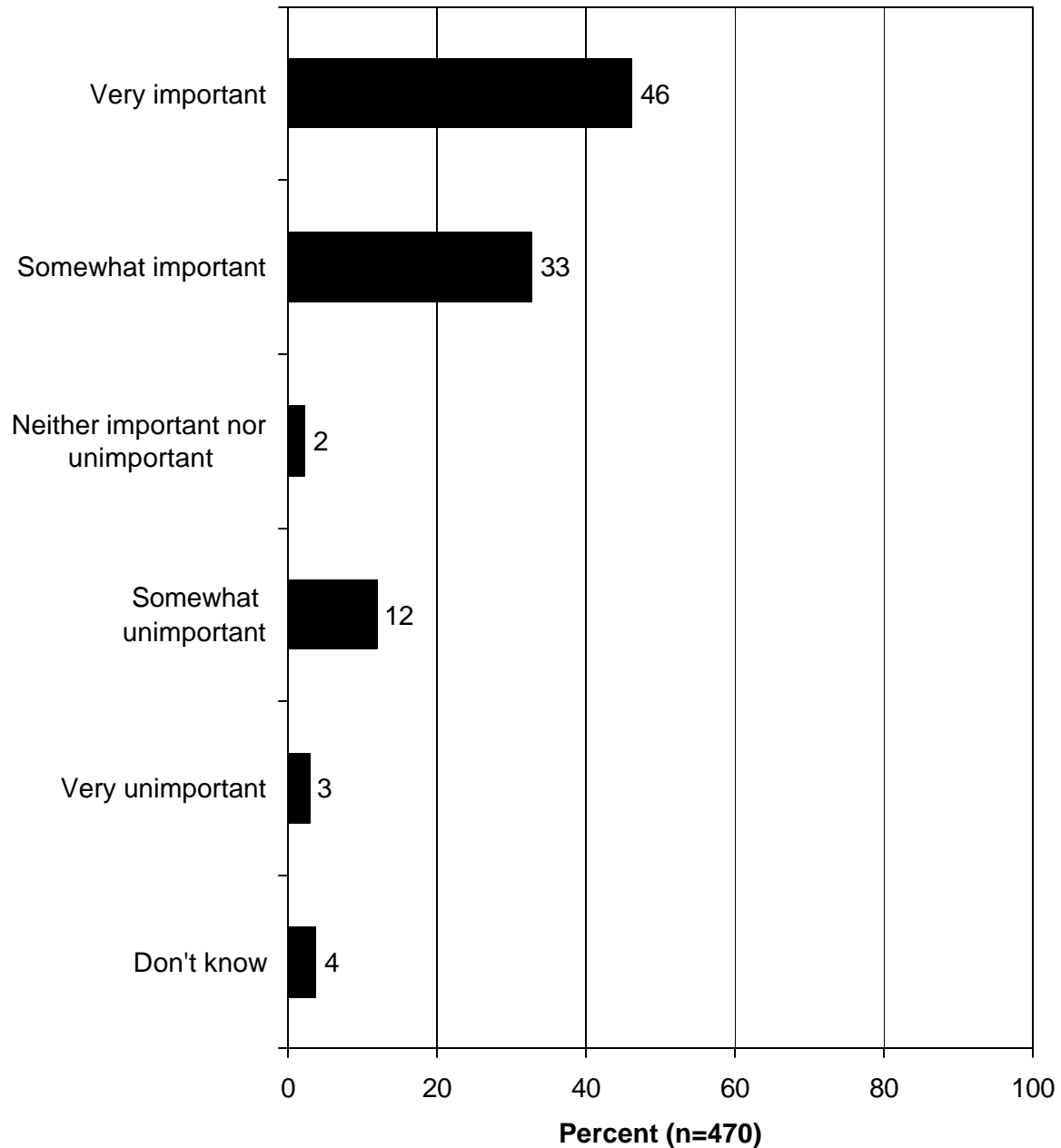
**Q58. Do you think conducting educational programs on freshwater fishing and aquatic natural resources is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**



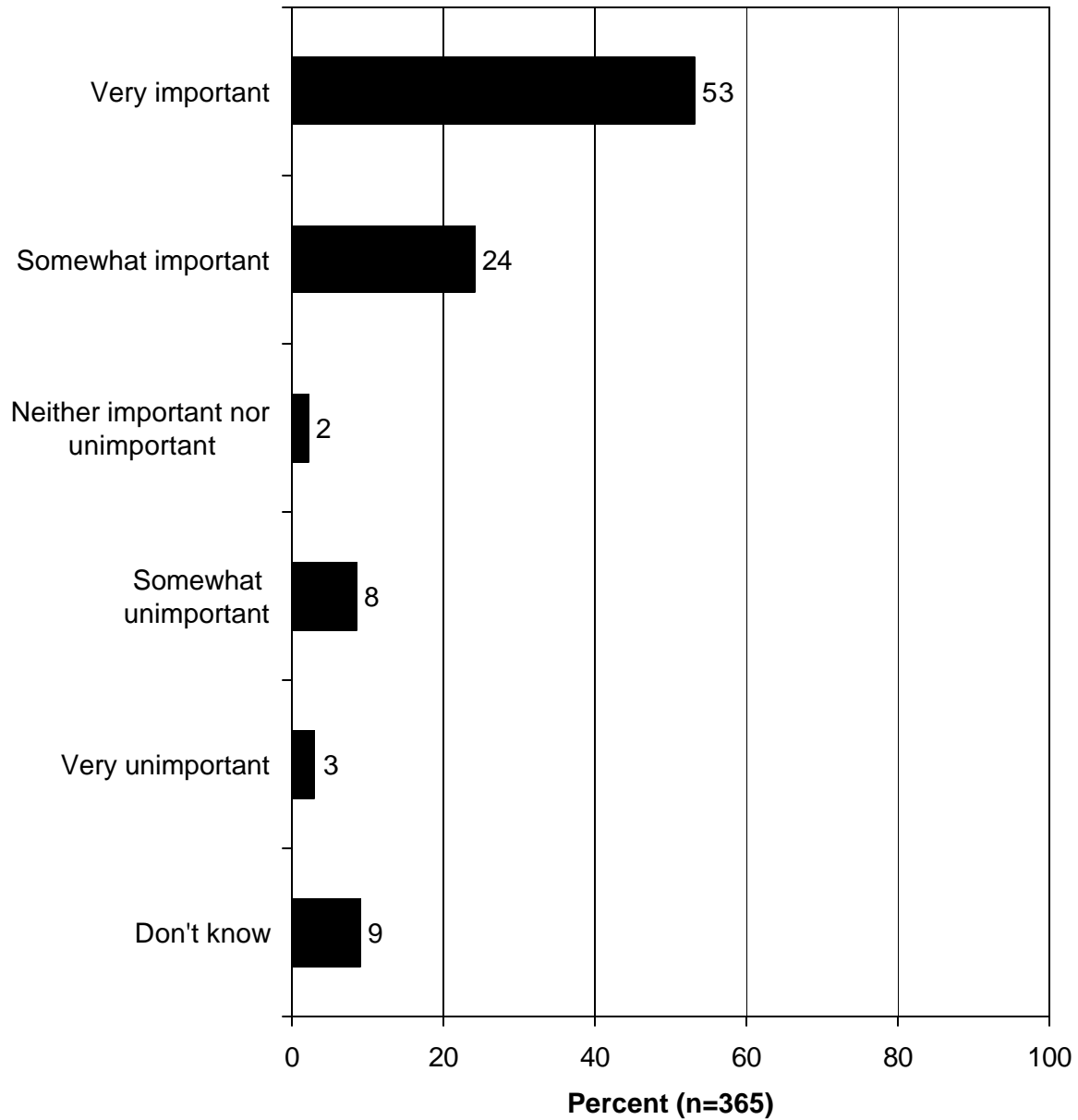
**Q59. Do you think managing small lakes, accessible by bank or boat anglers, around the state for public fishing is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**



**Q60. Do you think building fishing piers in lakes is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**

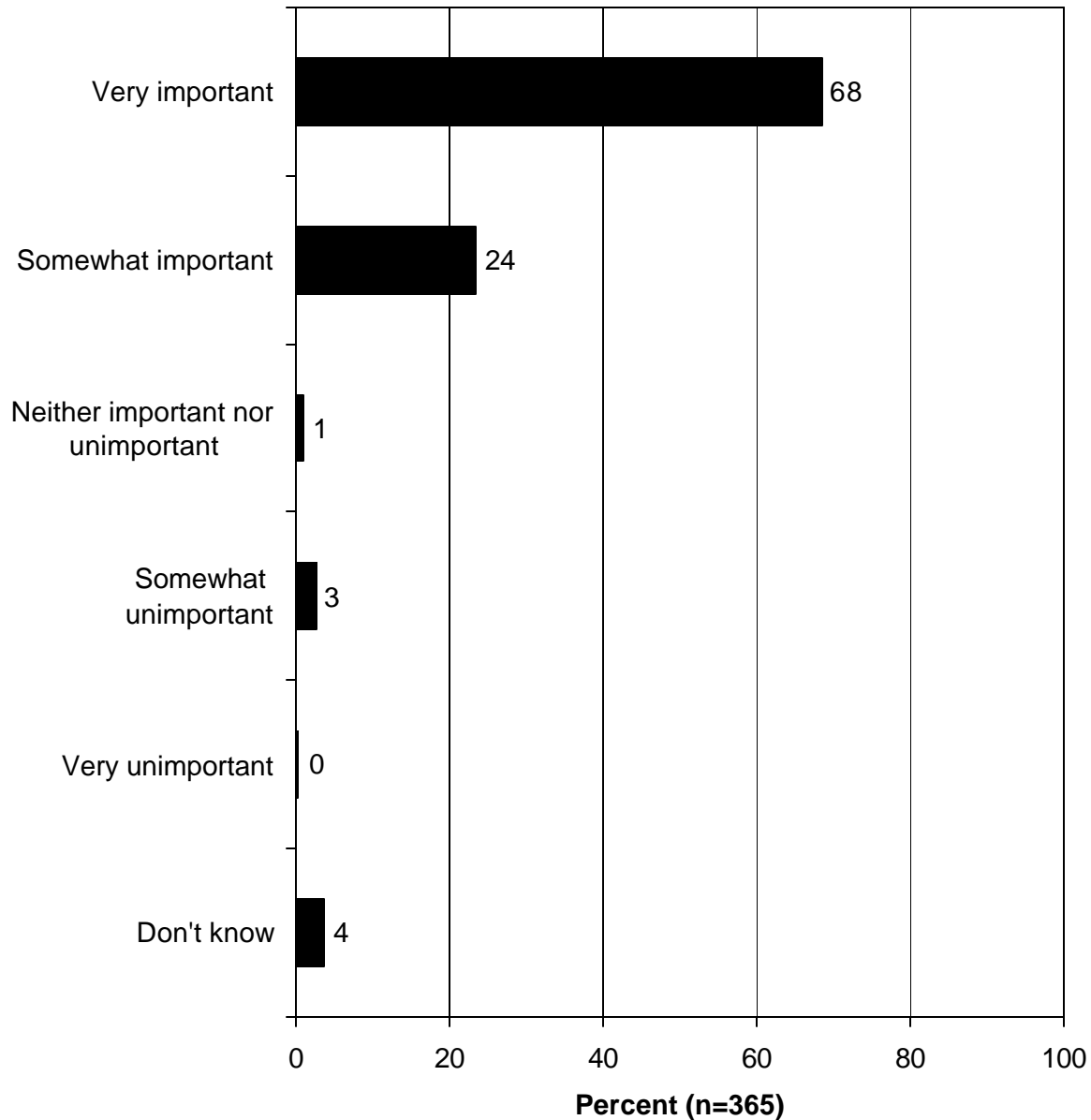


**Q61. Do you think building/adding structures to attract more fish in lakes is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**

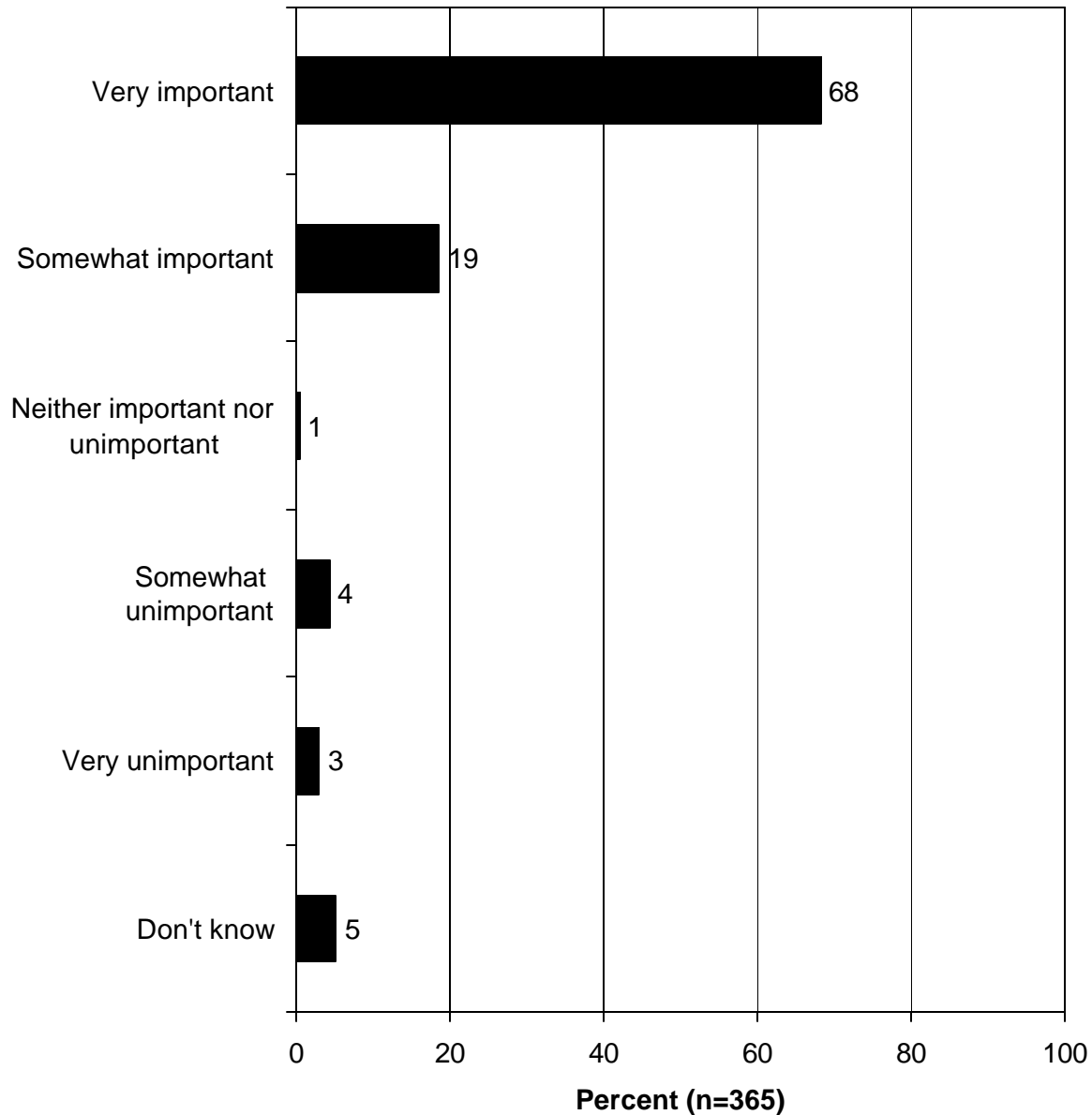




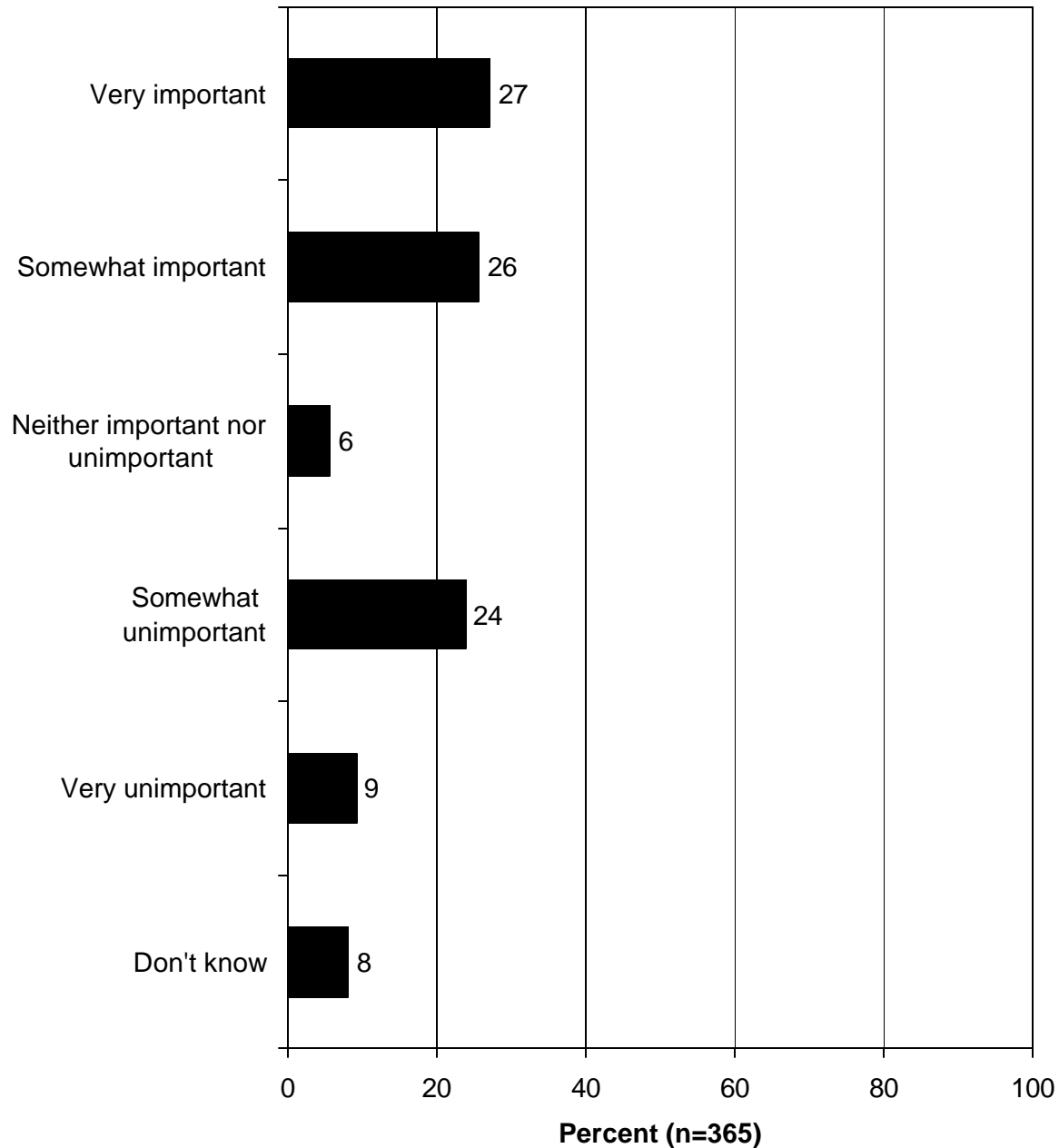
**Q62. Do you think conducting research to answer questions about the state's freshwater natural resources is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**



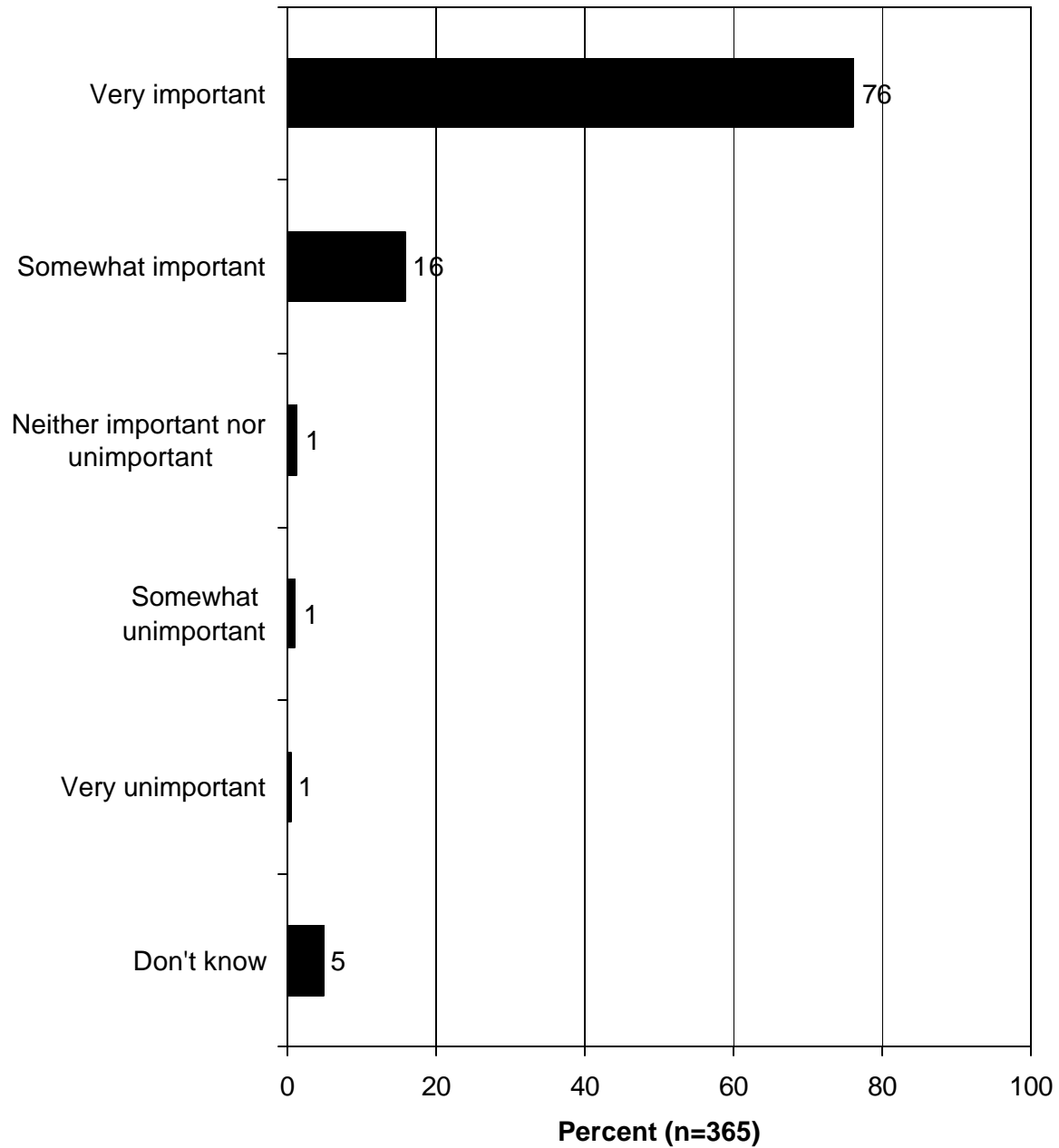
**Q63. Do you think controlling water plants that bother boaters, anglers, and homeowners using lakes and rivers is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**



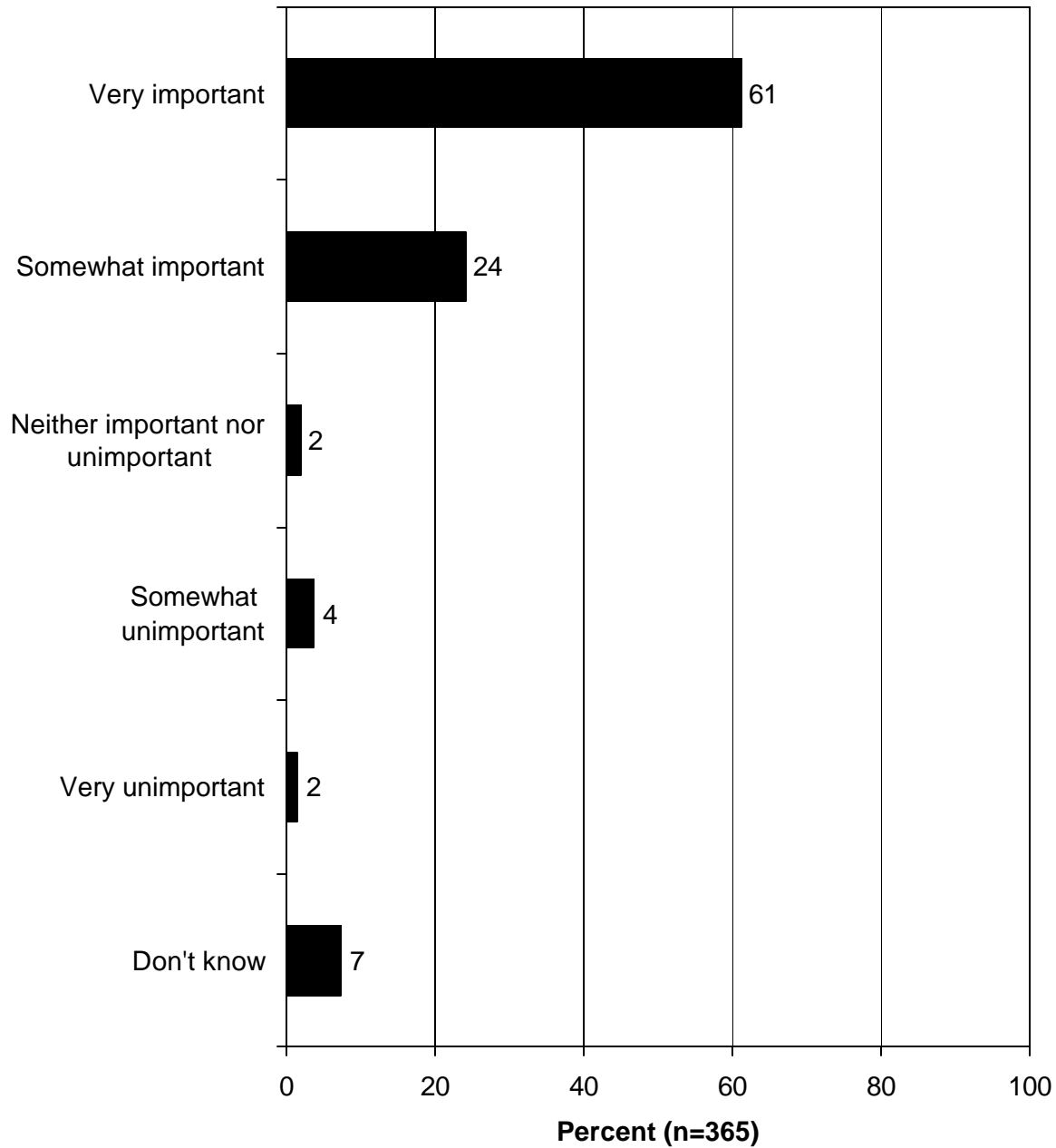
**Q64. Do you think building more boat ramps is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**



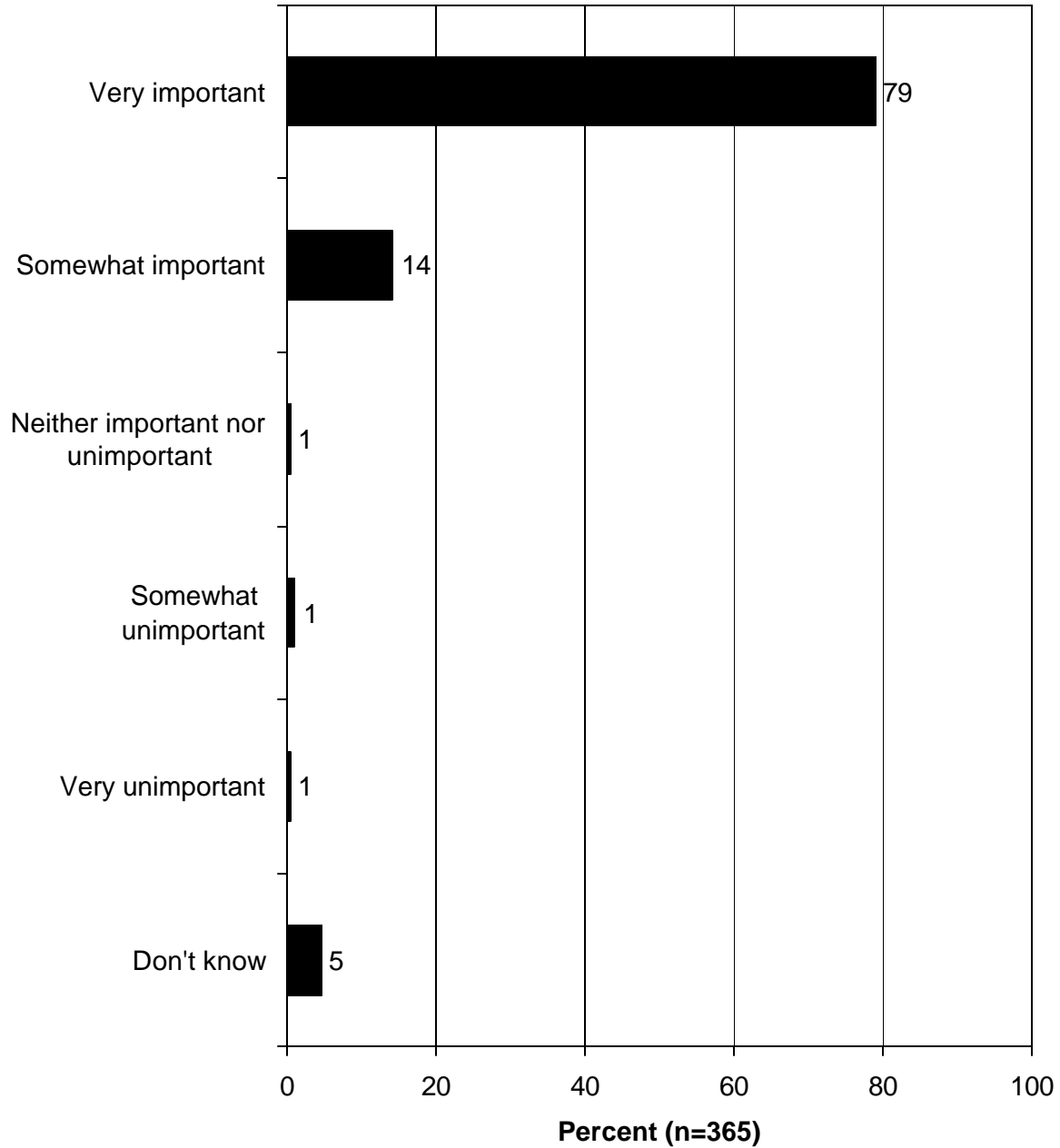
**Q65. Do you think maintaining existing boat ramps is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**



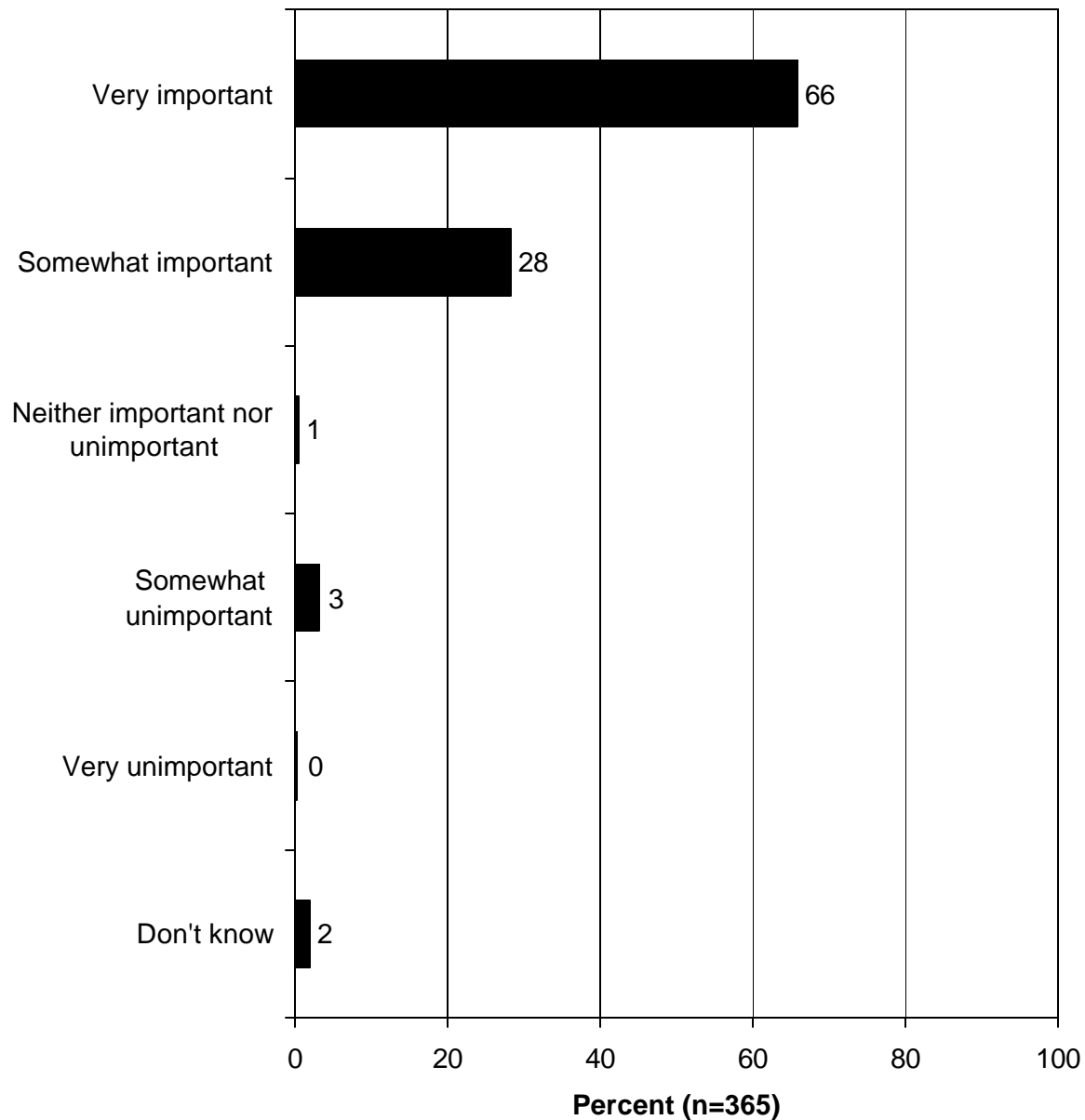
**Q66. Do you think developing freshwater fishing regulations is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**



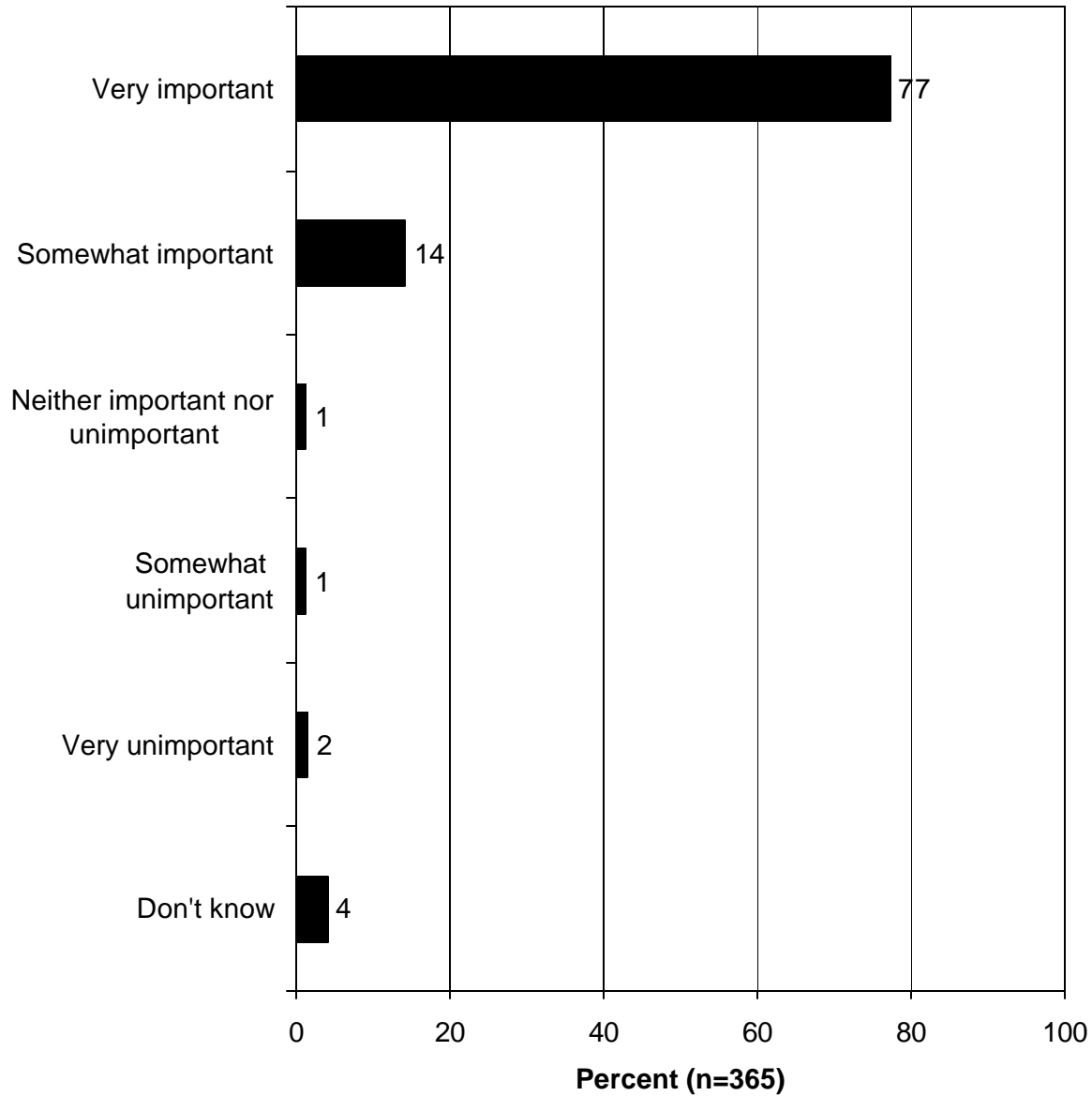
**Q67. Do you think enforcing freshwater fishing regulations is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**



**Q68. Do you think producing educational materials about freshwater fish and fishing, such as brochures, is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**

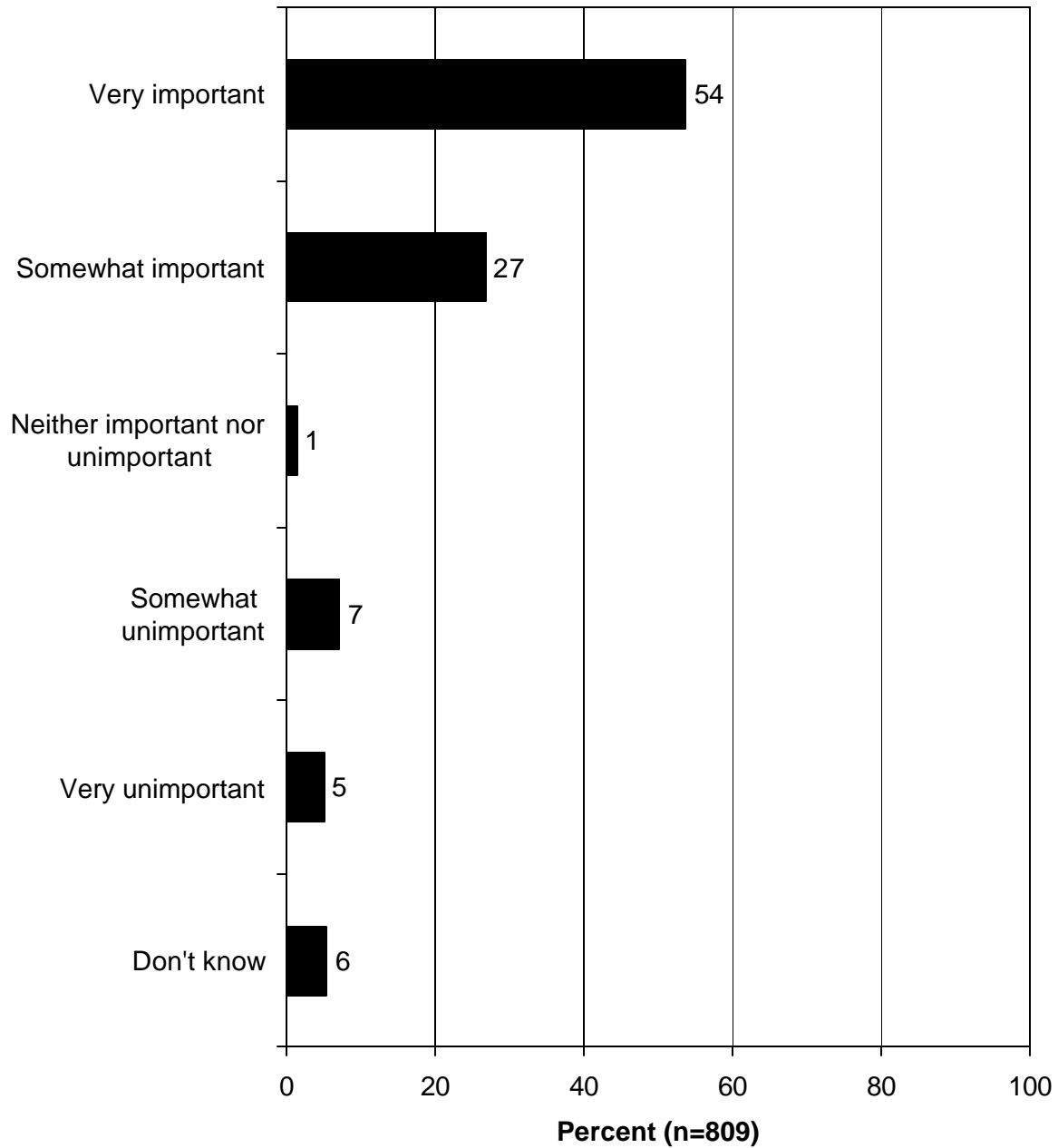


**Q69. Do you think being involved with the restoration of nongame fish species that are possibly threatened with extinction is an important or unimportant program for the South Carolina DNR? (Asked of approximately half of all respondents.)**

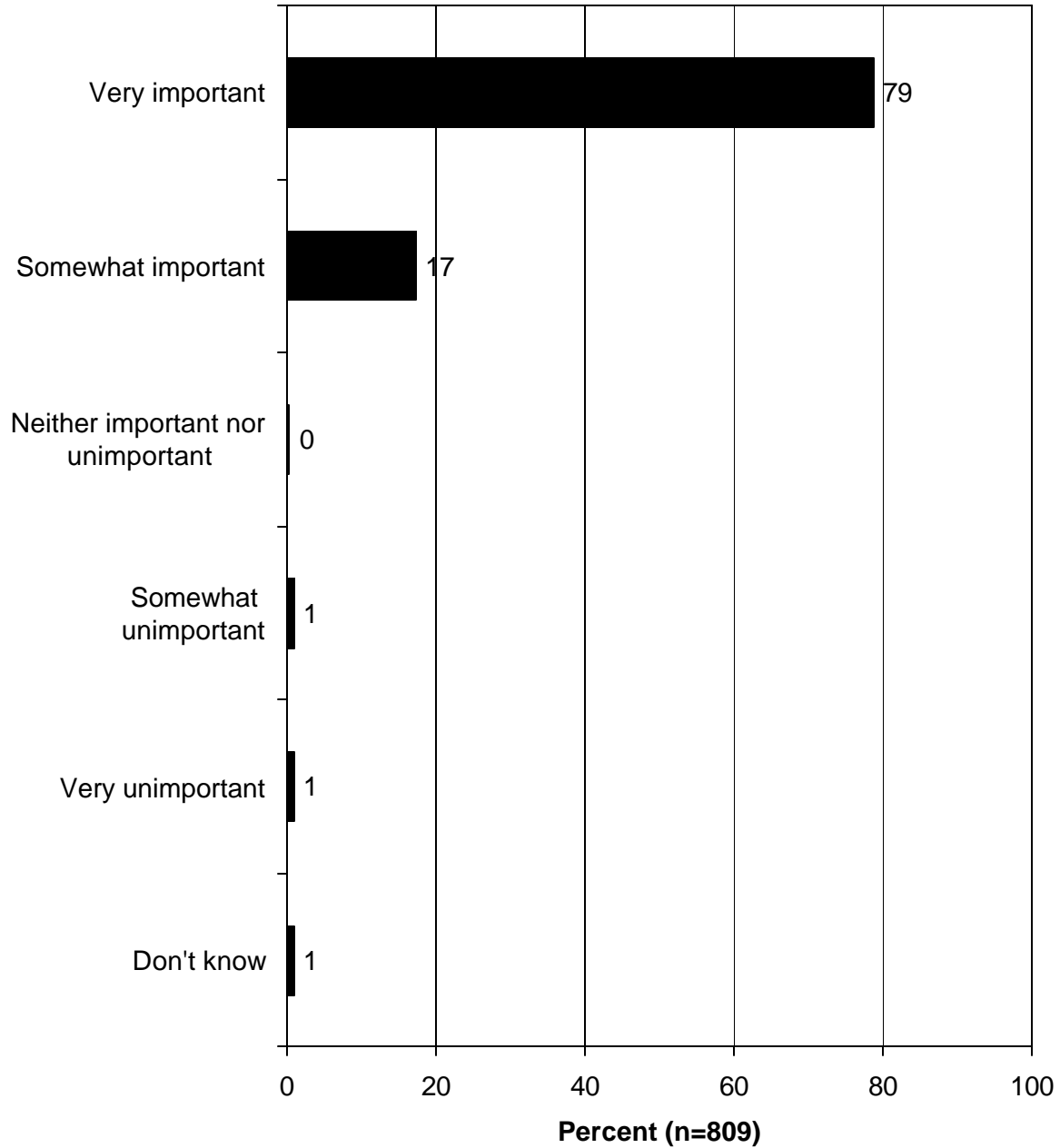




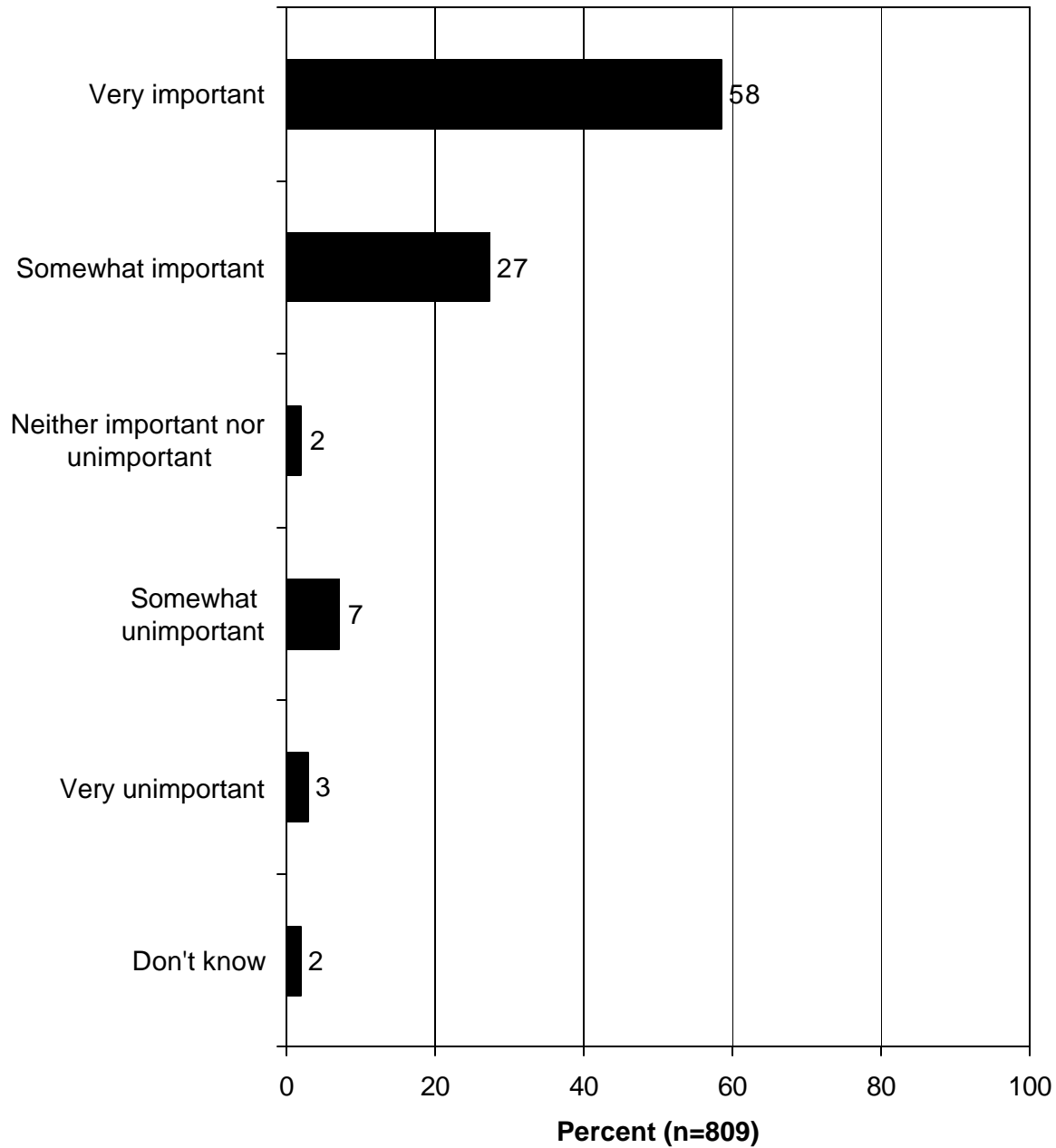
**Q71. Do you think youth programs such as fishing rodeos are important or unimportant education programs for the South Carolina DNR?**



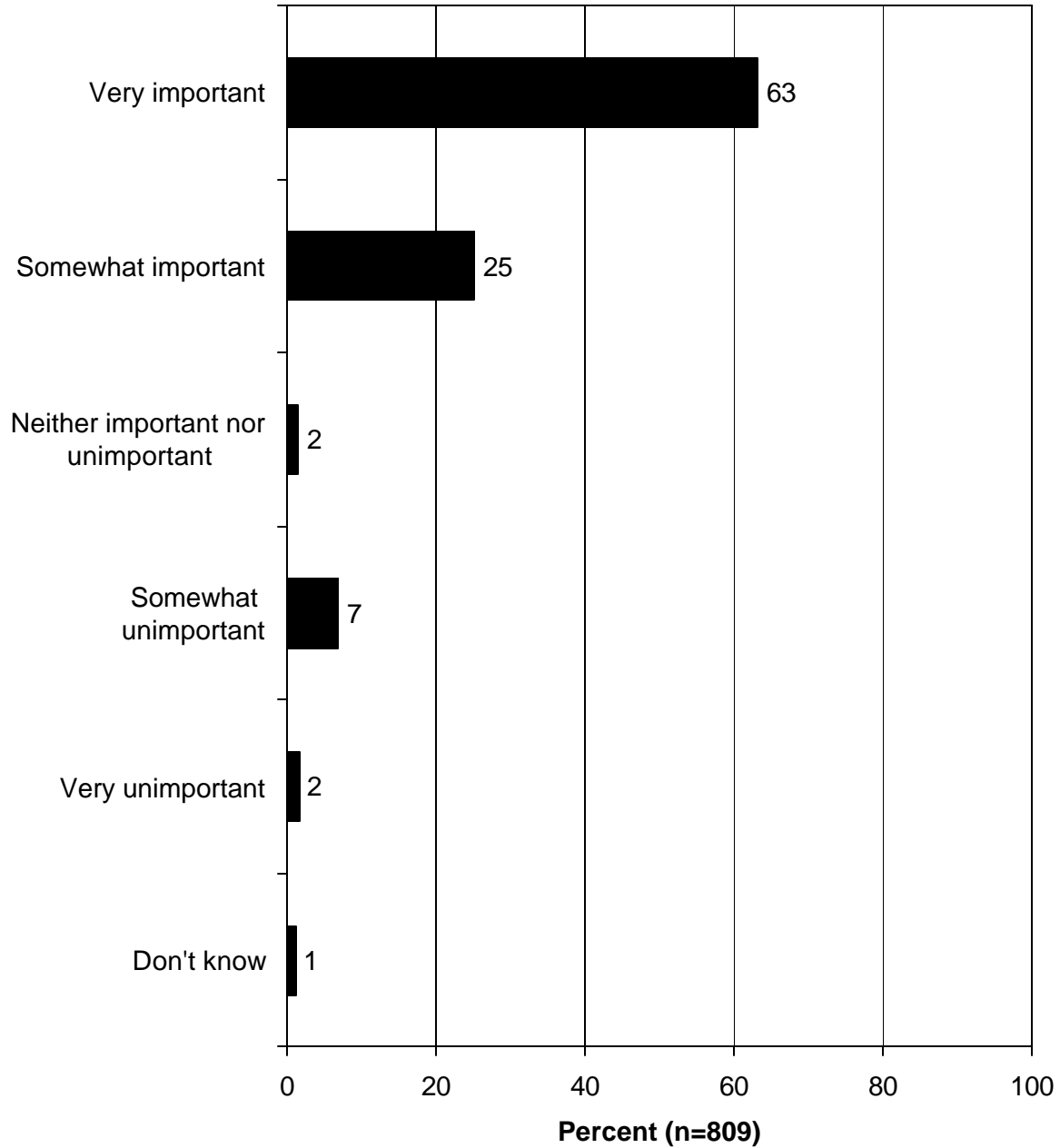
**Q72. Do you think parent-child activities are important or unimportant education programs for the South Carolina DNR?**



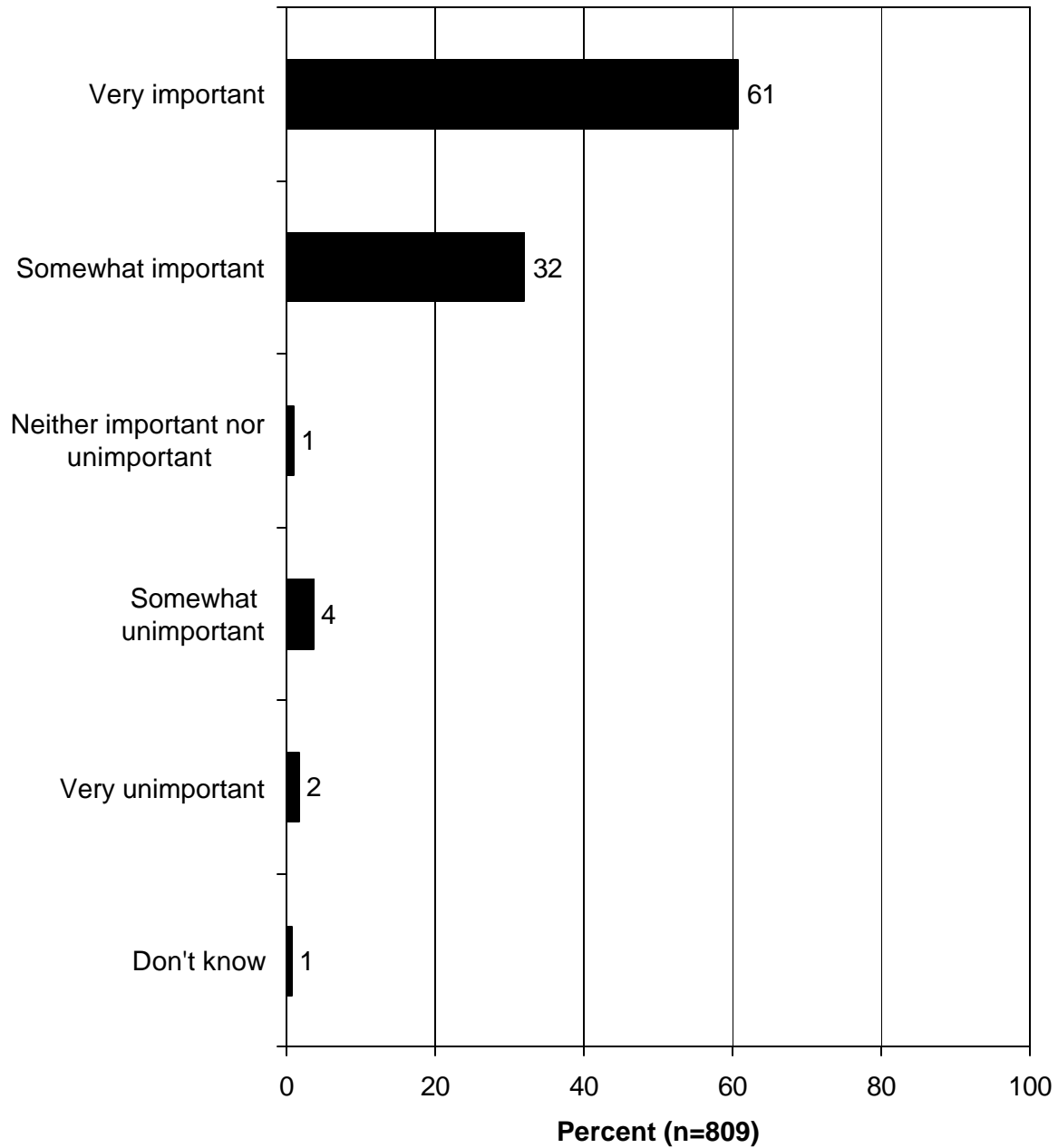
**Q73. Do you think in-school programs such as teacher workshops are important or unimportant education programs for the South Carolina DNR?**



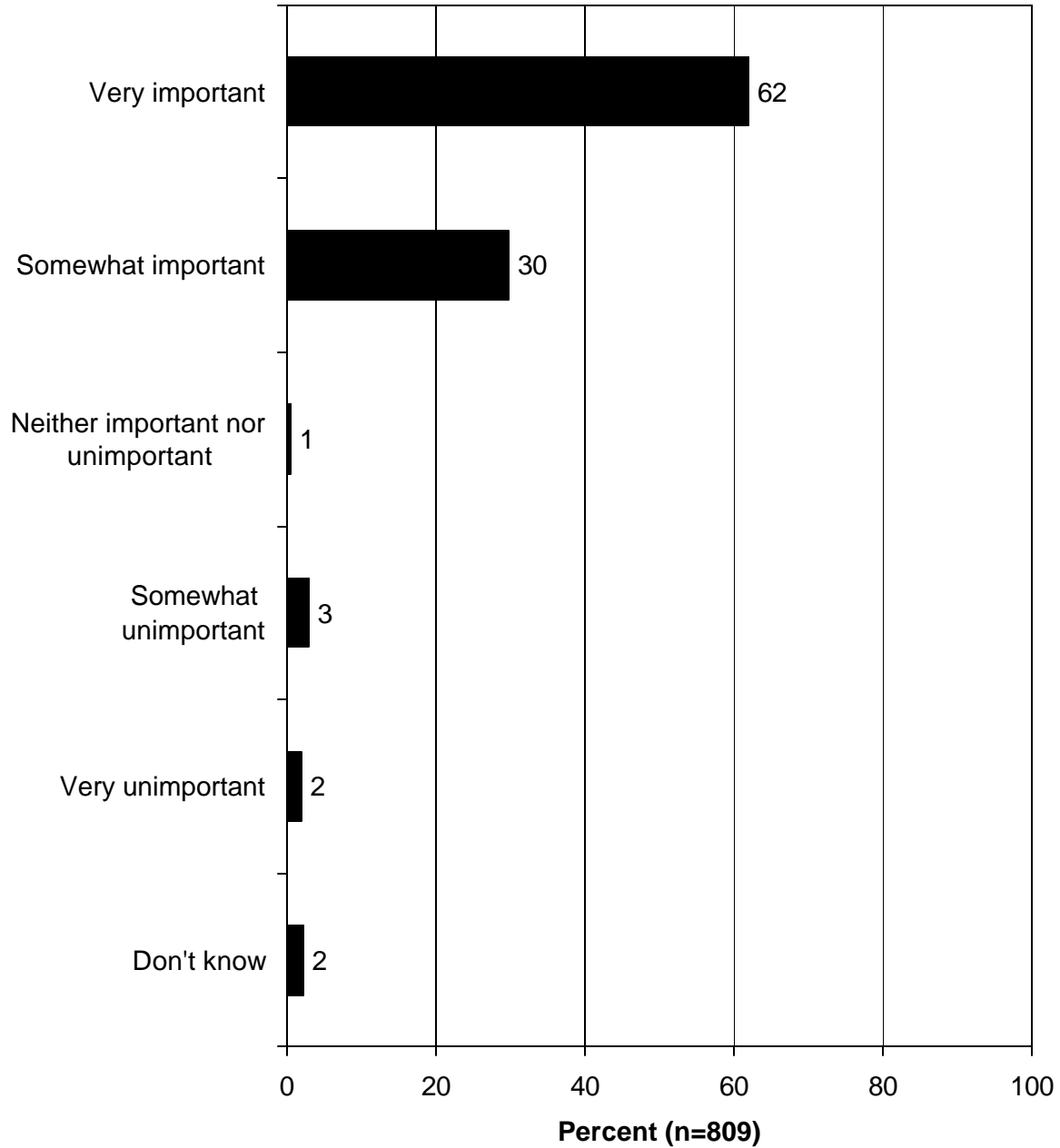
**Q74. Do you think producing educational brochures for kids is an important or unimportant education program for the South Carolina DNR?**



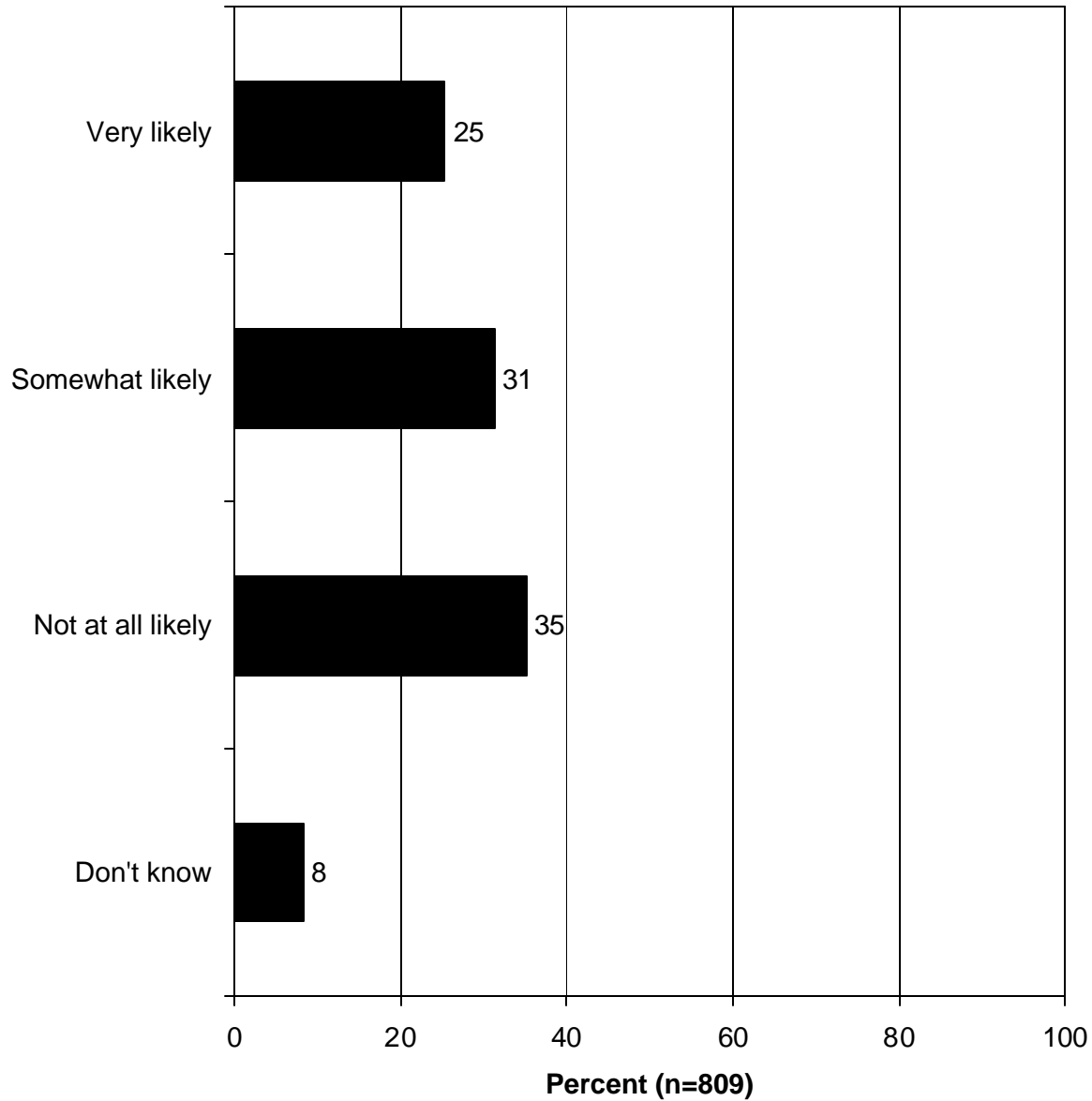
**Q75. Do you think producing educational brochures for adults is an important or unimportant education program for the South Carolina DNR?**



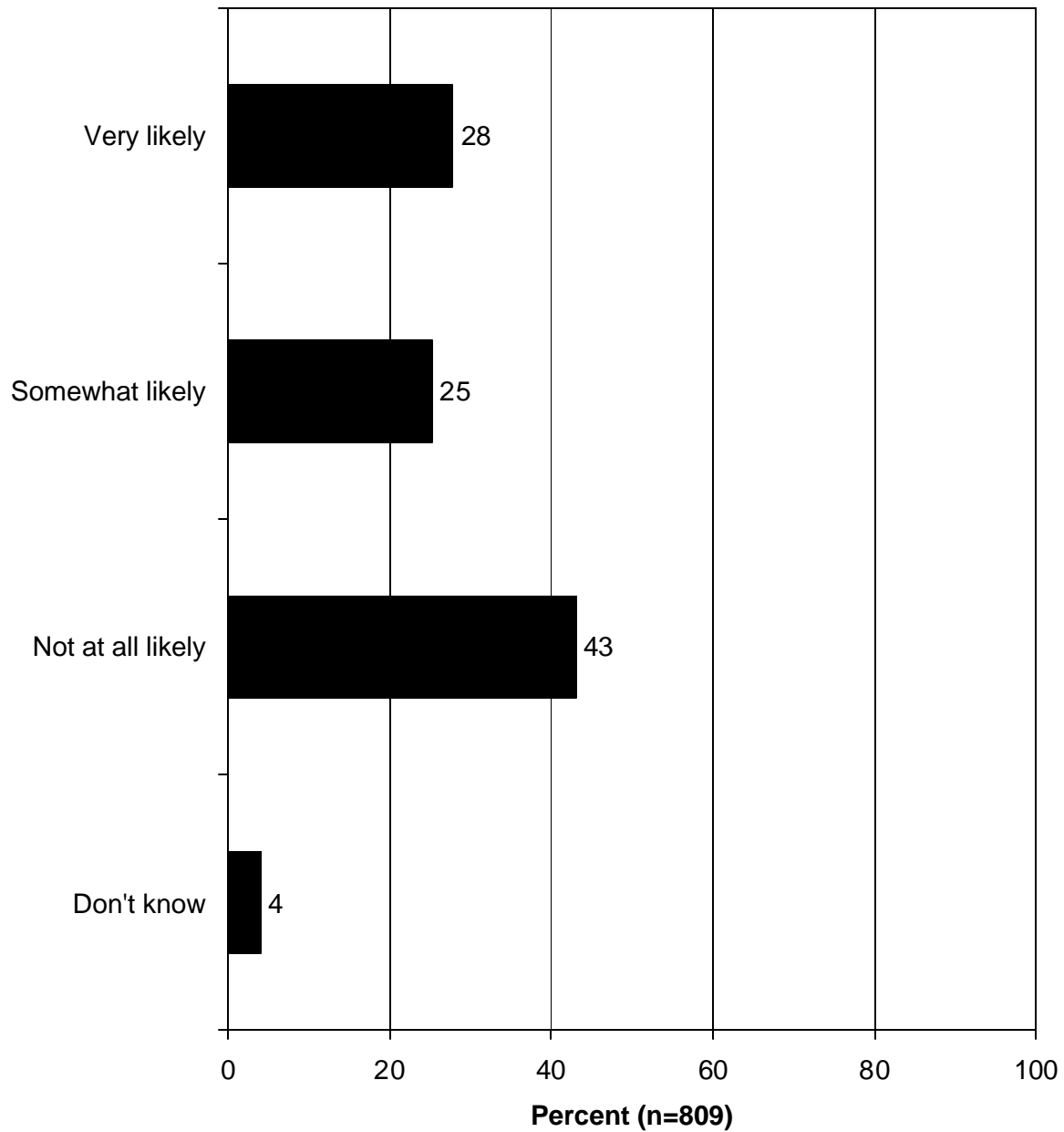
**Q76. Do you think producing other multimedia educational programs, such as TV, an Internet page, etc., is an important or unimportant program for the South Carolina DNR?**



**Q87. How likely would you be to purchase a stamp required to fish for certain hatchery-raised species, such as striped bass and trout, with the proceeds going to the South Carolina DNR's freshwater fisheries program?**

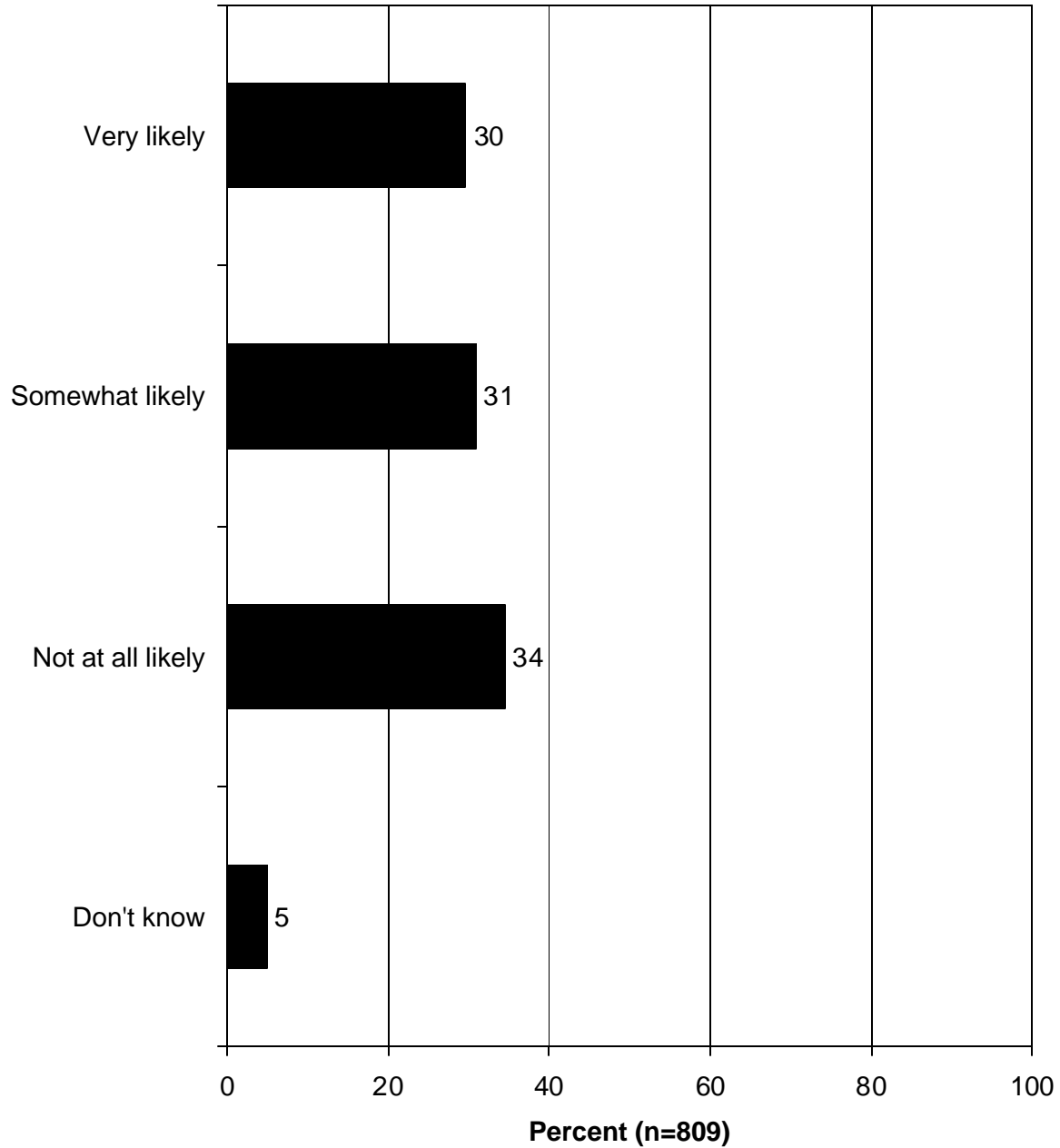


**Q88. How likely would you be to purchase a fishing license, even if you did not plan on using it, as a way to support freshwater fisheries and aquatic resources conservation and management?**

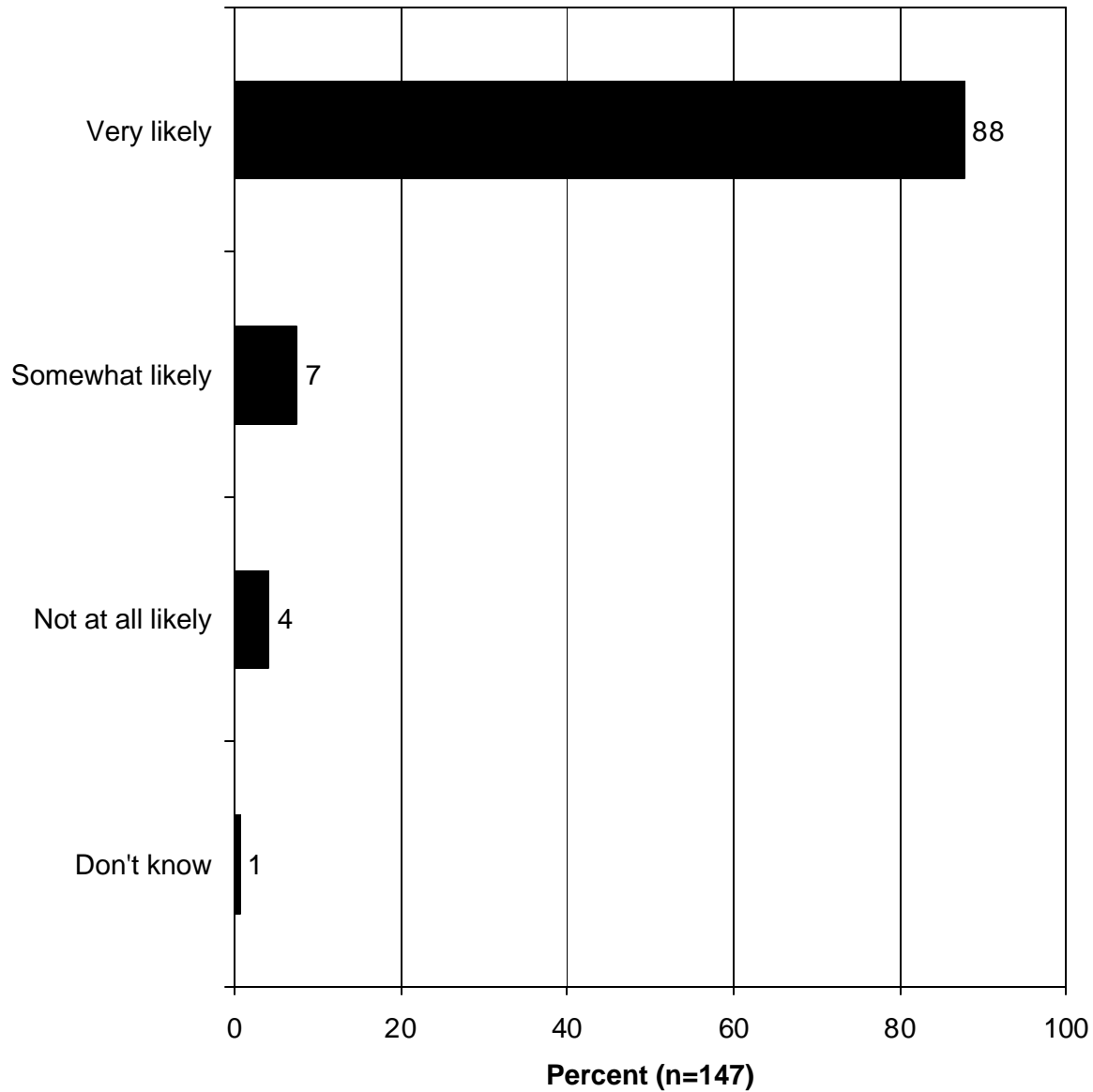




**Q89. How likely would you be to purchase a fishing license, even if you did not plan on fishing, where the proceeds would help improve water quality?**



**Q99. The price of a resident fishing license is \$10 in South Carolina. How likely would you be to purchase a license for next year if the cost increased to \$12? (Asked of approx. half of those who have purchased a fishing license in the past 2 years.)**



**Q100. The price of a resident fishing license is \$10 in South Carolina. How likely would you be to purchase a license for next year if the cost increased to \$14? (Asked of approx. half of those who have purchased a fishing license in the past 2 years.)**

