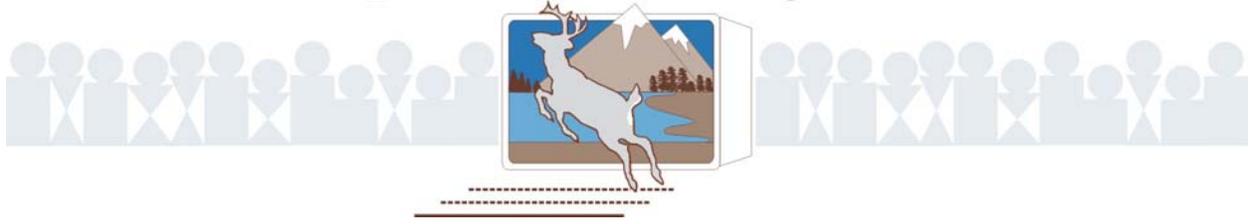


Responsive Management



NATIONWIDE SURVEY OF PUBLIC OPINION ON THE MANAGEMENT OF OCEAN RESOURCES

Conducted for the Alliance of Communities for Sustainable Fisheries

by Responsive Management

2009

NATIONWIDE SURVEY OF PUBLIC OPINION ON THE MANAGEMENT OF OCEAN RESOURCES

2009

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Acknowledgments

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EXECUTIVE SUMMARY

INTRODUCTION AND METHODOLOGY

This study was conducted for the Alliance of Communities for Sustainable Fisheries (ACSF) to determine public opinion on recreational and commercial fishing and the management of ocean resources. The study entailed a nationwide telephone survey of adult U.S. residents.

For the survey, telephones were selected as the preferred sampling medium because of the universality of telephone ownership. The telephone survey questionnaire was developed cooperatively by Responsive Management and the ACSF. Responsive Management conducted a pre-test of the questionnaire to ensure proper wording, flow, and logic in the survey. Interviews were conducted Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time. The survey was conducted in January and February 2009. Responsive Management obtained a total of 729 completed interviews. The software used for data collection was Questionnaire Programming Language.

The analysis of data was performed using Statistical Package for the Social Sciences software as well as proprietary software developed by Responsive Management. The sample for the survey was selected proportional to the entire U.S. population. The results were weighted by age and gender to ensure that the sample closely matched the population of the entire U.S.

Throughout this report, findings of the telephone survey are reported at a 95% confidence interval. For the entire sample of U.S. residents (18 years old and older), the sampling error is at most plus or minus 3.63 percentage points.

SUPPORT OR OPPOSITION TO LEGAL RECREATIONAL FISHING

- An overwhelming majority of U.S. residents support (90%) legal recreational fishing in general, with most of that being *strong* support. Additionally, large majorities of U.S. residents support legal recreational fishing in National Forests (80%), National Parks (78%), and Wilderness Areas (72%).
- The overwhelming majority of U.S. residents support (88%) legal recreational fishing and shellfishing in U.S. ocean waters.
- Among U.S. residents, support for (59%) exceeds opposition to (32%) legal recreational fishing and shellfishing in ocean waters that would be designated in a manner similar to Wilderness Areas in which specific human activities would be restricted.

OPINIONS ON MANAGEMENT STRATEGIES FOR OCEAN WATERS

- Among U.S. residents, support for protecting U.S. ocean waters and ocean life is nearly unanimous: 78% *strongly* support doing so, and another 17% *moderately* support it, for a sum of 95% in support.
 - An immediate follow-up question asked respondents to say what “protect” means to them in the phrase, “protect ocean waters and ocean life.” This was an open-ended question in which no answer set was read, allowing respondents to give any response that came to mind. The most common responses regarding the meaning of “protect” pertains to managing for sustainable use (29%), protecting rare and fragile habitats or sea life (21%), and protecting the environment against oil spills, pollution, dumping, etc. (20%).
- The survey asked a series of questions about the importance to the respondent of knowing that U.S. ocean waters are managed to allow seven items. Three items stand out in a ranking by the percentage of respondents thinking them to be *very* important: protection of all U.S. ocean waters and ocean life in general (81% think this is *very* important), sustainable use, which is the use or harvest of the ocean resources in a way that does not permanently deplete or damage the resources (77%), and protection of all U.S. ocean waters and ocean life from any human activities that cause harm or destruction (also 77%).

- The seven items asked about were:
 - Legal recreational fishing and shellfishing
 - Legal commercial fishing and shellfishing
 - Sustainable use, which is the use or harvest of the ocean resources in a way that does not permanently deplete or damage the resources
 - Recreational activities, such as boating, skiing, diving, snorkeling and fishing
 - The protection of all U.S. ocean waters and ocean life in general
 - The protection of all U.S. ocean waters and ocean life from any human activities that cause harm or destruction
 - The protection of some U.S. ocean water areas from all human use

- Five statements were read to respondents, in a scale from virtually no restrictions to complete restrictions, and for each statement respondents were asked if they agreed or disagreed with it.
 - Agreement is highest for the statements in the middle of the scale: 91% agree that “some U.S. ocean water areas should be protected but open to public human use and scientifically managed for sustainable use,” and 82% agree that “all U.S. ocean waters should be open to public human use but should be scientifically managed for sustainable use.”
 - *Disagreement* is particularly high (86%) with the statement, “All U.S. ocean waters should be fully protected with no human use allowed.” There is also relatively high *disagreement* (43%) with the statement, “All U.S. ocean waters should be open to public human use.”
 - The five statements were:
 - All U.S. ocean waters should be open to public human use.
 - All U.S. ocean waters should be open to public human use but should be scientifically managed for sustainable use.
 - Some U.S. ocean water areas should be protected but open to public human use and scientifically managed for sustainable use.
 - Some U.S. ocean water areas should be fully protected with no human use allowed.
 - All U.S. ocean waters should be fully protected with no human use allowed.

- The survey asked respondents who had previously agreed that some U.S. ocean waters should be fully protected with no human use allowed if they would agree or disagree that some U.S. ocean waters should be fully protected from all human use, *even if sustainable use were possible*: the majority agree (70%), while 22% disagree.

- Similar to the question above, the survey asked respondents who had previously agreed that *all* U.S. ocean waters should be fully protected with no human use allowed if they would agree or disagree that *all* U.S. ocean waters should be fully protected from all human use, *even if sustainable use were possible*: the majority agree (60%), while 36% disagree.
- The survey asked if respondents would support or oppose the choice of management option that allowed for recreational fishing and shellfishing, if there were several management options that provided the same amount of protection and similar benefits for U.S. ocean resources: a large majority (84%) would support, while only 8% would oppose. An analogous question was asked about *commercial* fishing and shellfishing, and in that question a majority (76%) would support, while 17% would oppose (a level of support for *commercial* fishing/shellfishing that is slightly less than for *recreational* fishing/shellfishing).
- The survey asked U.S. residents if they would support or oppose recreational fishing and shellfishing in U.S. ocean waters that were protected but scientifically managed for sustainable use: 71% would support, while 23% would oppose. An analogous question asked the same thing about *commercial* fishing and shellfishing: 58% would support, while 35% would oppose. Again, the level of support for *recreational* fishing/shellfishing is higher than for *commercial* fishing/shellfishing.
- Respondents in the survey were asked about three possible ways to select areas, if some ocean areas were to be selected for protection and management for sustainable use. The three ways to select areas for protection/management for sustainable use were identifying a percentage of the ocean waters to protect, identifying specific areas with rare and fragile habitats or sea life to protect, or identifying remote or low human use areas.
Overwhelmingly, respondents chose the second way: identifying specific areas with rare and fragile habitats or sea life to protect (67%, far exceeding any other response).

OPINIONS ON COMMERCIAL FISHING AND HARVESTING OCEAN RESOURCES

- The overwhelming majority of U.S. residents support (86%) legal commercial fishing and shellfishing in U.S. ocean waters; only 11% oppose. Likewise, the overwhelming majority

of U.S. residents support (81%) using, or harvesting, U.S. ocean resources, such as fish and other ocean life; only 13% oppose.

- A comparison of opinions on recreational versus commercial fishing and shellfishing shows that opinions are nearly the same, with *strong* support for recreational fishing and shellfishing just slightly higher than for commercial fishing and shellfishing.
- Opinion is about evenly split among U.S. residents regarding legal commercial fishing and shellfishing in ocean waters that would be designated in a manner similar to Wilderness Areas in which specific human activities would be restricted: 47% of U.S. residents support, and 44% of them oppose.
- A comparison of opinions on recreational versus commercial fishing and shellfishing in ocean waters that would be designated in a manner similar to Wilderness Areas shows much more support for recreational fishing over commercial fishing: support is at 59% for *recreational* fishing and shellfishing in those waters, compared to 47% for *commercial* fishing and shellfishing.
- The survey asked U.S. residents if they agree or disagree that some U.S. ocean waters should be fully protected from *all* human use, including sustainable harvest of seafood, even if doing so would reduce the ability of the U.S. to supply seafood to U.S. consumers. A slight majority (55%) agree, while 31% disagree.
- The survey asked respondents if they agree or disagree that some change to the natural biodiversity in U.S. ocean waters is acceptable to guarantee a continued food supply through fishing and shellfishing: agreement (71%) far exceeds disagreement (20%). The same question was asked again, but was preceded by this explanation: “On land, our society generally accepts change to the natural biodiversity of an environment to guarantee a continued supply of food. For example, we change the natural biodiversity of land by replacing natural growth of wild grasses with food crops on farmed land.” When the question includes this introduction, 73% of respondents agree and 18% disagree (note that agreement is just slightly higher with the introduction).

- The survey, after informing respondents that approximately 85% of seafood consumed in the U.S. is imported, asked U.S. residents how important it is to them that the U.S. maintain its ability to supply some seafood to U.S. residents rather than to depend entirely on imported seafood. U.S. residents rate this quite high: 89% say it is important to them, with most of them saying it is *very* important (70%).
- The survey asked respondents to indicate how important it is to them that imported seafood be harvested in a sustainable manner, and importance is quite high: 92% say it is important, most of them saying it is *very* important (74%). Likewise, the survey asked this same question about *domestic or U.S.-harvested* seafood, and importance is again quite high: 96% say it is important, with 80% saying it is *very* important. A comparison finds that domestic seafood being harvested in a sustainable manner is slightly more important than imported seafood being harvested in a sustainable manner.

OPINION ON MANAGEMENT OF SEA LIONS

- One question in the survey asked about the management of sea lions. The survey first gave the following explanation: “The California sea lion is a marine mammal whose population has grown from about 50,000 sea lions in the Pacific Ocean in the early 1800s to about 320,000 sea lions today. The population is likely to continue to grow. This growth is because the sea lion’s natural predators, such as orcas or killer whales and white sharks, have been reduced. Today, the sea lion population is primarily controlled by cycles of disease or starvation when there is not enough food to feed the entire population. Some ocean managers believe the continued growth of the sea lion population makes it necessary to control the population to prevent disease and starvation.” Then the survey asked respondents to choose from among three approaches for managing sea lions (including the “no management” approach). The most commonly chosen approaches were “legalization of hunting or other removal methods, under specific limits, to control the sea lion population” (39%) and “legalization of non-lethal methods to control the sea lion population, such as birth control” (37%). The “no management” option was chosen by 13%.

PARTICIPATION IN RECREATIONAL AND COMMERCIAL FISHING

- The survey asked U.S. residents about their participation in fishing. The first question was the most broad, asking if the respondent had *ever* been fishing (i.e., with no time frame specified). Fishing is quite ubiquitous: 85% of U.S. residents in the survey indicated that at some time they had been fishing, 44% had been freshwater fishing in the last 5 years, 21% had been saltwater fishing in the last 5 years, and 22% consider themselves an angler.

- The survey asked all those *who had ever fished* if their personal income or their family's income had ever been dependent on commercial fishing or shellfishing: 5% of these respondents answered yes.

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INTRODUCTION AND METHODOLOGY

This study was conducted for the Alliance of Communities for Sustainable Fisheries (ACSF) to determine public opinion on recreational and commercial fishing and the management of ocean resources. The study entailed a nationwide telephone survey of adult U.S. residents.

For the survey, telephones were selected as the preferred sampling medium because of the universality of telephone ownership. 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. The telephone survey questionnaire was developed cooperatively by Responsive Management and the ACSF. Responsive Management conducted a pre-test of the questionnaire to ensure proper wording, flow, and logic in the survey.

To ensure the integrity of the telephone survey data, Responsive Management has 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 and other professional staff conducted project briefings with the interviewers prior to the administration of these surveys. 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 instruments, reading of the survey instruments, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey questionnaire. The Survey Center Managers and statisticians monitored the data collection, including monitoring of the actual telephone interviews without the interviewers' knowledge, to evaluate the performance of each interviewer and ensure the integrity of the data. After the surveys were obtained by the interviewers, the Survey Center Managers and/or statisticians checked each completed survey to ensure clarity and completeness.

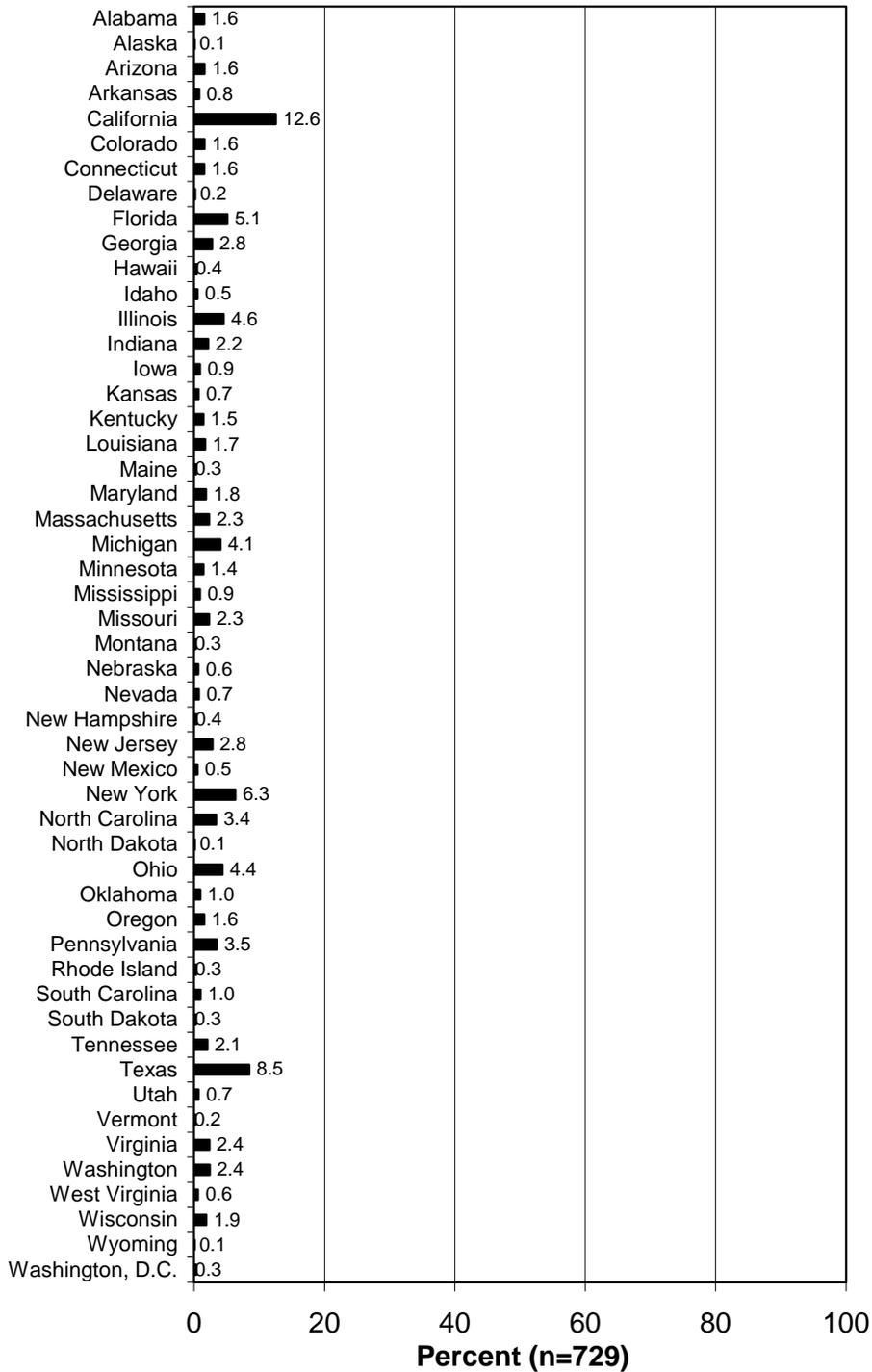
Interviews were conducted Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time. A five-callback design was

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. The survey was conducted in January and February 2009. Responsive Management obtained a total of 729 completed interviews.

The software used for data collection was Questionnaire Programming Language (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 branched, coded, and substituted phrases in the survey based on previous responses to ensure the integrity and consistency of the data collection. The analysis of data was performed using Statistical Package for the Social Sciences software as well as proprietary software developed by Responsive Management.

The sample for the survey, as shown in the graph on the following page, was selected proportional to the entire U.S. population (i.e., states with larger populations had more sample than did states with smaller populations). The results were weighted by age and gender to ensure that the sample closely matched the actual population of the U.S.

Q4. Respondent's state. (National Survey)



Throughout this report, findings of the telephone survey are reported at a 95% confidence interval. For the entire sample of U.S. residents (18 years old and older), the sampling error is at most plus or minus 3.63 percentage points. Sampling errors were calculated using the formula described below, with a sample size of 729 and a population size of 225,013,734 U.S. residents 18 years old and older.

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 (i.e., total number who could be surveyed)
 N_s = sample size (i.e., total number of respondents surveyed)

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).

Some results may not sum to exactly 100% because of rounding. Additionally, rounding on the graphs may cause apparent discrepancies of 1 percentage point between the graphs and the reported results of combined responses (e.g., when “strongly support” and “moderately support” are summed to determine the total percentage in support).

A note about the layout of the report: some graphs pertain to more than one section, so these graphs are discussed in more than one section of the report. In these instances when the graph is discussed in more than one section, the graph is only shown in one section with a call-out in the other section indicating where the graph is located.

SUPPORT OR OPPOSITION TO LEGAL RECREATIONAL FISHING

- An overwhelming majority of U.S. residents support (90%) legal recreational fishing in general, with most of that being *strong* support. Additionally, large majorities of U.S. residents support legal recreational fishing in National Forests (80%), National Parks (78%), and Wilderness Areas (72%). In looking at the other side of opinion, only 5% oppose legal recreational fishing in general (the remainder gave a neutral answer). Opposition is slightly higher for legal recreational fishing in National Forests (14%), National Parks (17%), and Wilderness Areas (23%). (Graphs are shown with all four questions together, and then the individual graphs are shown as well.)

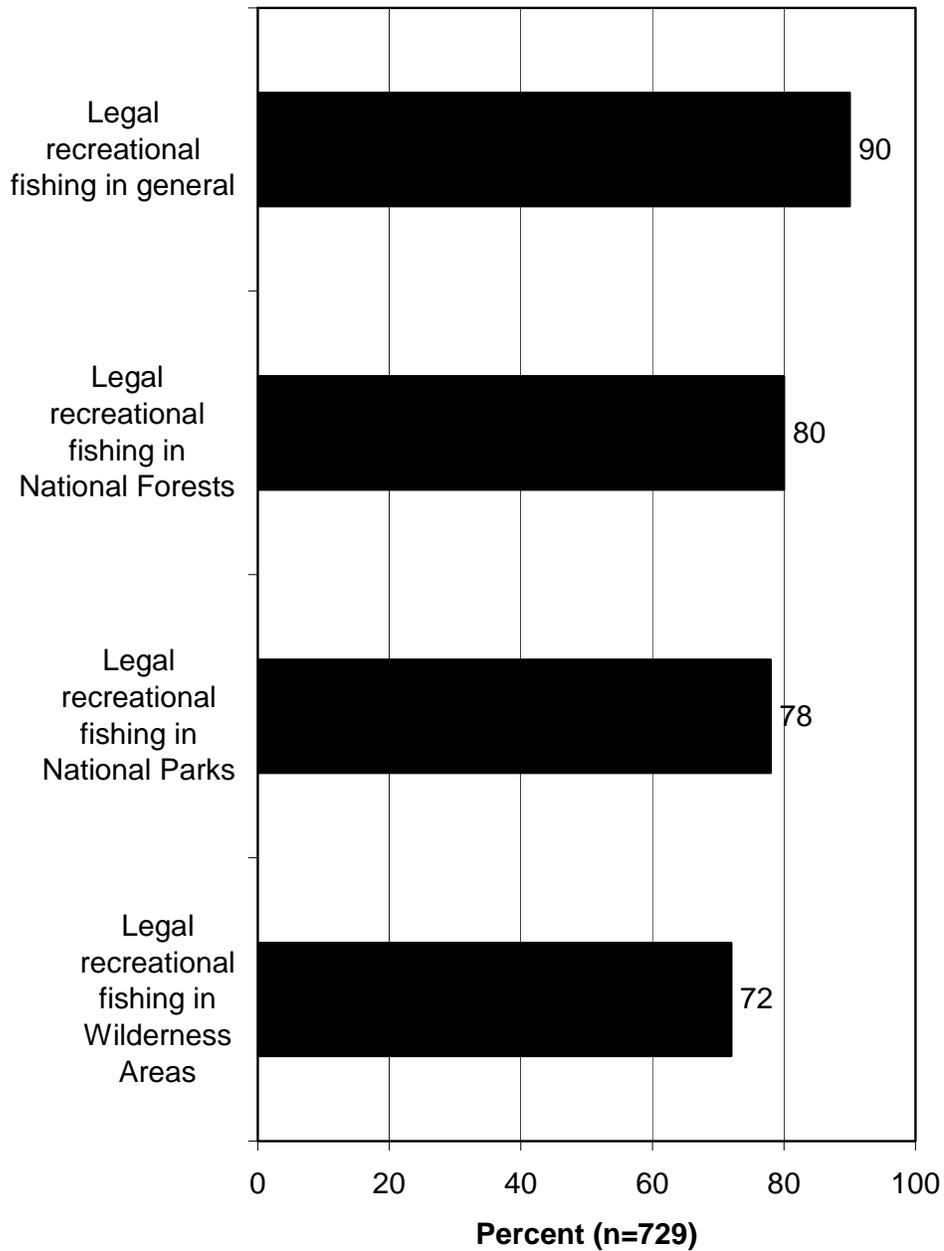
- The overwhelming majority of U.S. residents support (88%) legal recreational fishing and shellfishing in U.S. ocean waters; only 8% oppose.

- Among U.S. residents, support for (59%) exceeds opposition to (32%) legal recreational fishing and shellfishing in ocean waters that would be designated in a manner similar to Wilderness Areas in which specific human activities would be restricted.

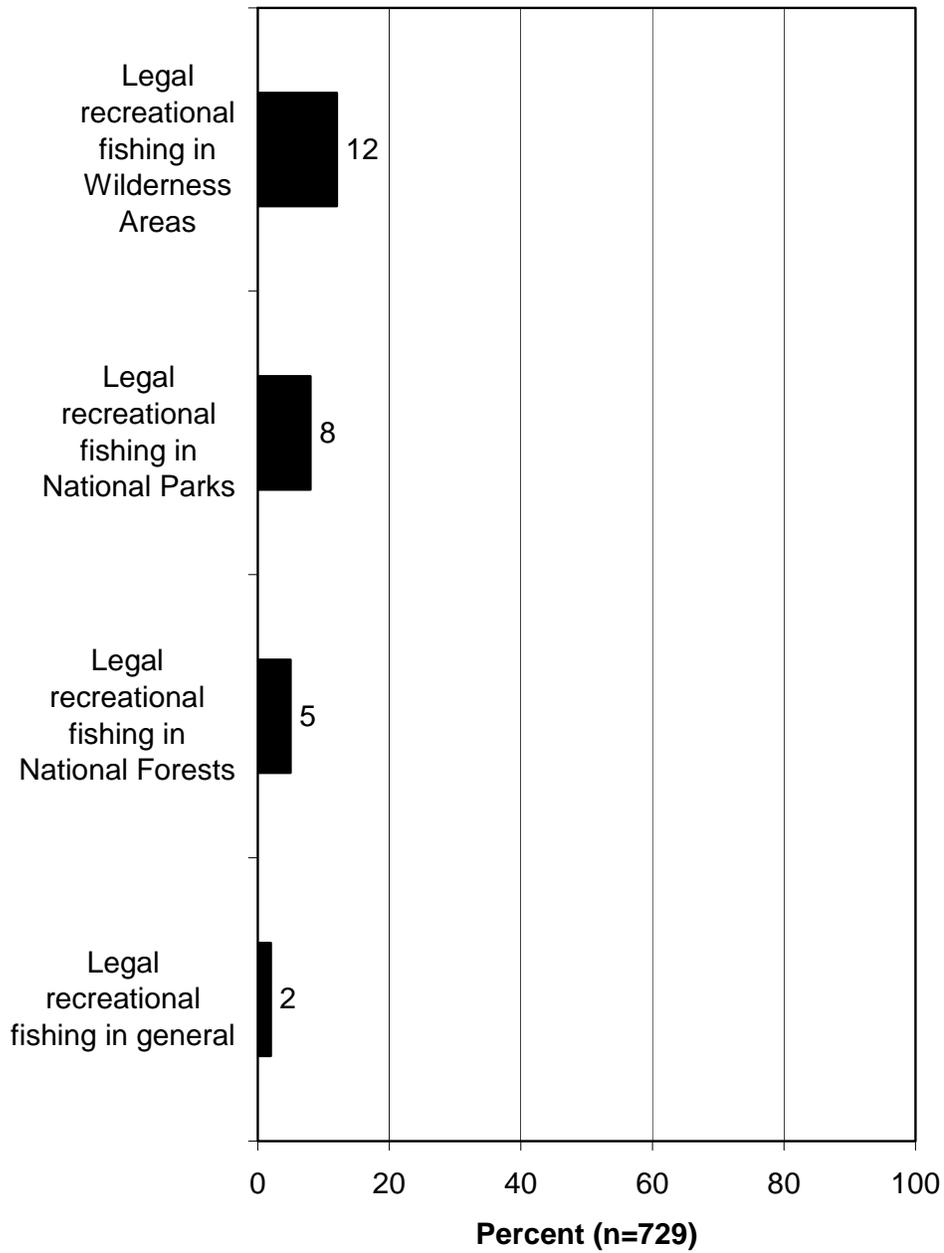
**Q13-17. Percent who strongly support fishing
under the following conditions:
(National Survey)**



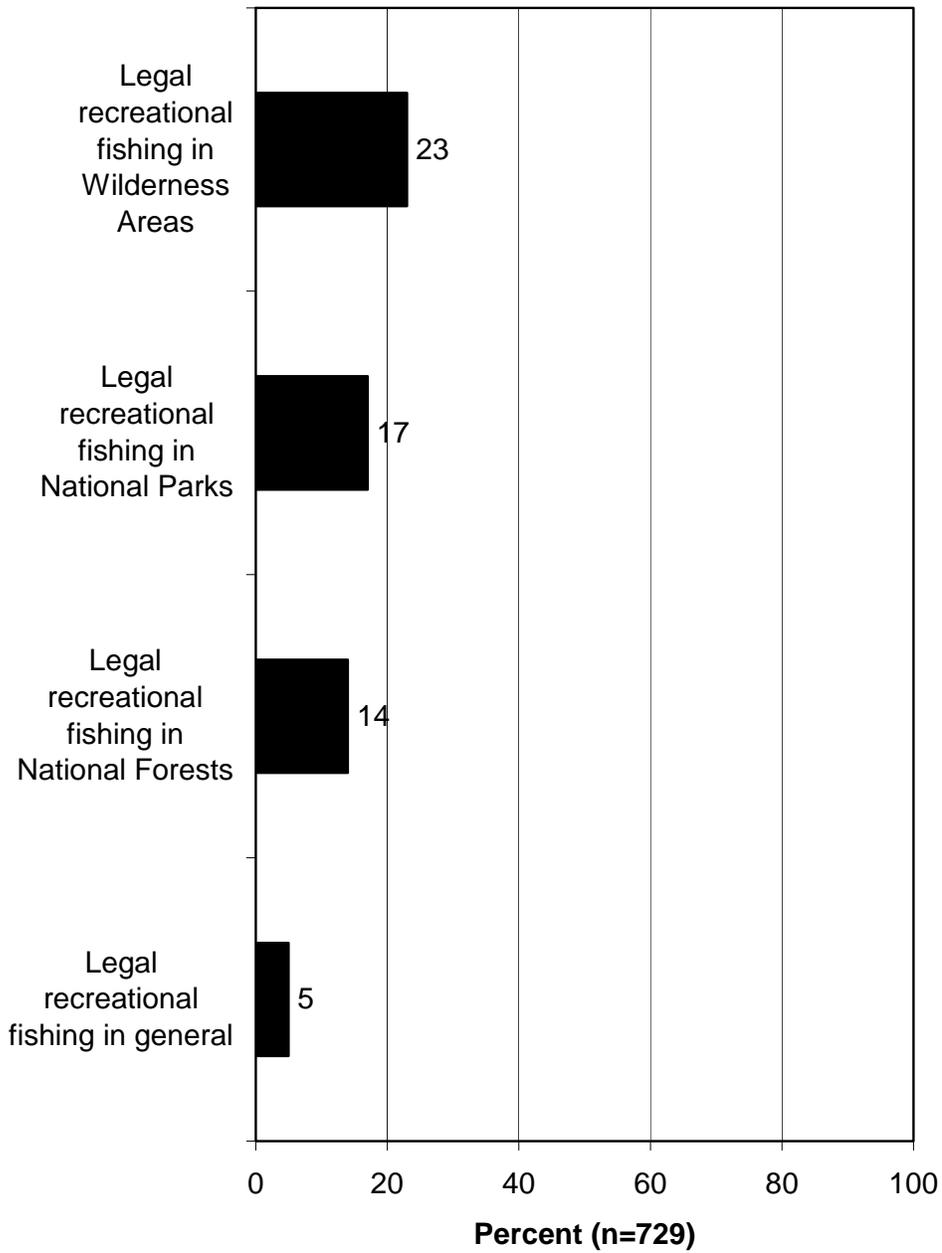
**Q13-17. Percent who strongly or moderately support fishing under the following conditions:
(National Survey)**



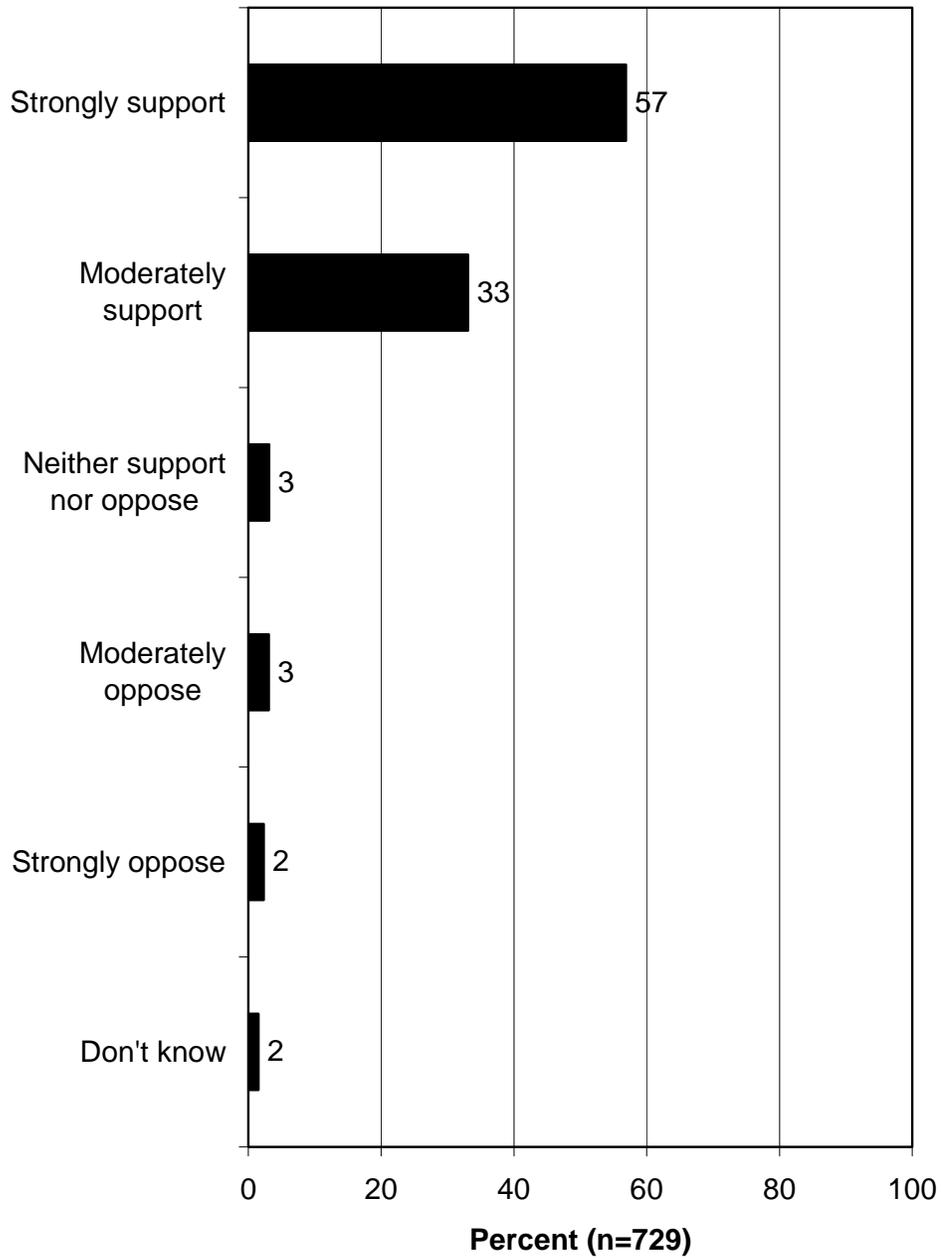
**Q13-17. Percent who strongly oppose fishing under
the following conditions:
(National Survey)**



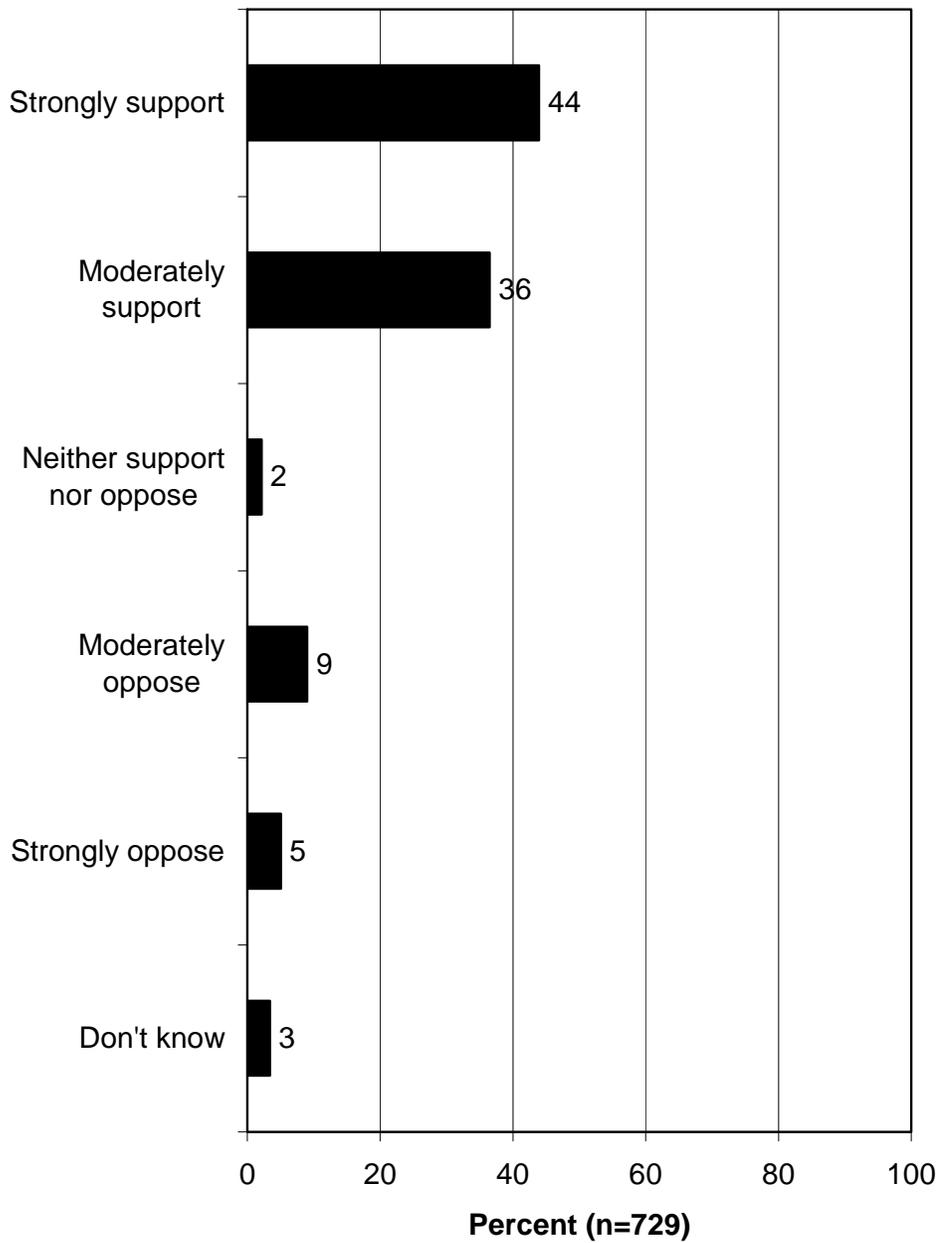
**Q13-17. Percent who strongly or moderately oppose fishing under the following conditions:
(National Survey)**



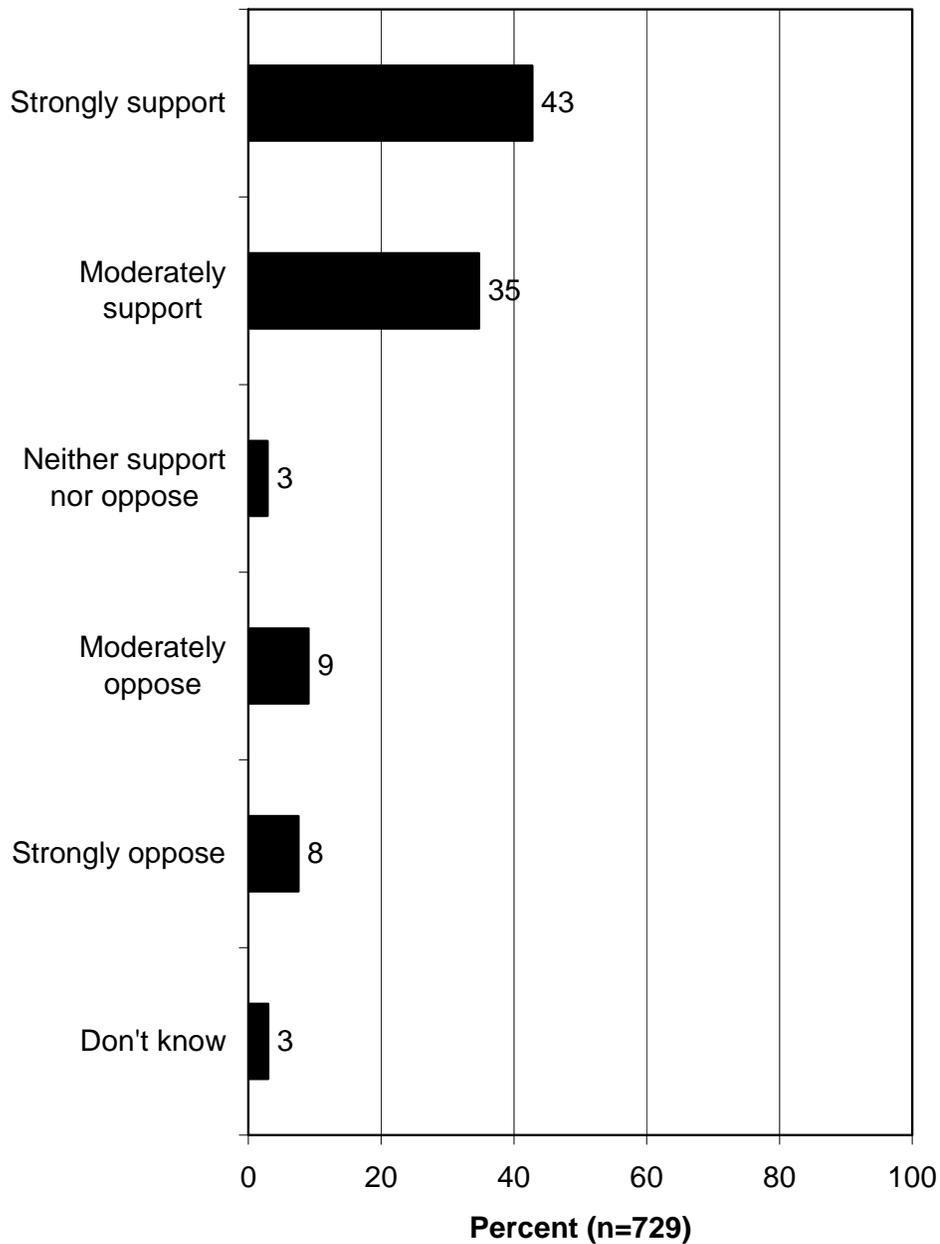
**Q13. In general, do you support or oppose legal recreational fishing?
(National Survey)**



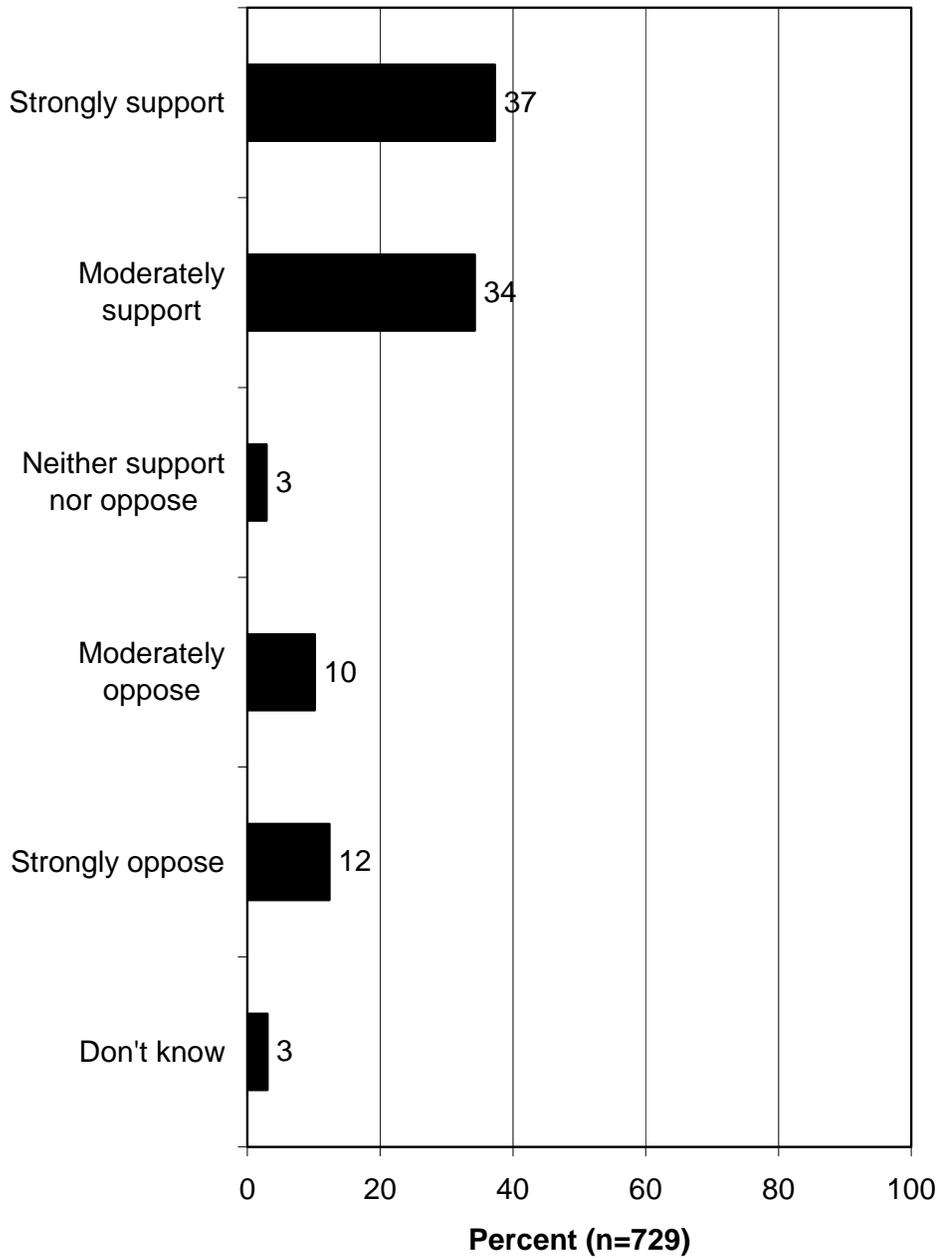
**Q14. Currently, legal recreational fishing is allowed in U.S. National Forests. Do you support or oppose allowing legal recreational fishing in U.S. National Forests?
(National Survey)**



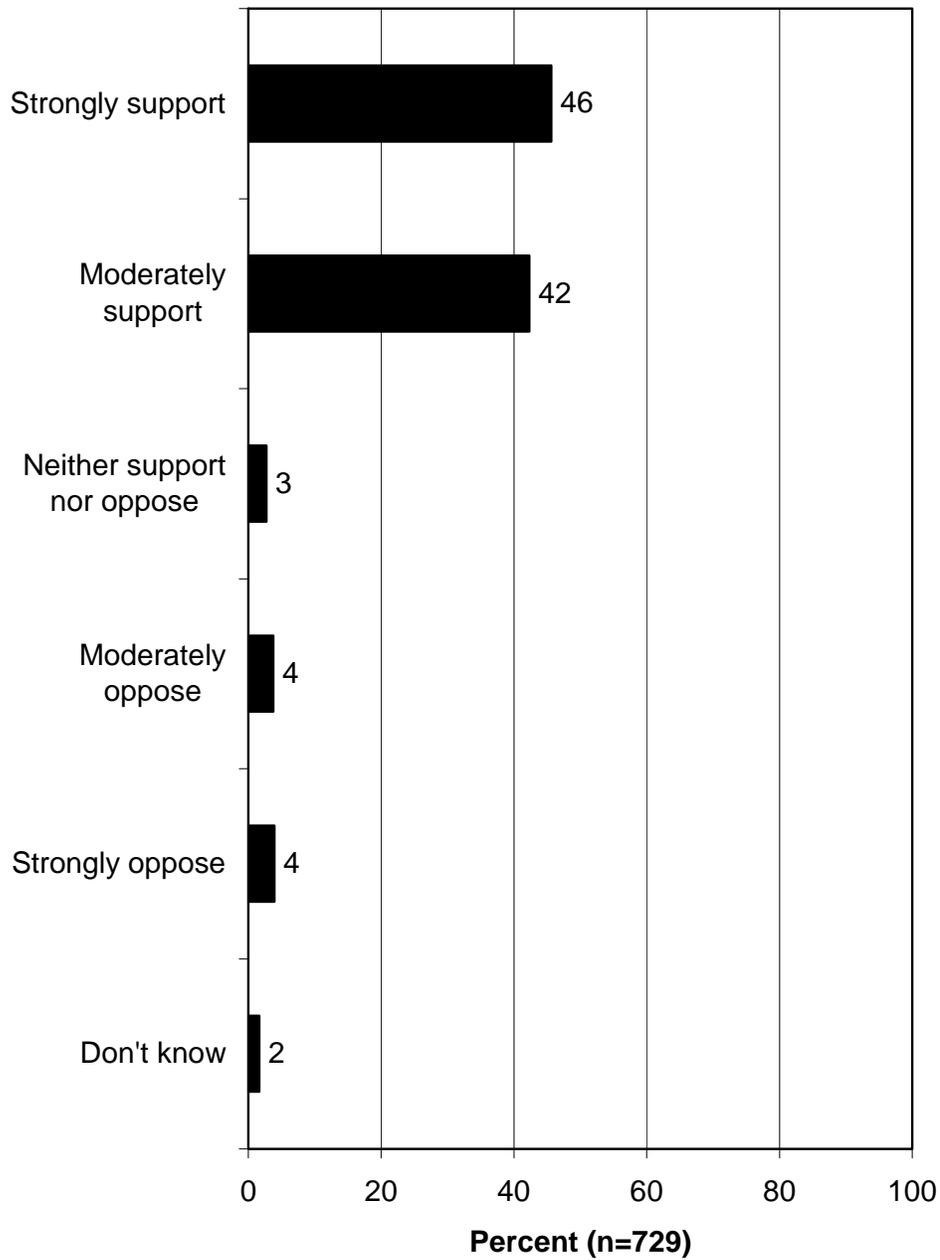
**Q15. Currently, legal recreational fishing is allowed in U.S. National Parks. Do you support or oppose allowing legal recreational fishing in U.S. National Parks?
(National Survey)**



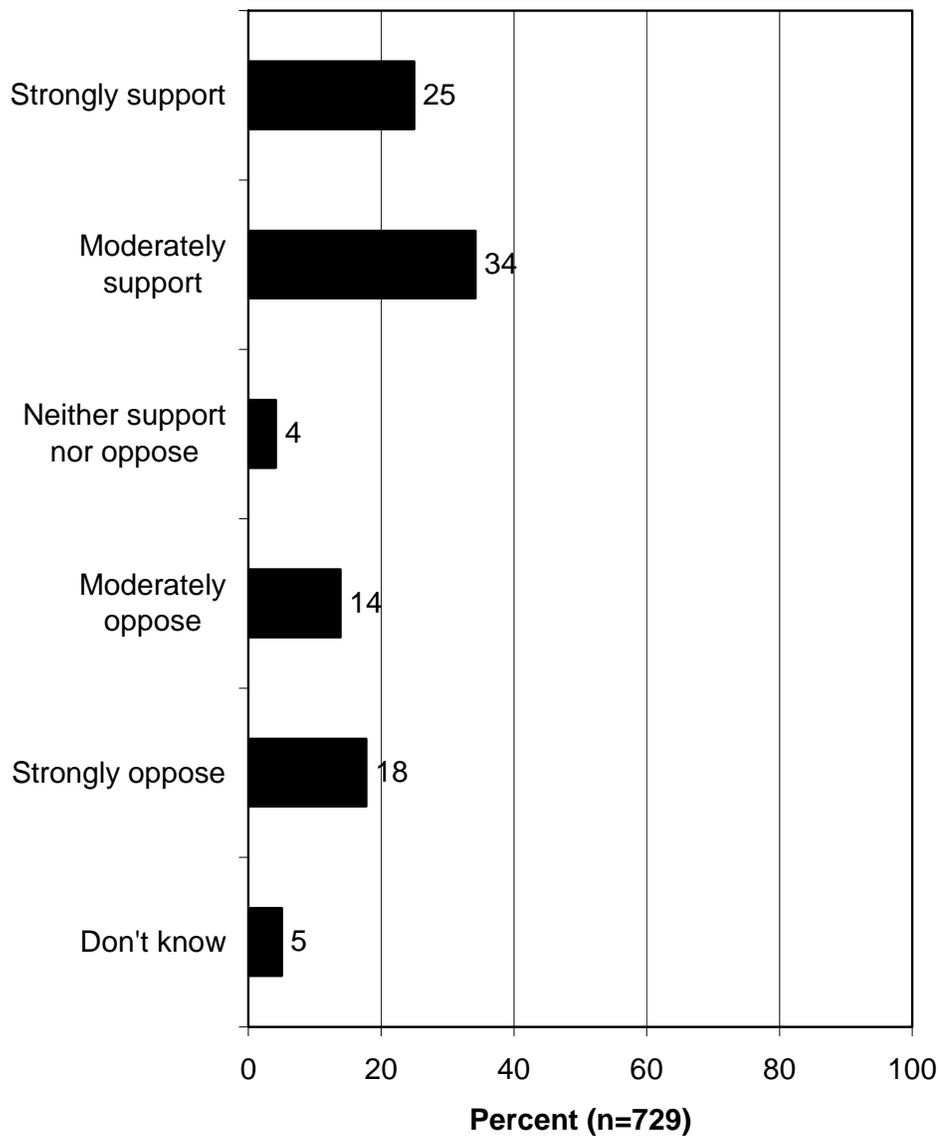
**Q17. Do you support or oppose legal recreational fishing in U.S. Wilderness Areas?
(National Survey)**



**Q25. Do you support or oppose legal recreational fishing and shellfishing in U.S. ocean waters?
(National Survey)**



Q28. If areas of U.S. ocean waters were designated in a manner similar to U.S. Wilderness Areas and human activities were restricted in the designated ocean areas, including a ban on specific human activities such as oil drilling, would you support or oppose legal recreational fishing and shellfishing in the designated ocean areas? (National Survey)



OPINIONS ON MANAGEMENT OF US OCEAN WATERS AND ON COMMERCIAL FISHING

OPINIONS ON MANAGEMENT STRATEGIES FOR OCEAN WATERS

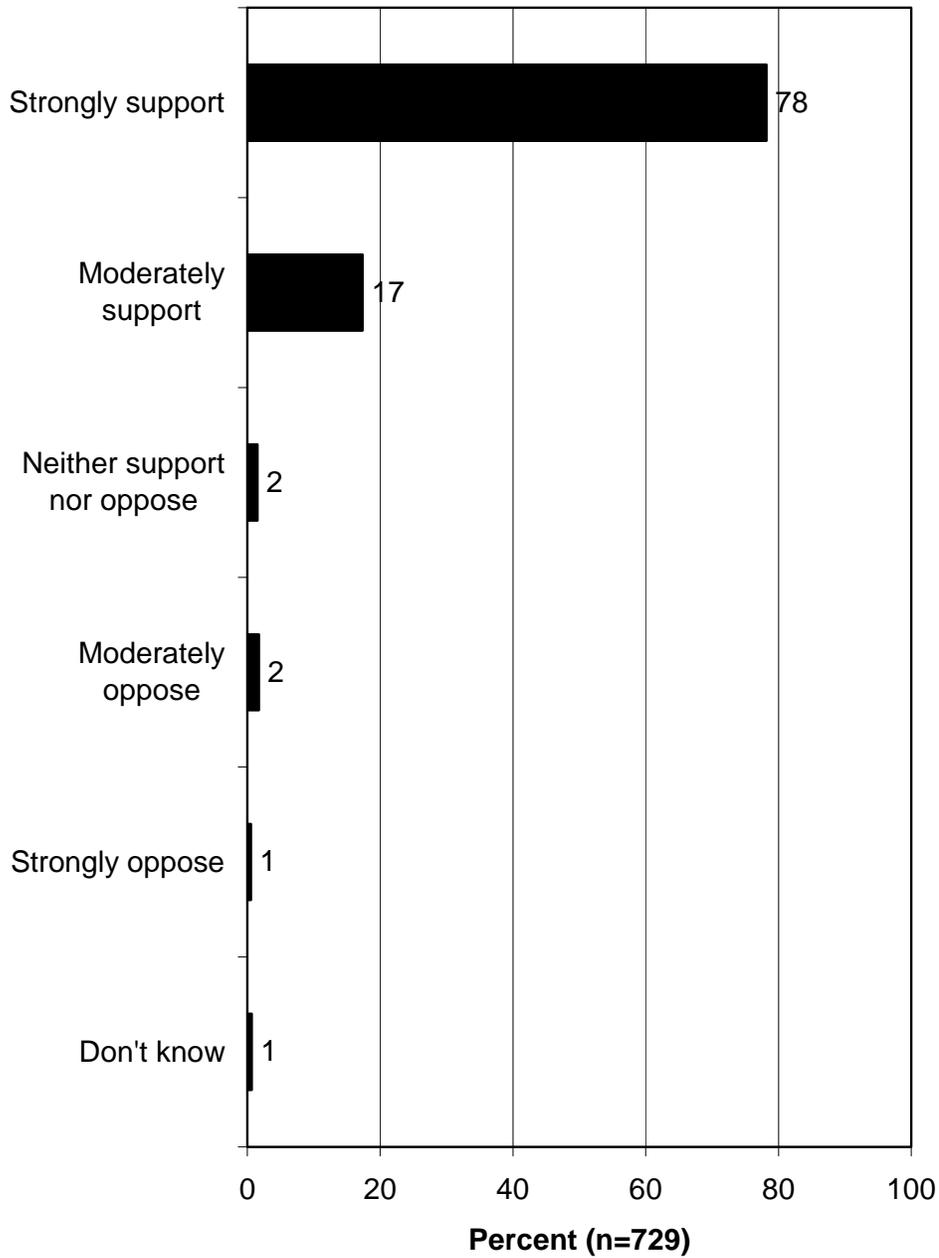
- Among U.S. residents, support for protecting U.S. ocean waters and ocean life is nearly unanimous: 78% *strongly* support doing so, and another 17% *moderately* support it, for a sum of 95% in support; only 3% indicated that they oppose.
 - An immediate follow-up question asked respondents to say what “protect” means to them in the phrase, “protect ocean waters and ocean life.” This was an open-ended question in which no answer set was read, allowing respondents to give any response that came to mind. The most common responses regarding the meaning of “protect” pertain to managing for sustainable use (29%), protecting rare and fragile habitats or sea life (21%), and protecting the environment against oil spills, pollution, dumping, etc. (20%). Only 8% gave an answer that pertained to excluding any human use.

- The survey asked a series of questions about the importance to the respondent of knowing that U.S. ocean waters are managed to allow seven items. Three items stand out in a ranking by the percentage of respondents thinking them to be *very* important: protection of all U.S. ocean waters and ocean life in general (81% think this is *very* important), sustainable use, which is the use or harvest of the ocean resources in a way that does not permanently deplete or damage the resources (77%), and protection of all U.S. ocean waters and ocean life from any human activities that cause harm or destruction (also 77%).
 - When looking at *very* and *somewhat* important responses combined, all items are considered important by a large majority, ranging from 73% to 97%.
 - The seven items asked about were:
 - Legal recreational fishing and shellfishing
 - Legal commercial fishing and shellfishing
 - Sustainable use, which is the use or harvest of the ocean resources in a way that does not permanently deplete or damage the resources
 - Recreational activities, such as boating, skiing, diving, snorkeling and fishing
 - The protection of all U.S. ocean waters and ocean life in general
 - The protection of all U.S. ocean waters and ocean life from any human activities that cause harm or destruction
 - The protection of some U.S. ocean water areas from all human use

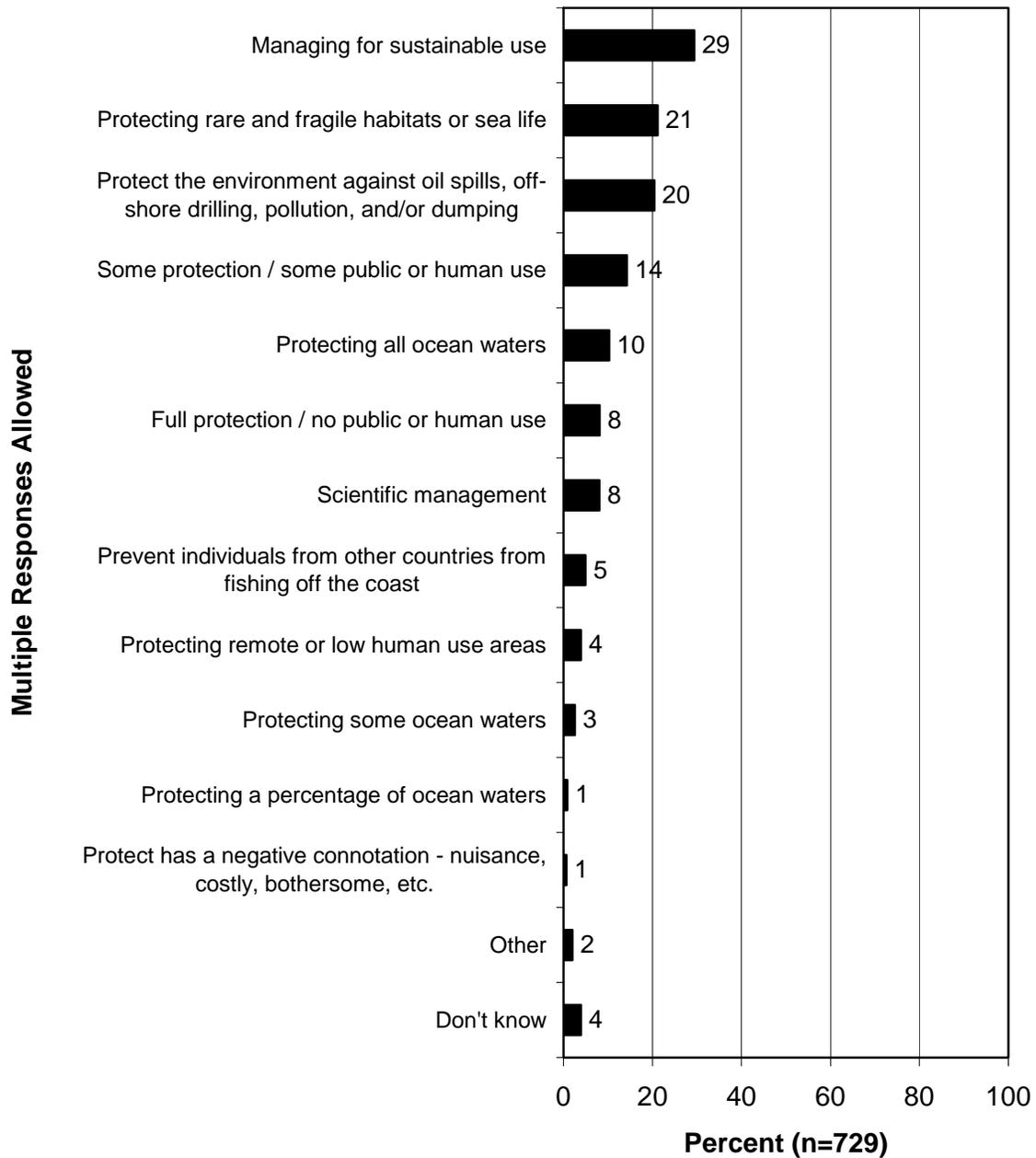
- Five statements were read to respondents, in a scale from virtually no restrictions to complete restrictions, and for each statement respondents were asked if they agreed or disagreed with it.
 - Agreement is highest for the statements in the middle of the scale: 91% agree that “some U.S. ocean water areas should be protected but open to public human use and scientifically managed for sustainable use,” and 82% agree that “all U.S. ocean waters should be open to public human use but should be scientifically managed for sustainable use.”
 - *Disagreement* is particularly high (86%) with the statement, “All U.S. ocean waters should be fully protected with no human use allowed.” There is also relatively high *disagreement* (43%) with the statement, “All U.S. ocean waters should be open to public human use.”
 - The five statements were:
 - All U.S. ocean waters should be open to public human use.
 - All U.S. ocean waters should be open to public human use but should be scientifically managed for sustainable use.
 - Some U.S. ocean water areas should be protected but open to public human use and scientifically managed for sustainable use.
 - Some U.S. ocean water areas should be fully protected with no human use allowed.
 - All U.S. ocean waters should be fully protected with no human use allowed.
- The survey asked respondents who had previously agreed that some U.S. ocean waters should be fully protected with no human use allowed if they would agree or disagree that some U.S. ocean waters should be fully protected from all human use, *even if sustainable use were possible*: the majority agree (70%), while 22% disagree.
- Similar to the question above, the survey asked respondents who had previously agreed that *all* U.S. ocean waters should be fully protected with no human use allowed if they would agree or disagree that *all* U.S. ocean waters should be fully protected from all human use, *even if sustainable use were possible*: the majority agree (60%), while 36% disagree. (Note that the sample size was small, as few respondents had previously agreed that *all* U.S. ocean waters should be fully protected with no human use allowed and, therefore, received the question.)

- The survey asked if respondents would support or oppose the choice of management option that allowed for recreational fishing and shellfishing, if there were several management options that provided the same amount of protection and similar benefits for U.S. ocean resources: a large majority (84%) would support, while only 8% would oppose. An analogous question was asked about *commercial* fishing and shellfishing, and in that question a majority (76%) would support, while 17% would oppose (a level of support for *commercial* fishing/shellfishing that is slightly less than for *recreational* fishing/shellfishing).
- The survey asked U.S. residents if they would support or oppose recreational fishing and shellfishing in U.S. ocean waters that were protected but scientifically managed for sustainable use: 71% would support, while 23% would oppose. An analogous question asked the same thing about *commercial* fishing and shellfishing: 58% would support, while 35% would oppose. Again, the level of support for *recreational* fishing/shellfishing is higher than for *commercial* fishing/shellfishing.
- Respondents in the survey were asked about three possible ways to select areas, if some ocean areas were to be selected for protection and management for sustainable use. The three ways to select areas for protection/management for sustainable use were identifying a percentage of the ocean waters to protect, identifying specific areas with rare and fragile habitats or sea life to protect, or identifying remote or low human use areas. Overwhelmingly, respondents chose the second way: identifying specific areas with rare and fragile habitats or sea life to protect (67%, far exceeding any other response, the closest which was at 8%).
 - Those who chose the first way, protecting a certain percentage of ocean waters, were asked in follow-up to indicate the percentage that should be protected. They most commonly chose a percentage for protection of 80 percent or more (38% gave an answer within that range). The mean was 71 percent.

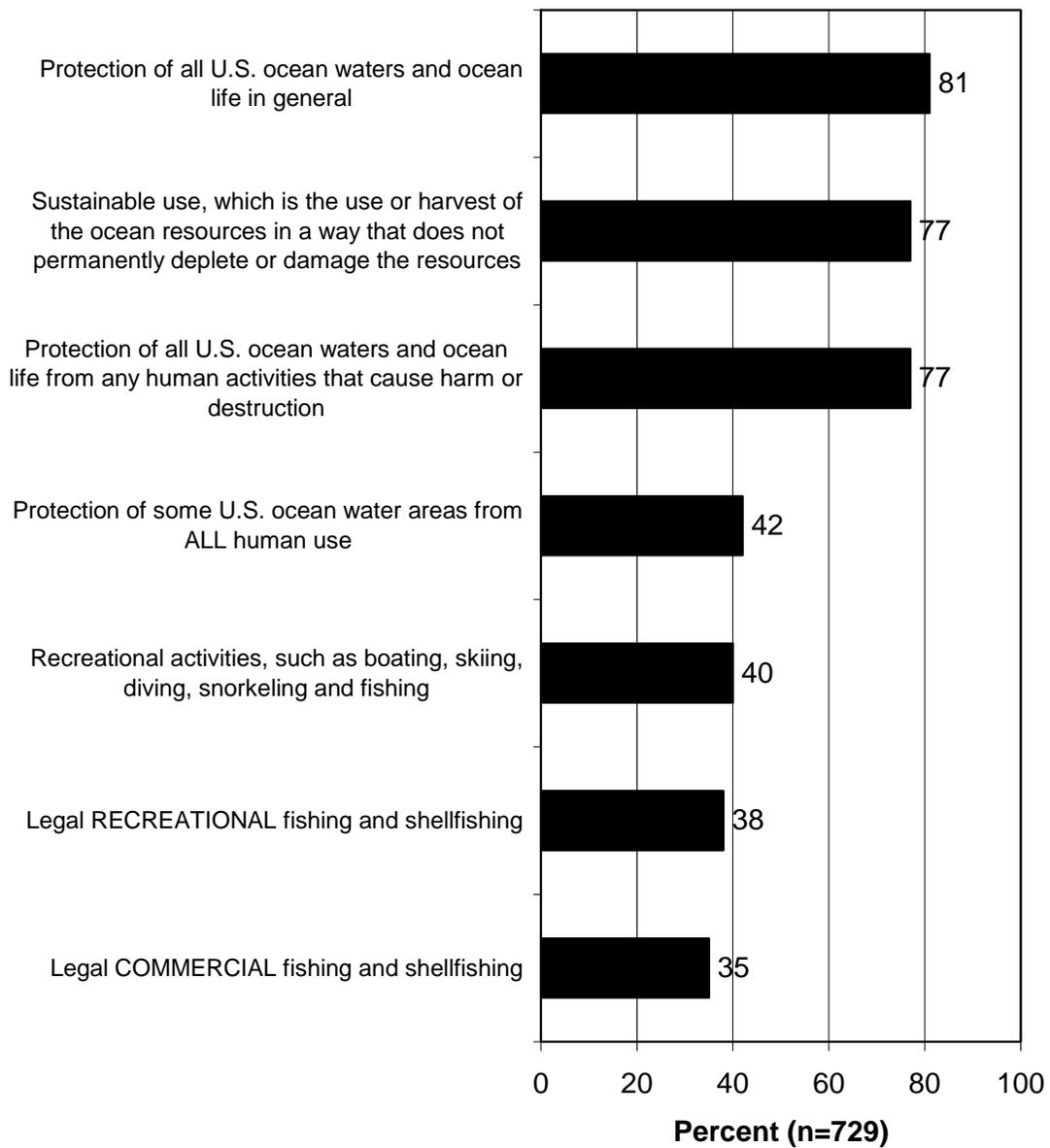
**Q19. In general, do you support or oppose efforts to protect U.S. ocean waters and ocean life?
(National Survey)**



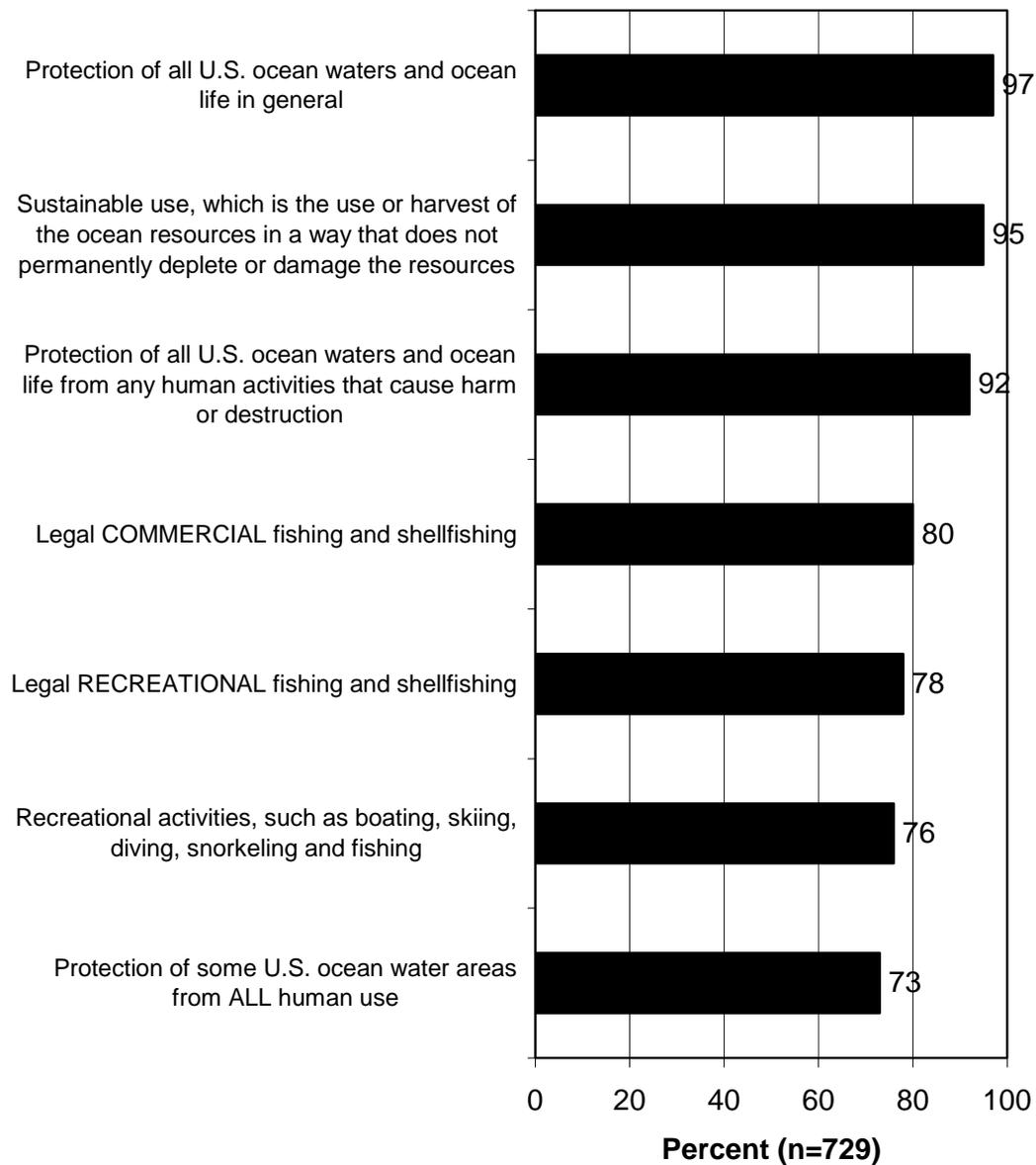
**Q22. When I say "protect" U.S. ocean waters and ocean life, what does the term "protect" mean to you?
(National Survey)**



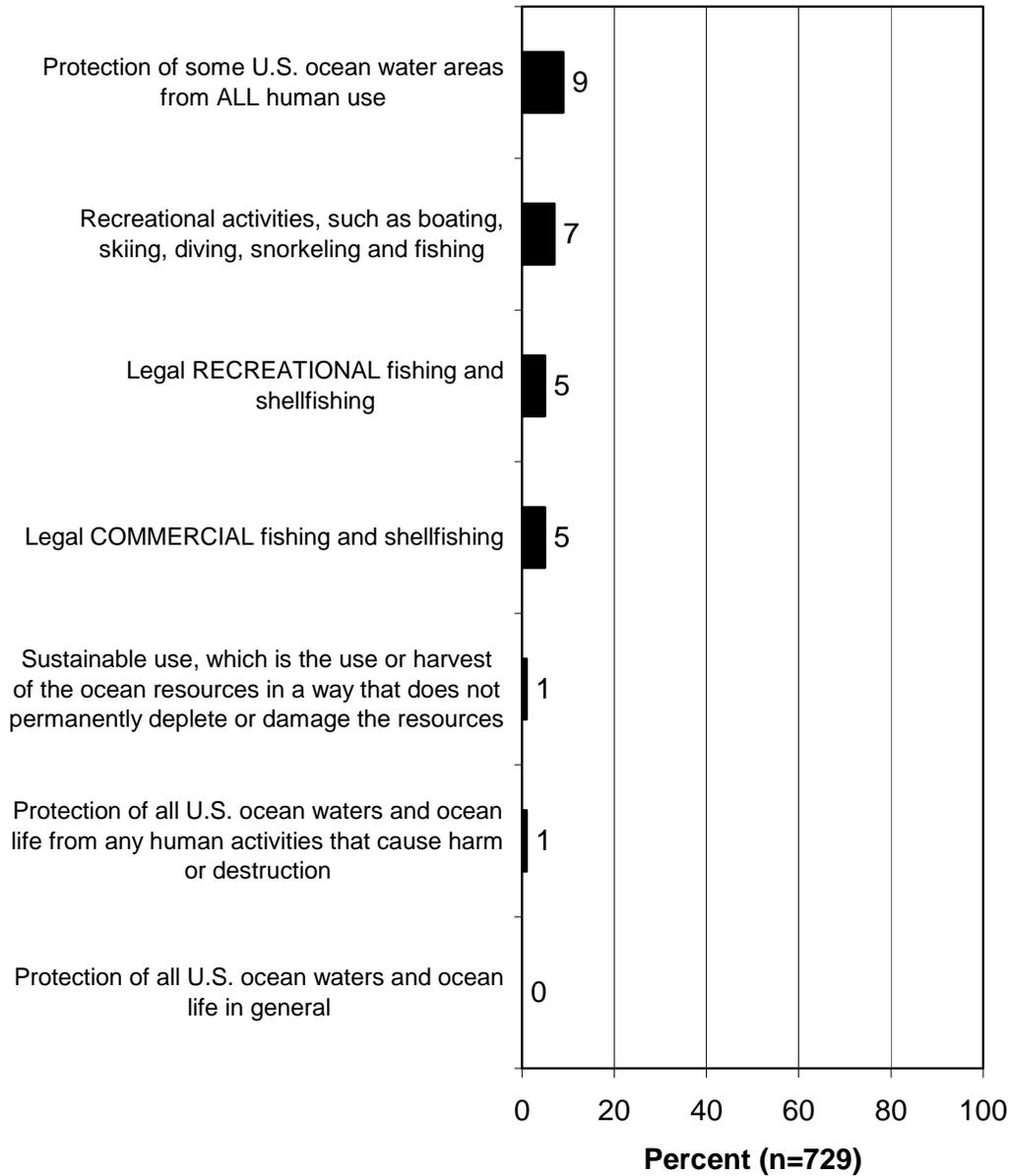
**Q32-38. Percent who indicated that it is very important to them to know that U.S. ocean waters are managed to allow for each of the following:
(National Survey)**



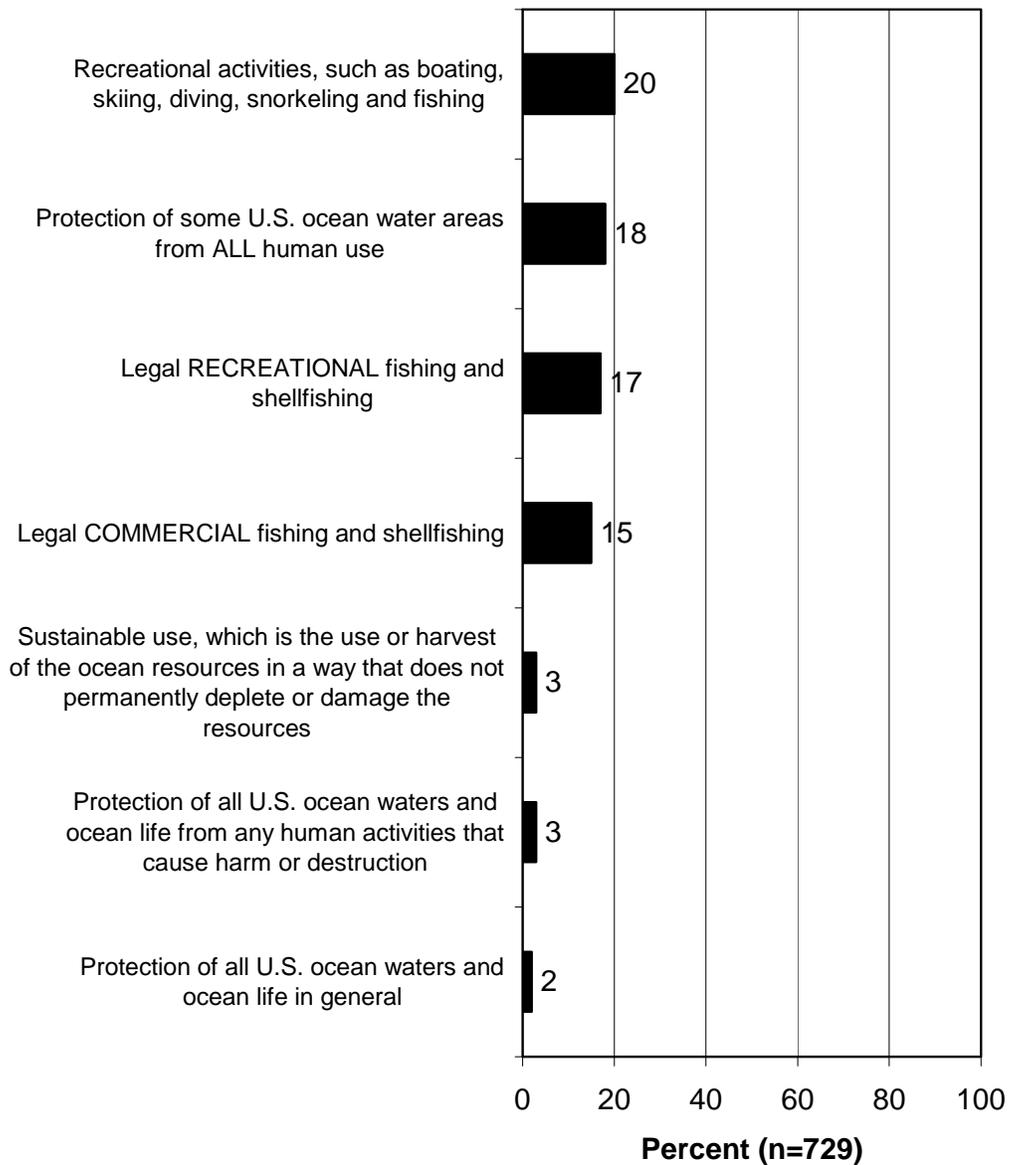
**Q32-38. Percent who indicated that it is very or somewhat important to them to know that U.S. ocean waters are managed to allow for each of the following:
(National Survey)**



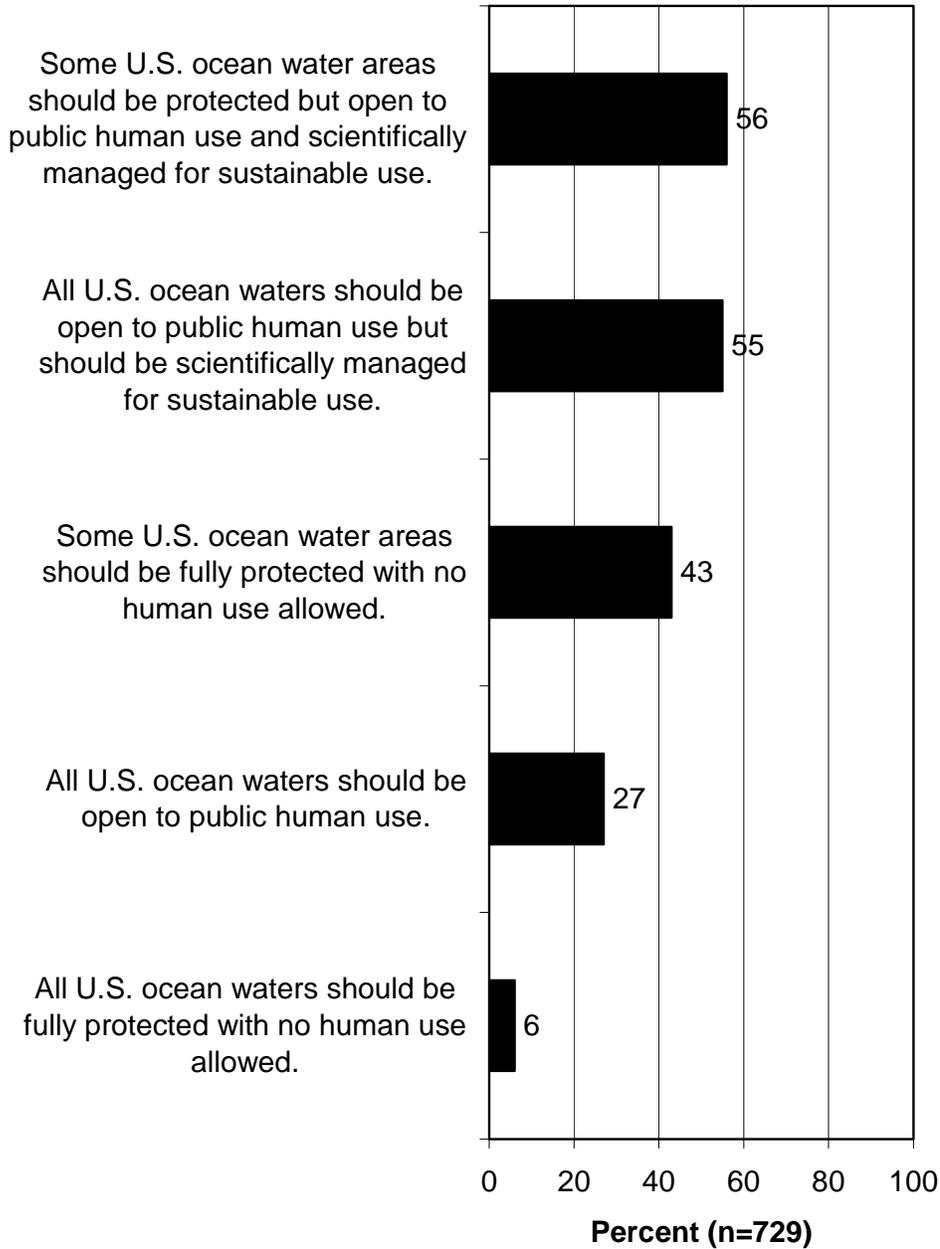
**Q32-38. Percent who indicated that it is very unimportant to them to know that U.S. ocean waters are managed to allow for each of the following:
(National Survey)**



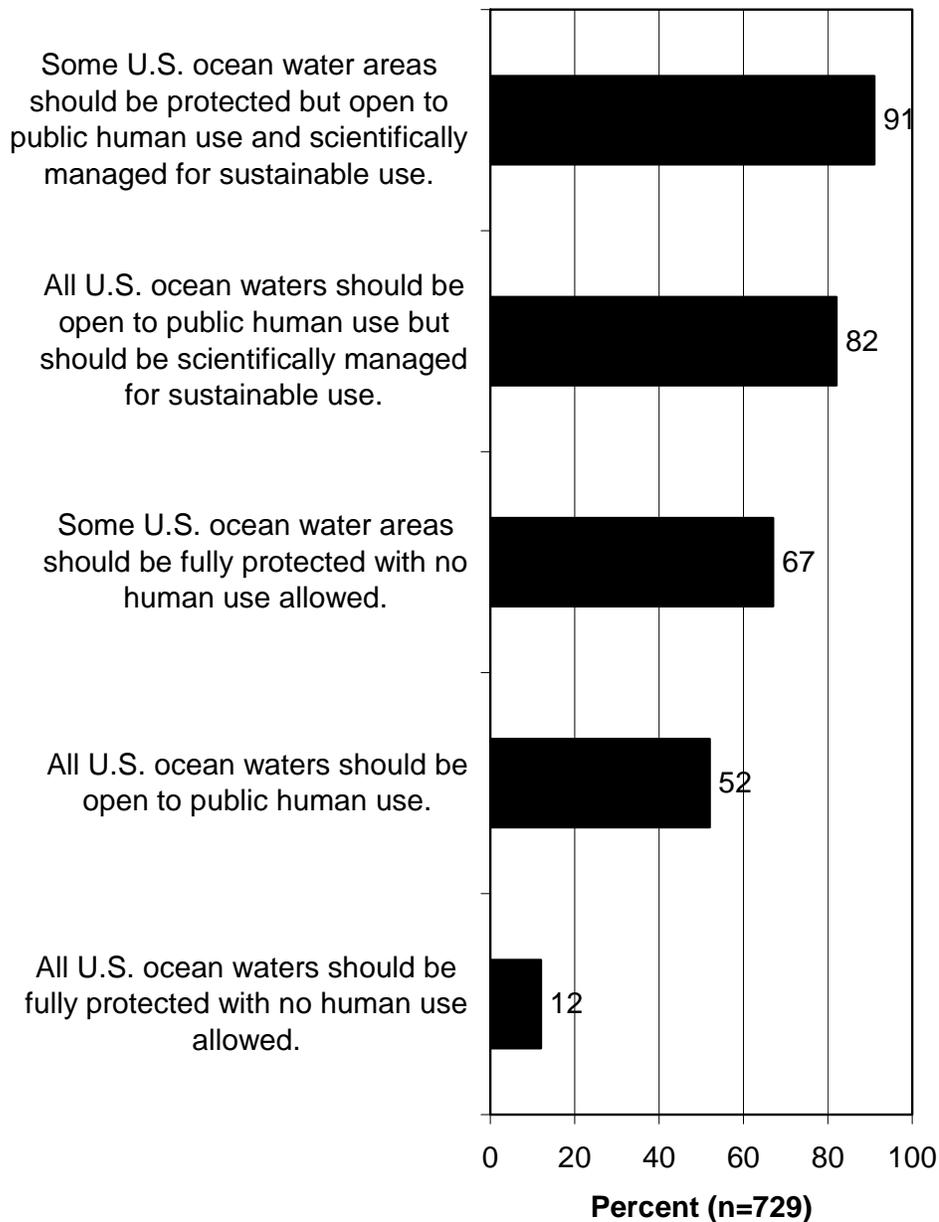
**Q32-38. Percent who indicated that it is very or somewhat unimportant to them to know that U.S. ocean waters are managed to allow for each of the following:
(National Survey)**



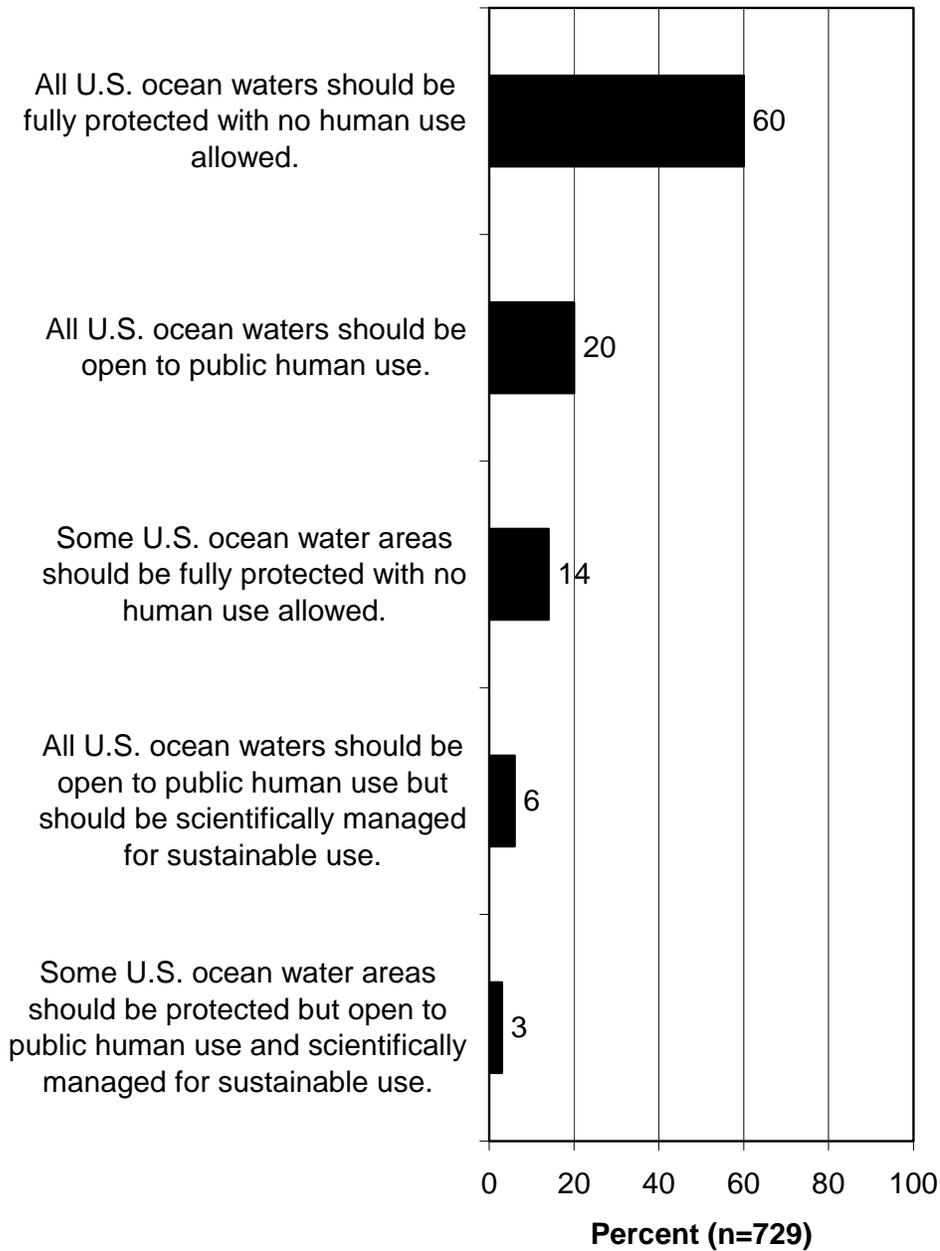
Q41-45. Percent who strongly agree with the following statements about U.S. ocean waters: (National Survey)



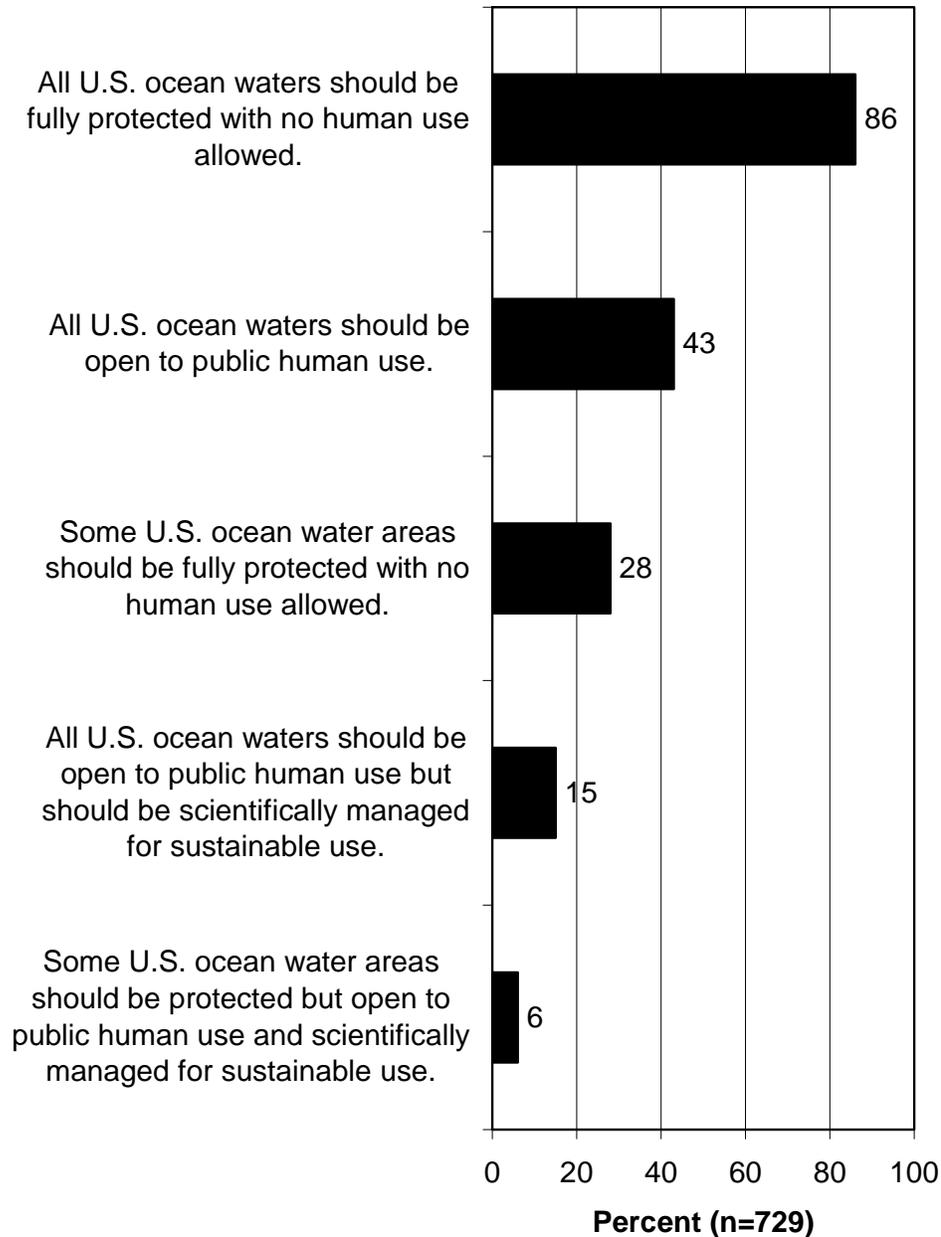
**Q41-45. Percent who strongly or moderately agree with the following statements about U.S. ocean waters:
(National Survey)**



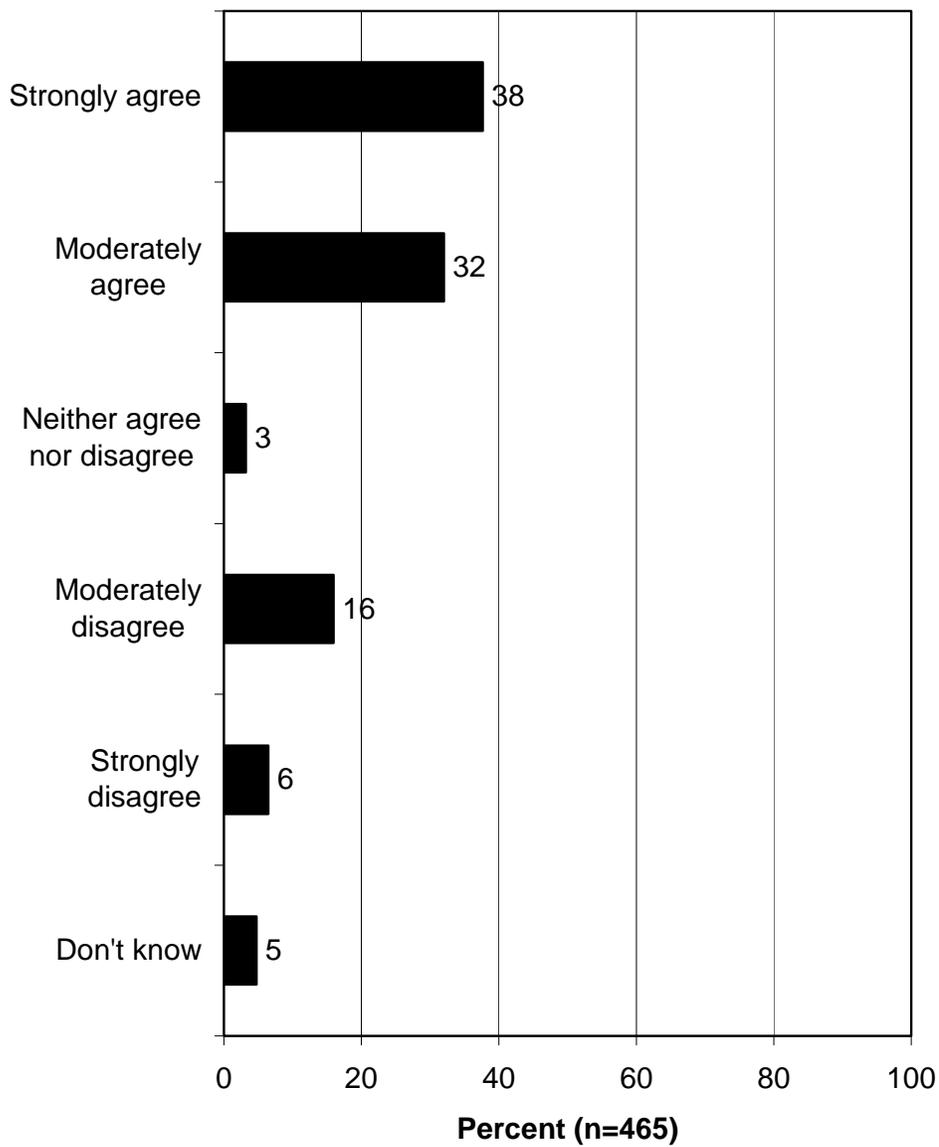
Q41-45. Percent who strongly disagree with the following statements about U.S. ocean waters: (National Survey)



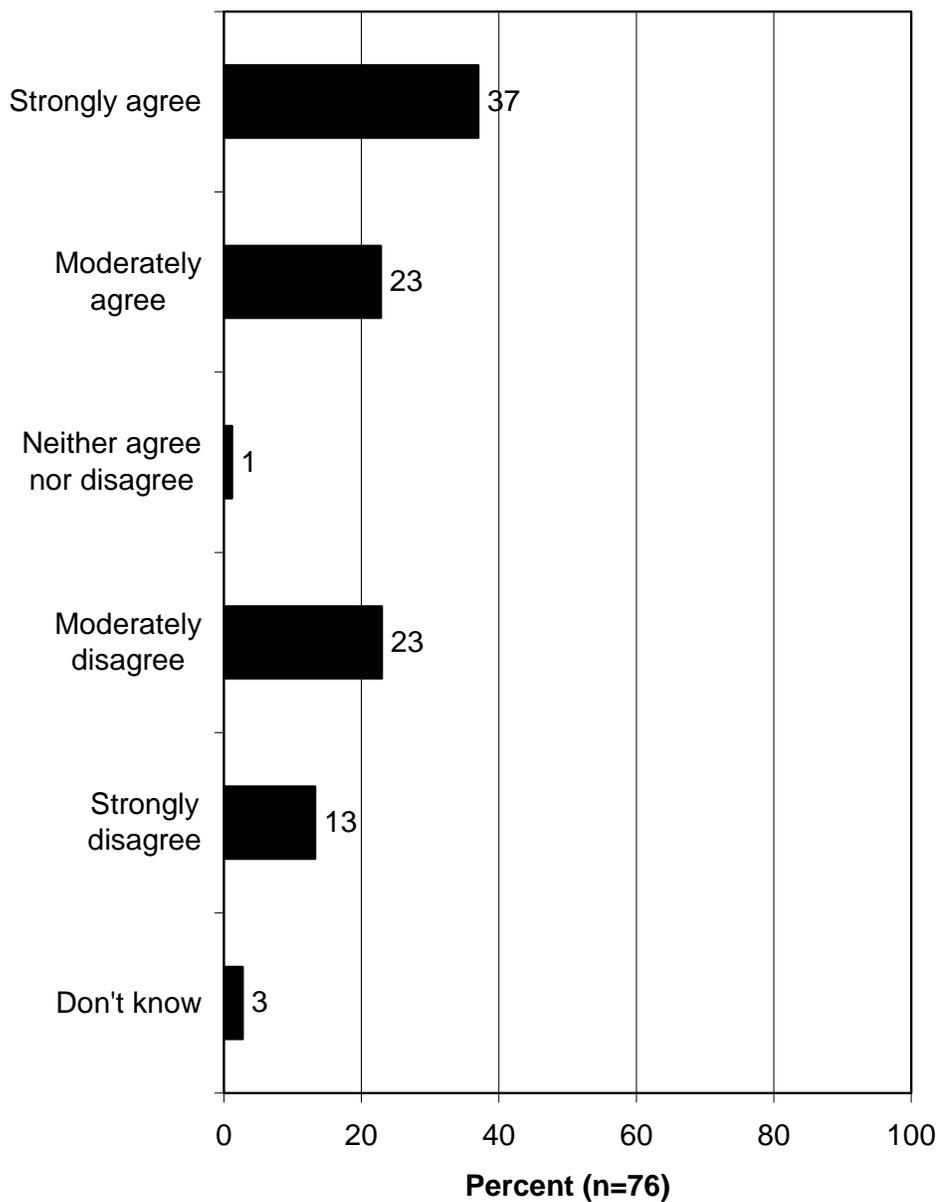
**Q41-45. Percent who strongly or moderately disagree with the following statements about U.S. ocean waters:
(National Survey)**



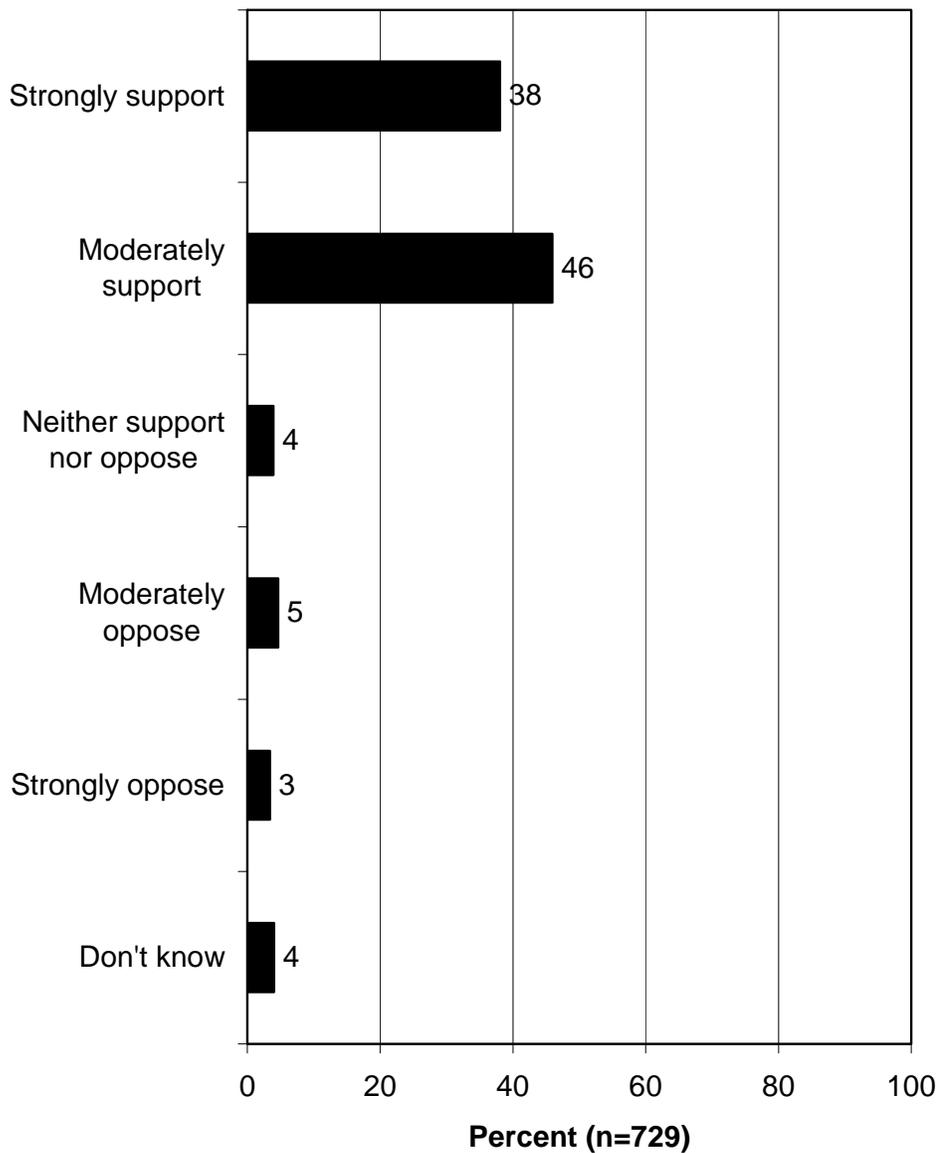
**Q47. Do you agree or disagree that some U.S. ocean water areas should be fully protected from all human use even if sustainable use is possible? (Asked of individuals who agree that some U.S. ocean water areas should be fully protected with no human use allowed.)
(National Survey)**



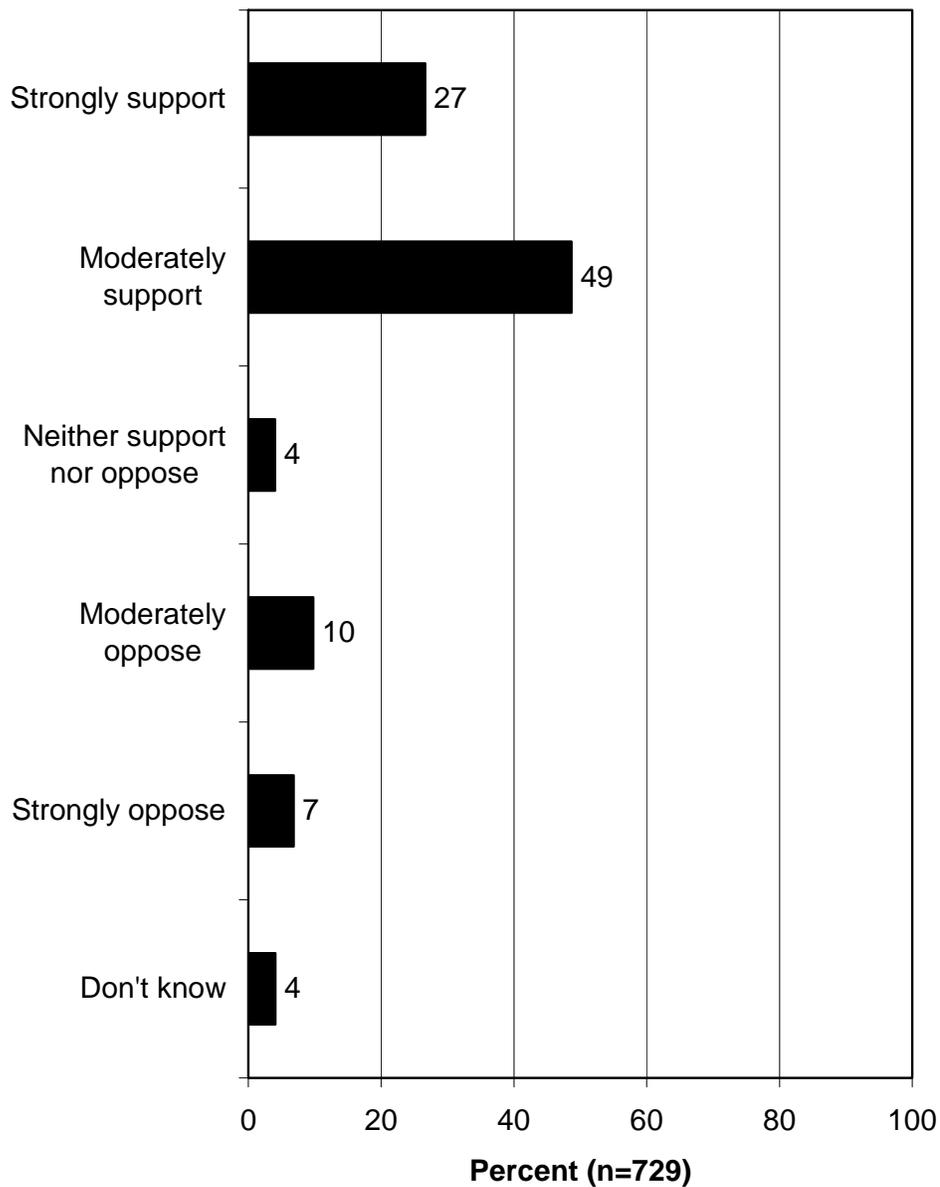
**Q48. Do you agree or disagree that all U.S. ocean waters should be fully protected from all human use even if sustainable use is possible? (Asked of individuals who agree that all U.S. ocean water areas should be fully protected with no human use allowed.)
(National Survey)**



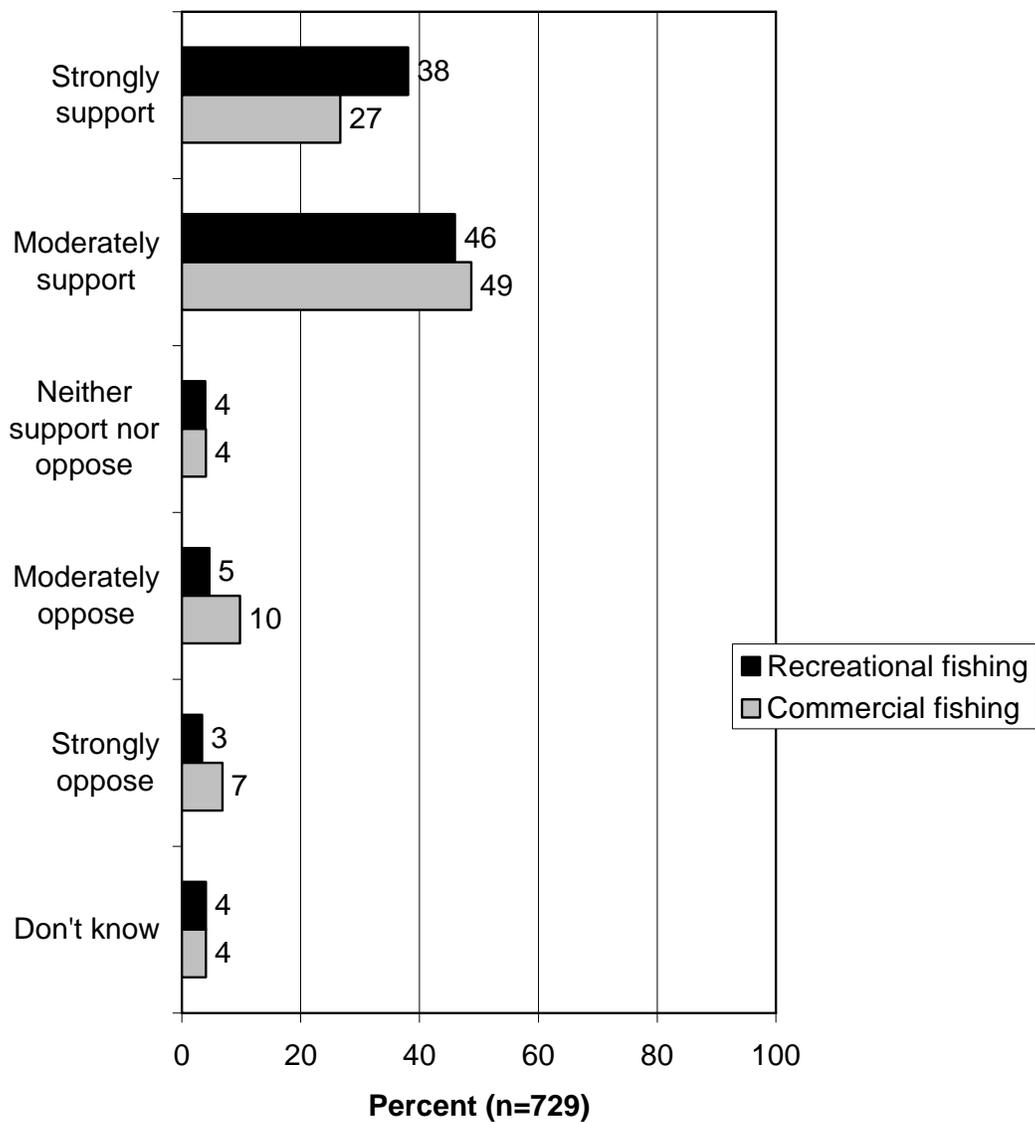
**Q49. Ocean resource managers have several options for managing ocean resources. If each ocean management option provides about the same amount of protection and similar benefits for U.S. ocean resources, would you support or oppose the option that allows recreational fishing and shellfishing?
(National Survey)**



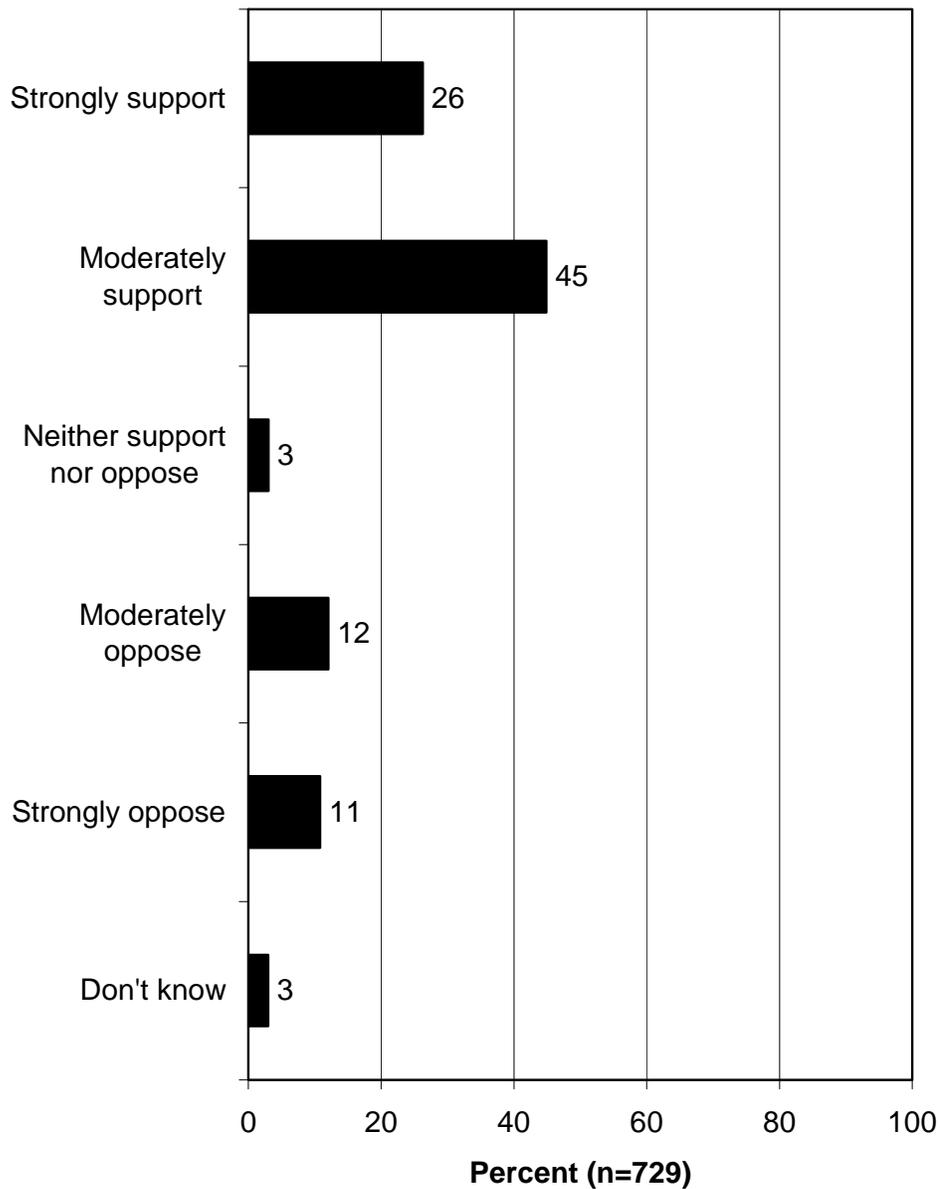
**Q50. If each management option provides about the same amount of protection and similar benefits for U.S. ocean resources, would you support or oppose the option that allows commercial fishing and shellfishing?
(National Survey)**



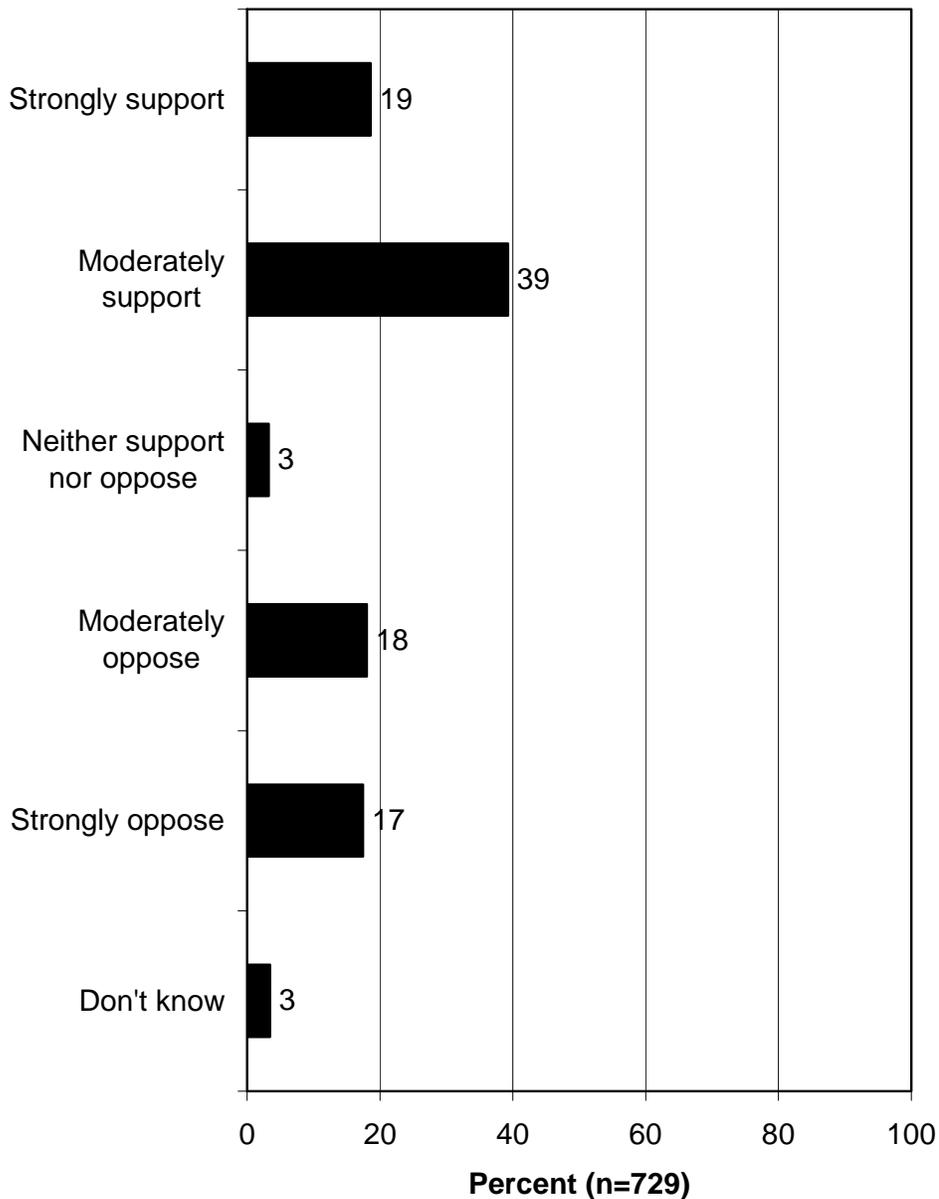
**Q49/50. Ocean resource managers have several options for managing ocean resources. If each ocean management option provides about the same amount of protection and similar benefits for U.S. ocean resources, would you support or oppose the option that allows recreational/commercial fishing and shellfishing?
(National Survey)**



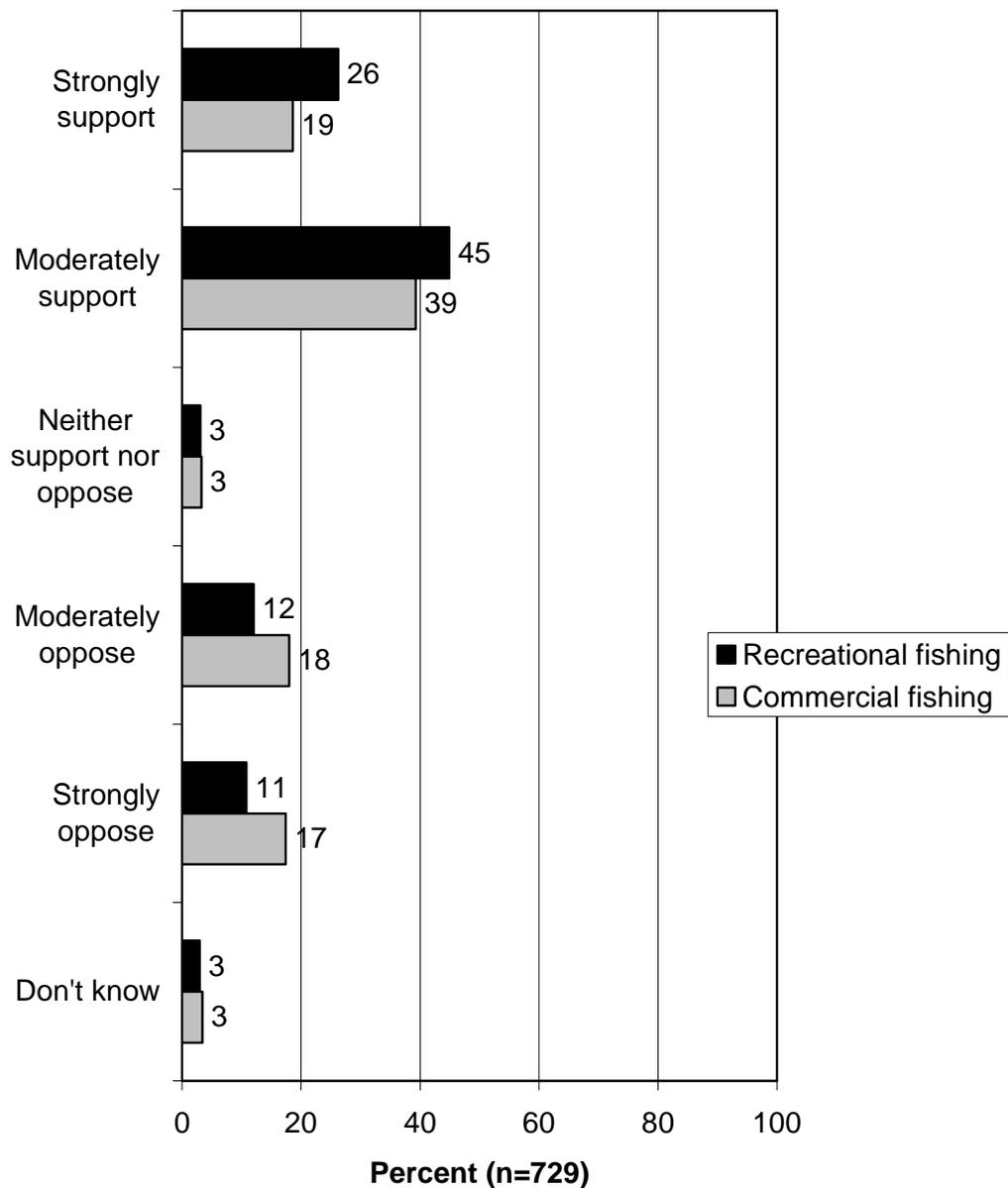
**Q55. If some U.S. ocean water areas were protected but scientifically managed for sustainable use, would you support or oppose recreational fishing and shellfishing in these areas?
(National Survey)**



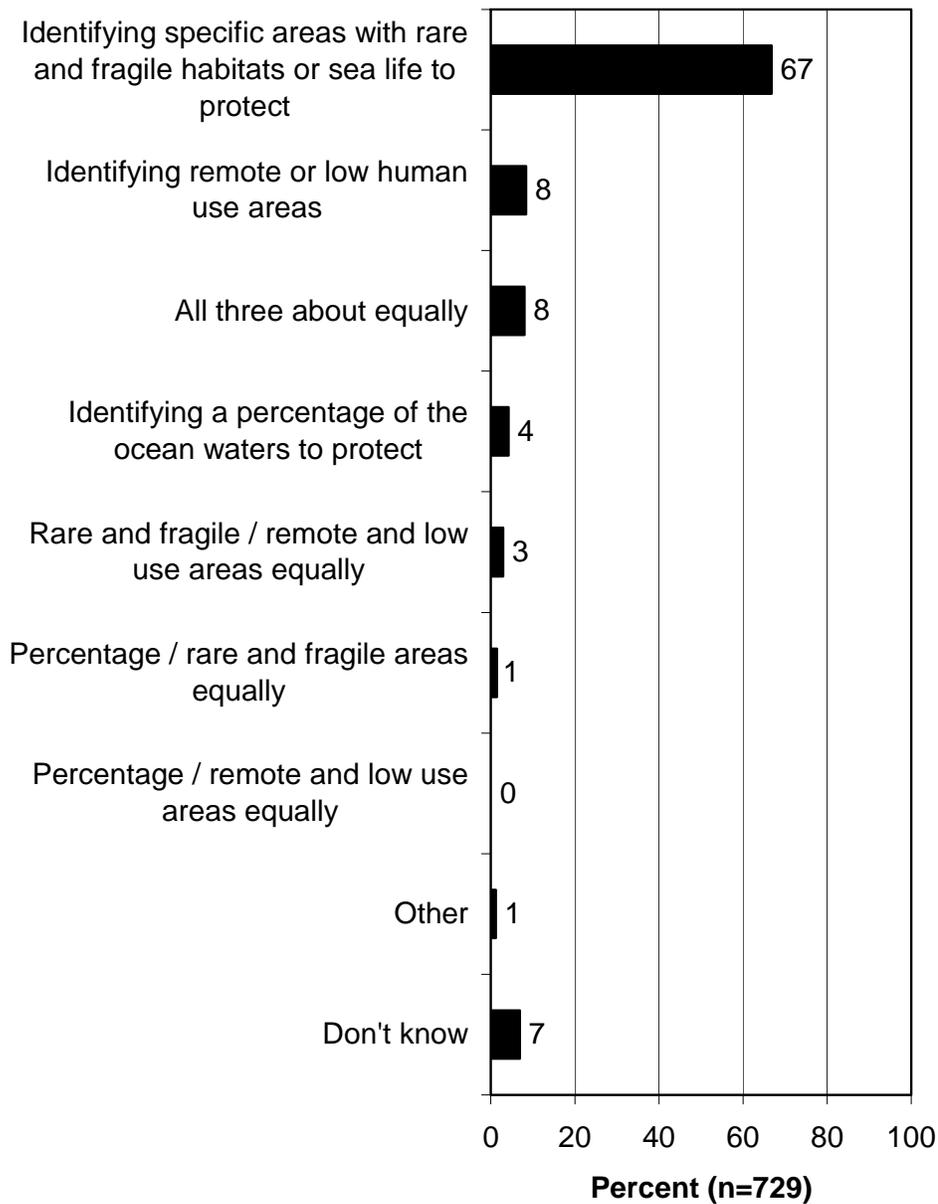
**Q56. If some U.S. ocean water areas were protected but scientifically managed for sustainable use, would you support or oppose commercial fishing and shellfishing in these areas?
(National Survey)**



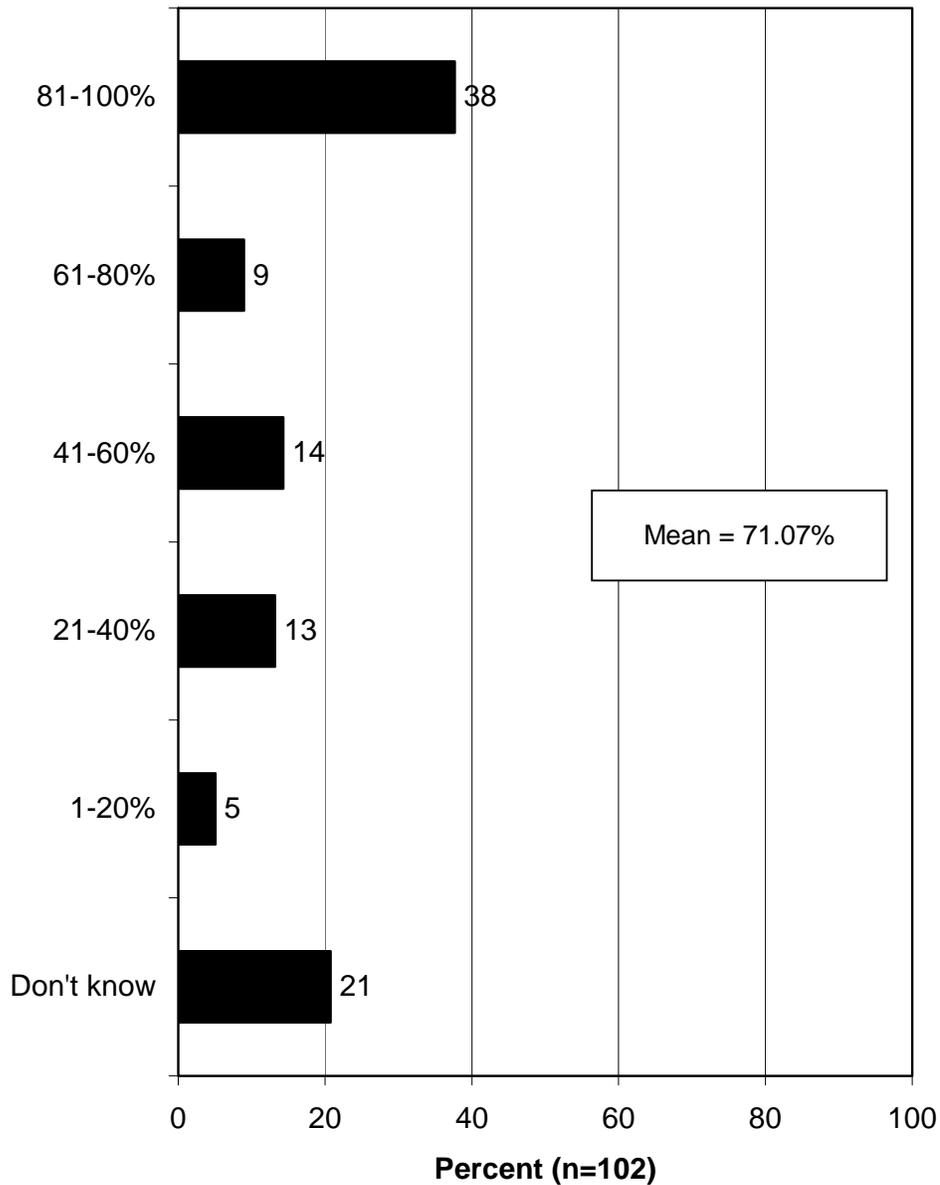
**Q55/56. If some U.S. ocean water areas were protected but scientifically managed for sustainable use, would you support or oppose recreational/commercial fishing and shellfishing in these areas?
(National Survey)**



**Q51. If some U.S. ocean water areas were protected but scientifically managed for sustainable use, how do you think the water areas to be protected should be selected?
(National Survey)**



**Q53. In your opinion, what percentage of the ocean waters should be protected? (Asked of individuals who believe that some U.S. ocean water areas should be protected by identifying a percentage of ocean waters to protect.)
(National Survey)**



OPINIONS ON COMMERCIAL FISHING AND HARVESTING OCEAN RESOURCES

- The overwhelming majority of U.S. residents support (86%) legal commercial fishing and shellfishing in U.S. ocean waters; only 11% oppose. Likewise, the overwhelming majority of U.S. residents support (81%) using, or harvesting, U.S. ocean resources, such as fish and other ocean life; only 13% oppose.
 - A comparison of opinions on recreational versus commercial fishing and shellfishing shows that opinions are nearly the same, with *strong* support for recreational fishing and shellfishing just slightly higher than for commercial fishing and shellfishing.

- Opinion is about evenly split among U.S. residents regarding legal commercial fishing and shellfishing in ocean waters that would be designated in a manner similar to Wilderness Areas in which specific human activities would be restricted: 47% of U.S. residents support, and 44% of them oppose.
 - A comparison of opinions on recreational versus commercial fishing and shellfishing in ocean waters that would be designated in a manner similar to Wilderness Areas shows much more support for recreational fishing over commercial fishing: support is at 59% for *recreational* fishing and shellfishing in those waters, compared to 47% for *commercial* fishing and shellfishing.

- As previously reported, the survey asked if respondents would support or oppose the choice of management option that allowed for commercial fishing and shellfishing, if there were competing management options that provided the *same* amount of protection and similar benefits for U.S. ocean resources: more than three-fourths (76%) would support the option that allowed for commercial fishing and shellfishing. Note that this question was paired with a question that asked about *recreational* fishing and shellfishing, and *recreational* fishing/shellfishing had slightly more support than did *commercial* fishing/ shellfishing. (These graphs are shown in the section of this report titled, “Opinions on Management Strategies for Ocean Waters.”)

- As previously reported, the survey asked U.S. residents if they would support or oppose commercial fishing and shellfishing in U.S. ocean waters that were protected but

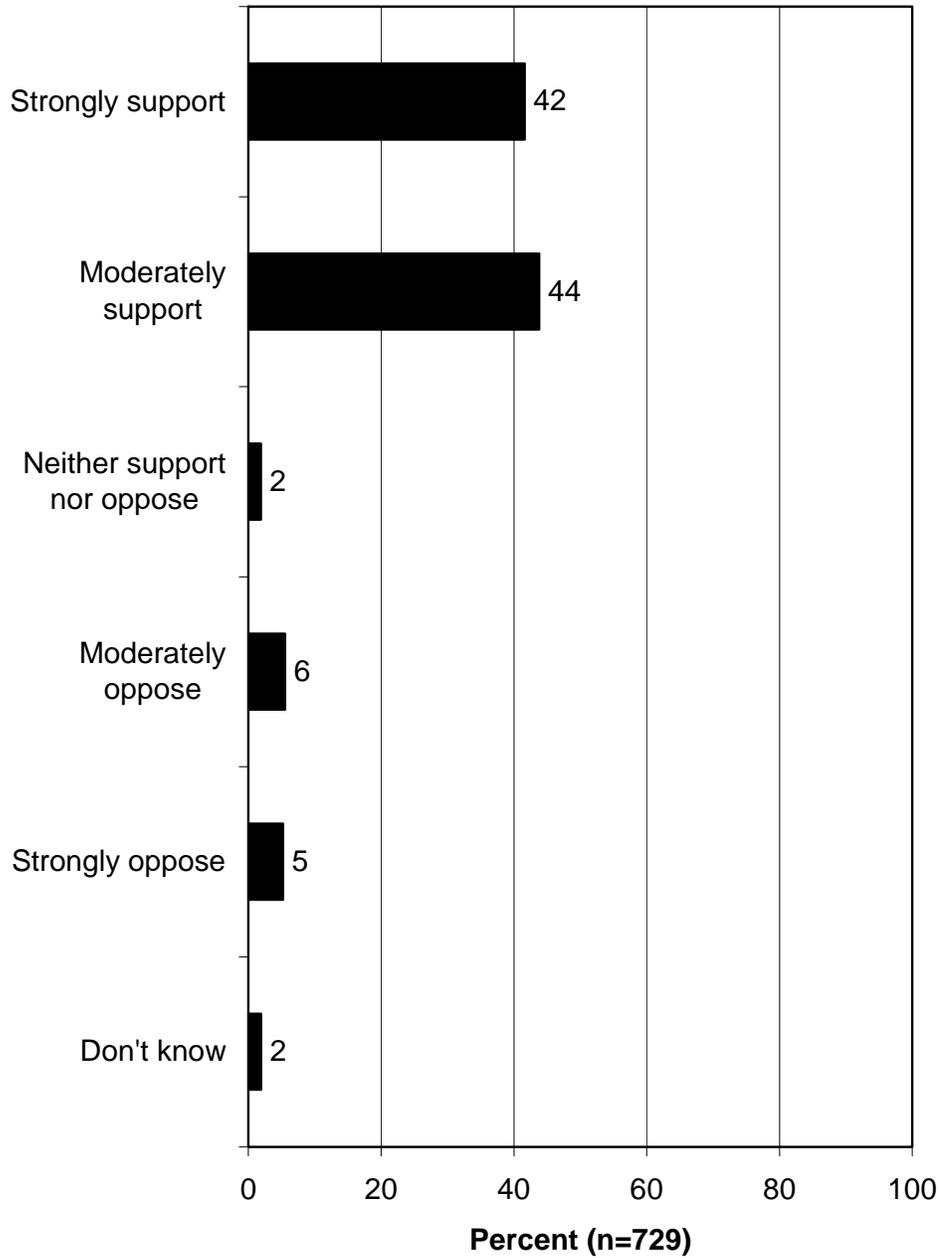
scientifically managed for sustainable use: 58% would support, while 35% would oppose.

Again, the level of support for *recreational* fishing/shellfishing is higher than for *commercial* fishing/shellfishing in the analogous question. (These graphs are shown in the section of this report titled, “Opinions on Management Strategies for Ocean Waters.”)

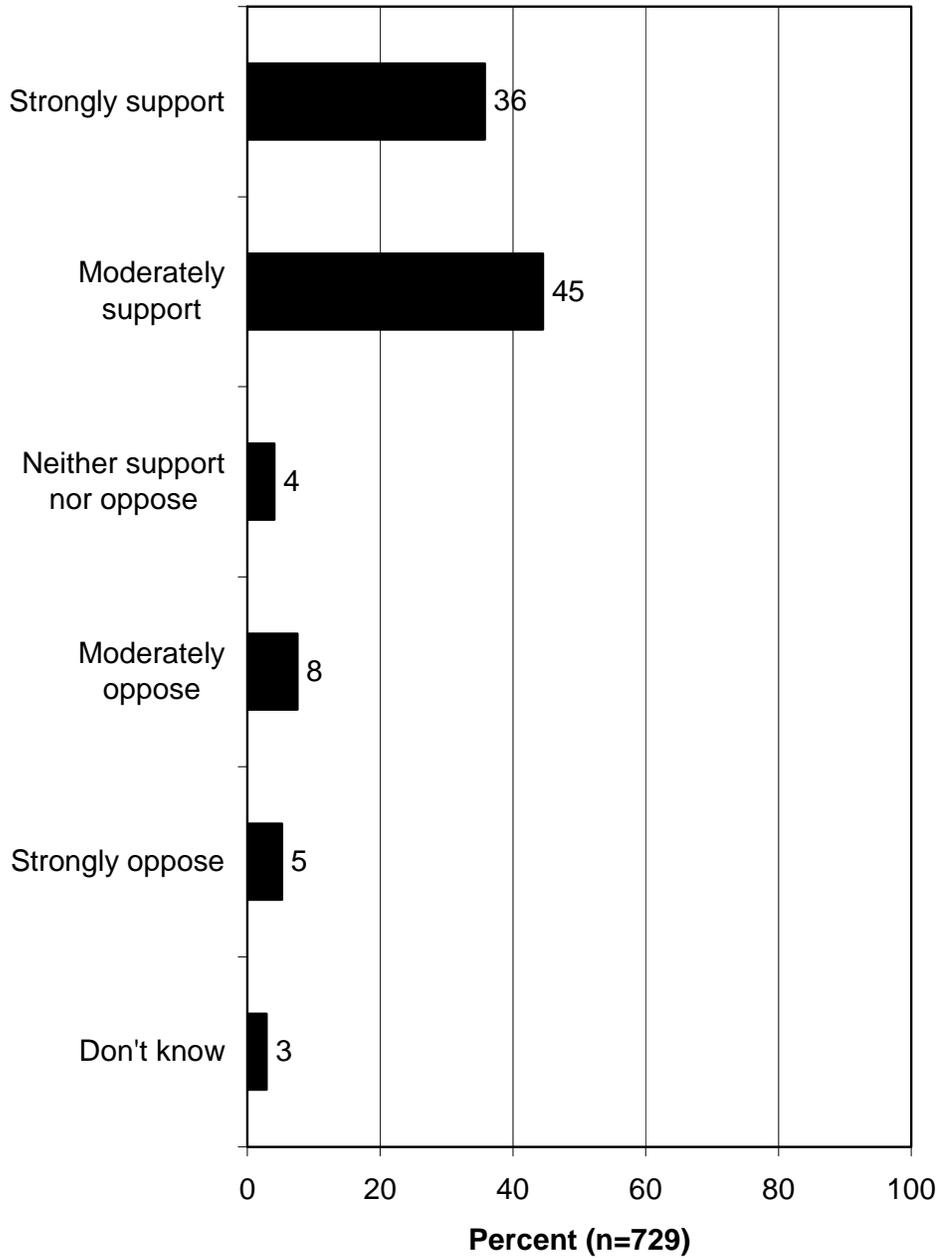
- The survey asked U.S. residents if they agree or disagree that some U.S. ocean waters should be fully protected from *all* human use, including sustainable harvest of seafood, even if doing so would reduce the ability of the U.S. to supply seafood to U.S. consumers. A slight majority (55%) agree, while 31% disagree.
- The survey asked respondents if they agree or disagree that some change to the natural biodiversity in U.S. ocean waters is acceptable to guarantee a continued food supply through fishing and shellfishing: agreement (71%) far exceeds disagreement (20%). The same question was asked again, but was preceded by this explanation: “On land, our society generally accepts change to the natural biodiversity of an environment to guarantee a continued supply of food. For example, we change the natural biodiversity of land by replacing natural growth of wild grasses with food crops on farmed land.” When the question includes this introduction, 73% of respondents agree and 18% disagree (note that agreement is just slightly higher with the introduction).
- The survey, after informing respondents that approximately 85% of seafood consumed in the U.S. is imported, asked U.S. residents how important it is to them that the U.S. maintain its ability to supply some seafood to U.S. residents rather than to depend entirely on imported seafood. U.S. residents rate this quite high: 89% say it is important to them, with most of them saying it is *very* important (70%).
- The survey asked respondents to indicate how important it is to them that imported seafood be harvested in a sustainable manner, and importance is quite high: 92% say it is important, most of them saying it is *very* important (74%). Likewise, the survey asked this same question about *domestic or U.S.-harvested* seafood, and importance is again quite high: 96% say it is important, with 80% saying it is *very* important. A comparison finds that domestic

seafood being harvested in a sustainable manner is slightly more important than imported seafood being harvested in a sustainable manner.

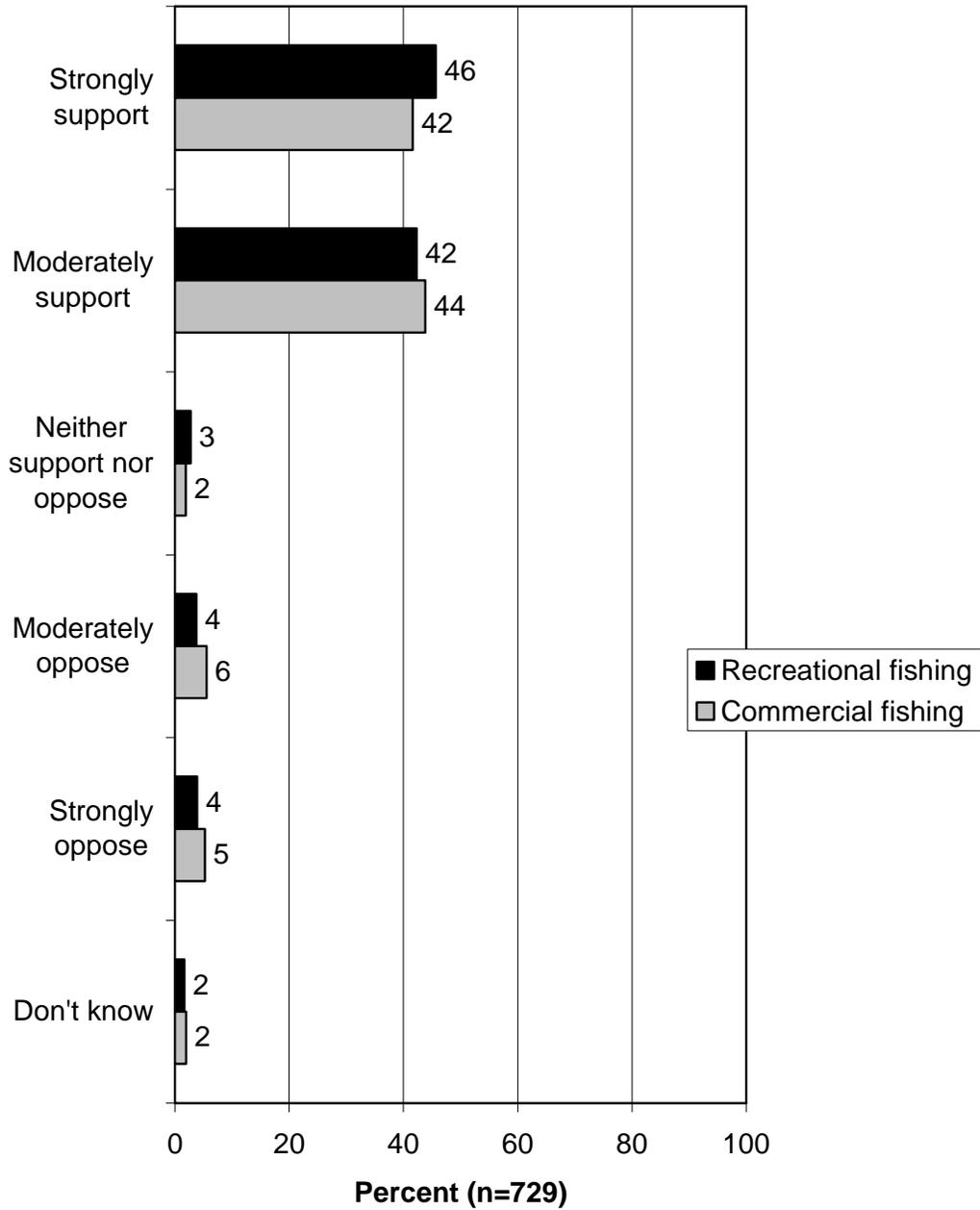
**Q27. Do you support or oppose legal commercial fishing and shellfishing in U.S. ocean waters?
(National Survey)**



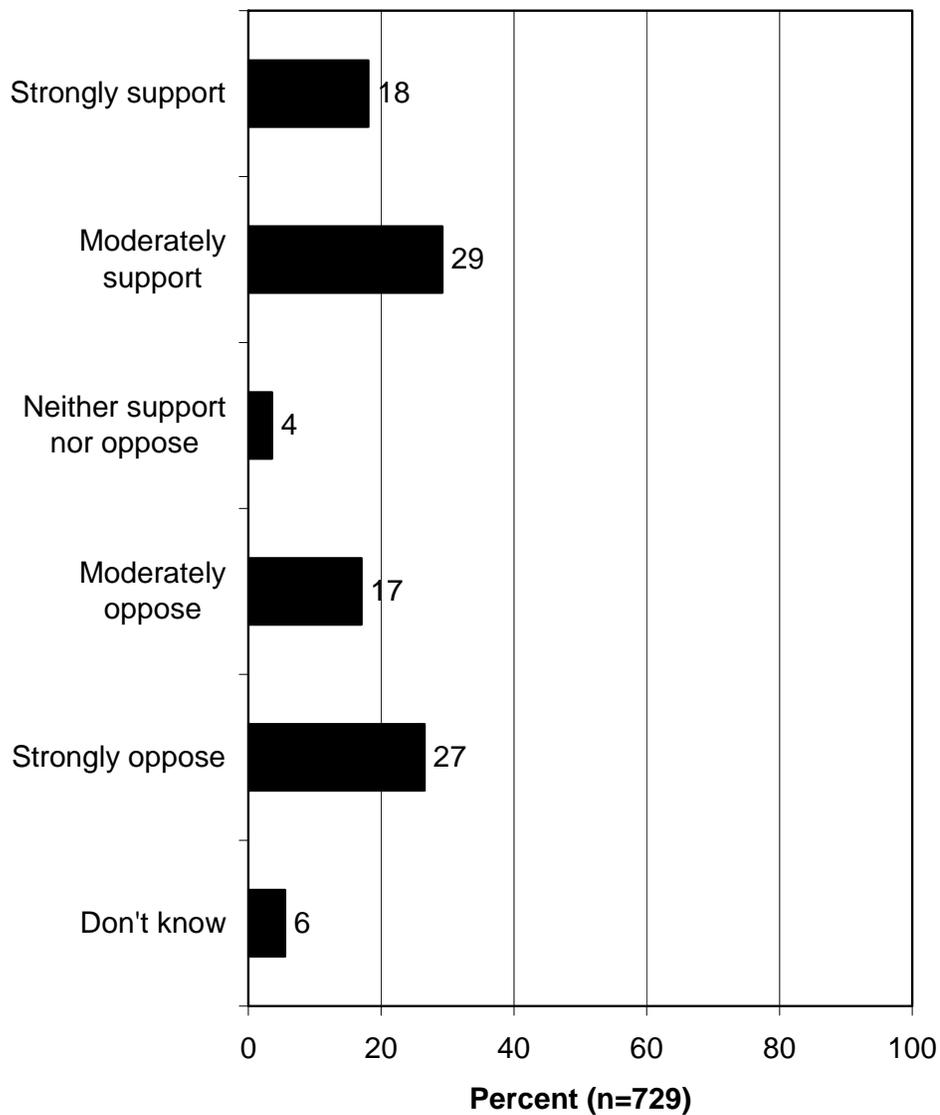
**Q24. Do you support or oppose humans using, or harvesting, U.S. ocean resources, such as fish and other ocean life?
(National Survey)**



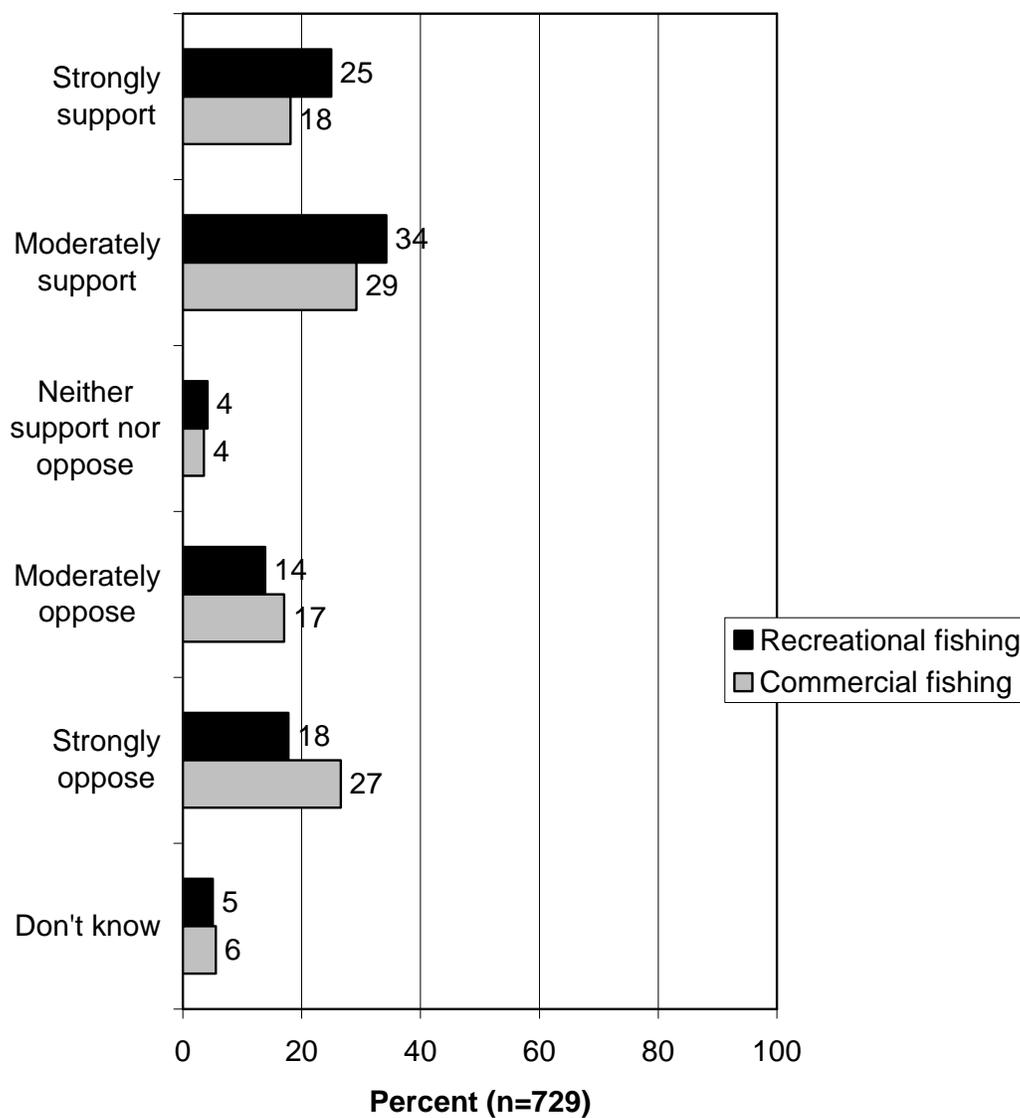
**Q25/27. Do you support or oppose legal recreational/commercial fishing and shellfishing in U.S. ocean waters?
(National Survey)**



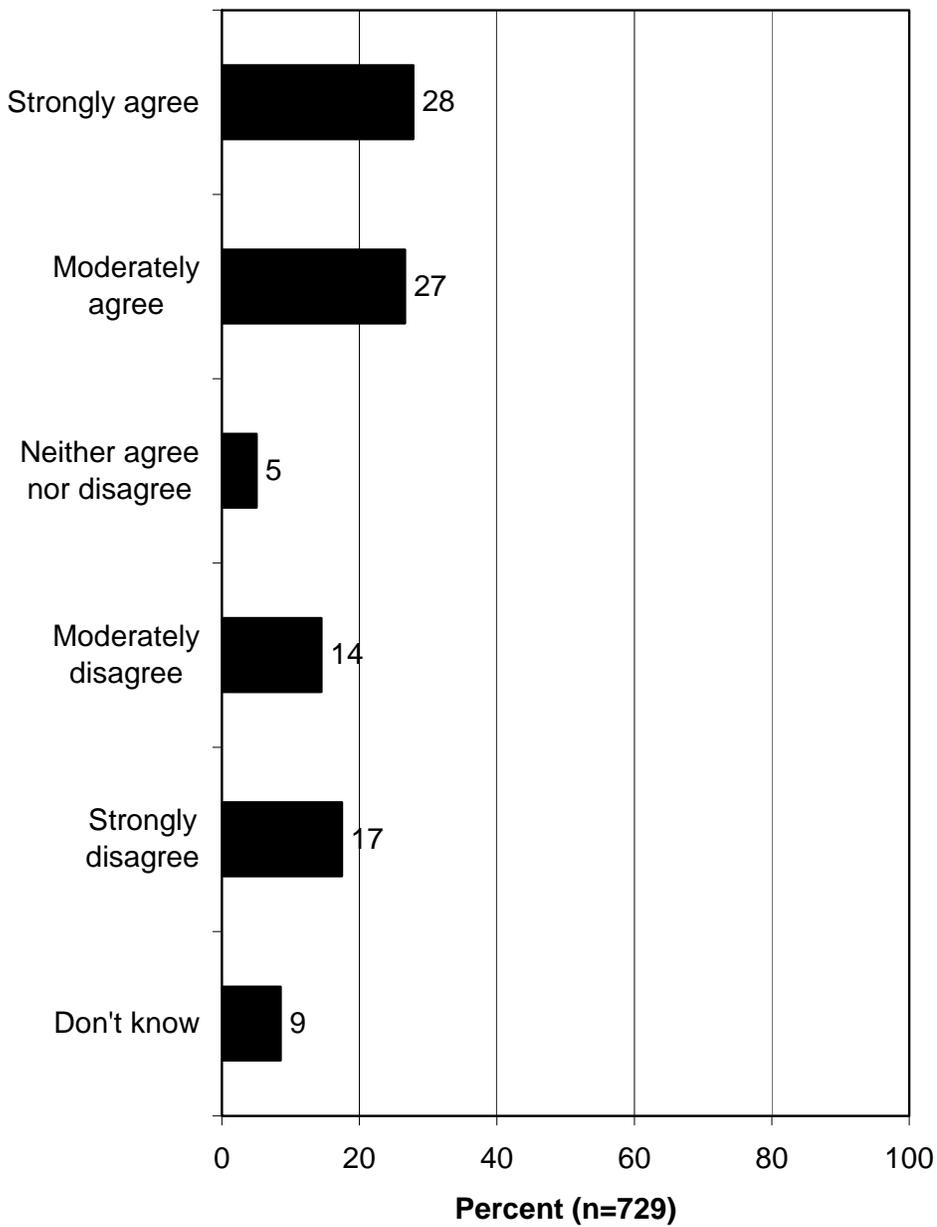
Q29. If areas of U.S. ocean waters were designated in a manner similar to U.S. Wilderness Areas and human activities were restricted in the designated ocean areas, including a ban on specific human activities such as oil drilling, would you support or oppose legal commercial fishing and shellfishing in the designated ocean areas? (National Survey)



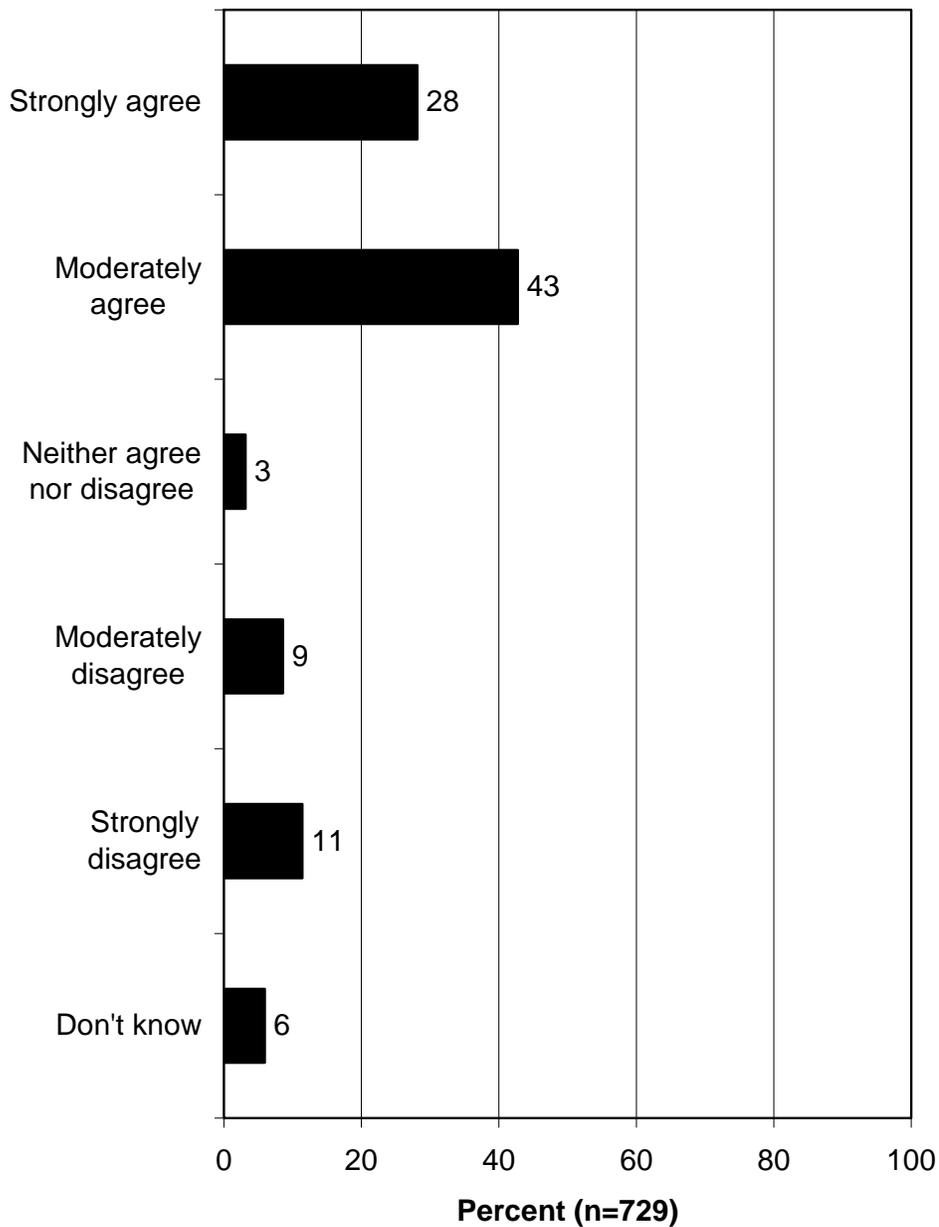
**Q28/29. If areas of U.S. ocean waters were designated in a manner similar to U.S. Wilderness Areas and human activities were restricted in the designated ocean areas, including a ban on specific human activities such as oil drilling, would you support or oppose legal recreational/commercial fishing and shellfishing in the designated ocean areas?
(National Survey)**



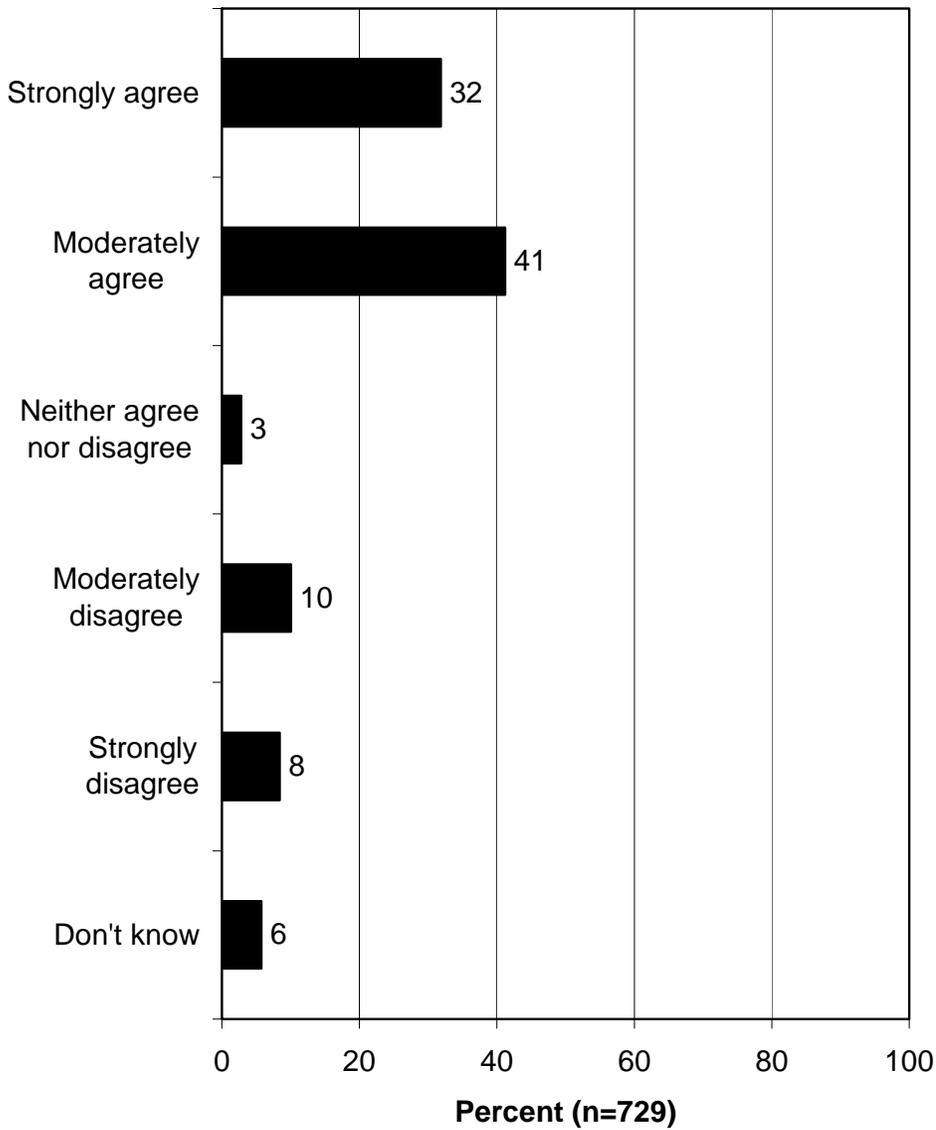
**Q60. Do you agree or disagree that some U.S. ocean water areas should be fully protected from all human use, including sustainable harvest of fish and seafood, even if it reduces the ability of the U.S. to supply seafood to U.S. residents?
(National Survey)**



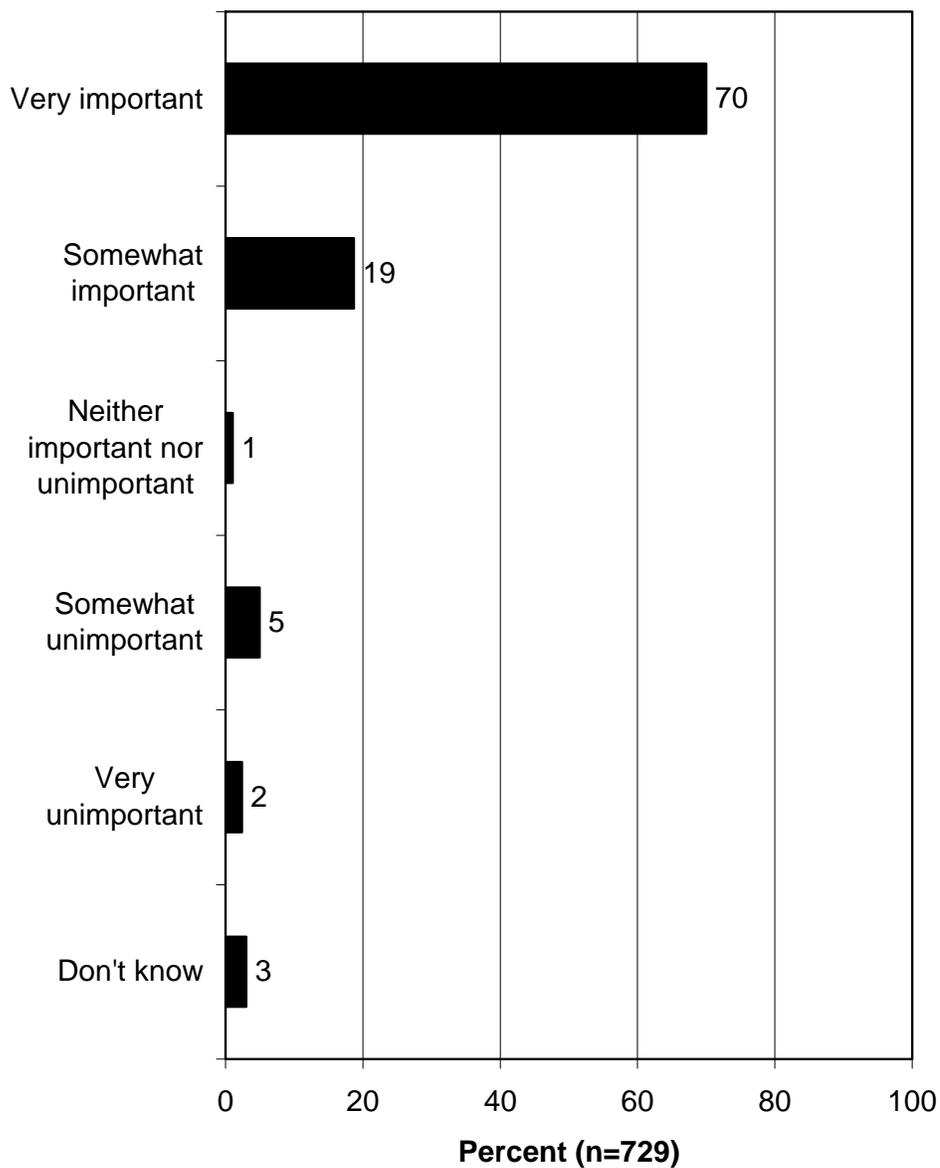
**Q62. Do you agree or disagree that some change to the natural biodiversity in U.S. ocean waters is acceptable to guarantee a continued food supply through fishing and shellfishing?
(National Survey)**



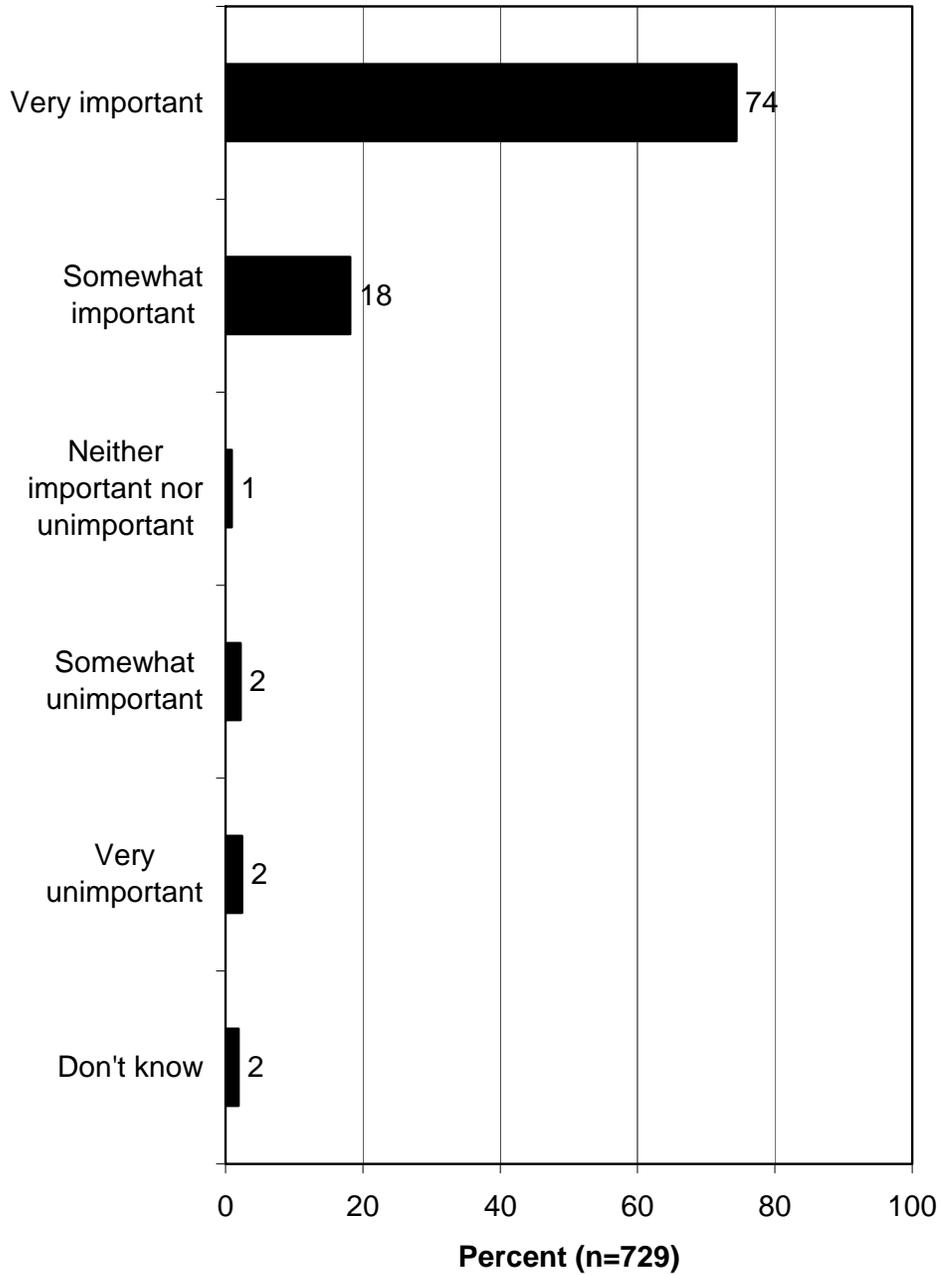
**Q63. On land, our society generally accepts change to the natural biodiversity of an environment to guarantee a continued supply of food. Knowing this, do you agree or disagree that some change to the natural biodiversity in U.S. ocean waters is acceptable to guarantee a continued food supply through fishing and shellfishing?
(National Survey)**



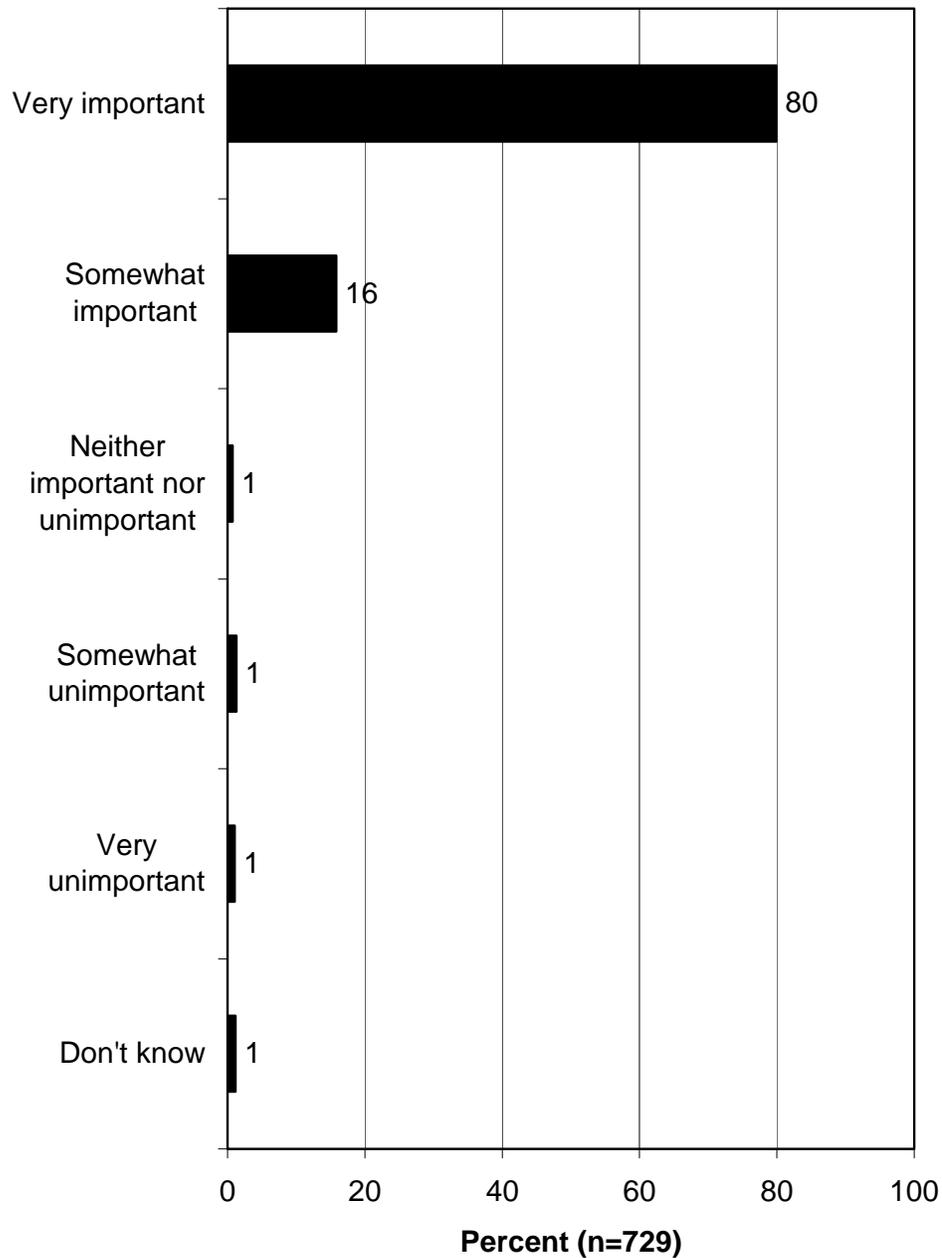
**Q57. Currently, about 85% of seafood consumed in the U.S. is imported from commercial fishing industries in other countries. How important is it to you that the U.S. maintains its ability to supply some seafood to U.S. residents rather than depend entirely on imported seafood?
(National Survey)**



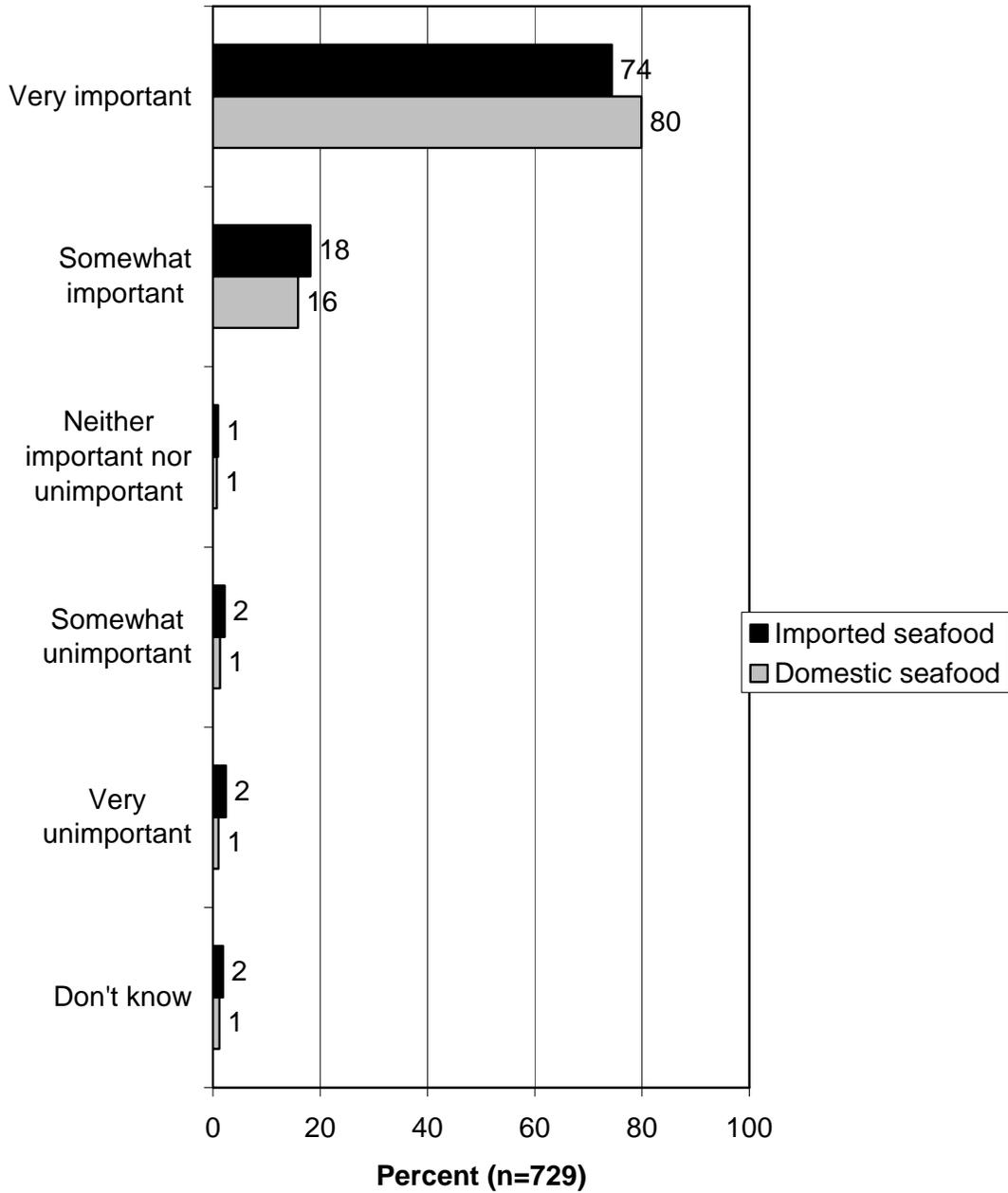
**Q58. How important is it to you to know that imported seafood is harvested in a sustainable manner?
(National Survey)**



**Q59. How important is it to you to know that domestic or U.S.-harvested seafood is harvested in a sustainable manner?
(National Survey)**



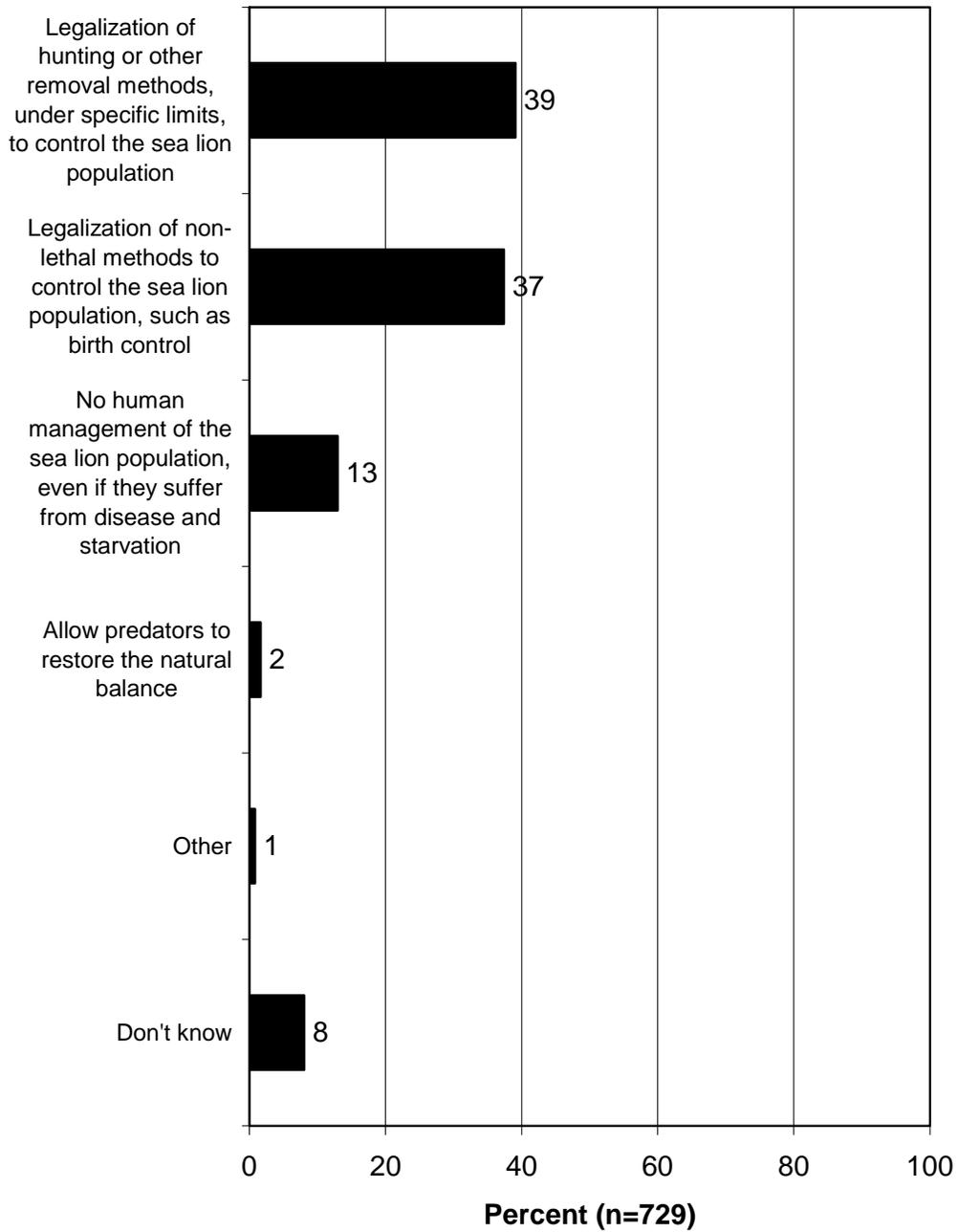
**Q58/59. How important is it to you to know that imported/domestic seafood is harvested in a sustainable manner?
(National Survey)**



OPINION ON MANAGEMENT OF SEA LIONS

- One question in the survey asked about the management of sea lions. The survey first gave the following explanation: “The California sea lion is a marine mammal whose population has grown from about 50,000 sea lions in the Pacific Ocean in the early 1800s to about 320,000 sea lions today. The population is likely to continue to grow. This growth is because the sea lion’s natural predators, such as orcas or killer whales and white sharks, have been reduced. Today, the sea lion population is primarily controlled by cycles of disease or starvation when there is not enough food to feed the entire population. Some ocean managers believe the continued growth of the sea lion population makes it necessary to control the population to prevent disease and starvation.” Then the survey asked respondents to choose from among three approaches for managing sea lions (including the “no management” approach). The most commonly chosen approaches were “legalization of hunting or other removal methods, under specific limits, to control the sea lion population” (39%) and “legalization of non-lethal methods to control the sea lion population, such as birth control” (37%). The “no management” option was chosen by 13%.

Q65. Which of the following sea lion population management approaches do you most prefer? (National Survey)

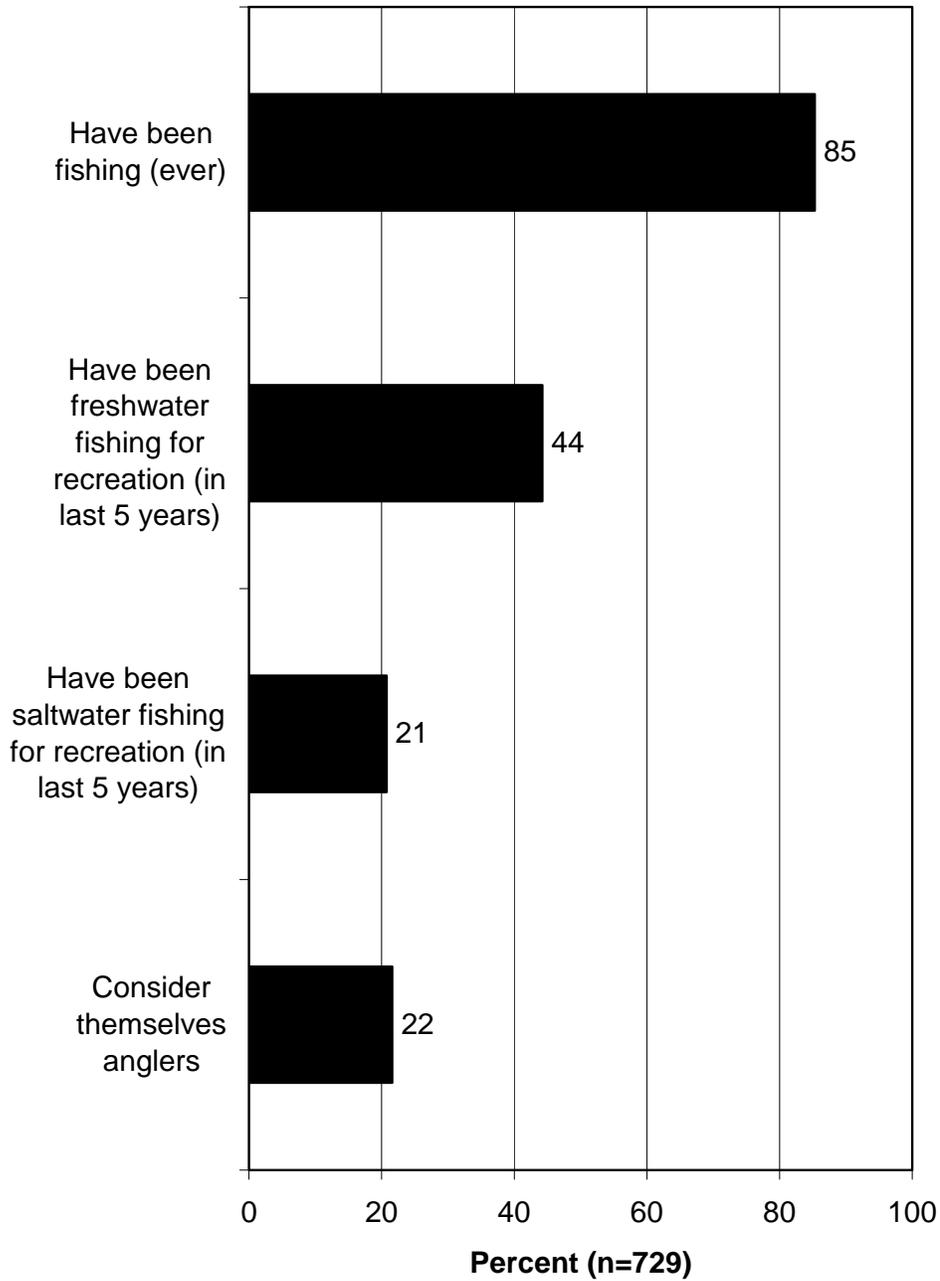


PARTICIPATION IN RECREATIONAL AND COMMERCIAL FISHING

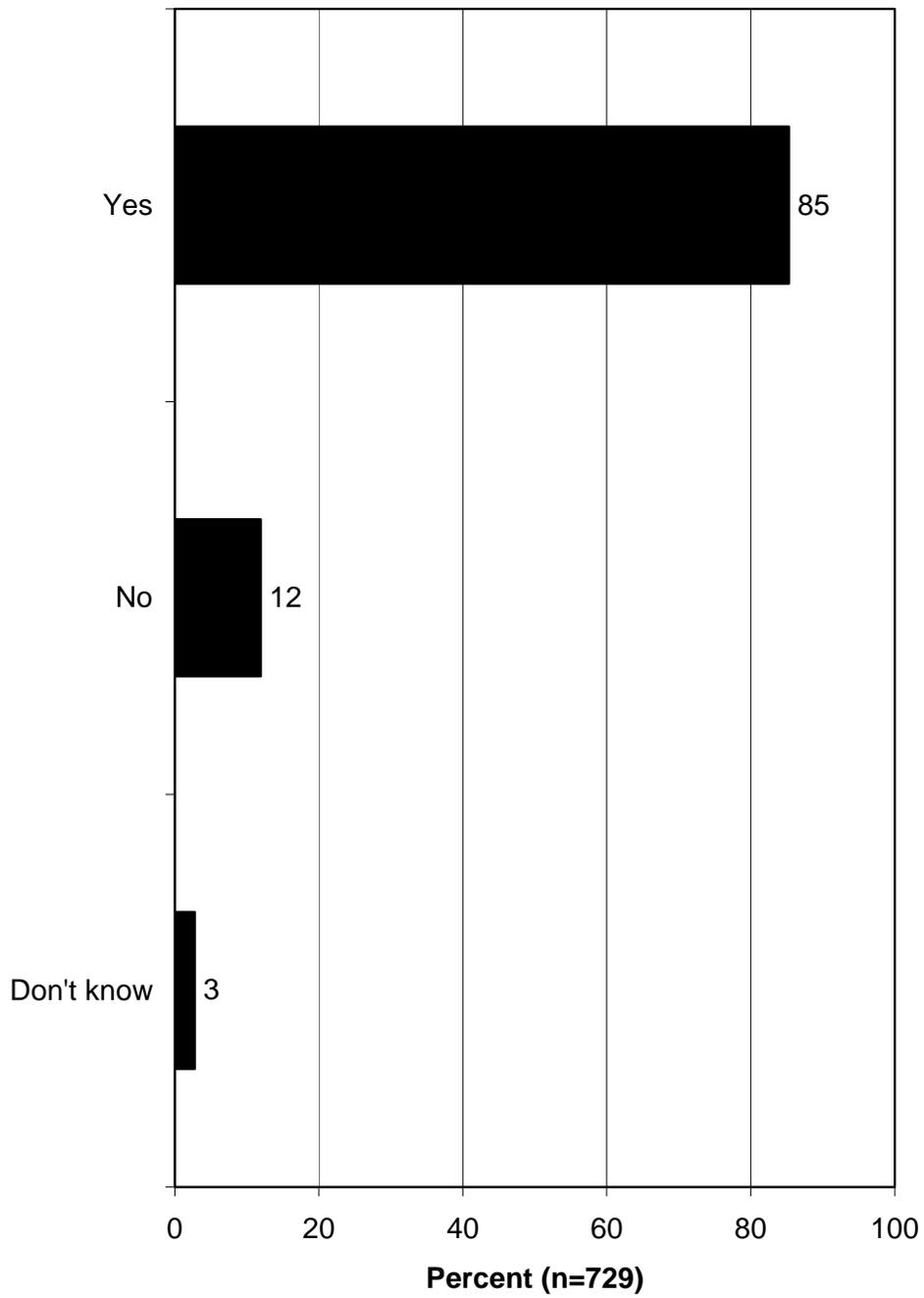
- The survey asked U.S. residents about their participation in fishing. The first question was the most broad, asking if the respondent had *ever* been fishing (i.e., with no time frame specified). Fishing is quite ubiquitous: 85% of U.S. residents in the survey indicated that at some time they had been fishing, 44% had been freshwater fishing in the last 5 years, 21% had been saltwater fishing in the last 5 years, and 22% consider themselves an angler.
 - The question regarding whether the respondent considers himself/herself to be an angler was crosstabulated by status regarding fishing participation. Those most likely to consider themselves to be anglers have both freshwater *and* saltwater fished in the last 5 years: 54% of those from this group consider themselves to be anglers. Otherwise, 36% of those who freshwater fished only in the last 5 years and 10% of those who saltwater fished only in the last 5 years consider themselves to be anglers.

- The survey asked all those *who had ever fished* if their personal income or their family's income had ever been dependent on commercial fishing or shellfishing: 5% of these respondents answered yes.

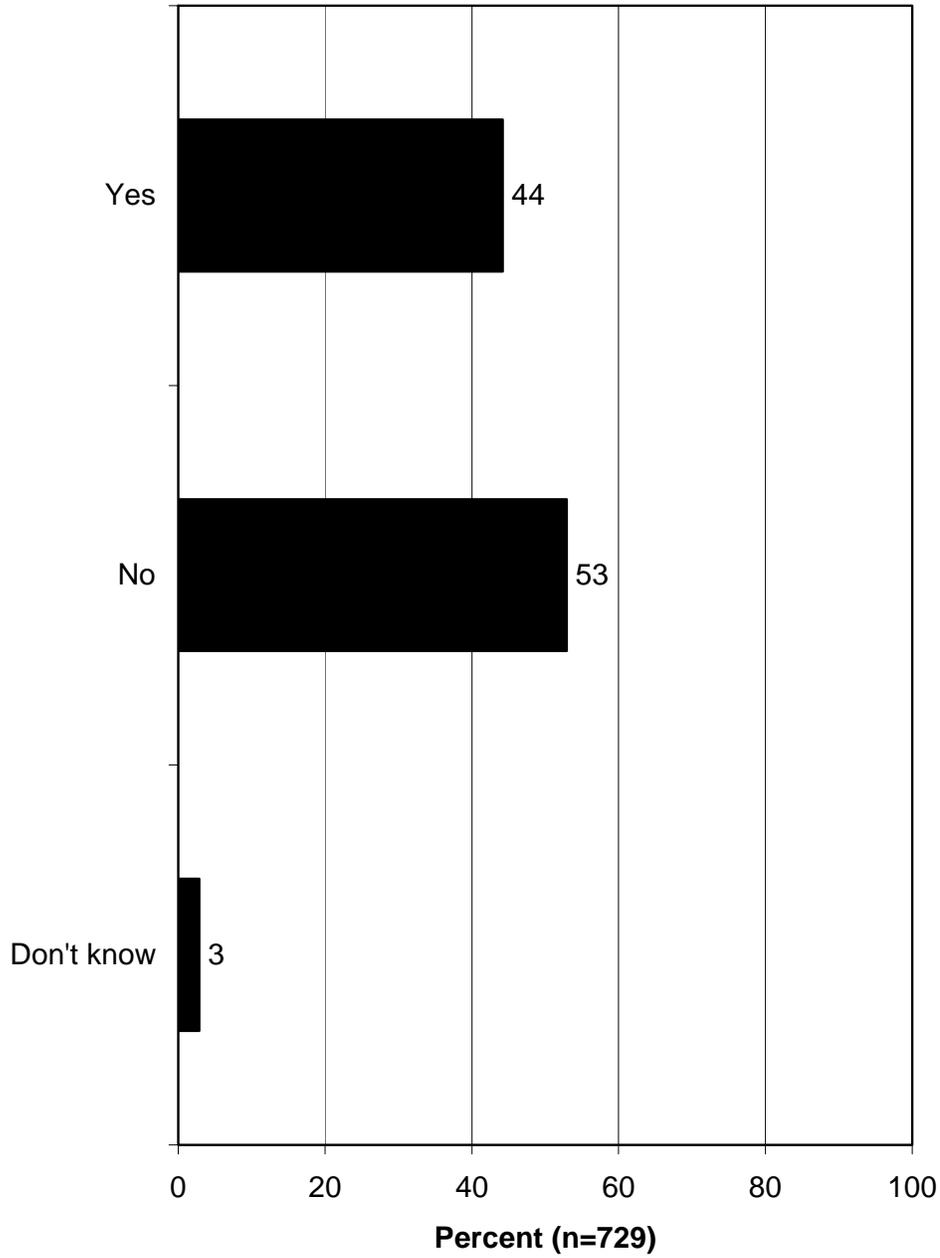
Q68-71. Percent who: (National Survey)



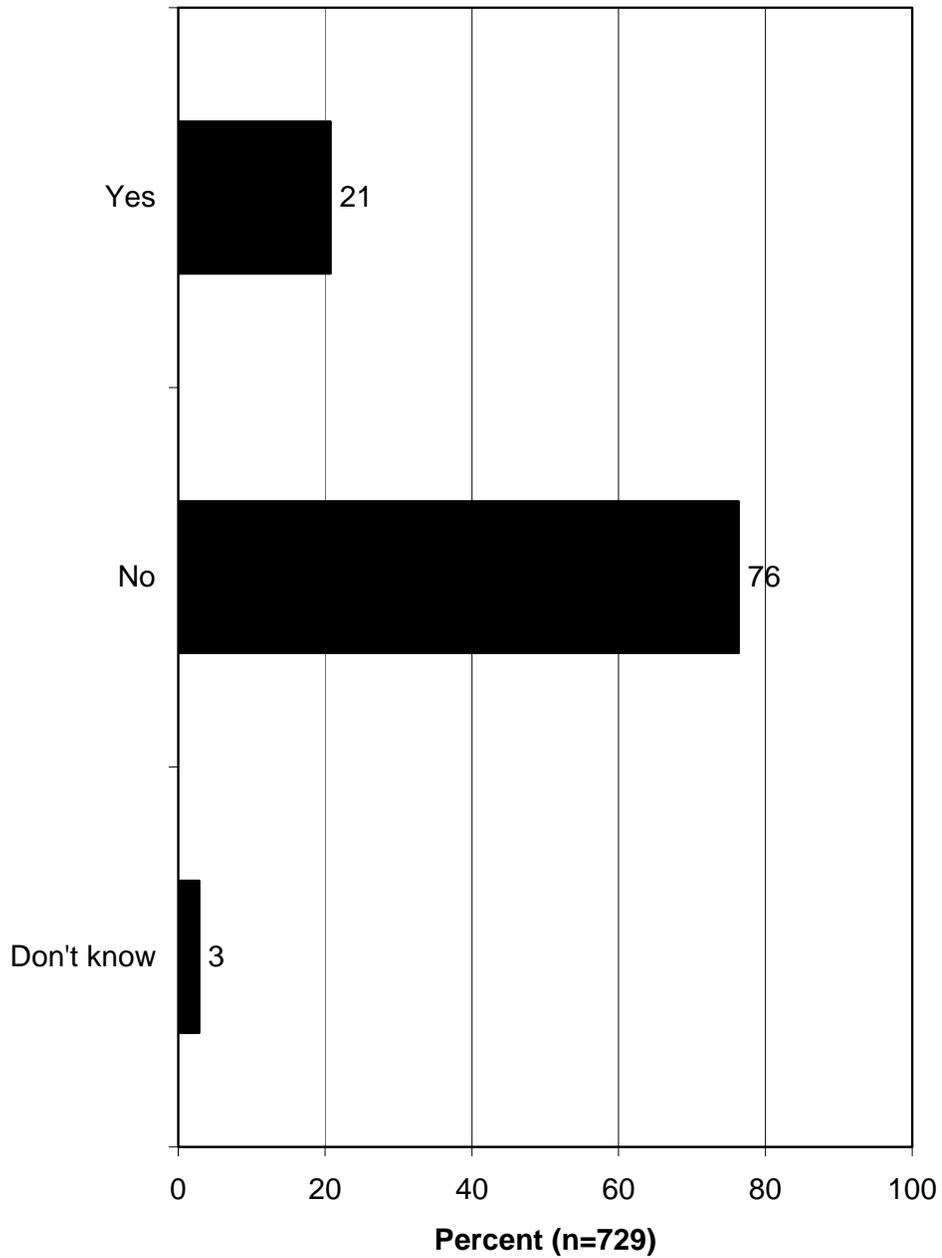
**Q68. Have you ever been fishing?
(National Survey)**



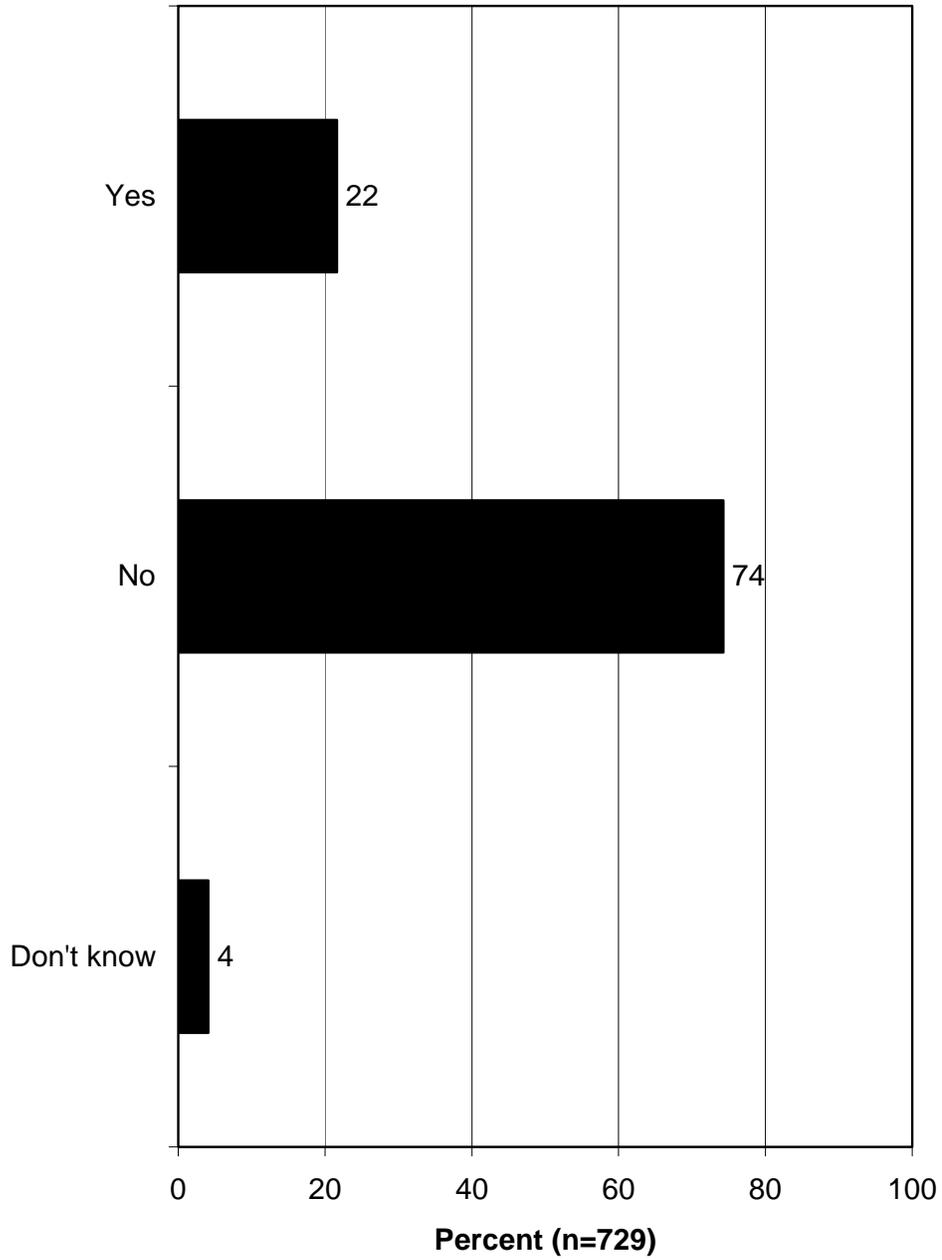
**Q69. Have you been freshwater fishing for recreation in the past 5 years?
(National Survey)**



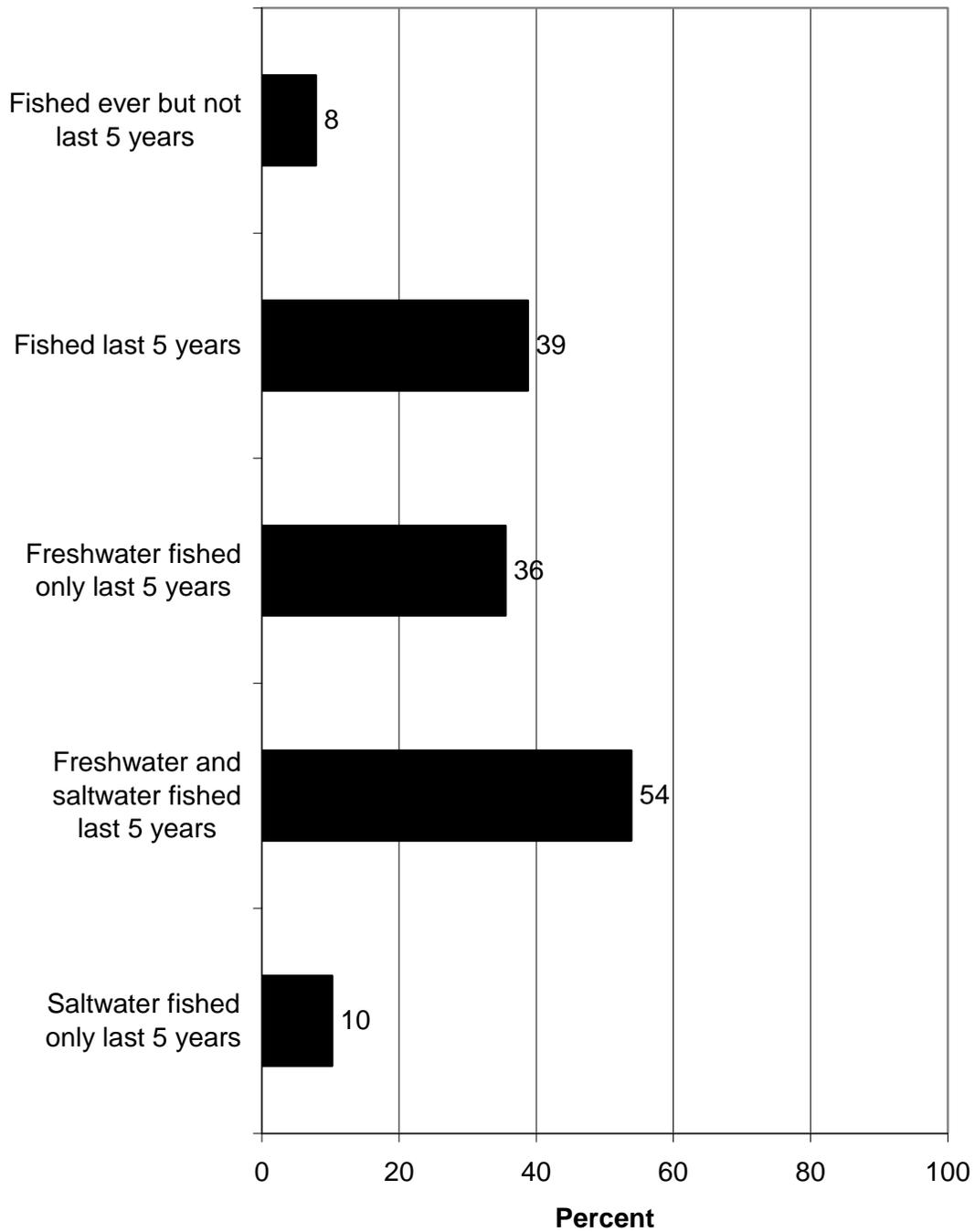
**Q70. Have you been saltwater fishing for recreation
in the past 5 years?
(National Survey)**



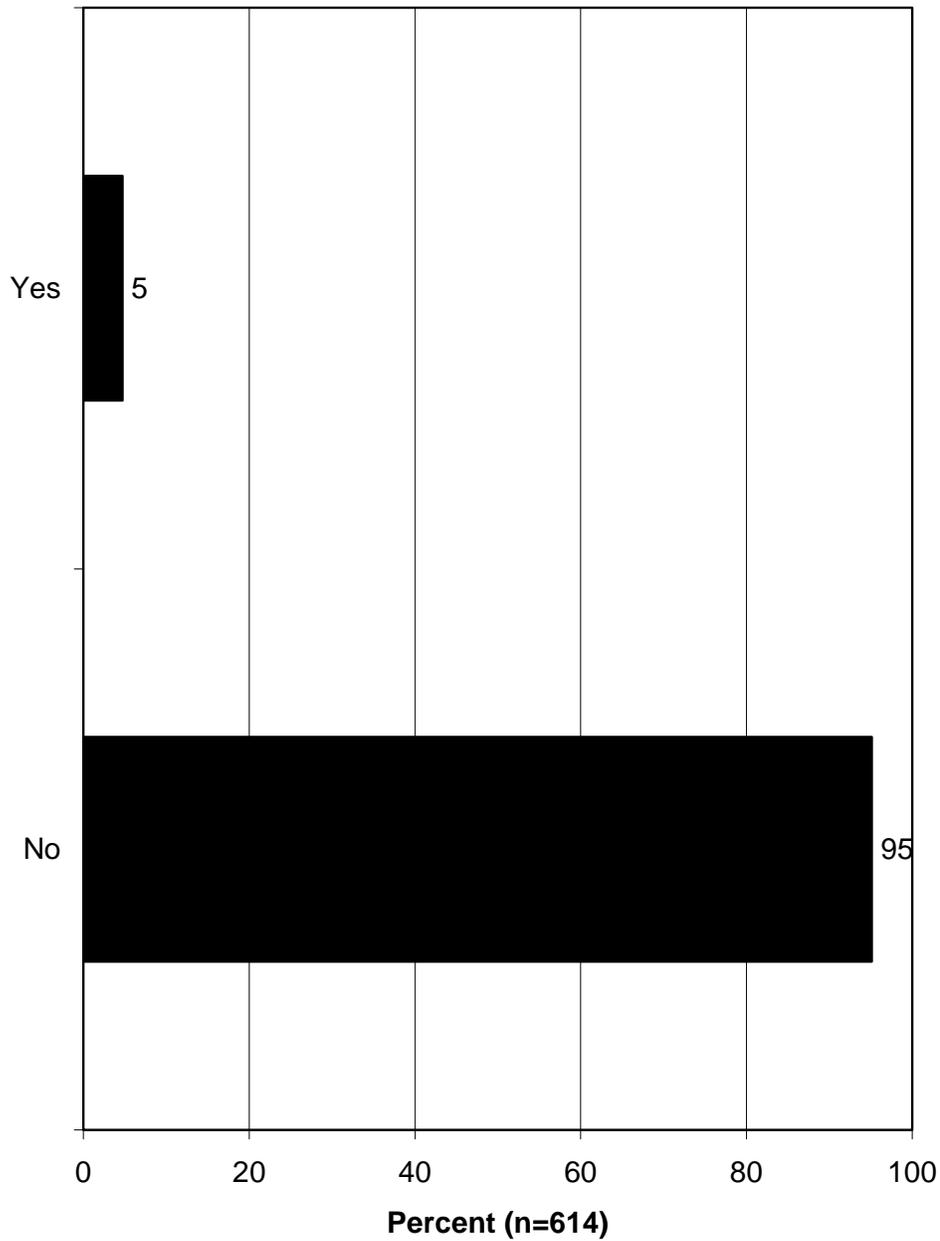
**Q71. Do you consider yourself an angler?
(National Survey)**



Percent of each group who consider themselves to be an angler. (National Survey)



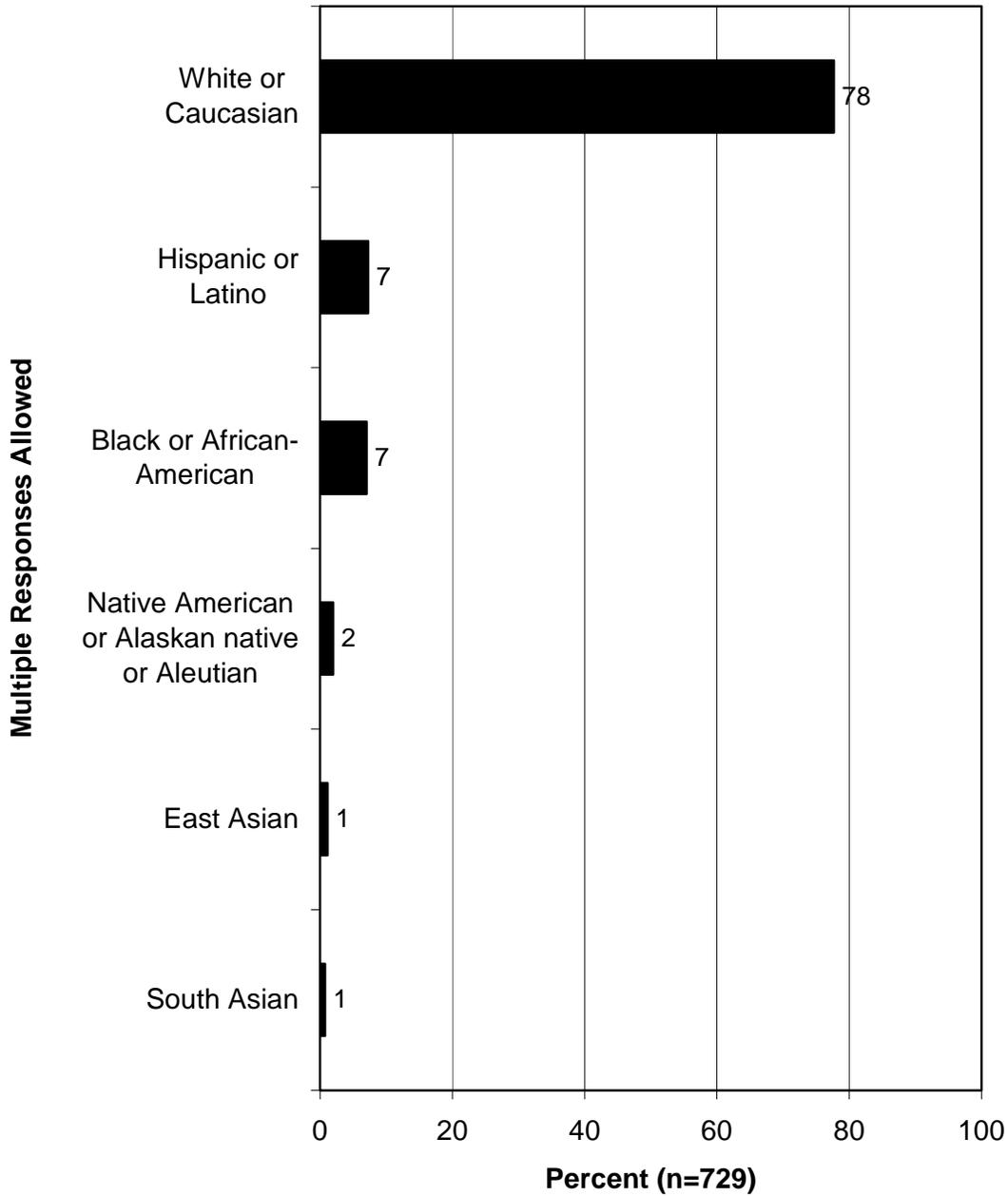
**Q72. Has your or your family's income ever been dependent on commercial fishing or shellfishing?
(Asked of individuals who have ever been fishing.)
(National Survey)**



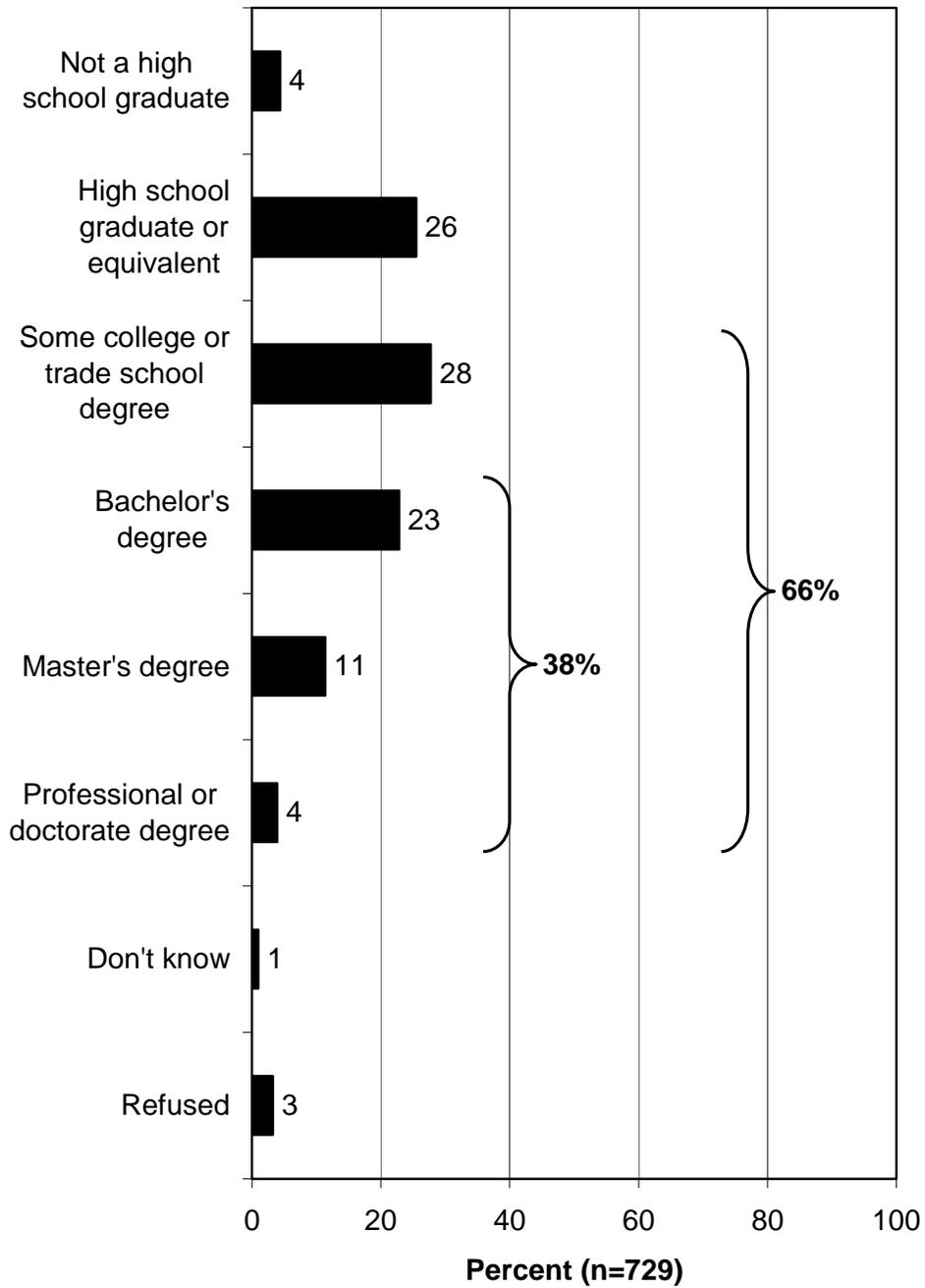
DEMOGRAPHIC DATA

- The survey was weighted by age and gender; therefore, graphs for these questions are not shown, as they simply reflect the U.S. population as a whole.
- Most of the U.S. residents in the survey are white/Caucasian (78%), with smaller percentages who consider their ethnic background to be Hispanic/Latino (7%) or black/African-American (7%).
- Educational attainment of survey respondents is shown: 66% have taken some coursework beyond high school; 38% have a bachelor's degree, with or without a higher degree.
- U.S. residents in the survey are fairly evenly distributed among the types of residential area: 44% live in a large city/urban area or suburban area, and 51% live in a small city/town or rural area.
- Years of residency in respondents' current states of residence are shown from the survey. The graph follows a bell-curve with the peak in the 21-30 years category. The mean is 33.7 years.
- Most of the respondents in the survey (74%) own their current place of residence; 22% rent.

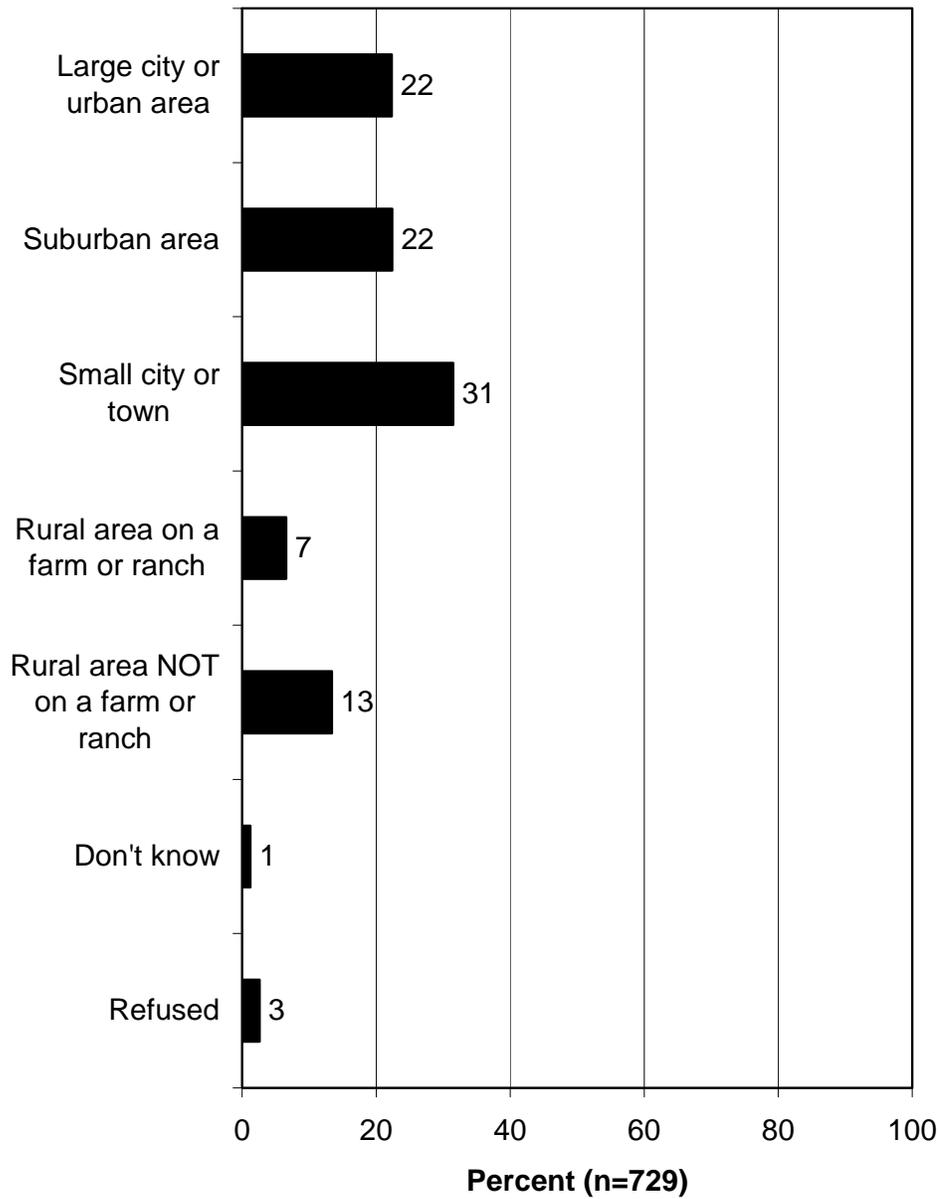
**Q81. What races or ethnic backgrounds do you consider yourself?
(National Survey)**



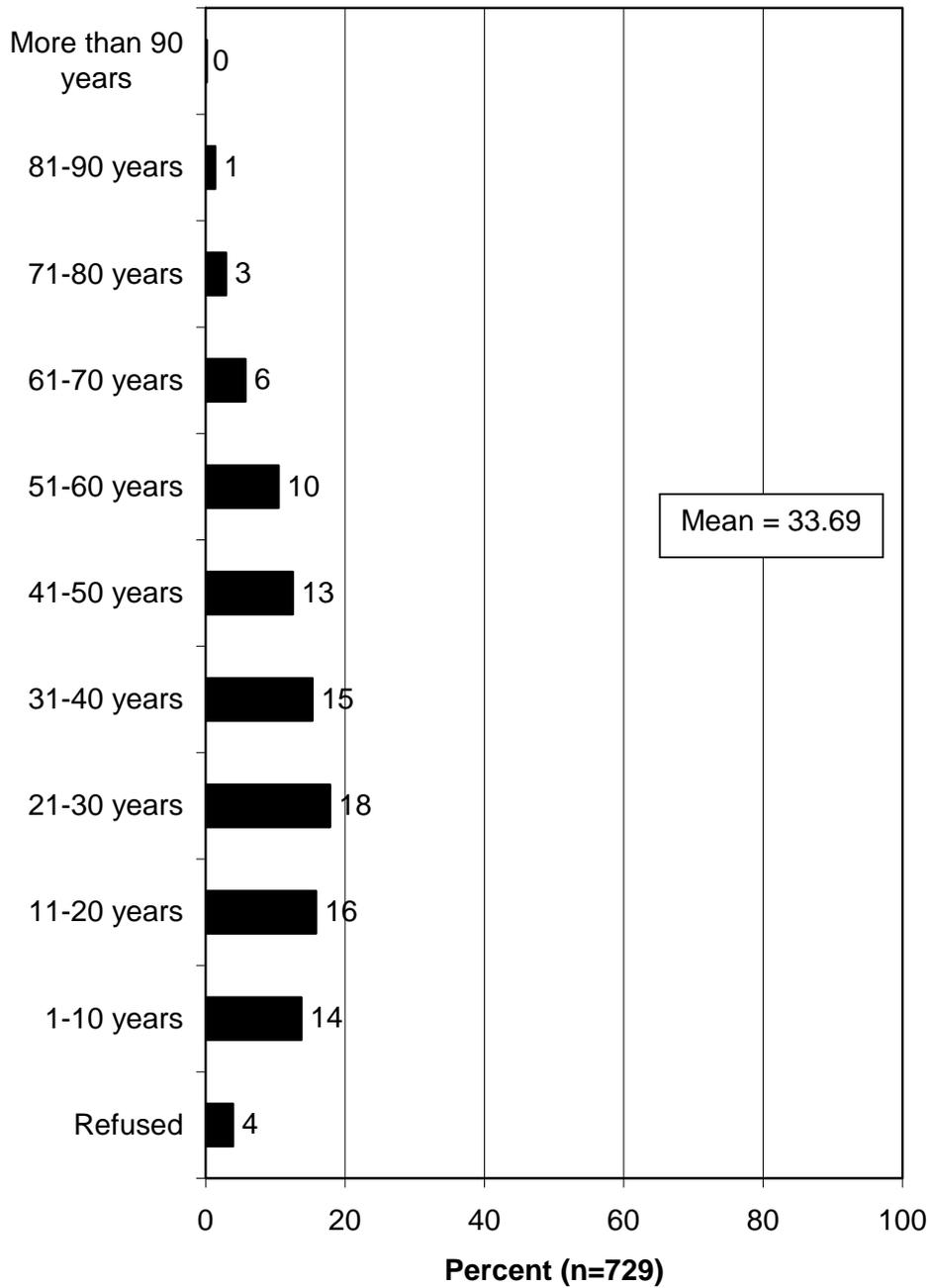
**Q78. What is the highest level of education you have completed?
(National Survey)**



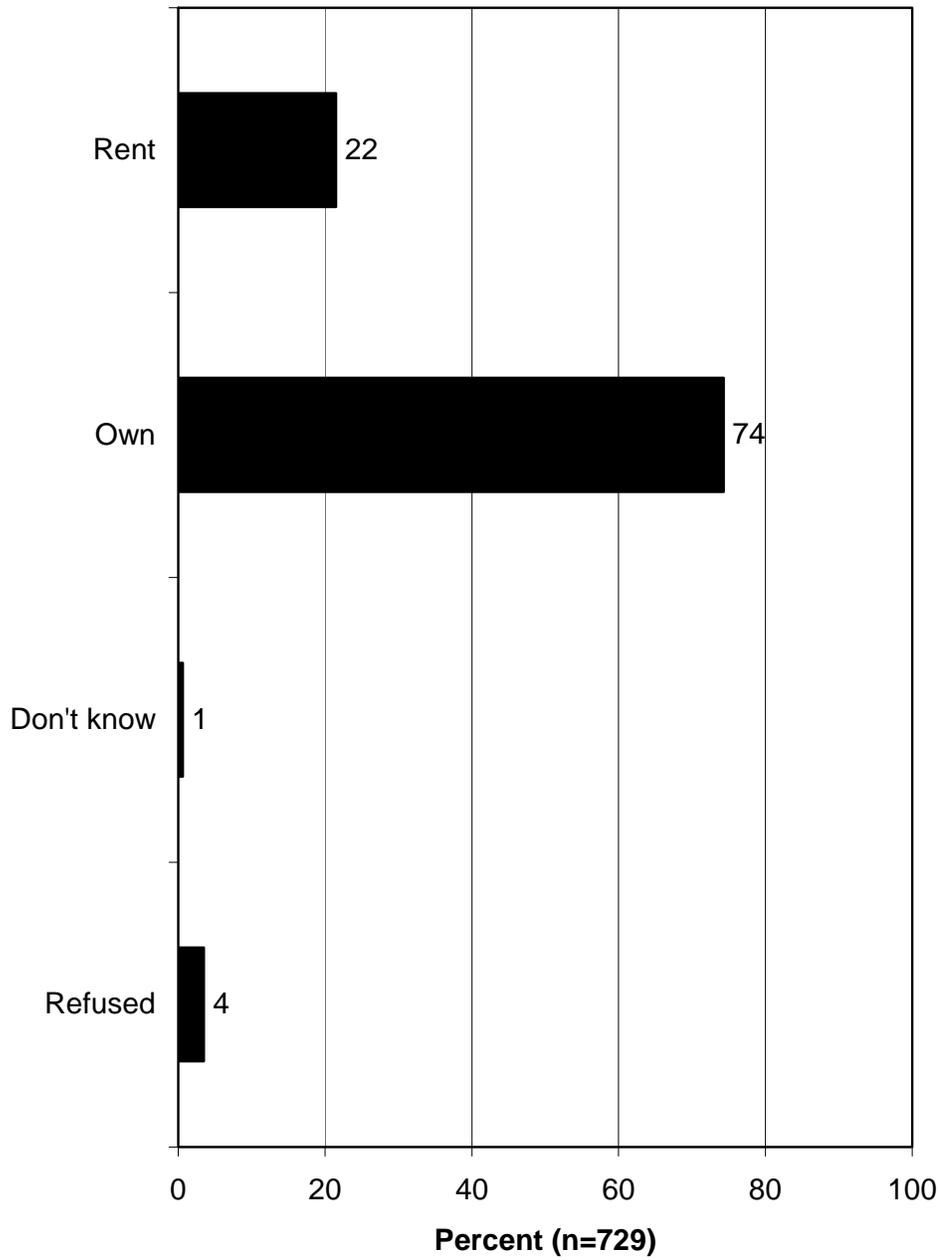
**Q76. Do you consider your place of residence to be a large city or urban area, a suburban area, a small city or town, a rural area on a farm or ranch, or a rural area not on a farm or ranch?
(National Survey)**



**Q73. How many years have you lived in your current state?
(National Survey)**



**Q77. Do you rent or own your current place of residence?
(National Survey)**



ABOUT RESPONSIVE MANAGEMENT

Responsive Management is a nationally recognized public opinion and attitude survey research firm specializing in natural resource and outdoor recreation issues. Its mission is to help natural resource and outdoor recreation agencies and organizations better understand and work with their constituents, customers, and the public.

Utilizing its in-house, full-service, computer-assisted telephone and mail survey center with 45 professional interviewers, Responsive Management has conducted more than 1,000 telephone surveys, mail surveys, personal interviews, and focus groups, as well as numerous marketing and communications plans, need assessments, and program evaluations on natural resource and outdoor recreation issues.

Clients include most of the federal and state natural resource, outdoor recreation, and environmental agencies, and most of the top conservation organizations. Responsive Management also collects attitude and opinion data for many of the nation's top universities, including the University of Southern California, Virginia Tech, Colorado State University, Auburn, Texas Tech, the University of California—Davis, Michigan State University, the University of Florida, North Carolina State University, Penn State, West Virginia University, and others.

Among the wide range of work Responsive Management has completed during the past 20 years are studies on how the general population values natural resources and outdoor recreation, and their opinions on and attitudes toward an array of natural resource-related issues. Responsive Management has conducted dozens of studies of selected groups of outdoor recreationists, including anglers, boaters, hunters, wildlife watchers, birdwatchers, park visitors, historic site visitors, hikers, and campers, as well as selected groups within the general population, such as landowners, farmers, urban and rural residents, women, senior citizens, children, Hispanics, Asians, and African-Americans. Responsive Management has conducted studies on environmental education, endangered species, waterfowl, wetlands, water quality, and the reintroduction of numerous species such as wolves, grizzly bears, the California condor, and the Florida panther.

Responsive Management has conducted research on numerous natural resource ballot initiatives and referenda and helped agencies and organizations find alternative funding and increase their memberships and donations. Responsive Management has conducted major agency and organizational program needs assessments and helped develop more effective programs based upon a solid foundation of fact. Responsive Management has developed websites for natural resource organizations, conducted training workshops on the human dimensions of natural resources, and presented numerous studies each year in presentations and as keynote speakers at major natural resource, outdoor recreation, conservation, and environmental conferences and meetings.

Responsive Management has conducted research on public attitudes toward natural resources and outdoor recreation in almost every state in the United States, as well as in Canada, Australia, the United Kingdom, France, Germany, and Japan. Responsive Management routinely conducts surveys in Spanish and has also conducted surveys and focus groups in Chinese, Korean, Japanese, and Vietnamese.

Responsive Management's research has been featured in most of the nation's major media, including CNN, ESPN, *The Washington Times*, *The New York Times*, *Newsweek*, *The Wall Street Journal*, and on the front pages of *The Washington Post* and *USA Today*.

Visit the Responsive Management website at:

www.responsivemanagement.com