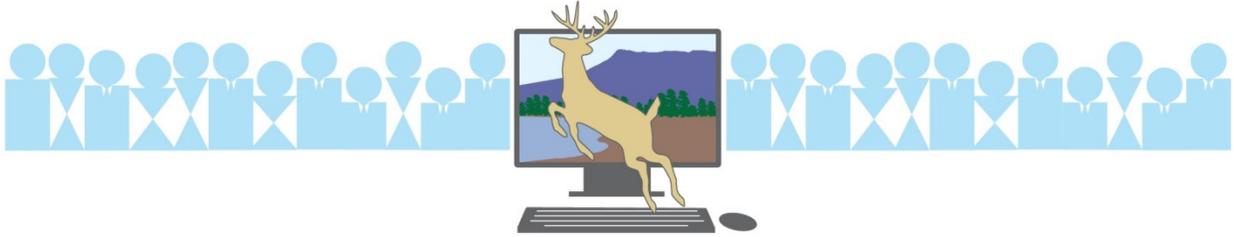


Responsive Management™



NORTH CAROLINA LANDOWNERS' ATTITUDES TOWARD TROUT FISHING ACCESS

Conducted for the North Carolina Wildlife Resources Commission

by Responsive Management

2015

NORTH CAROLINA LANDOWNERS' ATTITUDES TOWARD TROUT FISHING ACCESS

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Acknowledgments

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EXECUTIVE SUMMARY

INTRODUCTION AND METHODOLOGY

This study was conducted for the North Carolina Wildlife Resources Commission (hereinafter referred to as the Commission) to determine North Carolina landowners' attitudes toward trout fishing access, including their experiences with recreationists accessing water from their property, their opinions on access in general, and their opinions on incentives to allow access. The study entailed a scientific multi-modal survey of landowners (of at least a quarter acre) in western North Carolina who have a stream that currently supports trout or could potentially support trout running through or adjacent to their property.

A multi-modal survey was chosen to allow landowners the most convenience in completing the survey; after initial contact by mail, they could take it online or by telephone. The survey questionnaire was developed cooperatively by Responsive Management and the Commission. Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey.

The sample of landowners was obtained from county land parcel records. The sample consisted of three groups of landowners of the western counties: those whose land is adjacent to or contains waters that are currently in the Public Mountain Trout Waters (PMTW) program, those whose land is adjacent to or contains waters that have been removed from the PMTW program, and those whose land is adjacent to or contains waters that are not currently in the PMTW program but could potentially be added to the program.

In the report and graphs, these groups are indicated by the following terms: "Currently in PMTW," "Formerly in PMTW," and "Potentially Added to PMTW," or as shortcuts, the Current Group, the Former Group, and the Add Group.

The survey itself was specific to a parcel of land, rather than to a person, to which the survey and the respondent referred when responding to questions. Hereinafter, lands in question will be referred to as "survey lands."

The survey was administered from April to May 2015.

The analysis of data was performed using Statistical Package for the Social Sciences as well as proprietary software developed by Responsive Management. The three groups were analyzed and are presented separately.

OWNERSHIP AND USE OF LAND

- The overwhelming majority of survey respondents own the survey land (98% of all groups), while 2% of each group manage the land but do not own it.
- The most common uses of the survey land include residential (either the respondent's primary residence or a secondary residence), recreation, agriculture, and conservation. Among those who named recreation, having a summer home/cabin is the top type of recreation by far, distantly followed by camping, fishing, wildlife viewing, hiking, and hunting.

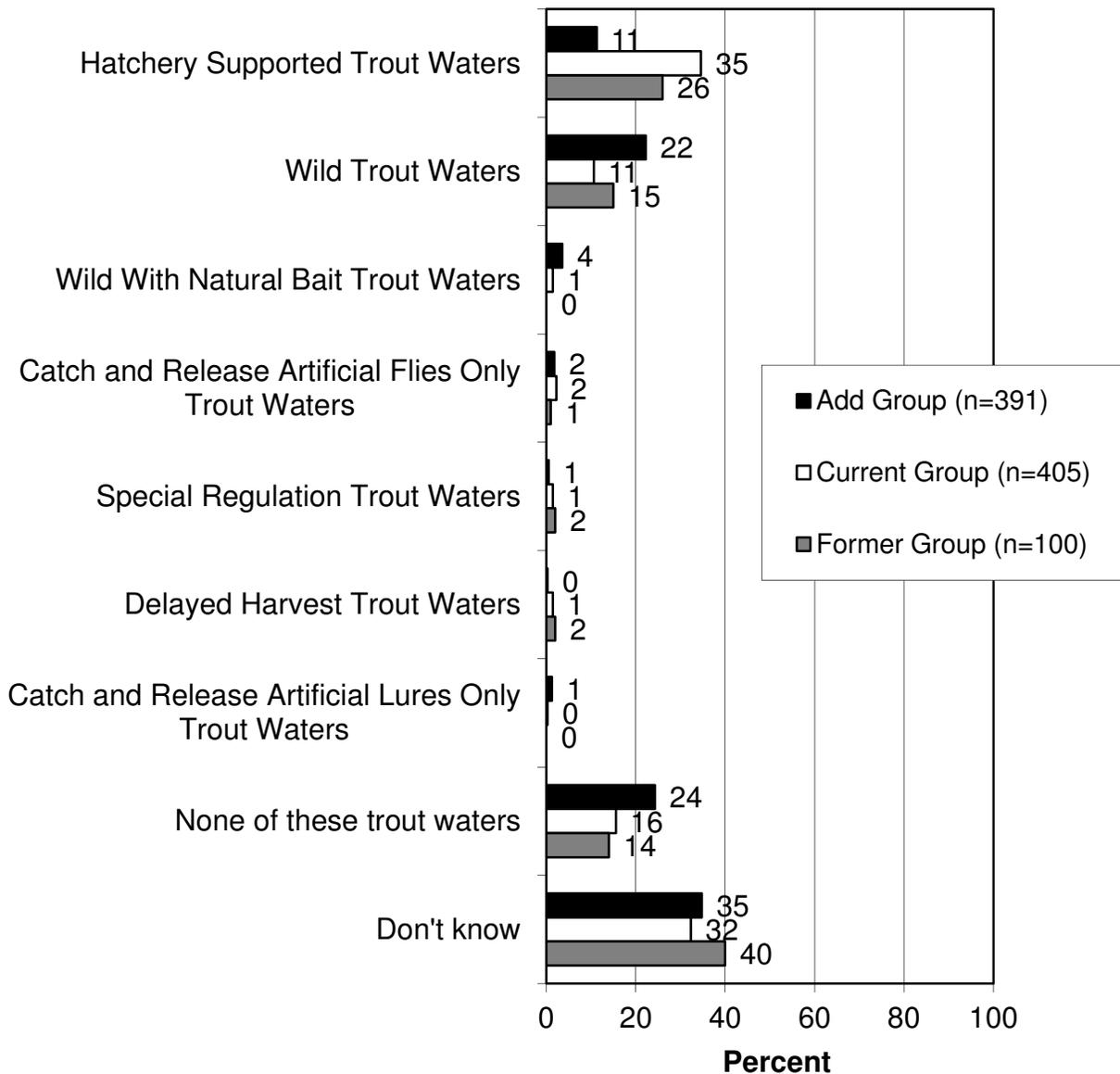
RESIDENCES AND CABINS ON THE LAND

- A little under half of respondents have their primary residence on the survey land (48% of the Add Group, 46% of the Current Group, and 39% of the Former Group). Those whose primary residence was not on the land were asked if any cabins or other residences were on the land: a little more than half of these people indicated that there was a cabin or secondary residence.

CHARACTERISTICS OF LAND AND CLASSIFICATION TYPES

- The most common classification types of the waters adjacent to or on the land in the survey are Hatchery Supported Trout Waters (from 11% to 35% of the groups) and Wild Trout Waters (11% to 22% of the groups), as shown on the graph on the following page.

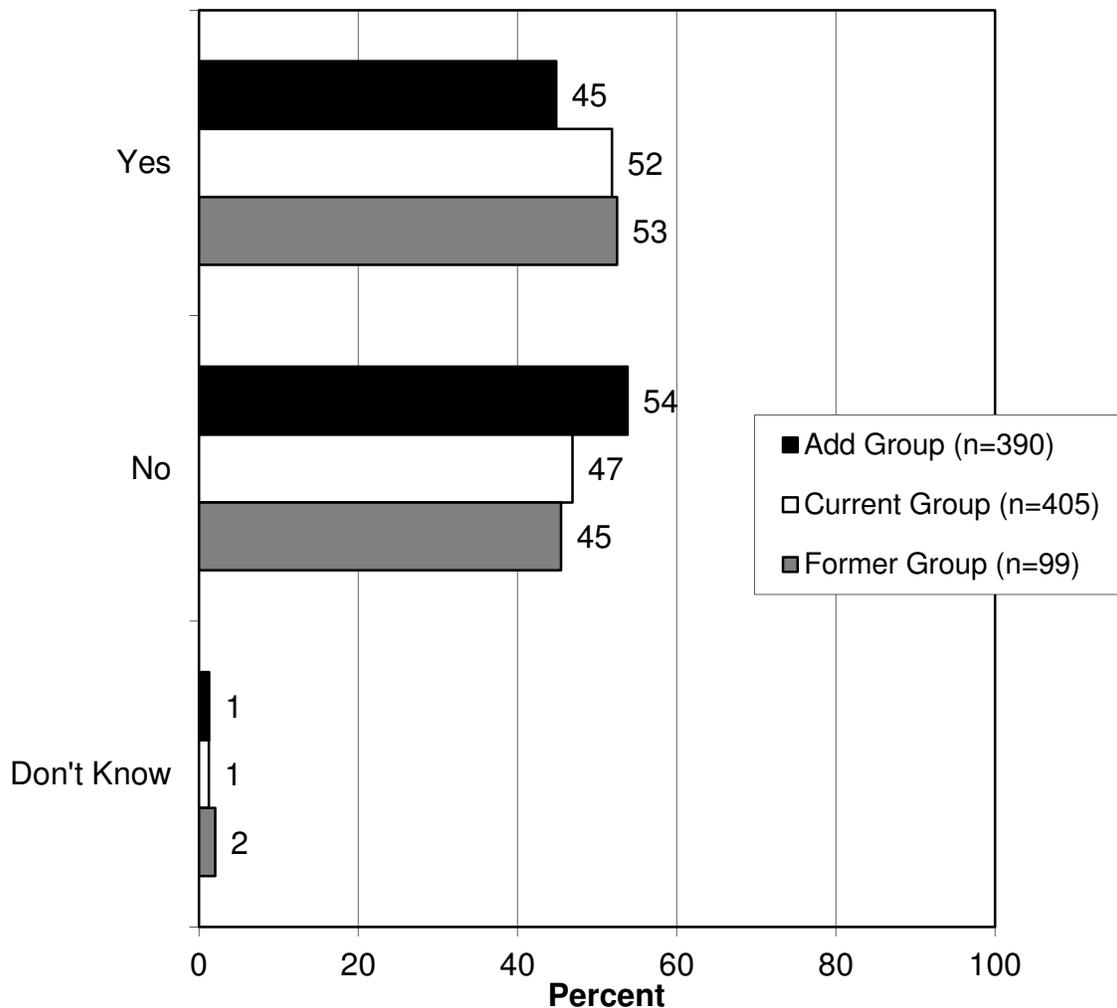
Q33. Currently, trout streams in North Carolina are categorized by seven different classifications based on how trout fisheries are managed. Is the water on or next to your land any of these types, or none of these types?



ALLOWING ACCESS IN GENERAL AND ACTIVITIES ALLOWED ON LAND

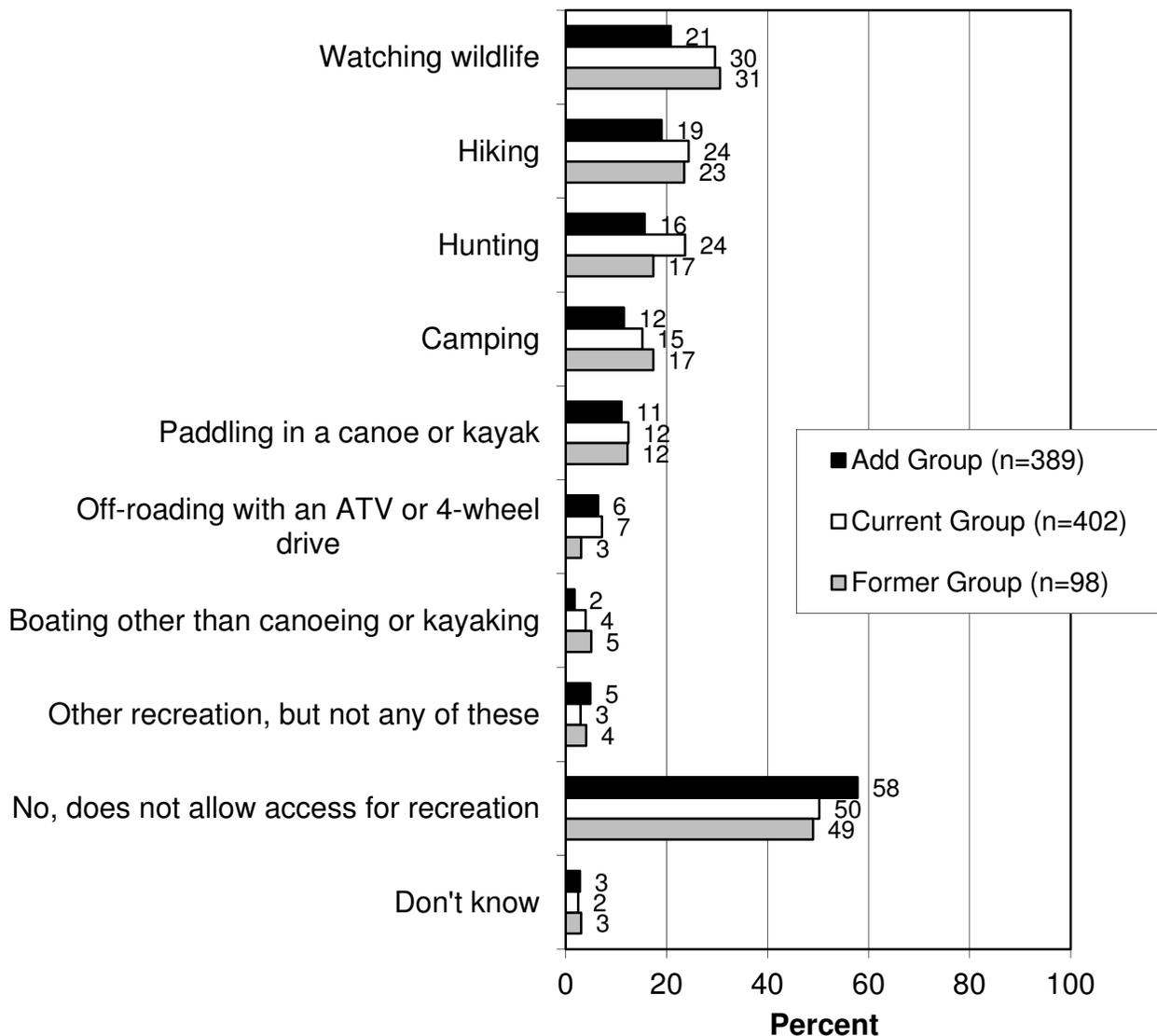
- Roughly half of respondents currently allow access on the survey land for fishing (45% of the Add Group, 52% of the Current Group, and 53% of the Former Group).
- Another question asked about ever allowing access: 59% of the Add Group, 64% of the Current Group, and 64% of the Former Group do or did so at one time.

Q34. Other than people in your household, do you currently allow access on that land for fishing?



- The survey asked specifically about whether landowners allowed any of seven outdoor recreational activities on the survey land. They most commonly allow wildlife watching and hiking, although substantial percentages also allow hunting, camping, and paddling. At the lower end is off-roading and boating other than with canoe/kayak (the latter may be low because many trout waters are not compatible with many boats other than a canoe or kayak).

Q45. Other than people in your household, do you currently allow access on that land for any of these types of recreation?



FEES CHARGED AND LEASES

- No more than 1% of any group of landowners charge fees for fishing access; almost no landowners in the survey lease their land for fishing.
- Overall rates of leasing land for *hunting* is from 1% to 3%.

WHOM ALLOWED TO ACCESS LAND

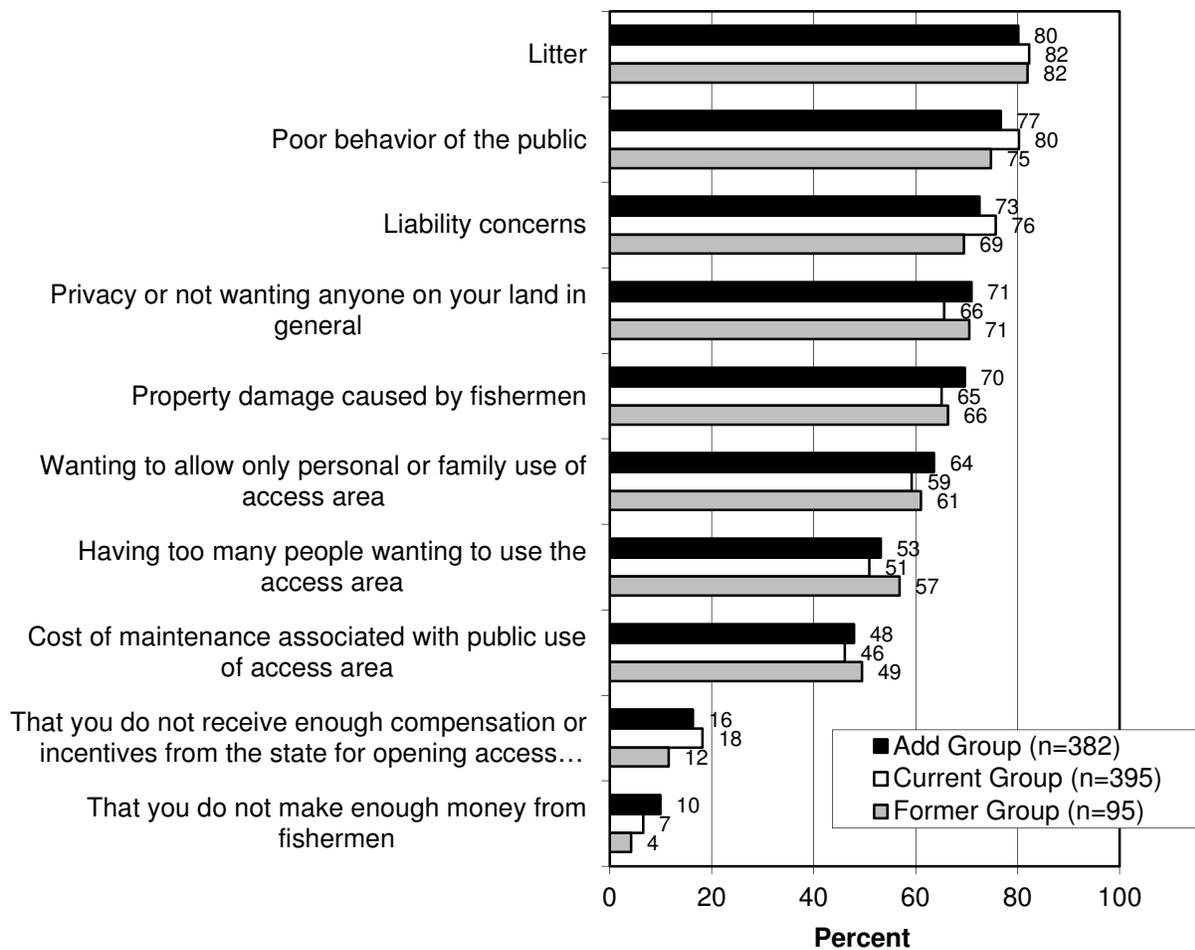
- Those who allow access for fishing were asked if that access was generally open to the public or limited to those to whom they personally give permission. A little less than half of the Add Group (44%) and more than half of the Current Group and Former Group (69% and 57%, respectively) say that the access is generally open to the public.
 - In follow-up, those who allow limited access were asked about the people whom they allow: nearly all allow friends (from 75% to 84% generally allow friends) or acquaintances (from 60% to 71%), while about half allow people that they do not know but who asked for permission (from 45% to 51%).

FACTORS CONSIDERED IN DECIDING ABOUT ACCESS, AND MOTIVATIONS AND INCENTIVES FOR ALLOWING ACCESS

- A basic question simply asked landowners who allow those whom they do not know to access their land why they allow access to the water. The most common reason is, by far, that they feel it is the right thing to do/that it supports fishing. Otherwise, small percentages simply do not care or say that locals have always done it and they are hesitant to stop them or to stop this tradition. Finally, from 8% to 15% of the groups indicate that they have no feasible way to stop people from accessing the land.
- While the overwhelming majority of respondents, in an open-ended question, did not name any incentive or assistance that would encourage them to allow fishing access (asked of those who do *not* currently allow it), small percentages of respondents said that:
 - financial incentives would encourage them to allow fishing access,
 - having the waters stocked would encourage them to allow access (presumably because they would benefit from having fish that they could catch),
 - either law enforcement or educational measures being taken to ensure better behavior among those accessing the waters would encourage them to allow access, or
 - some type of assistance in maintaining roads or the stream area itself would encourage them to allow access.

- All landowners were asked a series of questions about the importance of various factors in their decisions on allowing or not allowing anglers to access the water on the survey land. For each factor presented to them, they rated it as *very important*, *somewhat important*, or *not at all important* in making access decisions.
 - The top items are litter (66% to 68% say that this factor is very important), the poor behavior of the public (56% to 62%), liability concerns (54% of each group), and property damage (49% to 53%).

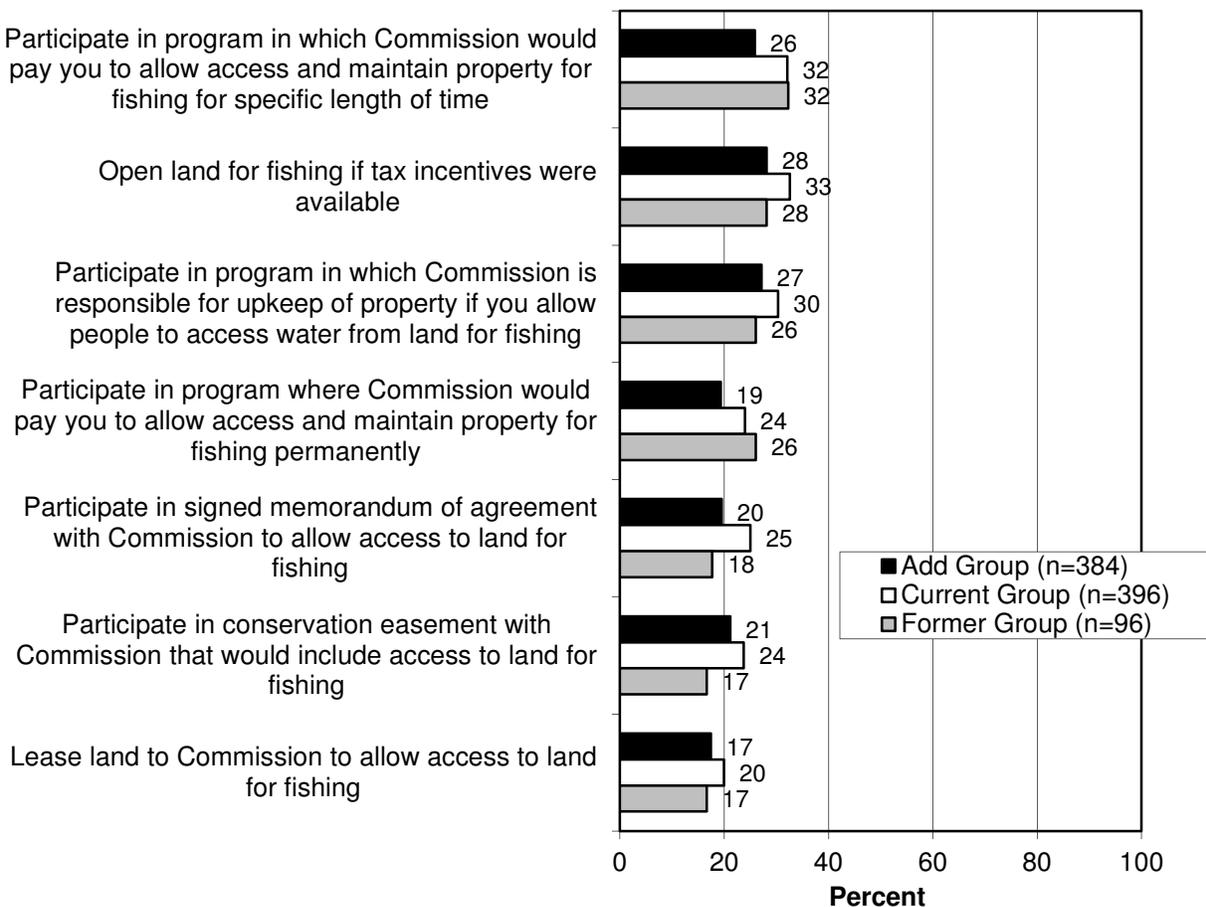
Percent of respondents who indicated that each of the following is very or somewhat important to their decisions whether to allow or not allow access for fishing now or in the future on their land:



LIKELIHOOD TO ALLOW VARIOUS TYPES OF ACCESS AND UNDER VARIOUS SCENARIOS

- Seven actions (such as to “open lands for fishing if tax incentives were available”) were presented to landowners; for each, they were asked about their likelihood (very, somewhat, or not at all) of doing the action.
 - All of the possible actions have about the same ratings of likelihood: from 17% to 32% of the groups indicated being *very* or *somewhat* likely to do the action. Two that are at or near the top of the ranking for each group are to “participate in a program in which the Commission would pay you to allow access and maintain property for fishing for a specific length of time” and to “open land for fishing if tax incentives were available.”

Percent of respondents who indicate being very or somewhat likely to participate in each of the following:



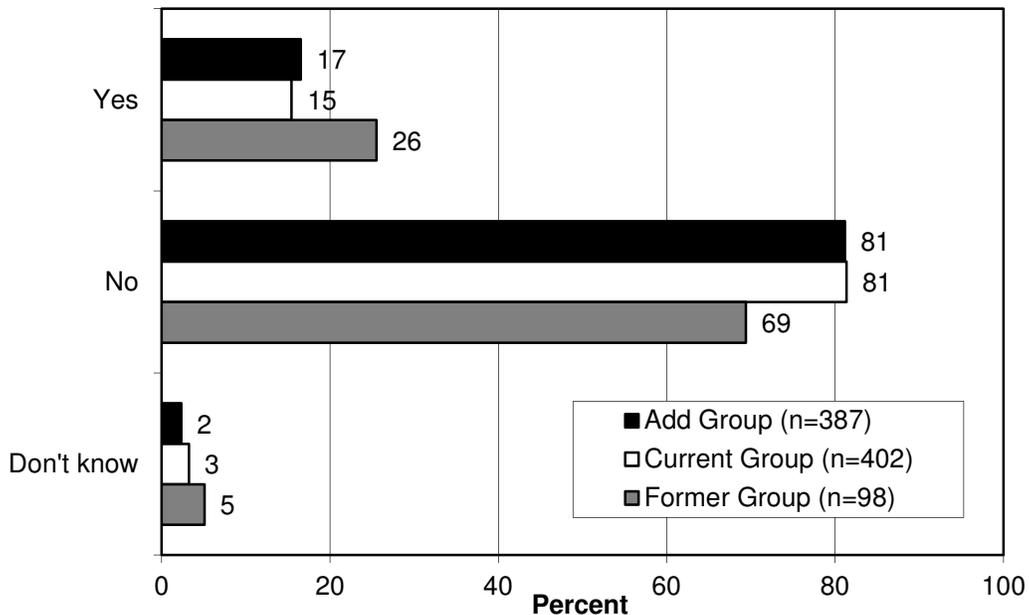
SIGNAGE ON LAND

➤ About a third of respondents indicate that they have “private,” “no trespassing,” or similar signs posted on their land, including purple paint in place of a worded sign (39% of the Add Group, 34% of the Current Group, and 33% of the Former Group). Additionally, about a fifth of all respondents have such signs posted at or near the water (23% of the Add Group, 20% of the Current Group, and 19% of the Former Group).

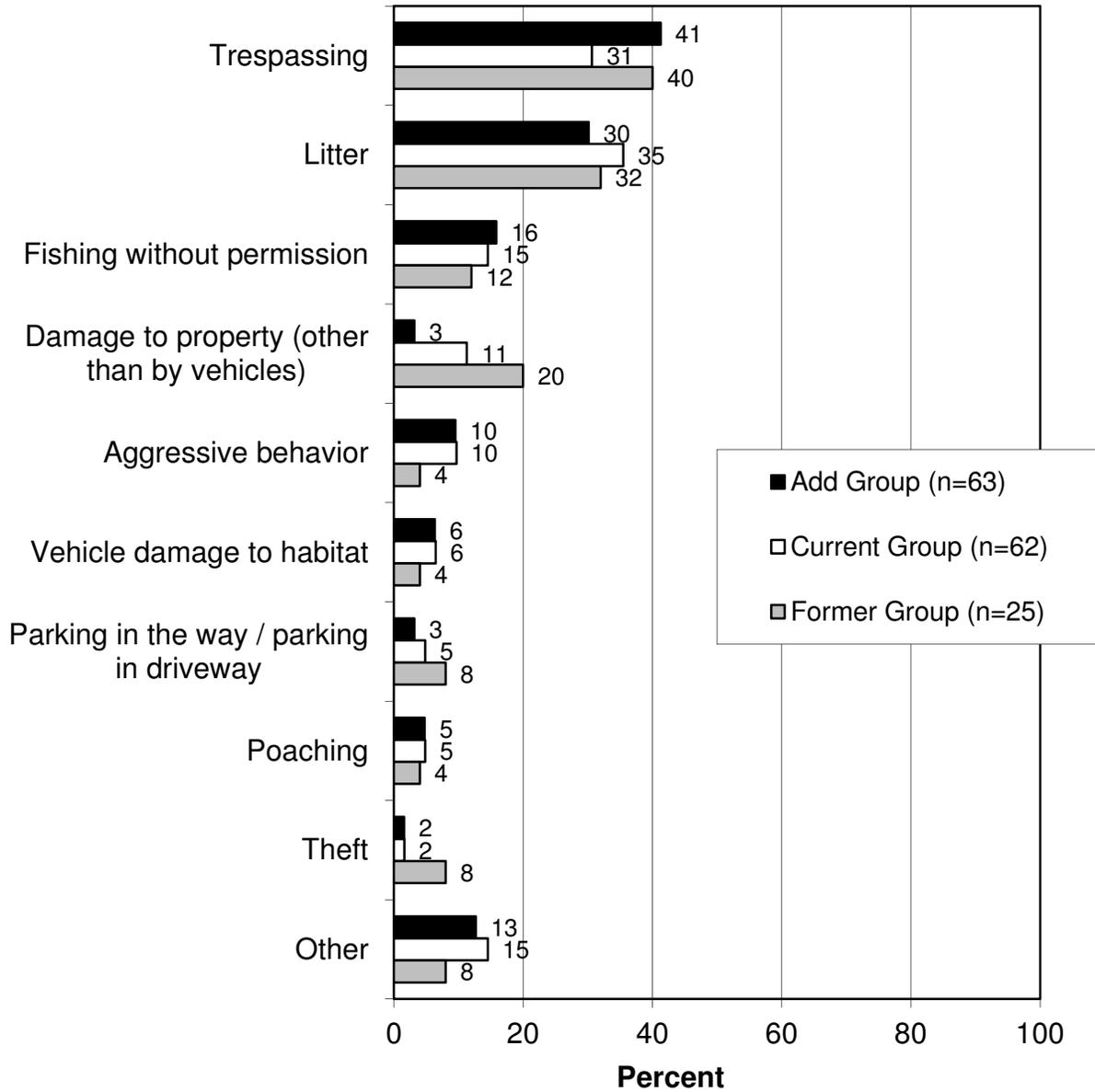
PROBLEMS EXPERIENCED

- While all three groups, over the past 5 years, have respondents who experienced problems with fishermen accessing their land, the rate among the Former Group is notably higher: 17% and 15% of the Add Group and the Current Group said that they experienced problems, while 26% of the Former Group indicated that they had problems.
 - In follow-up, the survey asked respondents to name the problems, in an open-ended question to which any response could be given. Trespassing and litter were most commonly named.

Q50. Regardless of whether you allow others to access the water from your land, have you experienced any problems with fishermen on your land or accessing the water from your land in the past 5 years?



Q51. What problems have you experienced with fisherman on the land? (Asked of those who had problems with fishermen.)

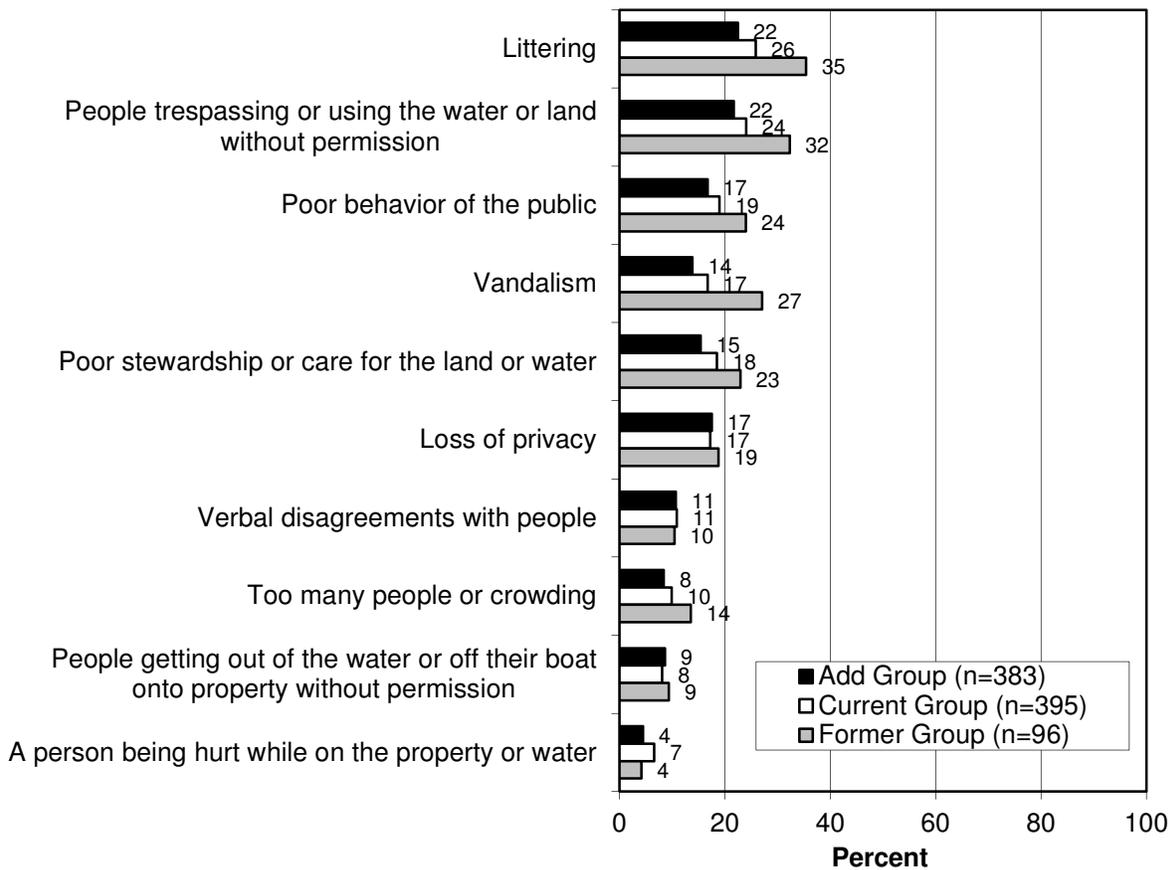


- The survey asked all landowners (regardless of their response to Q50 about whether they had experienced problems with fishermen) about ten items that could potentially be a problem with people on their land—including people *not* fishing. For each item, the survey asked

landowners to rate it as a *major* problem, a *moderate* problem, a *minor* problem, or *not a problem at all*.

- The top problems are littering, people trespassing/using water without permission, poor behavior of the public, vandalism, poor stewardship of the resource, and loss of privacy.
 - It is worth noting that the Former Group generally had a higher percentage saying each was a major or moderate problem compared to the Add Group and the Current Group—particularly those top problems named above.

Percent of respondents who indicated that each of the following has been a major or minor problem in the past 5 years:

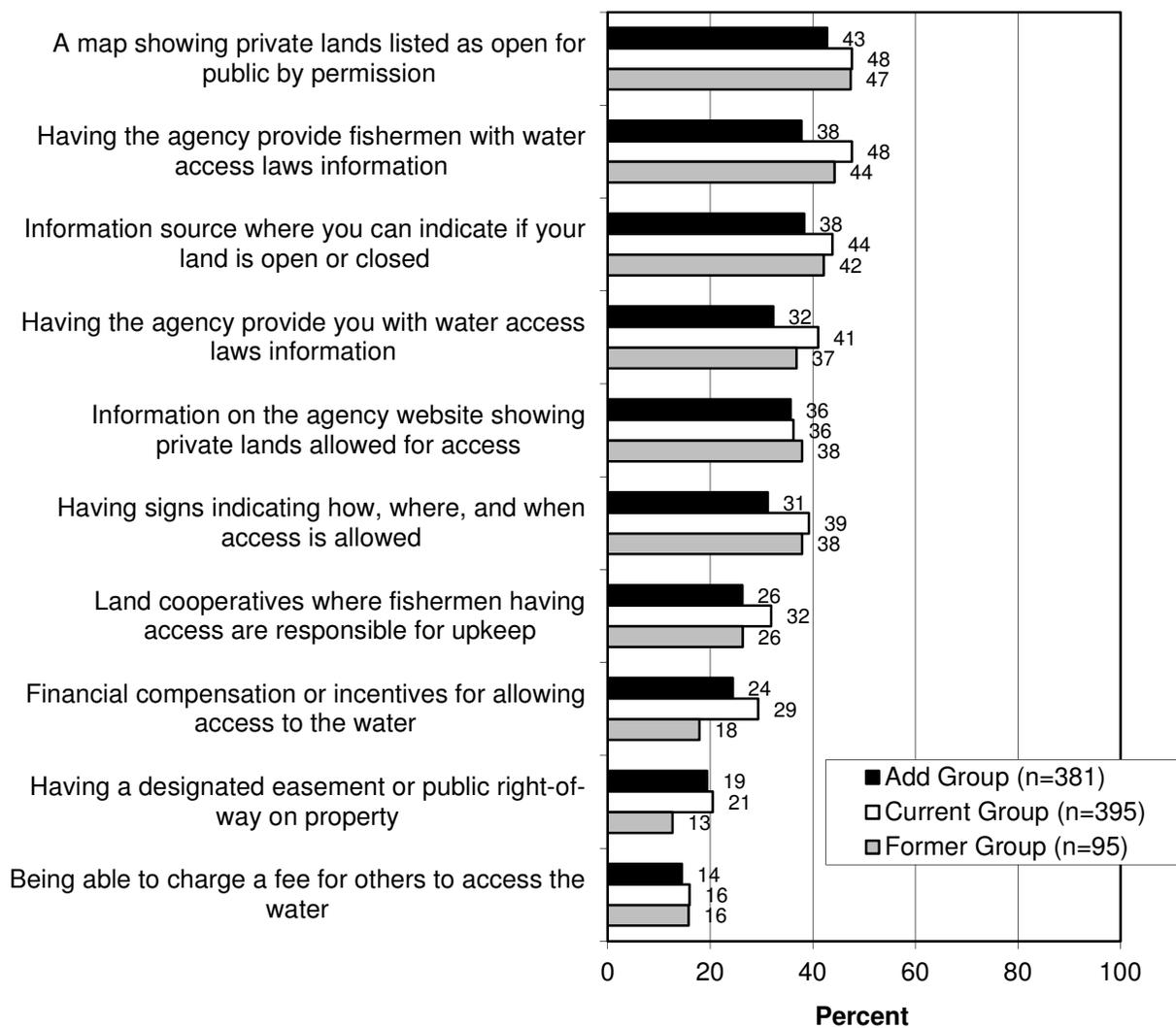


- The converse of looking at problems is looking at things that might be effective in reducing problems. For each of ten items, landowners were asked if they thought it would be *very*

effective, *somewhat* effective, or *not at all* effective at reducing problems that landowners may have had.

- There are six items being rated as very or somewhat effective by at least a third of landowners in the three groups, most of which pertain to providing information, as shown in the graph.

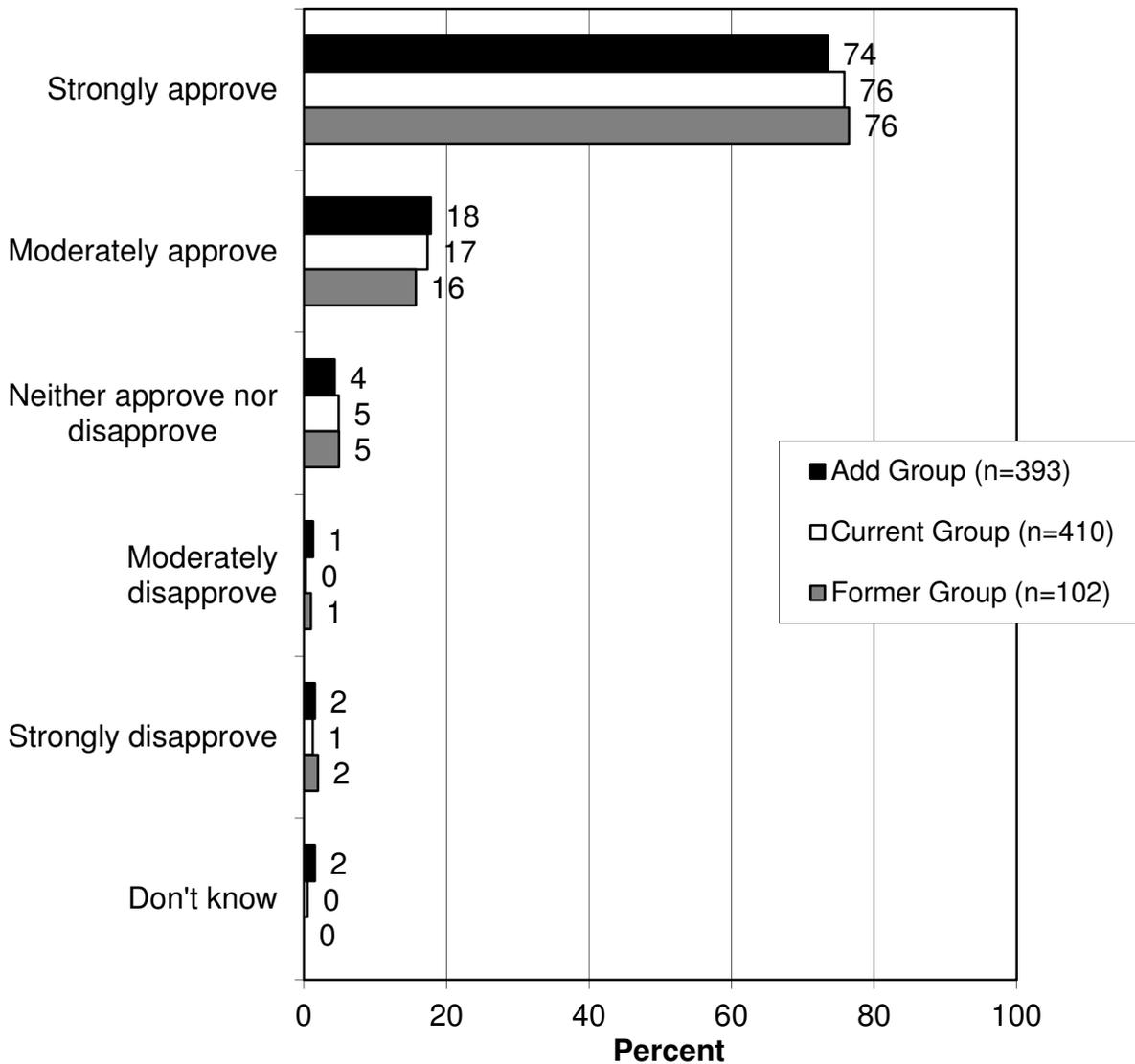
Percent of respondents who indicated that each of the following would be very or somewhat effective in reducing problems on their land:



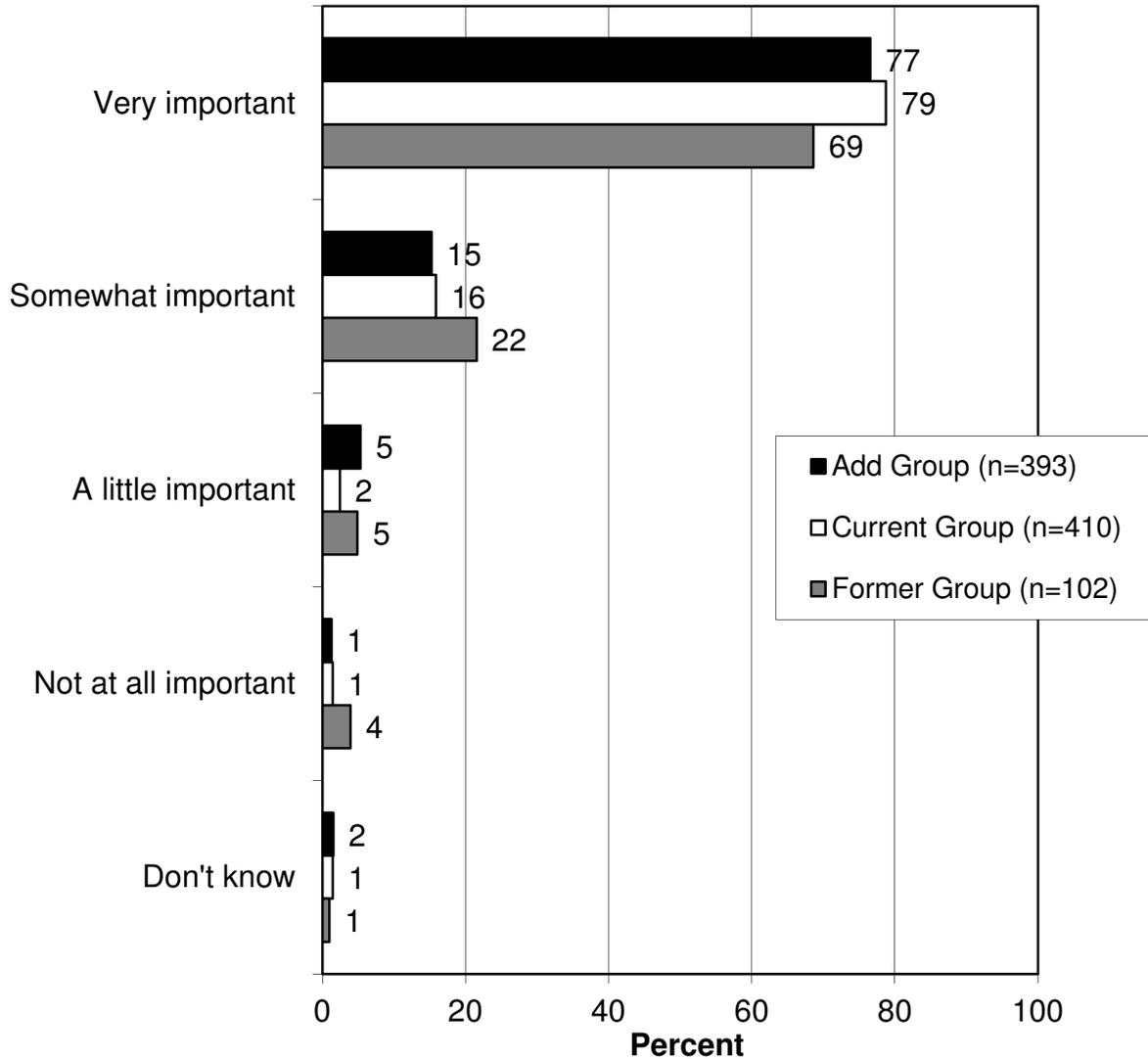
APPROVAL AND IMPORTANCE OF FISHING

➤ Approval of legal, recreational fishing is high among all groups: 91% to 93% of landowners in the survey approve; only 1% to 3% disapprove. Additionally, 90% to 95% of landowners say that it is *very* or *somewhat* important that people have the opportunity to fish in North Carolina; only 1% to 4% say it is *not at all* important.

Q20. Do you approve or disapprove of legal, recreational fishing?



Q22. How important or unimportant is it to you that people have the opportunity to fish in North Carolina?



PARTICIPATION IN OUTDOOR RECREATION

- Of the eight outdoor recreation activities asked about in the survey, those that were most commonly done by the landowners are watching wildlife, hiking, and fishing. Note that the activities could be done anywhere in North Carolina in the past 5 years; the question was not specific to the survey land.

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INTRODUCTION AND METHODOLOGY

This study was conducted for the North Carolina Wildlife Resources Commission (hereinafter referred to as the Commission) to determine North Carolina landowners' attitudes toward trout fishing access, including their experiences with recreationists accessing water from their property, their opinions on access in general, and their opinions on incentives to allow access. The study entailed a scientific multi-modal survey of landowners (of at least a quarter acre) in western North Carolina who have a stream that currently supports trout or could potentially support trout running through or adjacent to their property. Contacts were made by mail and subsequently by telephone. Specific aspects of the research methodology are discussed below.

The results describe western North Carolina landowners' views of the Public Mountain Trout Waters (PMTW) program and views toward allowing angler access to trout waters that run through or adjacent to their properties. Understanding landowners' views toward the PMTW program and toward angler access will help the Commission achieve the first goal of the 2013 Trout Management Plan's angler access program area, which was to secure permanent public access to trout fisheries. The Commission will use the results of the landowner study to develop strategies that will encourage landowners to open access and prevent landowners from closing access to trout waters. Thus, the Commission needed to hear from landowners in three primary groups. These groups are those whose land is adjacent to or contains waters that:

- Are currently in the PMTW program.
- Have been removed from the PMTW program.
- Could potentially be added to the PMTW program.

QUESTIONNAIRE DESIGN

The survey questionnaire was developed cooperatively by Responsive Management and the Commission, based on the research team's familiarity with trout fishing, as well as natural resources in general. Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey.

The survey was coded in Questionnaire Programming Language (QPL) for approval from the Commission and for use in administering the survey by telephone. An online version of the

survey was coded in HyperText Markup Language (HTML) based on the QPL version. Both versions produced data that could be exported directly into the data analyses programs.

The survey instruments were programmed to automatically skip questions that did not apply and to substitute phrases in the survey based upon previous responses, as necessary, for the logic and flow of the interview. Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey.

USE OF MULTI-MODAL SURVEY

A multi-modal survey was chosen to allow landowners the most convenience in completing the survey. Initial contacts with landowners were made by mail (mailings included a link to an online version of the questionnaire as well as a toll-free phone number for landowners to call to take the survey by telephone). Overall, landowners had several options for completing the survey: through the online questionnaire, or by outbound and inbound phone calls with an interviewer. Completed questionnaires were obtained via all three methods.

SURVEY SAMPLE

The sample of landowners was obtained from county land parcel records. The sample consisted of three groups of landowners of the western counties: those whose land is adjacent to or contains waters that are currently in the PMTW program, those whose land is adjacent to or contains waters that have been removed from the PMTW program, and those whose land is adjacent to or contains waters that are not currently in the PMTW program but could potentially be added to the program.

In the report and graphs, these groups are indicated by the following terms: “Currently in PMTW,” “Formerly in PMTW,” and “Potentially Added to PMTW,” or as shortcuts, the Current Group, the Former Group, and the Add Group.

Specifically, landowners’ mailing addresses were obtained from the county land parcel Geographic Information System (GIS) data. The Commission maintains a GIS data layer representing the PMTW program. Commission staff overlaid the county land parcel GIS data

with PMTW GIS data to identify the three aforementioned groups of landowners critical to include in this study. Commission staff then provided Responsive Management the address lists for each of the three groups of landowners.

Some landowners appeared in more than one group. Corrections were made to the sample prior to the survey administration to ensure that each landowner was in only one group in the sample.

The survey was administered to landowners who owned a specific parcel of land that had current, former, or potential PMTW adjacent to or on it, to which the survey and the respondent referred when responding to questions. Hereinafter, lands in question will be referred to as “survey lands.” Note that the survey land most commonly was *not* the respondent’s primary residence.

CONTACT PROCEDURES

A multi-modal data collection method was used for this study. Contacts were made by mail (via letter) and telephone. The survey could be completed online or over the telephone, as most convenient or preferred by the respondent. Note that the survey was available only to those who were selected in the sample. Appropriately designed surveys with an Internet component require that a *closed* group of potential respondents is invited to participate in the survey. Internet surveys are an excellent survey method to use *when the sample consists of a closed population of respondents* (i.e., a person surfing the Internet could not stumble upon the survey and take it), as was the case in this study.

Contact by Mail

Initial contacts with landowners were made through a mailing on Commission letterhead and in Commission envelopes; the mailing was sent in April 2015. The letters were sent to 5,000 landowners asking them to participate in the survey regarding the land they owned in their county, based on the county designated in the database—each letter was specific to a particular parcel of land, and the county was identified in the letter (for instance, “your land in Clay County”).

The letters were sent to 2,147 landowners in the Add Group, to 2,210 landowners in the Current Group, and to all the landowners in the Former Group (643). Each letter mailed had a unique identification code assigned to landowners to allow them to be tracked so that they would not be contacted after already completing the survey, as well as to ensure that only landowners who were supposed to be contacted were taking the survey. The tracking number was also used to help those who called or emailed for assistance.

The letters provided a link to the survey, a toll-free number, and an email address. The toll-free number and the email address allowed those to contact Responsive Management to take the survey by telephone, schedule another time for the interview, request a link for the online survey, or request a paper copy of the survey (note that no requests were received for a paper copy of the survey). The template for the letter is shown on the following page.

Letter

North Carolina Wildlife Resources Commission

[UNIQUE_ID CODE]
[OWNER_1]
[OWNER_2]
[MAILADD_1]
[MAILCITY], [MAILSTAT] [MAILZIP]

April 8, 2015

Dear Property Owner or Manager,

The North Carolina Wildlife Resources Commission (Commission) is conducting a study of property owners and managers who own or manage land in North Carolina to learn more about opinions on natural resources in the state. Our records indicate that you own and/or manage land in:

[COUNTYNAME] County, North Carolina

The Commission would greatly appreciate your input to help represent property owners and managers in [COUNTY], North Carolina. Please consider taking just a few minutes to complete the study questionnaire now; you will need to enter the ID code shown above your name and address at the top of this letter and the NC county referenced above when you respond.

You may take the survey online at the following web address:

OR

You may take the survey by telephone by contacting Responsive Management at:

<http://sgiz.mobi/s3/NCLand>

1-800-432-6135

Please submit your completed survey by April 30.

The Commission has contracted Responsive Management (www.responsivemanagement.com), an independent research firm that specializes in natural resource and outdoor recreation issues, to conduct this study. Please provide the best information your knowledge allows. Your answers will be kept completely confidential and will not be associated with your name in any way.

If you need technical assistance with the survey, please contact Responsive Management via email at research@responsivemanagement.com. For more information about this study, please visit www.ncwildlife.org/Fishing or contact Kerry Linehan with the Commission's Division of Inland Fisheries at kerry.linehan@ncwildlife.org.

Thank you for your time, participation, and input. Your responses are critical to help the Commission work collaboratively with property owners to manage natural resources across the state.

Sincerely,

A handwritten signature in cursive script that reads "Robert L. Curry".

Robert L. Curry
Chief, Division of Inland Fisheries

Mailing Address: Division of Inland Fisheries • 1721 Mail Service Center • Raleigh NC 27699-1721

Telephone: (919) 707-0220 • **Fax:** (919) 707-0028

Contacts by Telephone

Those who had already completed the survey online or who had contacted Responsive Management by telephone were not included in follow-up mailings or subsequent telephone calls. A five callback design ensured that each telephone number was tried at least five times on different days of the week and different times of the day.

Follow-Up Contacts and Reminders

Responsive Management carefully tracked participation in the survey through the identification numbers. Approximately 1 to 3 weeks after sending the first contacts, Responsive Management began making follow-up contact with those who had not yet responded. Multiple follow-up contacts were made to encourage participation and obtain completed interviews using the most convenient method for respondents. Responsive Management continued with a total of two to five follow-up contacts. The reminders again provided a link to the online survey and a toll-free number.

The following table summarizes the contact effort for this study:

Contact Round	Approximate Date(s)	Data Collection Tasks
1	April 2015	Pretest and initial contact: letters mailed
2	April to May 2015	First follow-up (second contacts) made. Requests from the toll-free number and help email address fulfilled for links and scheduled calls; for phone calls, interviewers completed surveys at time of call when possible
3	May 2015	Second follow-up (third contacts) made; requests fulfilled
4+	May 2015	Third-plus follow-up (four or more contacts) made; interviewers call back those who agreed to complete the survey online but have not done so, remaining surveys completed by telephone; requests fulfilled

SURVEY ADMINISTRATION

As indicated above, the unique identification number that was assigned to each landowner in the sample was for tracking progress in the survey and ensured that no landowners completed the survey more than once.

To ensure that the data collected were of the highest quality, Responsive Management used interviewers who were trained through lectures, role-playing, and video training, according to the standards established by the Council of American Survey Research Organizations (CASRO). The Survey Center Managers conducted in-depth project briefings with the interviewing staff prior to their work on this study. Interviewers were instructed on survey goals and objectives, the type of study, handling of survey questions, interview length, termination points and qualifiers for participation, reading of interviewer instructions, reading of the survey, reviewing of skip patterns, and probing and clarifying techniques necessary for specific questions on the survey.

Survey administration efforts resulted in 906 completed surveys with landowners. Responsive Management obtained 394 interviews among those in the Add Group sample, 410 interviews among those in the Current Group sample, and 102 interviews among those in the Former Group sample. The overall response rate was approximately 18%.

SURVEYING DATES AND TIMES

For surveys completed over the web, questionnaires could have been completed at any time—at the convenience of the respondent. For telephone surveys, Responsive Management's surveying times are Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time. The survey was administered from April to May 2015.

DATA ANALYSIS

The analysis of data was performed using SPSS as well as proprietary software developed by Responsive Management. The three groups were analyzed and are presented separately.

The data are presented for landowners in each of the three groups that were sampled. As discussed previously, these groups are indicated by the following terms: "Currently in PMTW," "Formerly in PMTW," and "Potentially Added to PMTW," or as shortcuts, the Current Group, the Former Group, and the Add Group.

Based on the size of the groups in the database and the number of completed interviews, the sampling errors are as shown in the following tabulation:

	Sample	Population in Database	Error
Add Group	394	3,937	4.68
Current Group	410	11,459	4.75
Former Group	102	670	8.94
Total	906	16,066	3.16

ADDITIONAL INFORMATION ABOUT THE PRESENTATION OF RESULTS IN THE REPORT

In examining the results, it is important to be aware that the questionnaire included several types of questions:

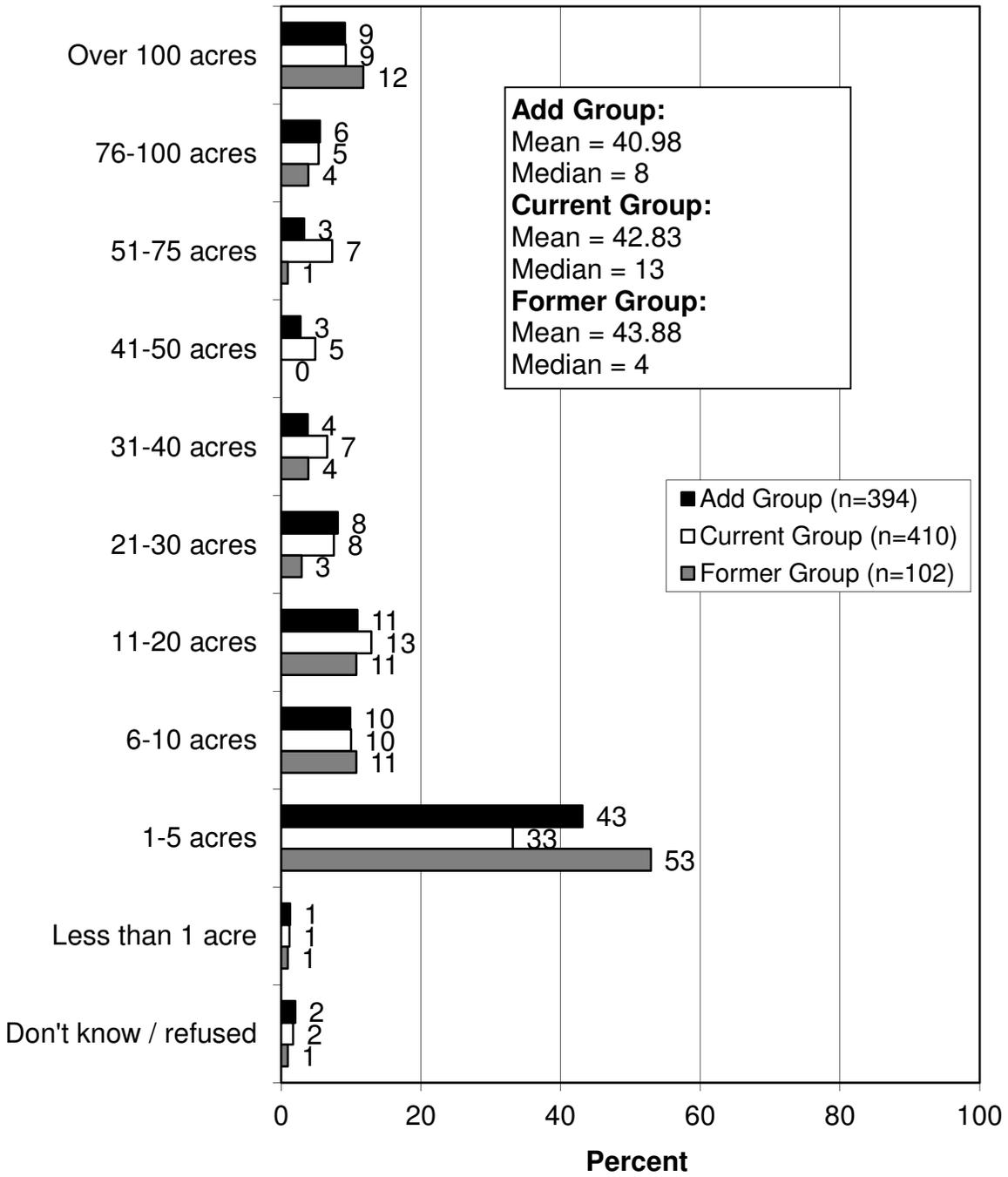
- Open-ended questions are those in which no answer set is presented to the respondents; rather, they can respond with anything that comes to mind from the question.
- Closed-ended questions have an answer set from which to choose.
- Single or multiple response questions: Some questions allow only a single response, while other questions allow respondents to give more than one response or choose all that apply. Those that allow more than a single response are indicated on the graphs with the label, "Multiple Responses Allowed."
- Scaled questions: Many closed-ended questions (but not all) are in a scale, such as excellent-good-fair-poor.
- Series questions: Many questions are part of a series, and the results are primarily intended to be examined relative to the other questions in that series (although results of the questions individually can also be valuable). Typically, results of all questions in a series are shown together.

Most graphs show results rounded to the nearest integer; however, all data are stored in decimal format, and all calculations are performed on unrounded numbers. For this reason, some results may not sum to exactly 100% because of this rounding on the graphs. Additionally, rounding may cause apparent discrepancies of 1 percentage point between the graphs and the reported results of combined responses (e.g., when "very likely" and "somewhat likely" are summed to determine the total percentage being at all likely).

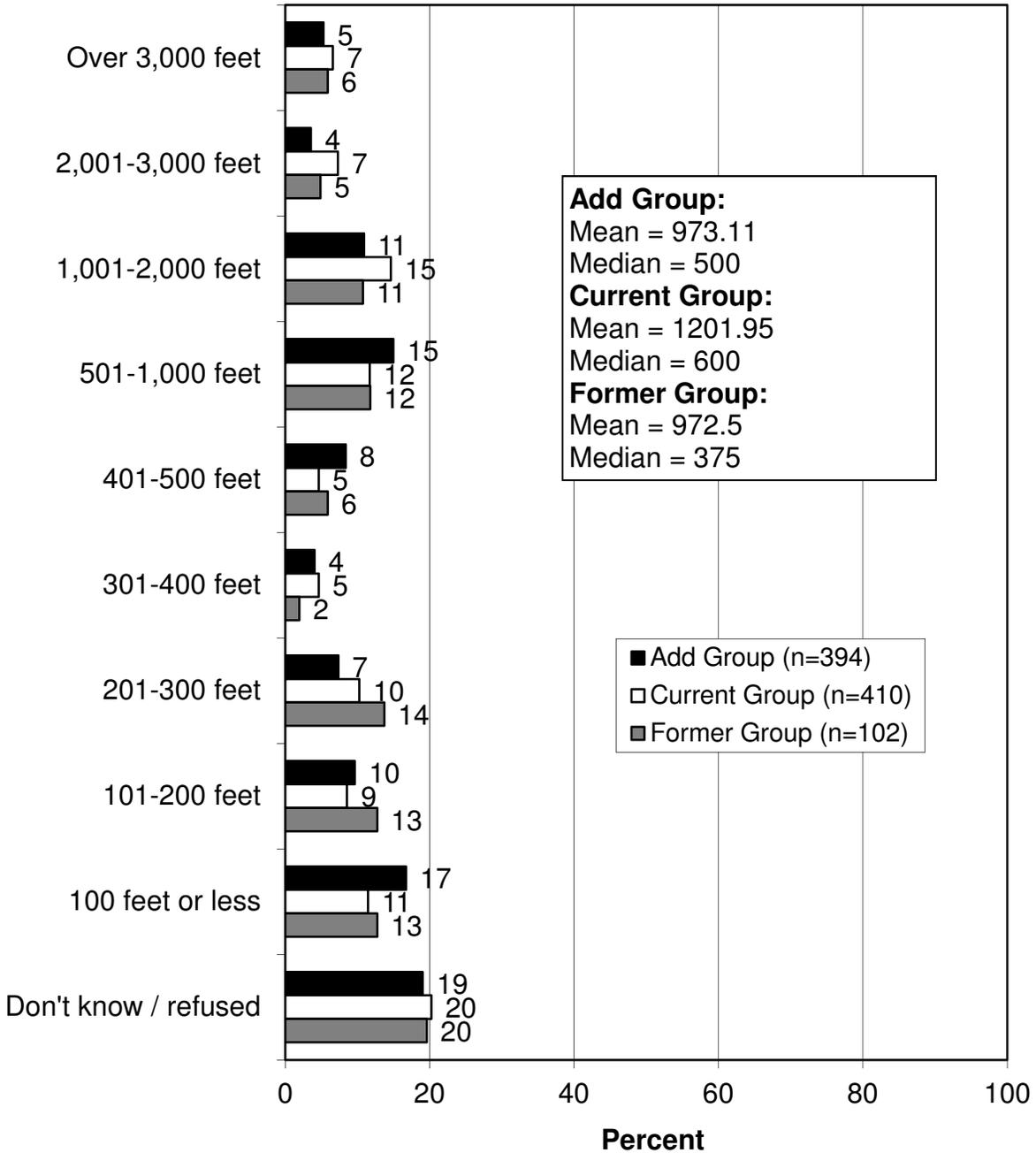
OWNERSHIP AND USE OF LAND

- Two questions asked about the physical dimensions of the land and water: the questions asked about tract sizes of the survey lands and the linear feet of stream. For each group, the mean acreage is a little more than 40 acres, and the mean linear feet is around 1,000 feet.
- The overwhelming majority of survey respondents own the survey land (98% of all groups), while 2% of each group manage the land but do not own it.
 - Length of family ownership is shown.
 - Length of personal ownership or management is also shown.
- The most common uses of the survey land include residential (either the respondent's primary residence or a secondary residence), recreation, agriculture, and conservation. Among those who named recreation, having a summer home/cabin is the top type of recreation by far, distantly followed by camping, fishing, wildlife viewing, hiking, and hunting. The graph shows the full, extensive list.

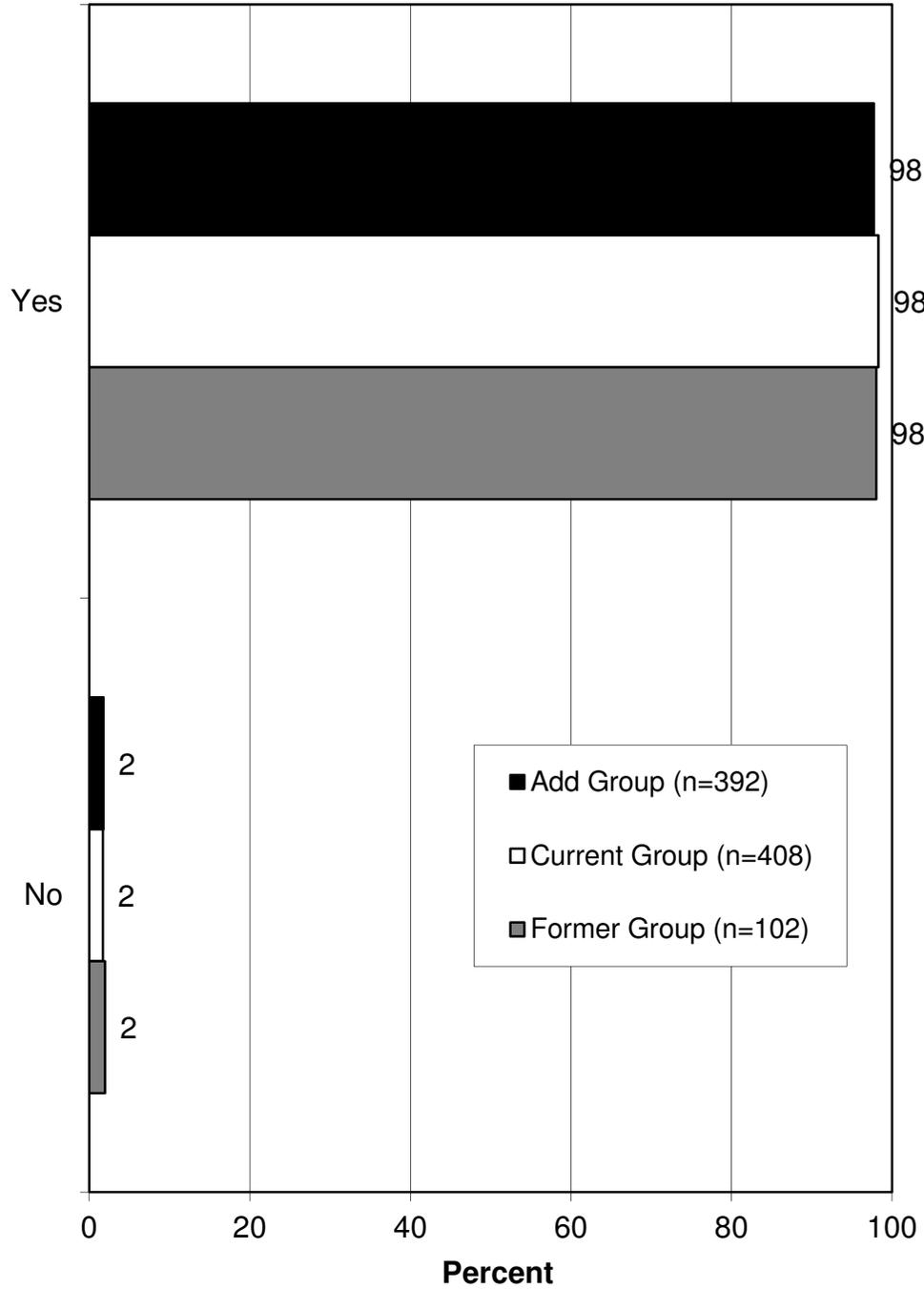
Q13. How many acres is that tract of land?



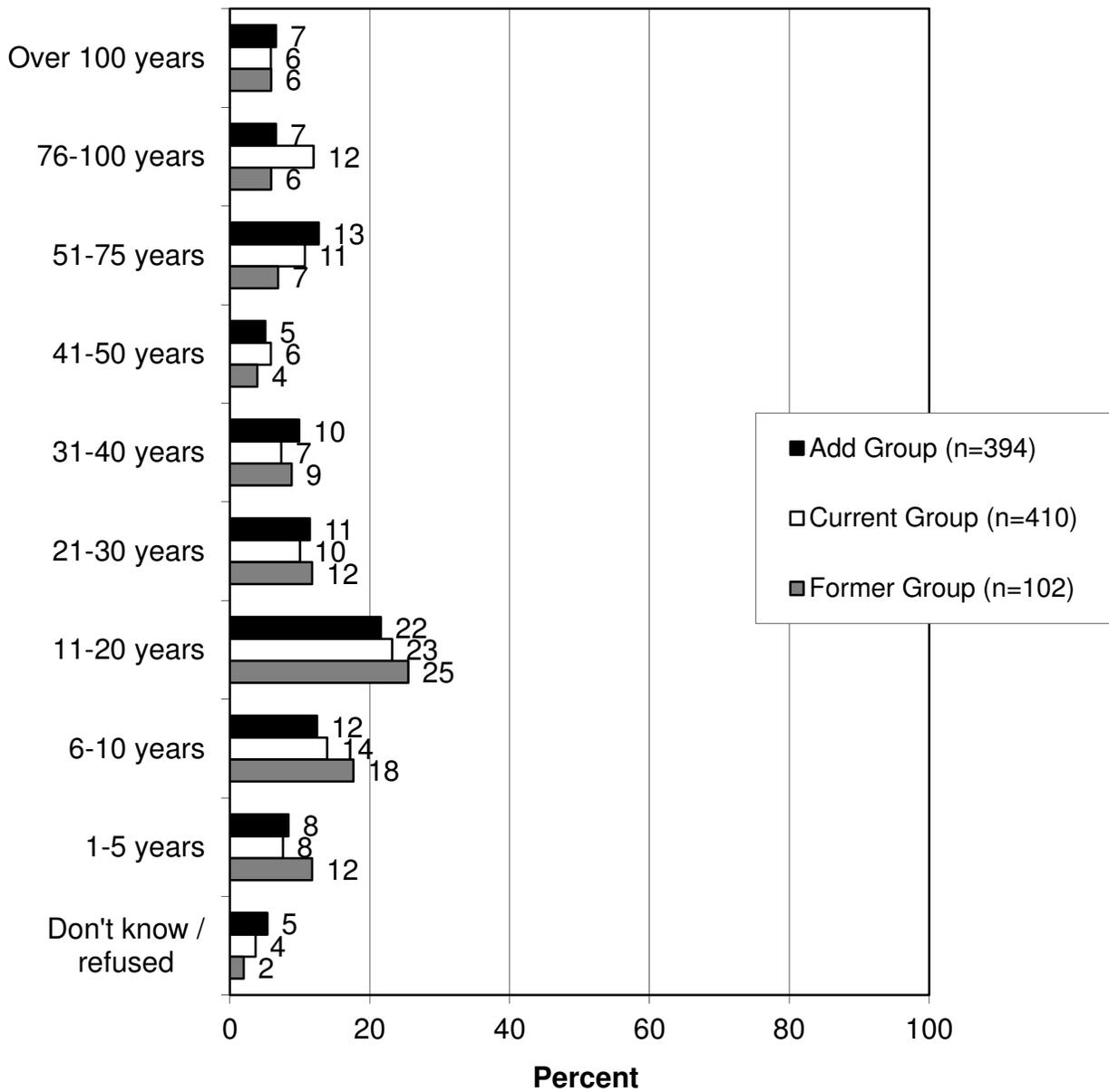
Q31. About how many linear feet of river or stream is on or next to your land?



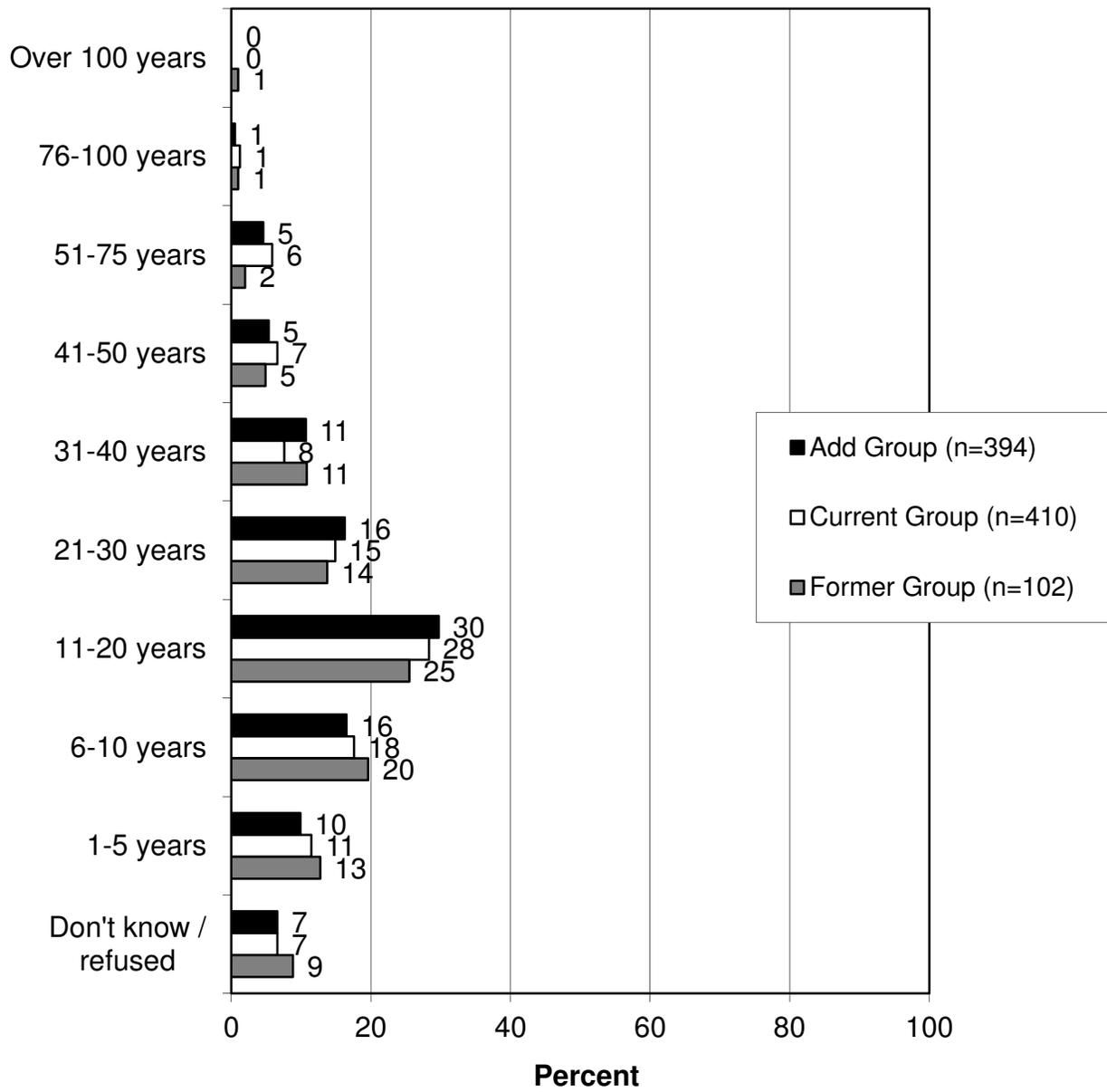
Q26. Do you or your family own the land?



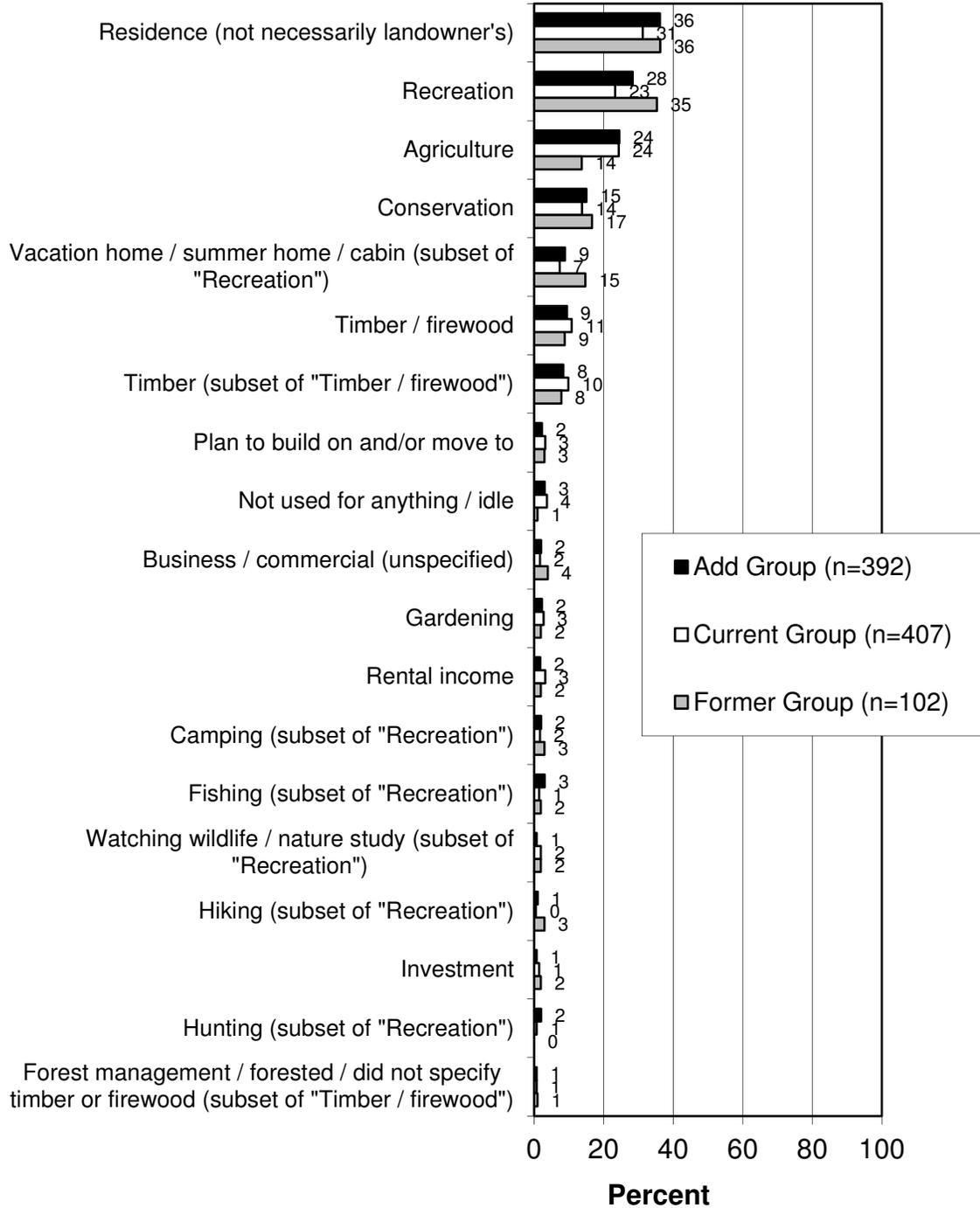
Q27. How many years have you or your family owned that land? (Asked of those who own or whose family owns the land.)



Q29. How many years have you personally owned or managed that land? (Asked of those who own or whose family owns the land.)



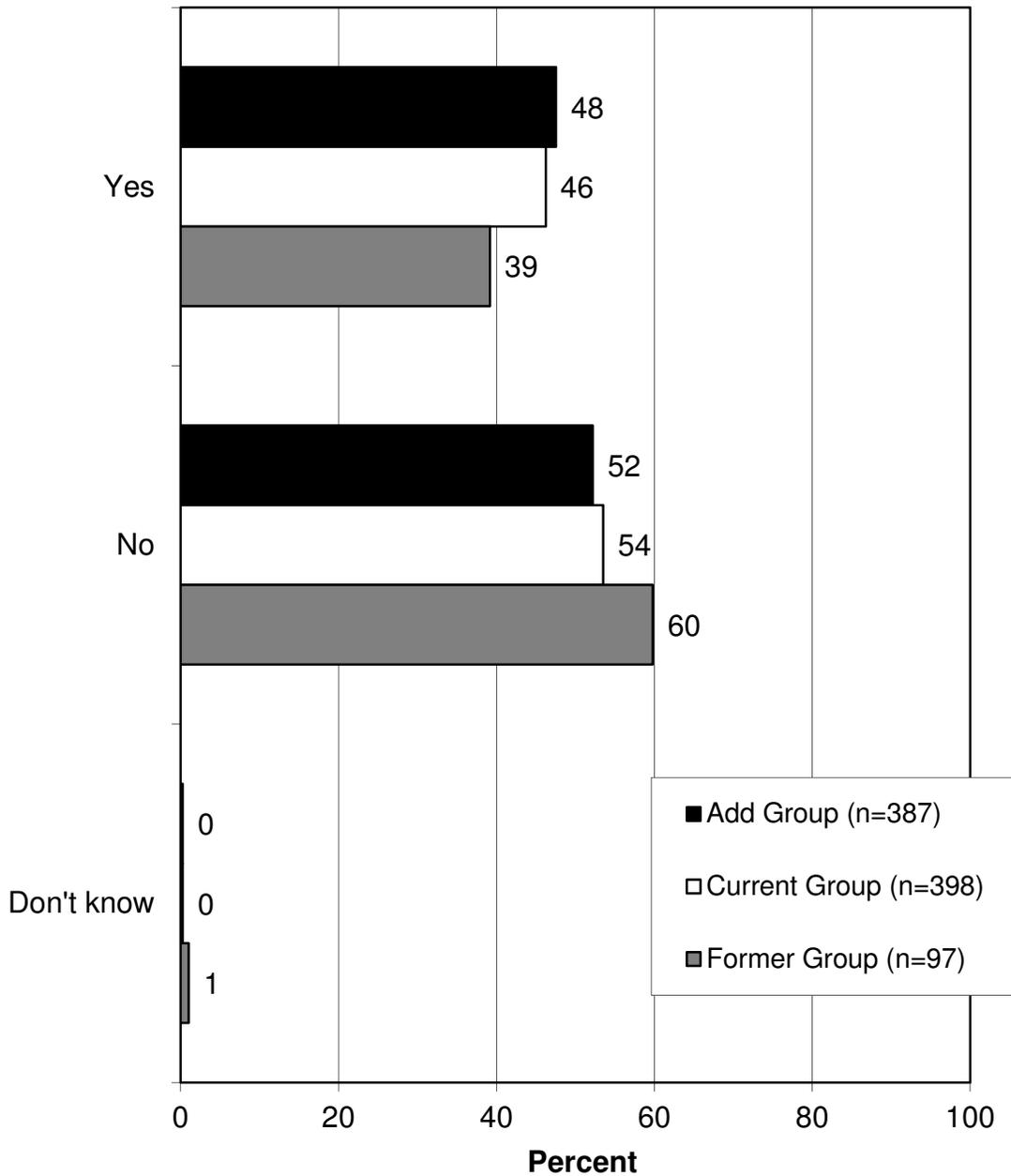
Q25. What is the primary use of that land?



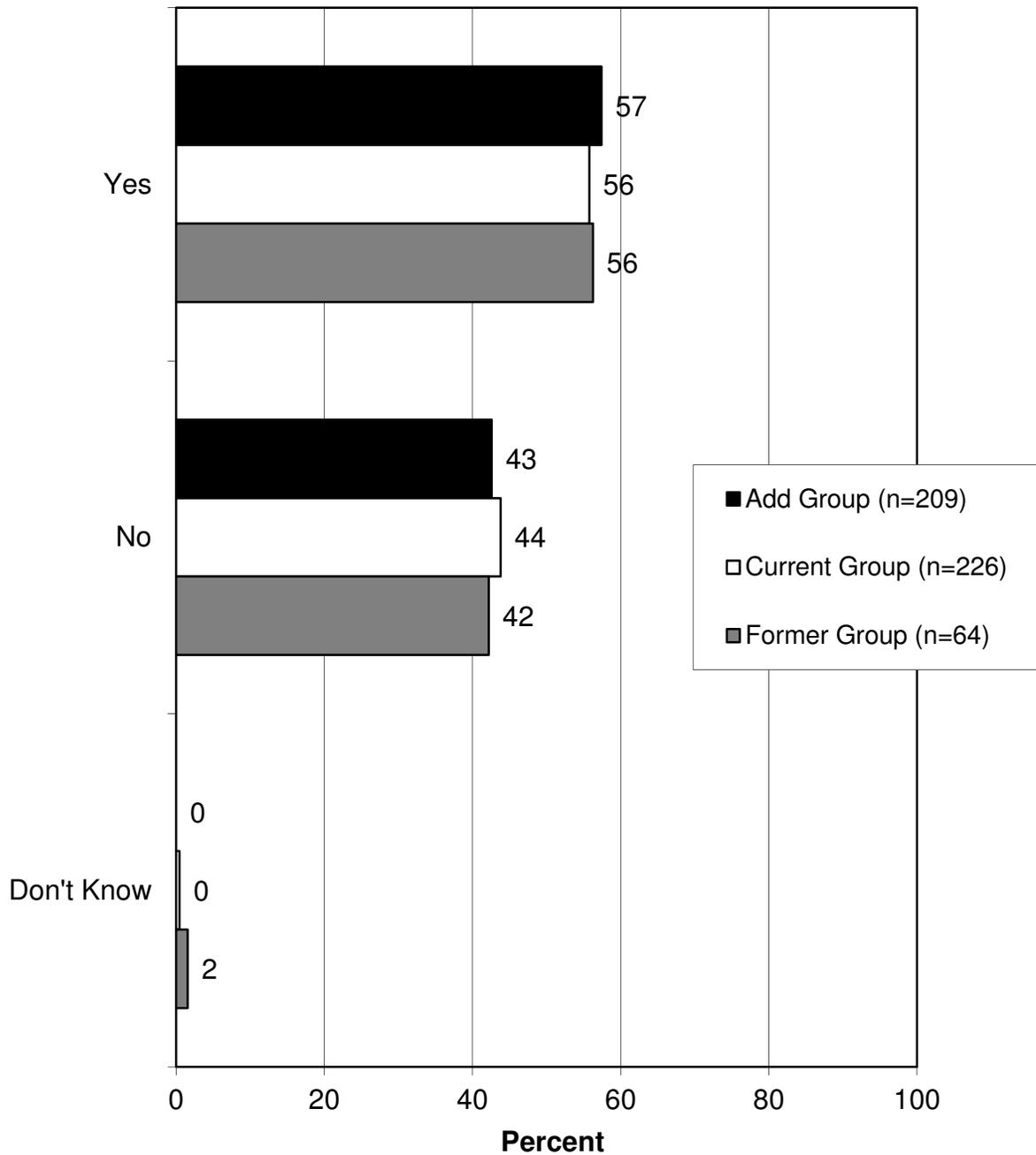
RESIDENCES AND CABINS ON THE LAND

- A little under half of respondents have their primary residence on the survey land (48% of the Add Group, 46% of the Current Group, and 39% of the Former Group). Those whose primary residence was not on the land were asked if any cabins or other residences were on the land: a little more than half of these people indicated that there was a cabin or secondary residence.

Q23. Now thinking about that tract of land that you own or manage that has freshwater on or next to it, is your primary residence on that land?



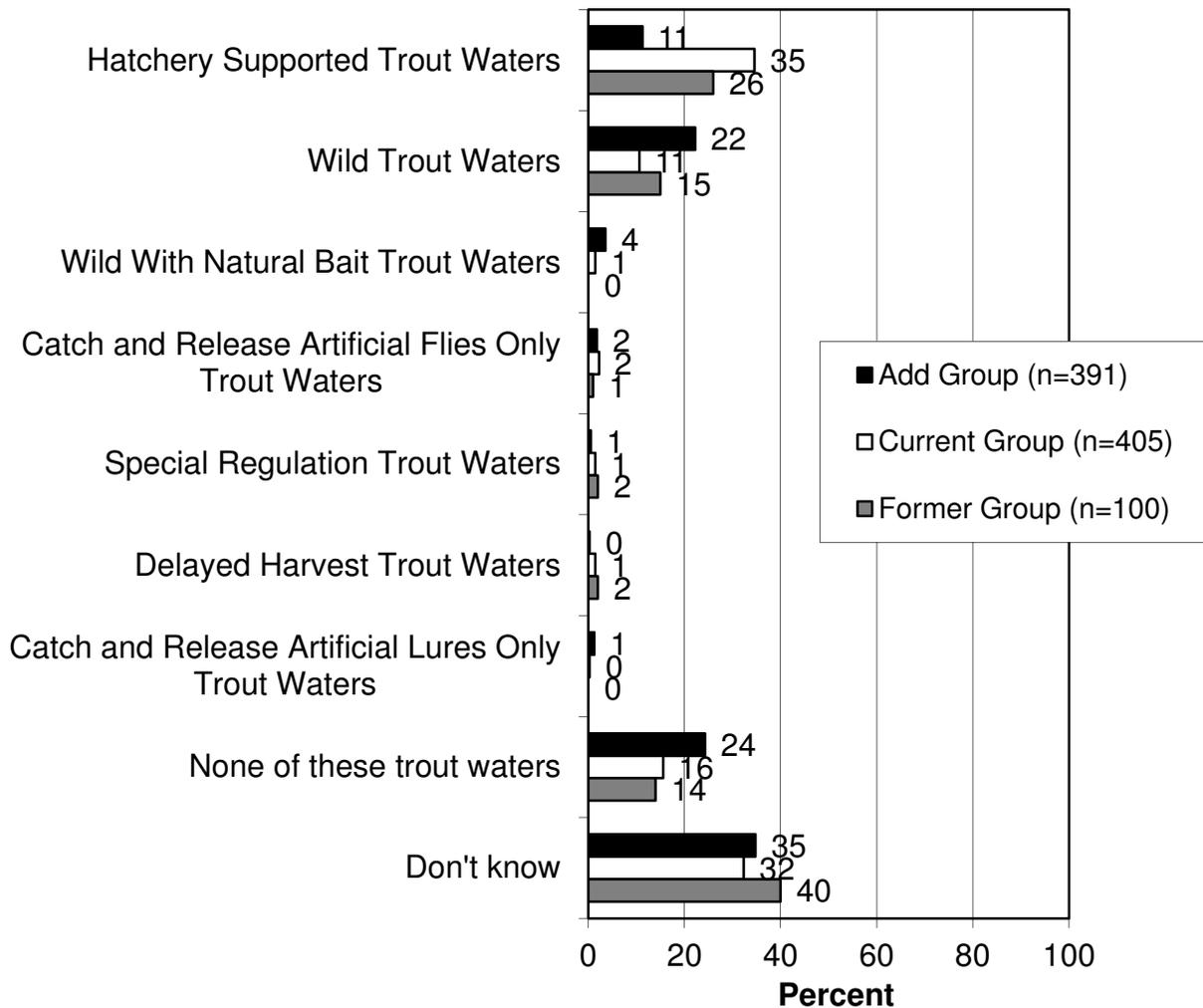
Q24. Is there a cabin or other residence on that land? (Asked of those whose primary residence is not on the land.)



CHARACTERISTICS OF LAND AND CLASSIFICATION TYPES

- The most common classification types of the waters adjacent to or on the land in the survey are Hatchery Supported Trout Waters (from 11% to 35% of the groups) and Wild Trout Waters (11% to 22% of the groups).

Q33. Currently, trout streams in North Carolina are categorized by seven different classifications based on how trout fisheries are managed. Is the water on or next to your land any of these types, or none of these types?



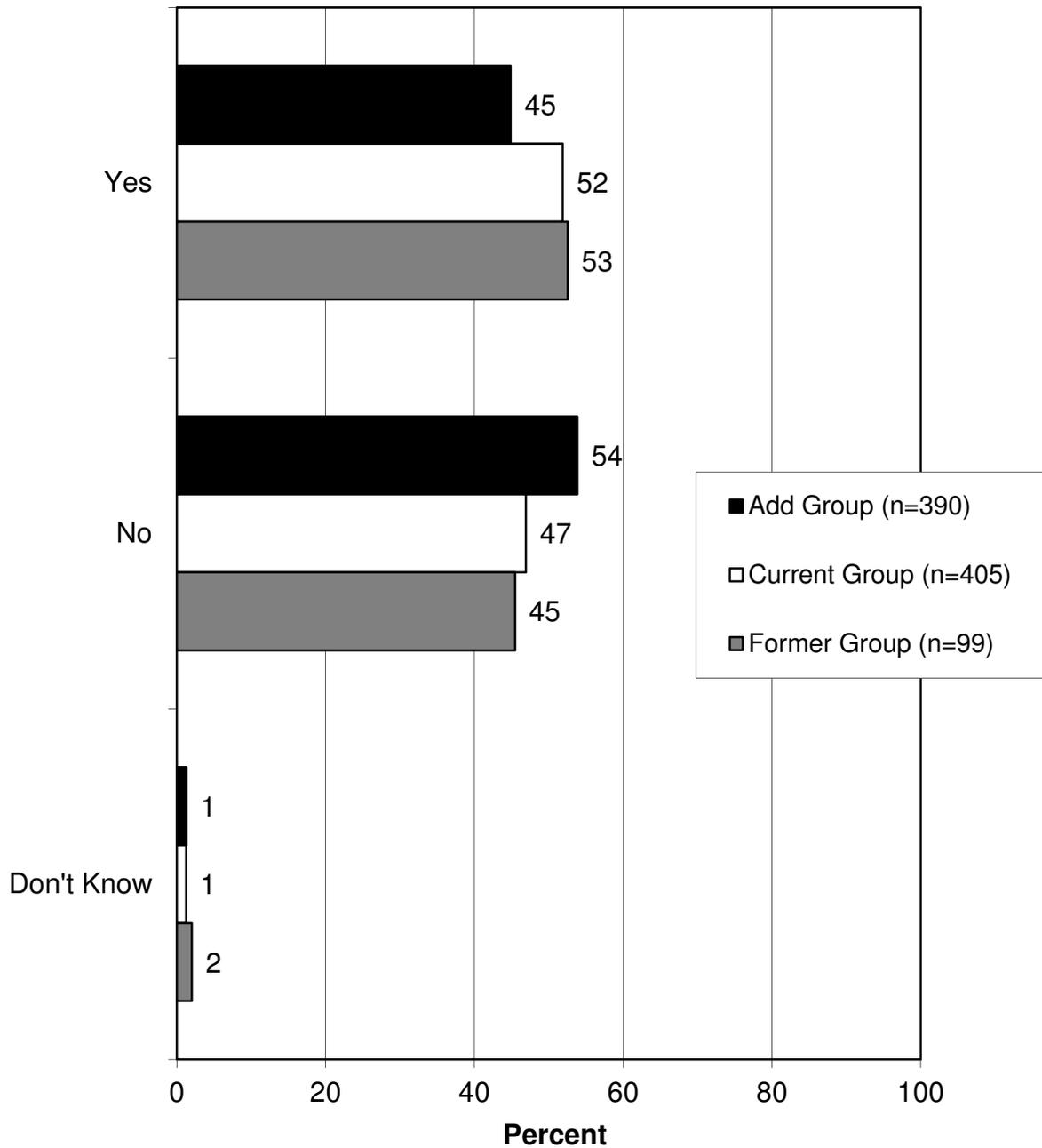
PERMISSIONS AND ACCESS ON THE LAND

ALLOWING ACCESS IN GENERAL AND ACTIVITIES ALLOWED ON LAND

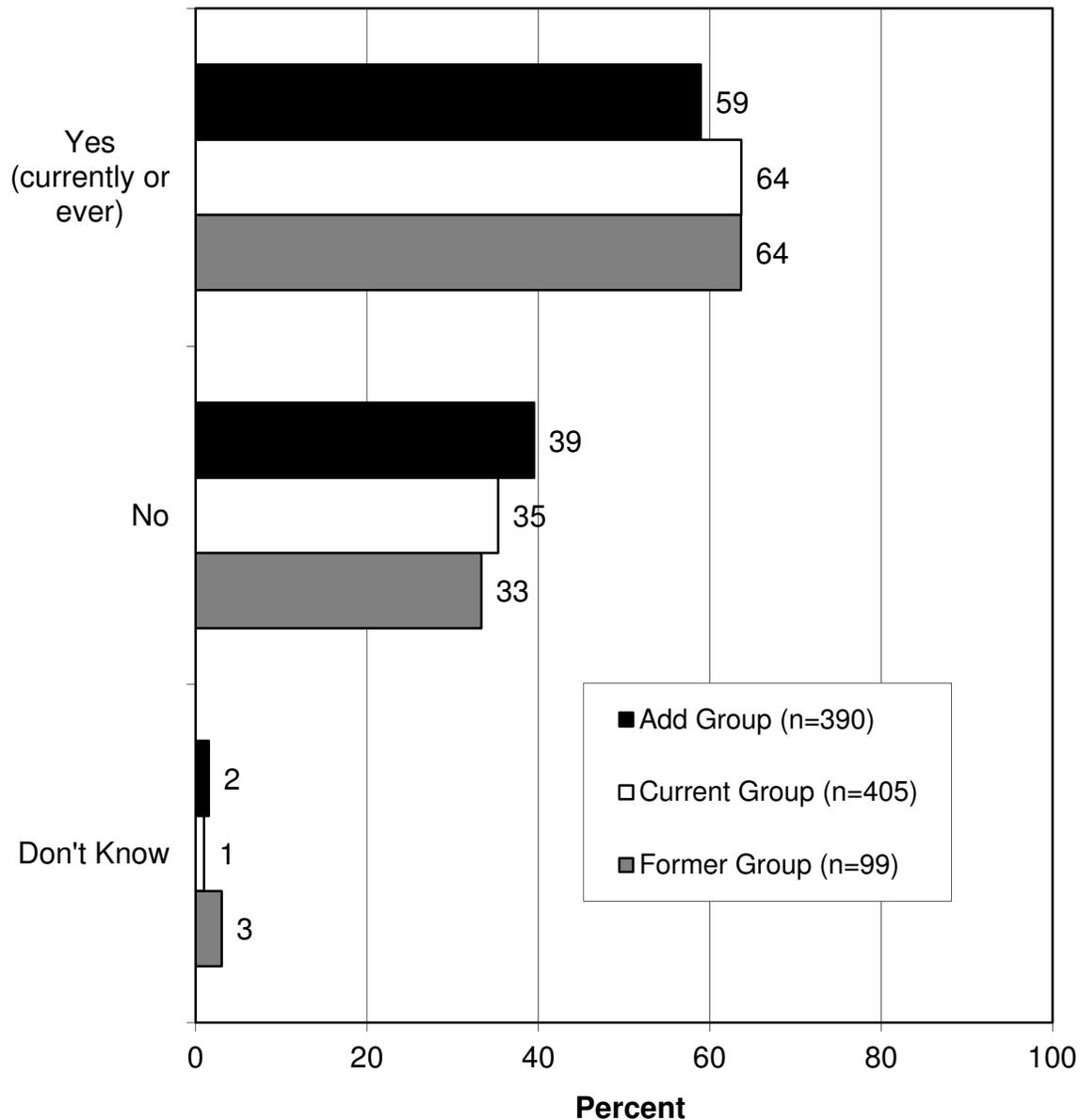
- Roughly half of respondents currently allow access on the survey land for fishing (45% of the Add Group, 52% of the Current Group, and 53% of the Former Group).
 - Another question asked about ever allowing access: 59% of the Add Group, 64% of the Current Group, and 64% of the Former Group do or did so at one time.
 - A crosstabulation was run according to the type of waters on or adjacent to the survey land. The crosstabulation found that landowners whose land has Hatchery Supported Trout Waters on or adjacent to it are more open in their access, compared to those whose land has Wild Trout Waters or other waters (all the remaining water classifications) on or adjacent to it. (Note that the crosstabulations on Q35 did not include recodes where the skipped out respondents were coded back into the question; this recode is not necessary to illustrate the differences in the crosstabulations.)
 - Another crosstabulation shows that those whose primary residence is on the survey land generally have a slightly higher percentage, compared to those whose primary residence is not on the survey land, to allow access.

- The survey asked specifically about whether landowners allowed any of seven outdoor recreational activities on the survey land. They most commonly allow wildlife watching and hiking, although substantial percentages also allow hunting, camping, and paddling. At the lower end is off-roading and boating other than with canoe/kayak (the latter may be low because many trout waters are not compatible with many boats other than a canoe or kayak).

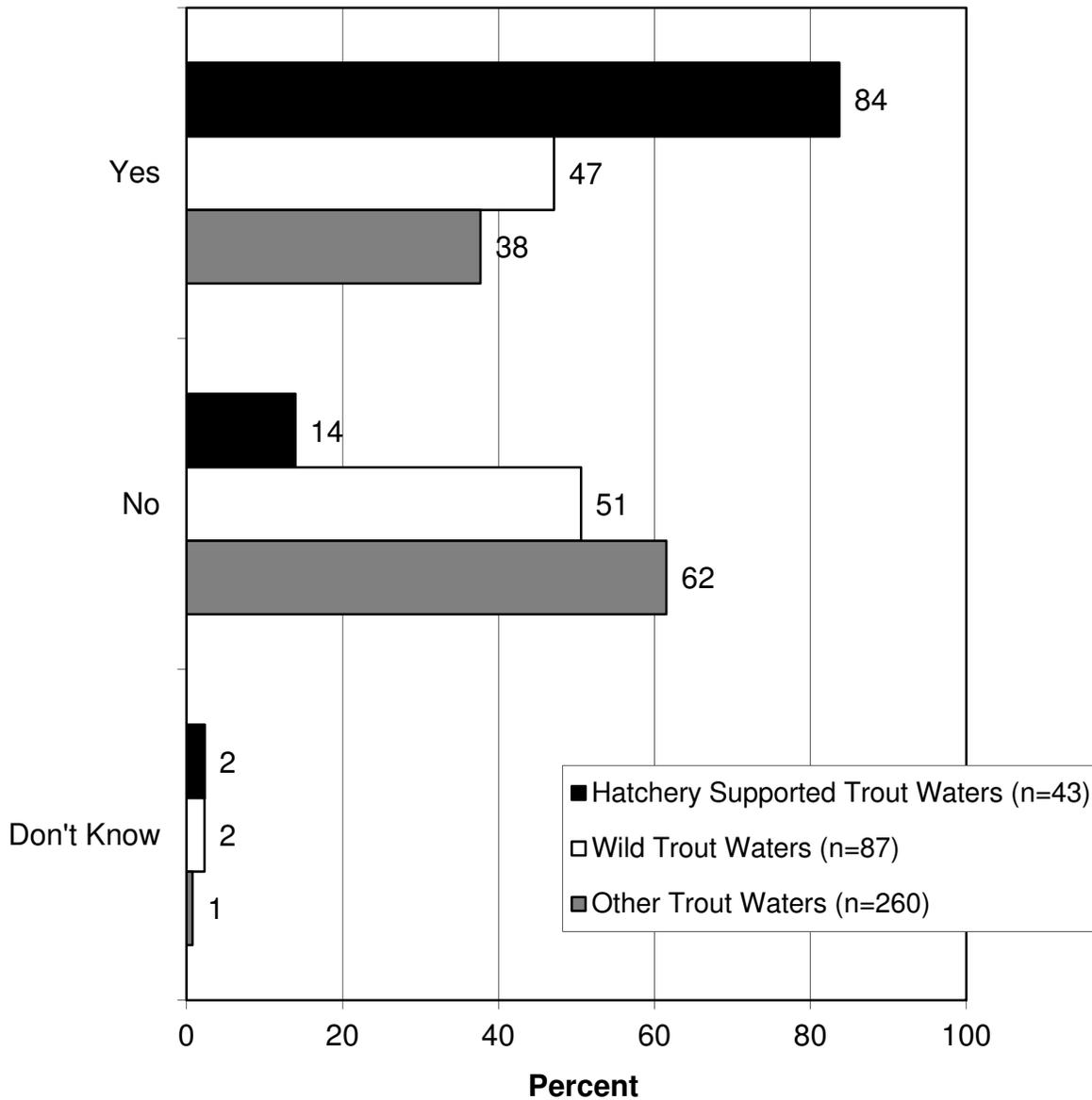
Q34. Other than people in your household, do you currently allow access on that land for fishing?



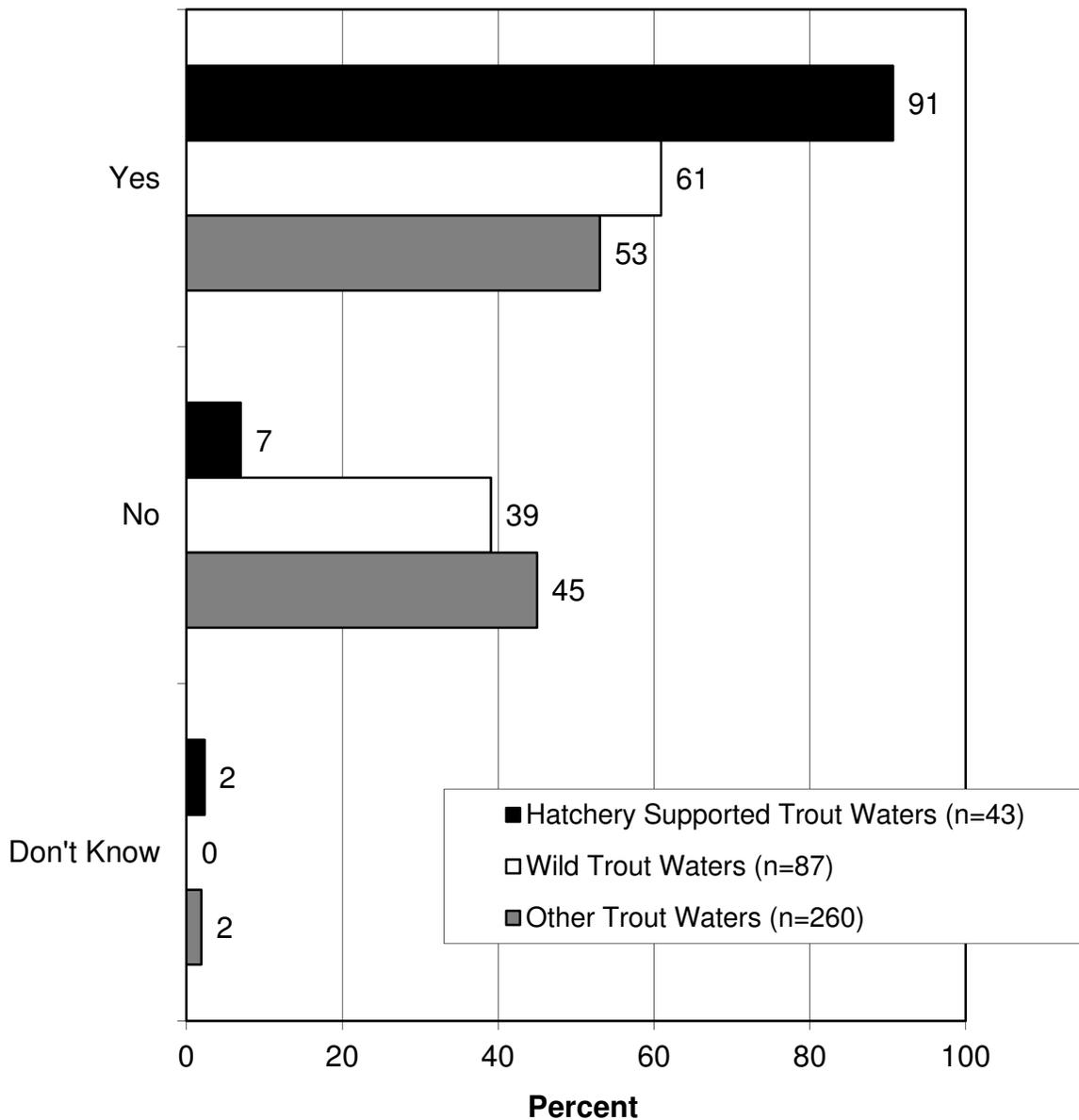
Q35. Did you or your family ever allow others to access the water for fishing on that land? (Question was asked of those who do not currently allow access for fishing; those who currently allow access were coded back into the question as a "yes" response.)



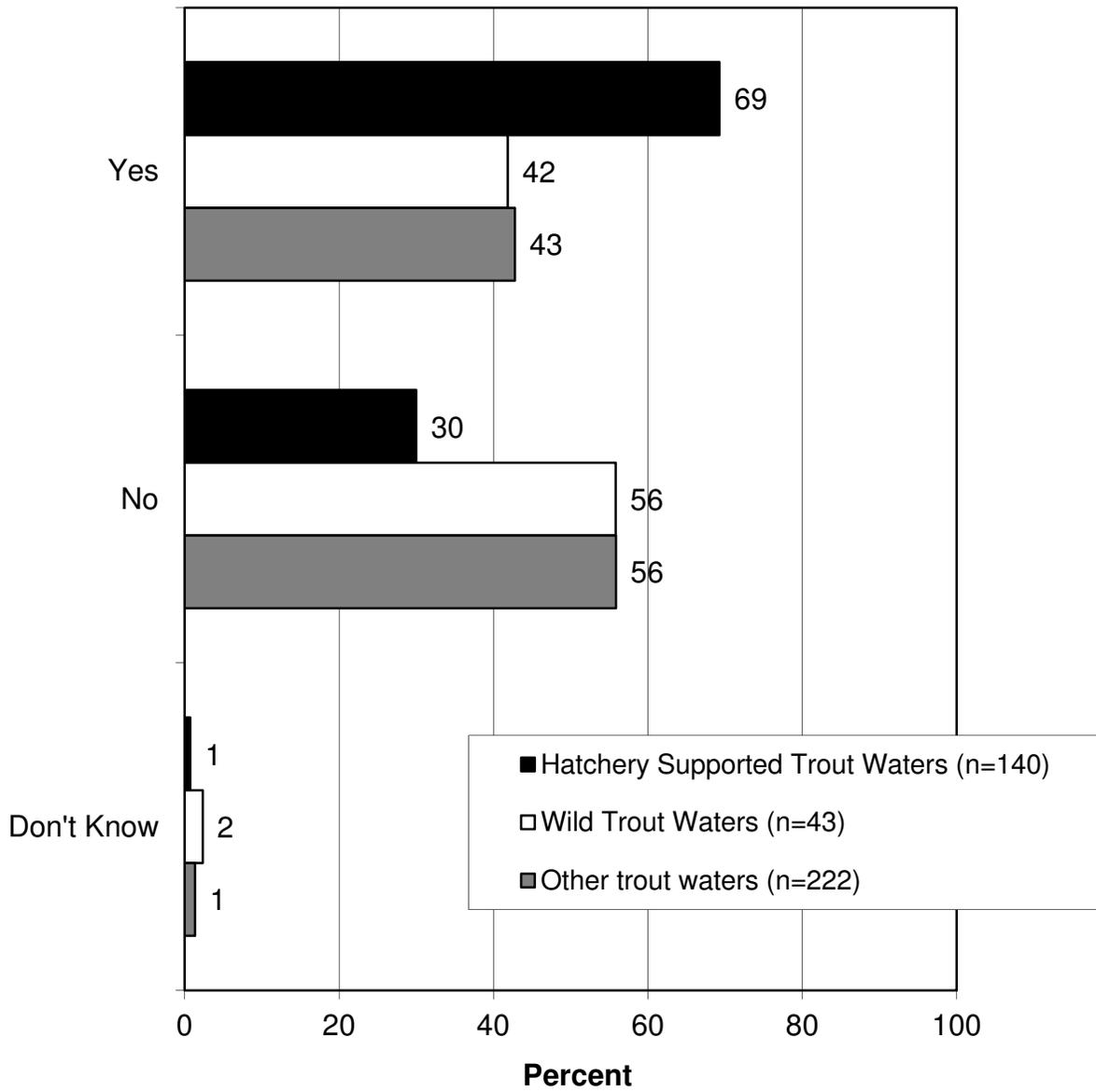
Q34. Other than people in your household, do you currently allow access on that land for fishing? (Among the Add Group.)



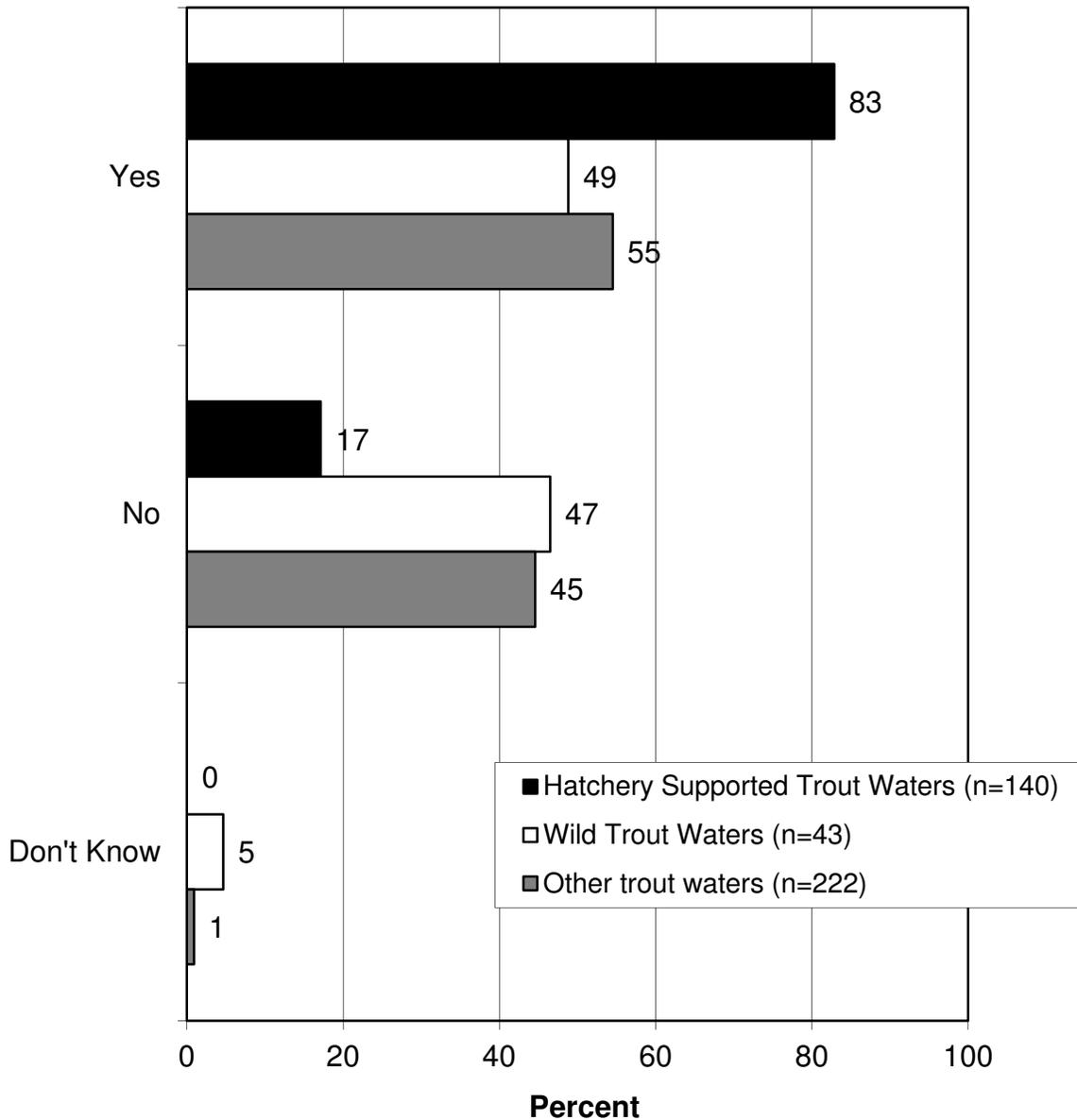
**Q35. Did you or your family ever allow others to access the water for fishing on that land?
(Asked of those who do not currently allow access for fishing.) (Among the Add Group.)**



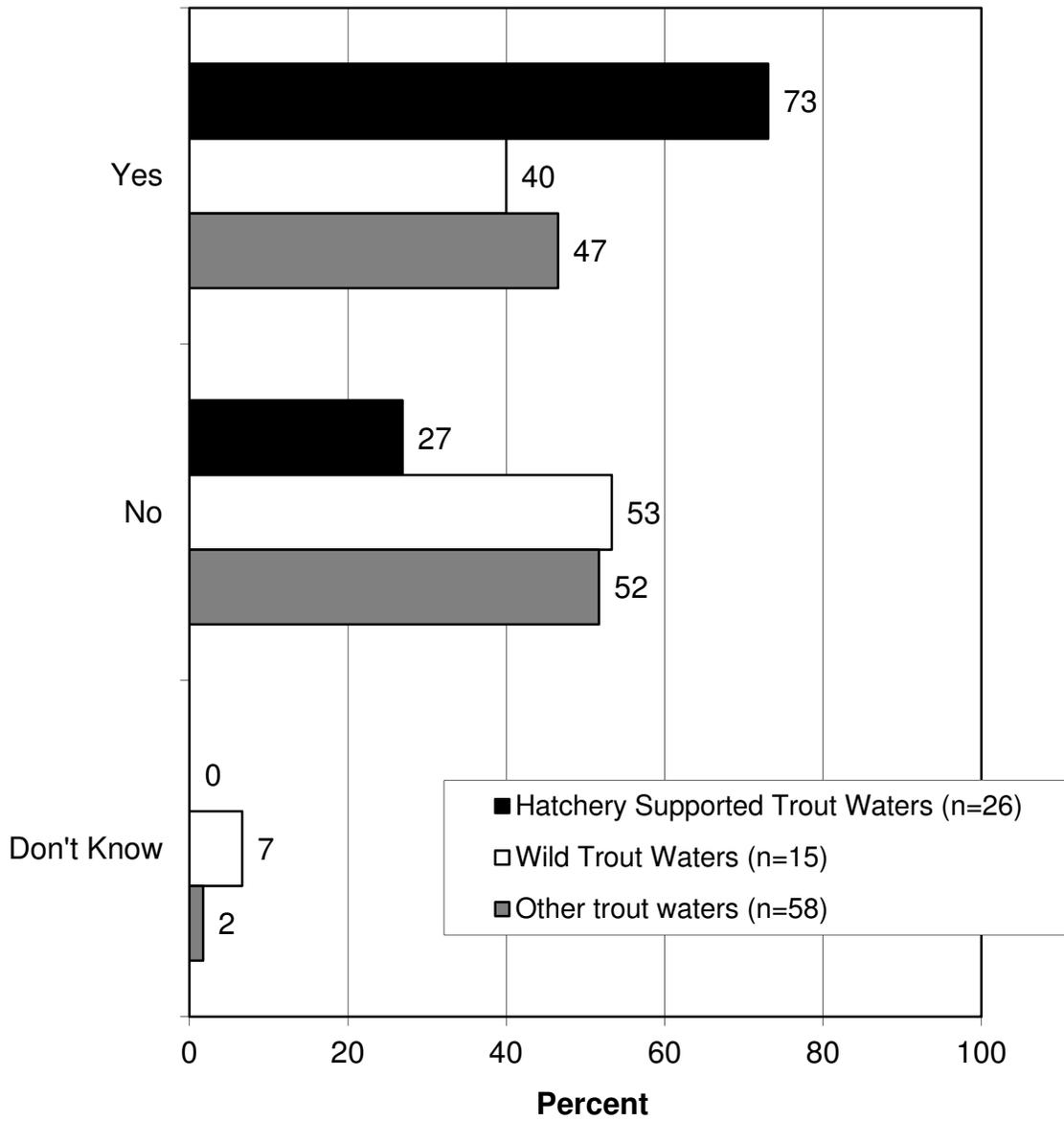
Q34. Other than people in your household, do you currently allow access on that land for fishing? (Among the Current Group.)



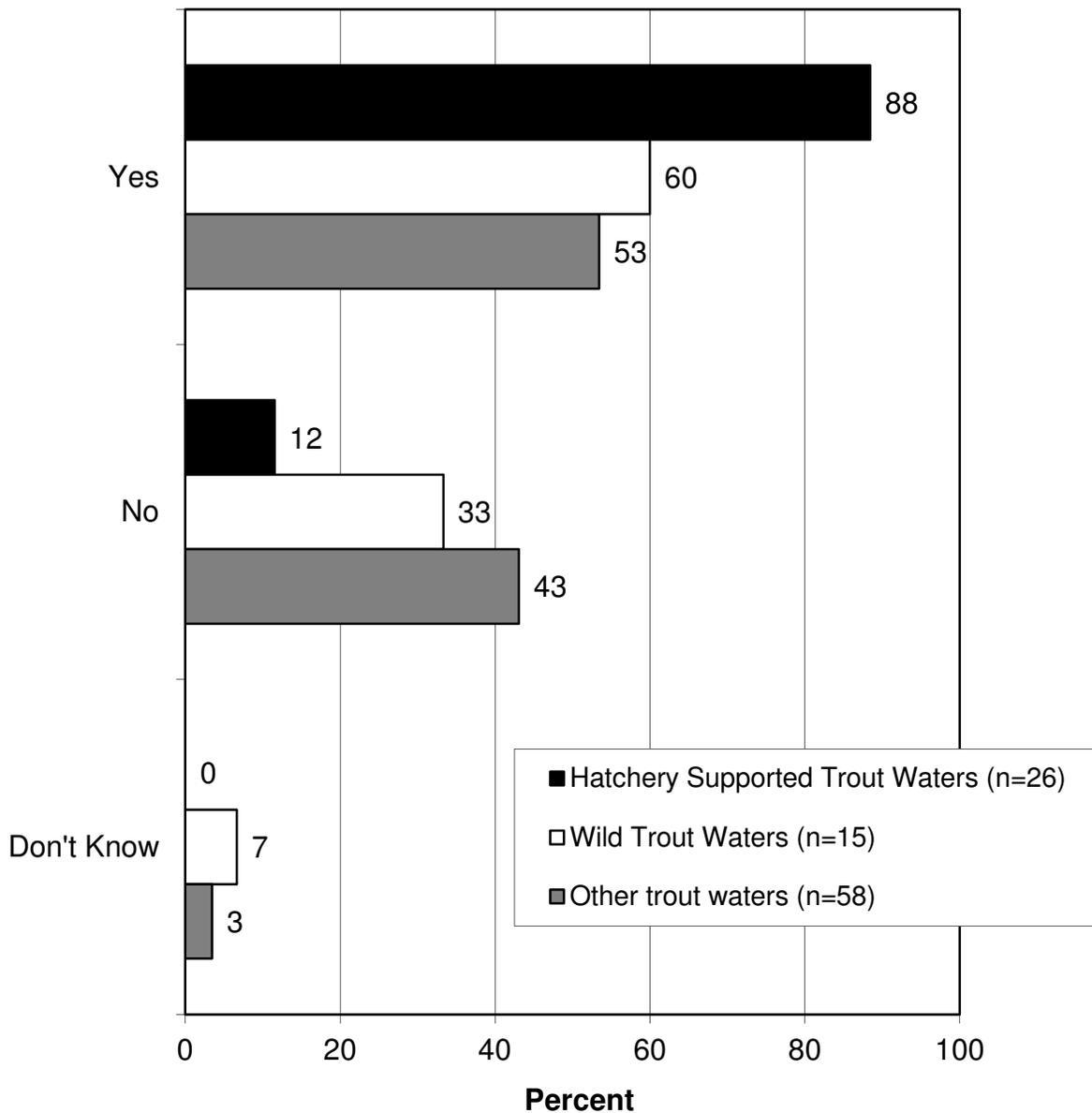
**Q35. Did you or your family ever allow others to access the water for fishing on that land?
(Asked of those who do not currently allow access for fishing.) (Among the Current Group.)**



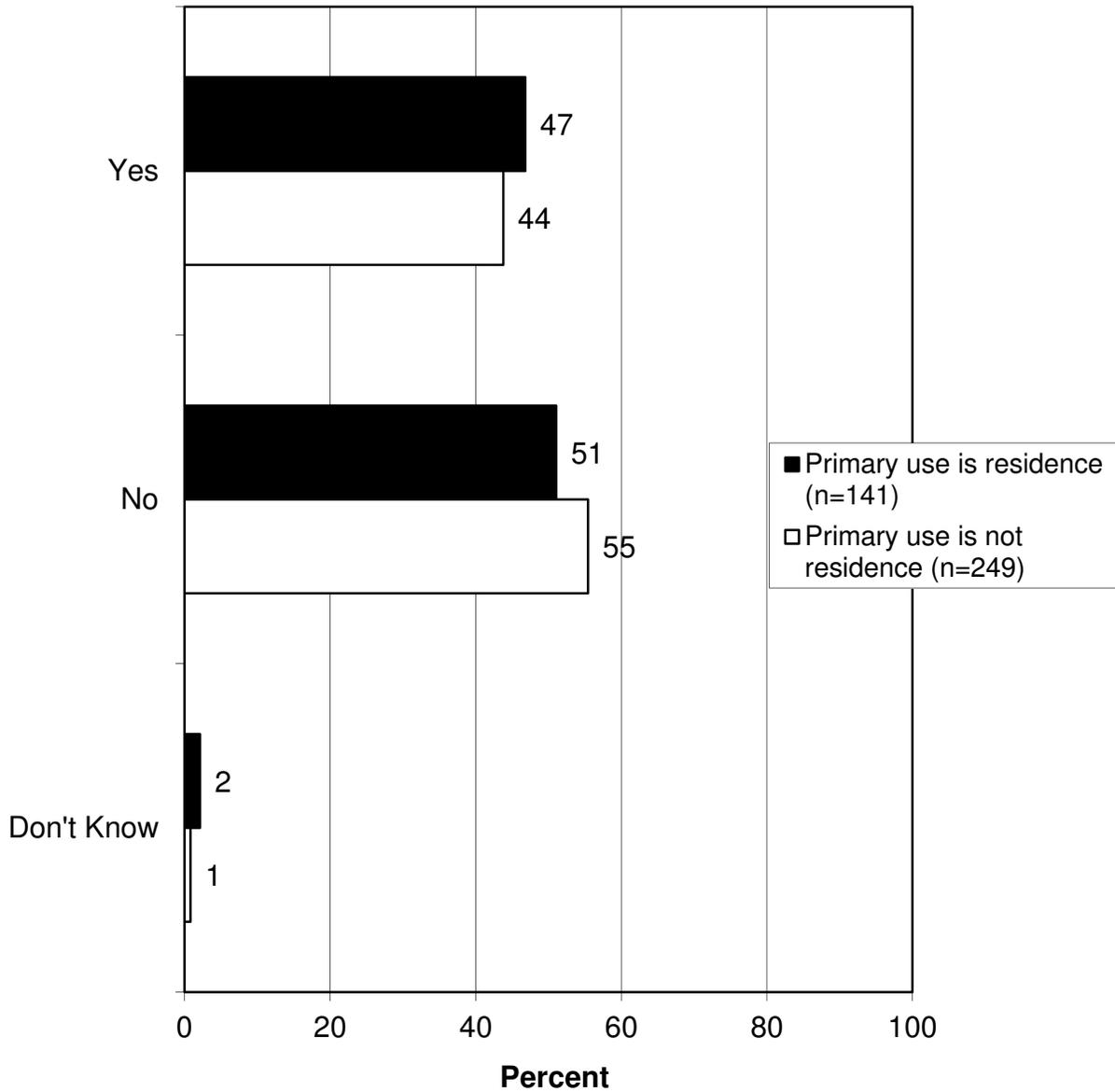
Q34. Other than people in your household, do you currently allow access on that land for fishing? (Among the Former Group.)



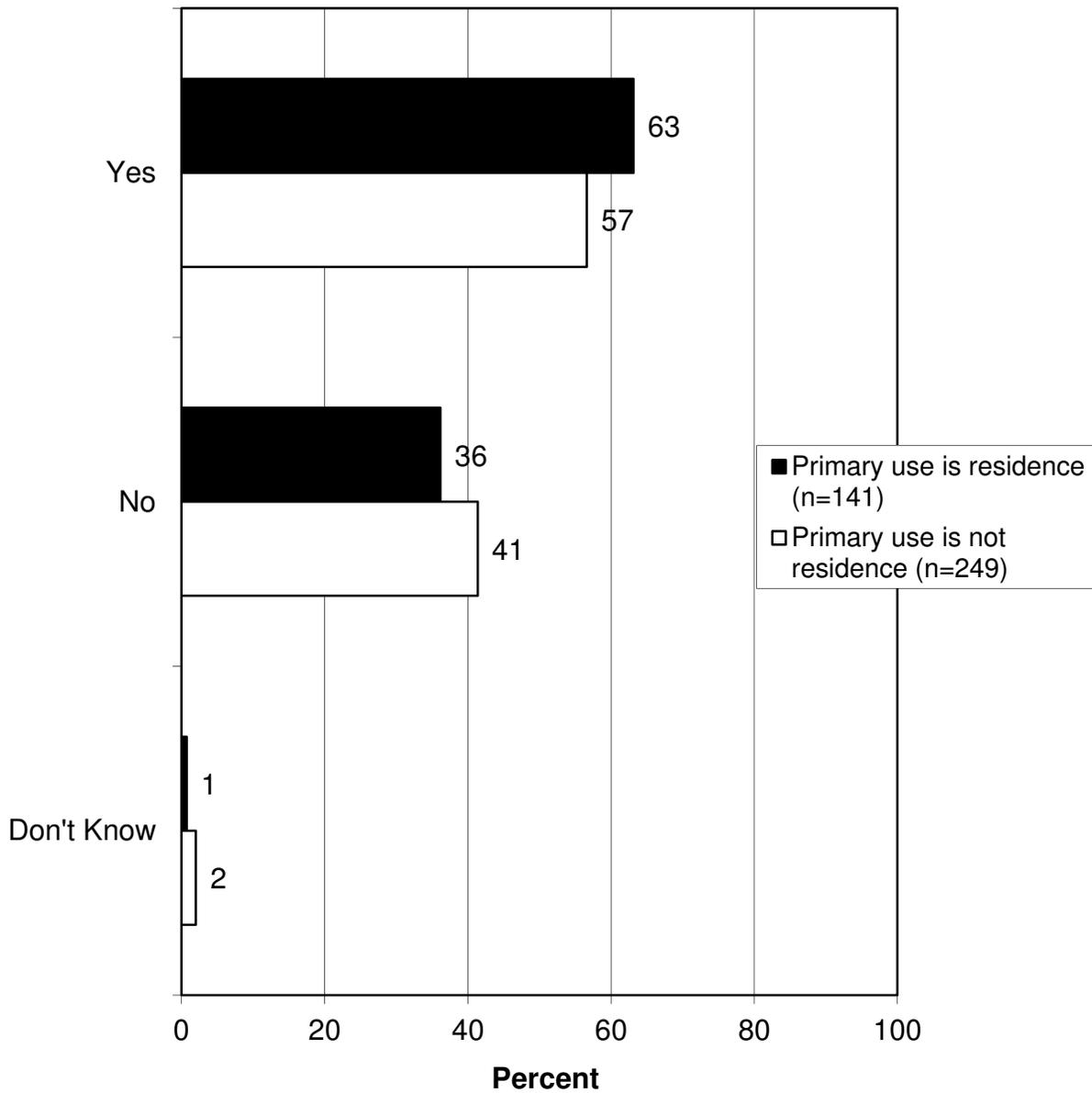
**Q35. Did you or your family ever allow others to access the water for fishing on that land?
(Asked of those who do not currently allow access for fishing.) (Among the Former Group.)**



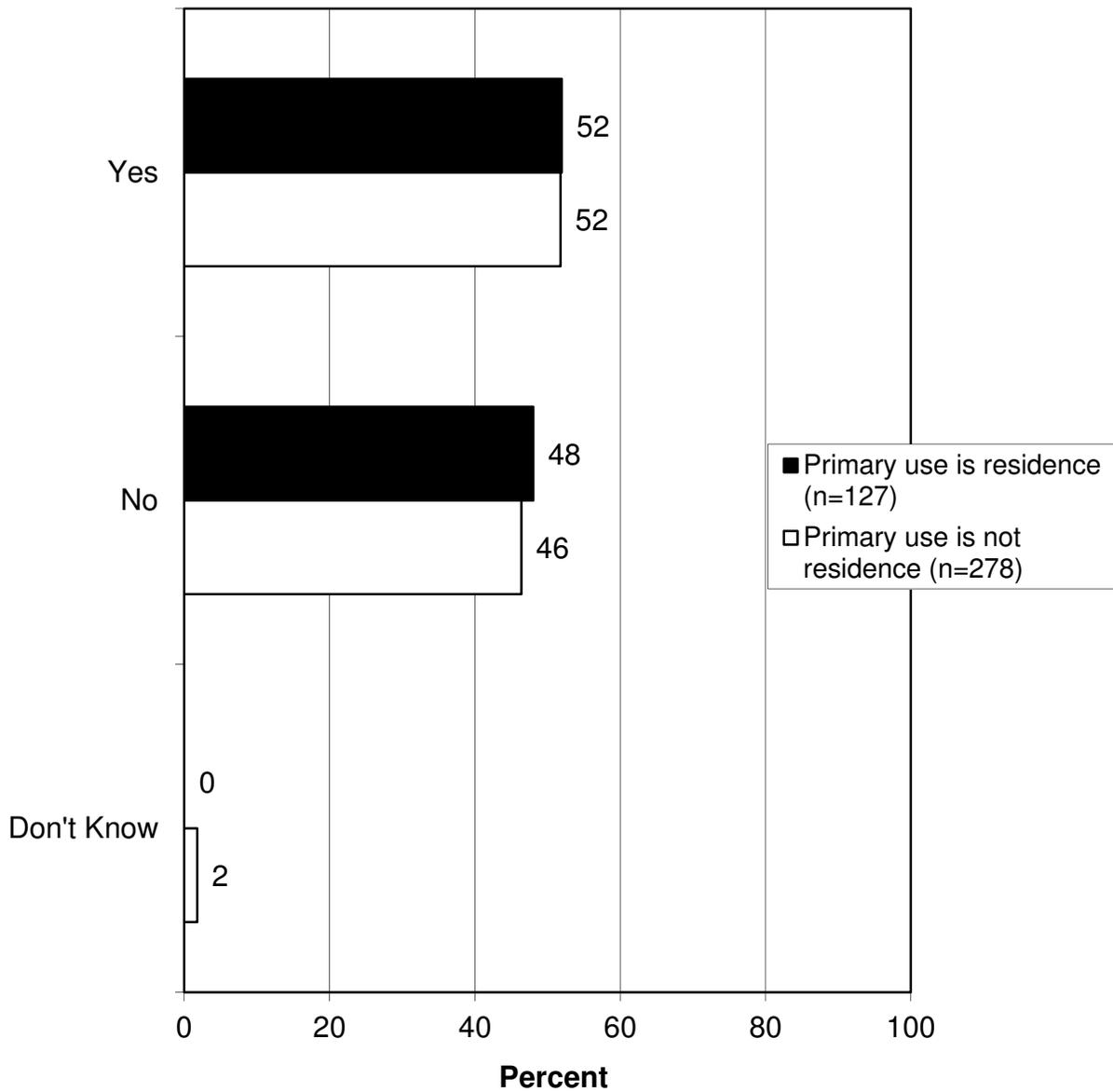
Q34. Other than people in your household, do you currently allow access on that land for fishing? (Among the Add Group.)



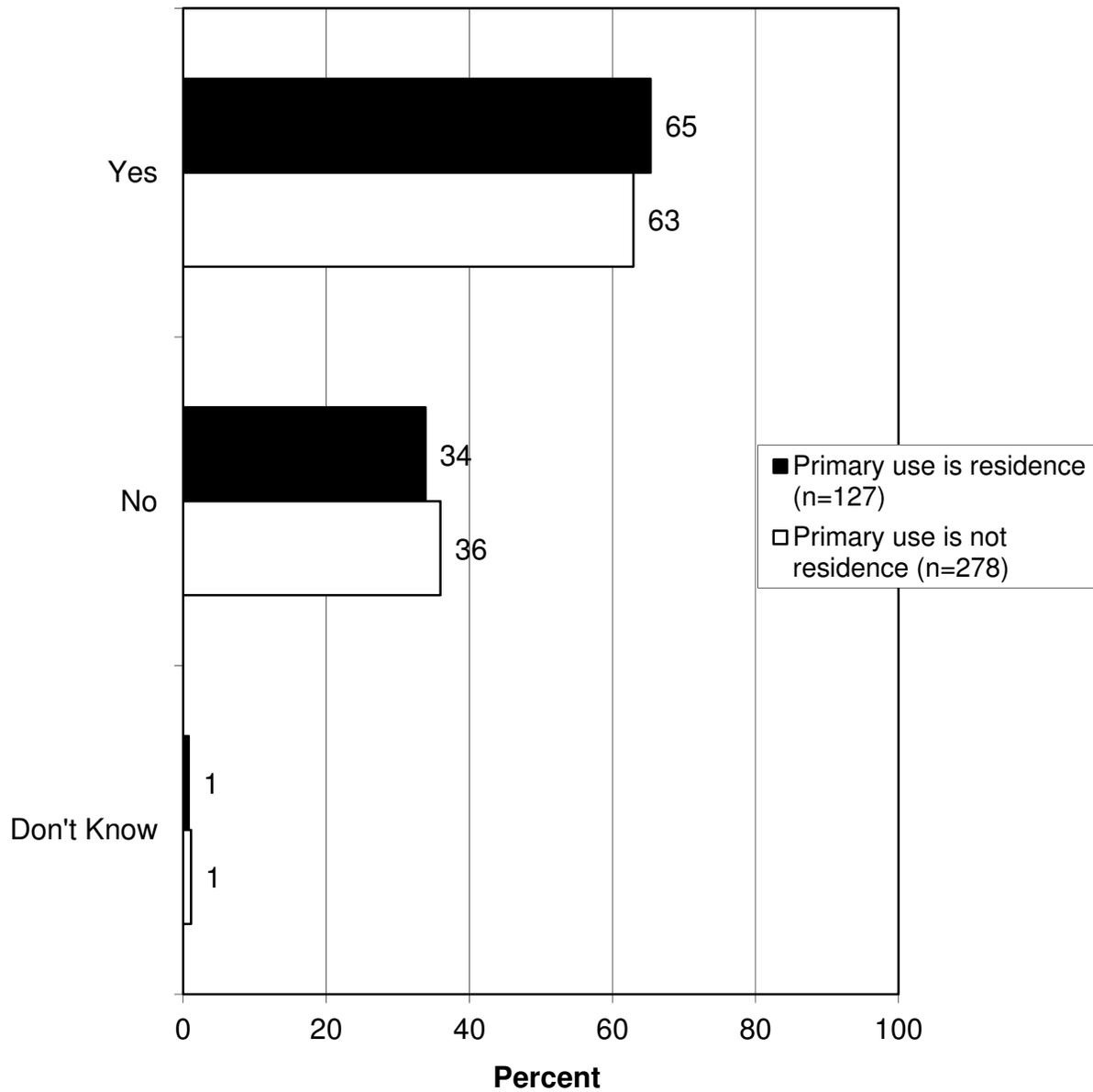
**Q35. Did you or your family ever allow others to access the water for fishing on that land?
(Asked of those who do not currently allow access for fishing.) (Among the Add Group.)**



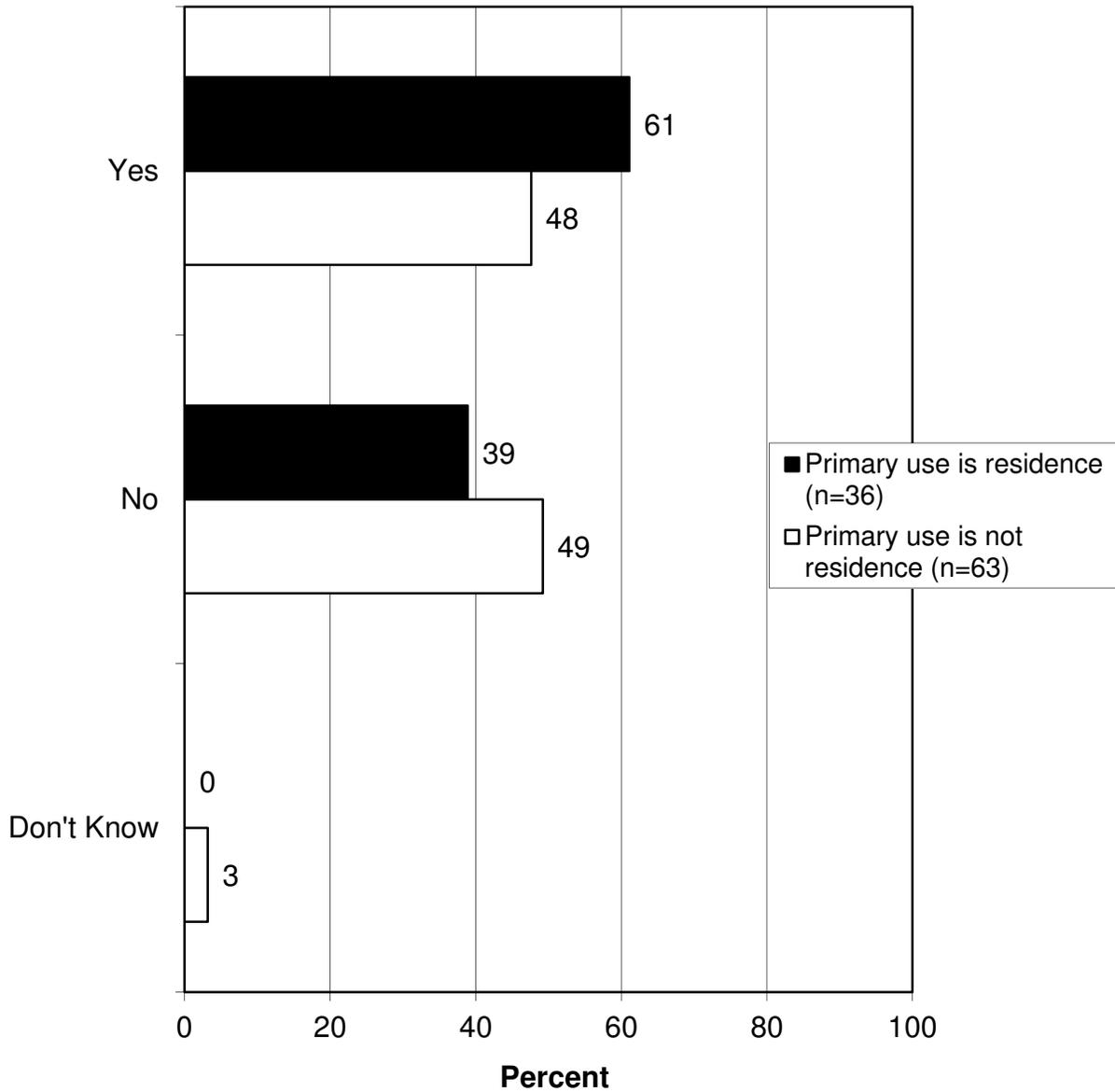
Q34. Other than people in your household, do you currently allow access on that land for fishing? (Among the Current Group.)



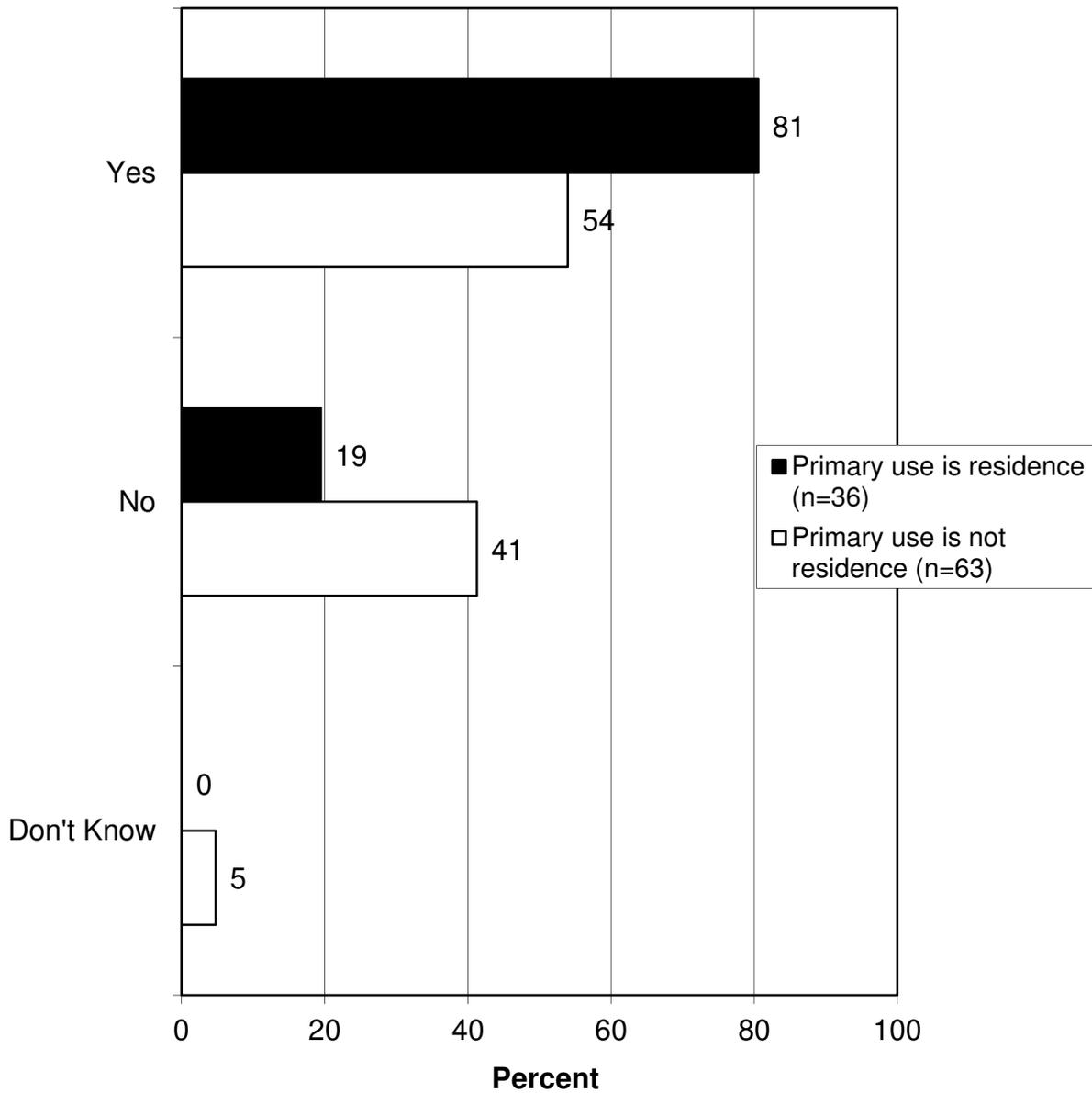
**Q35. Did you or your family ever allow others to access the water for fishing on that land?
(Asked of those who do not currently allow access for fishing.) (Among the Current Group.)**



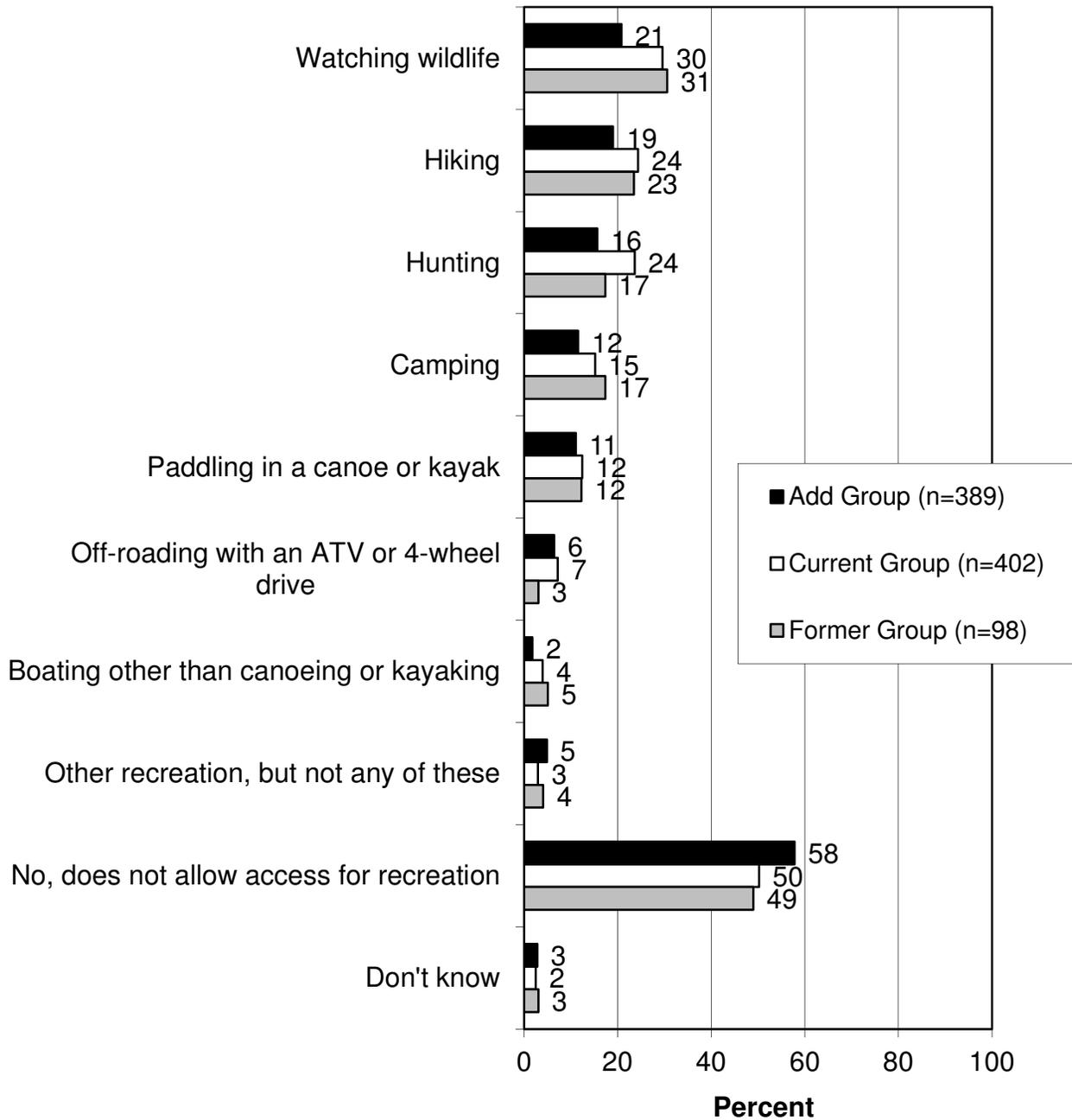
Q34. Other than people in your household, do you currently allow access on that land for fishing? (Among the Former Group.)



**Q35. Did you or your family ever allow others to access the water for fishing on that land?
(Asked of those who do not currently allow access for fishing.) (Among the Former Group.)**



Q45. Other than people in your household, do you currently allow access on that land for any of these types of recreation?

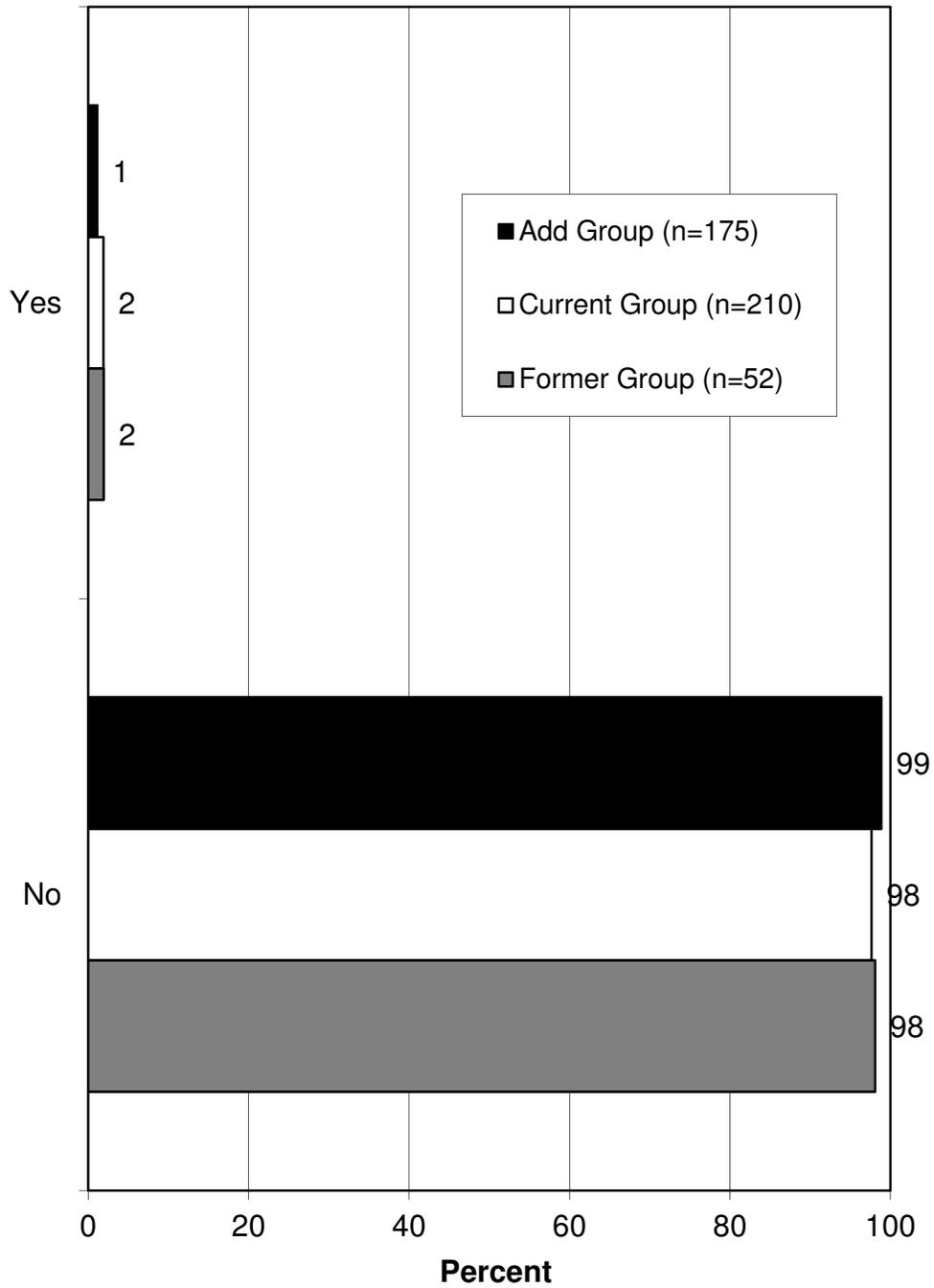


FEES CHARGED AND LEASES

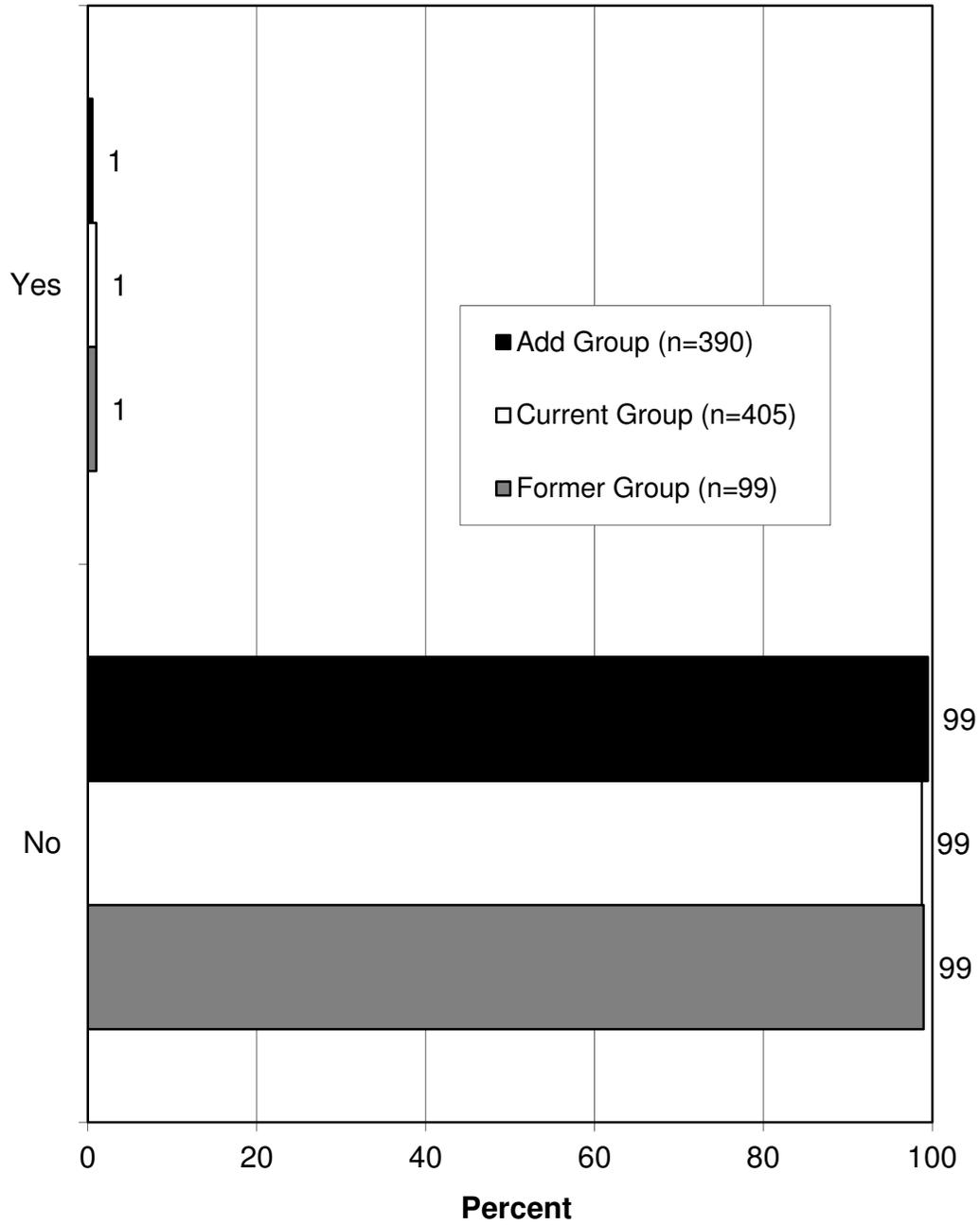
- Those who indicated that they allow access for fishing were asked about *charging fees* for fishing access: no more than 2% of any group in this follow-up question charge access fees. A second graph of this question shows the results out of all landowners: no more than 1% of any group of landowners charge fees for fishing access.
 - The survey asked a follow-up question of those who charge for access asking if they *lease* their land for fishing; too few qualified for the question for percentages to be shown. In total, only 2 respondents in the Current Group lease their land for fishing.

- Recall in the previous section (Question 45, page 35) that 16% of the Add Group, 24% of the Current Group, and 17% of the Former Group indicated that they allow access for hunting on their land. In a follow-up question, these respondents were asked if they *lease* their land for hunting: from 6% to 14% of these follow-up respondents lease their land for hunting. A second graph shows the results out of all landowners in the survey, with overall rates of leasing land for hunting at from 1% to 3%.

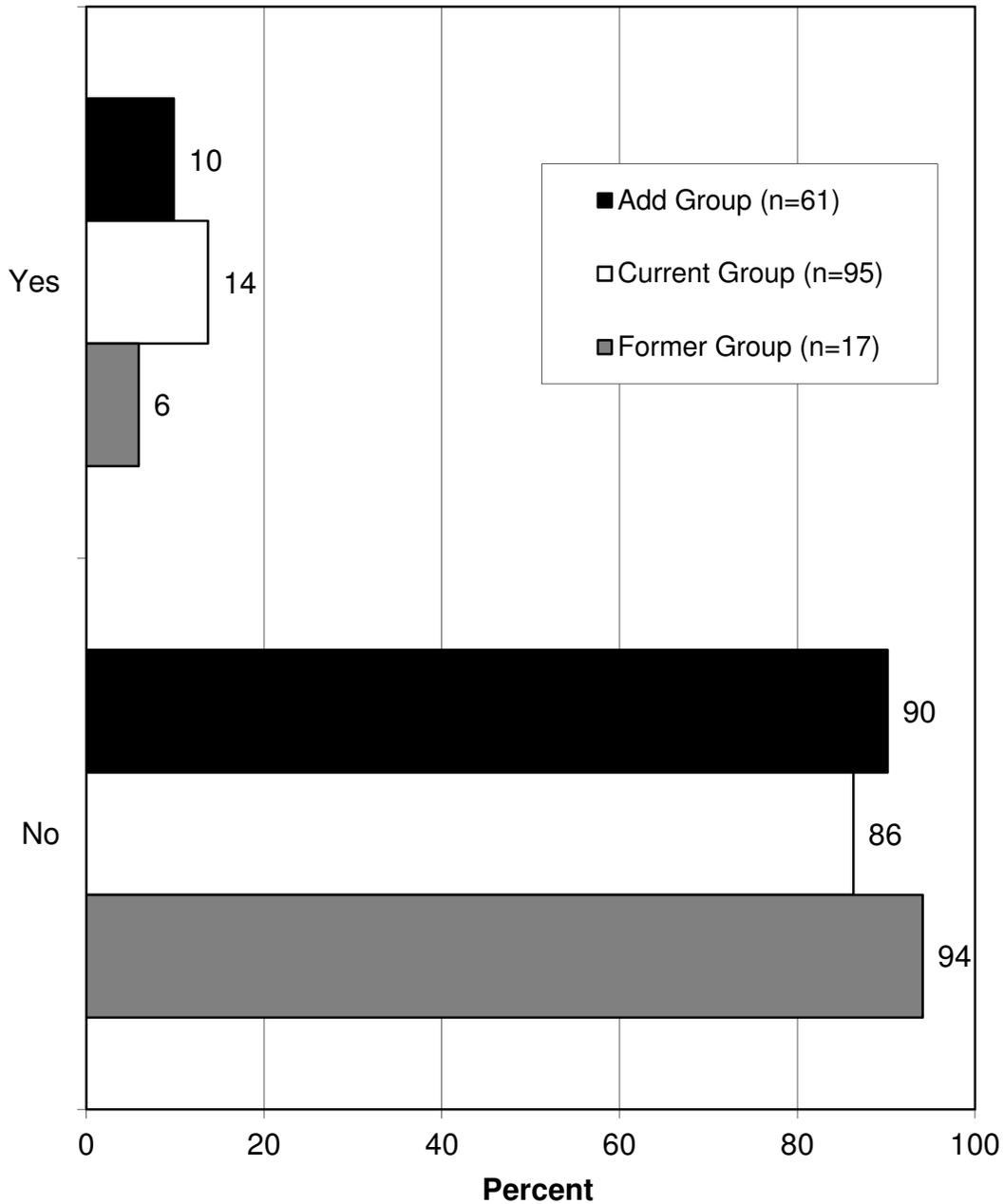
**Q36. Do you typically charge for that access?
(Asked of those who allow access for fishing.)**



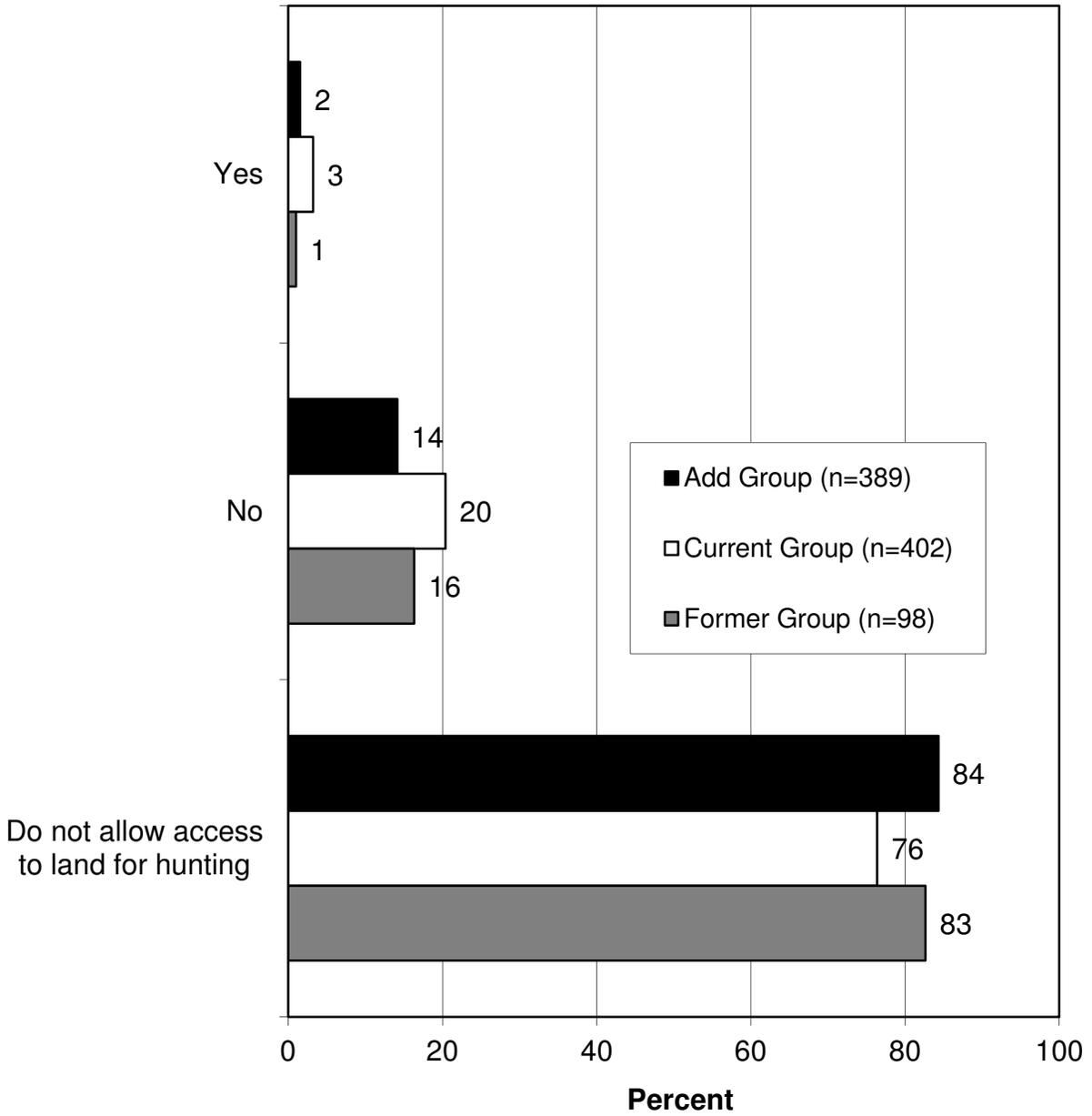
Q36. Do you typically charge for that access? (Among all respondents.)



**Q46. Do you lease your land for hunting?
(Asked of those who allow access to their land
for hunting.)**



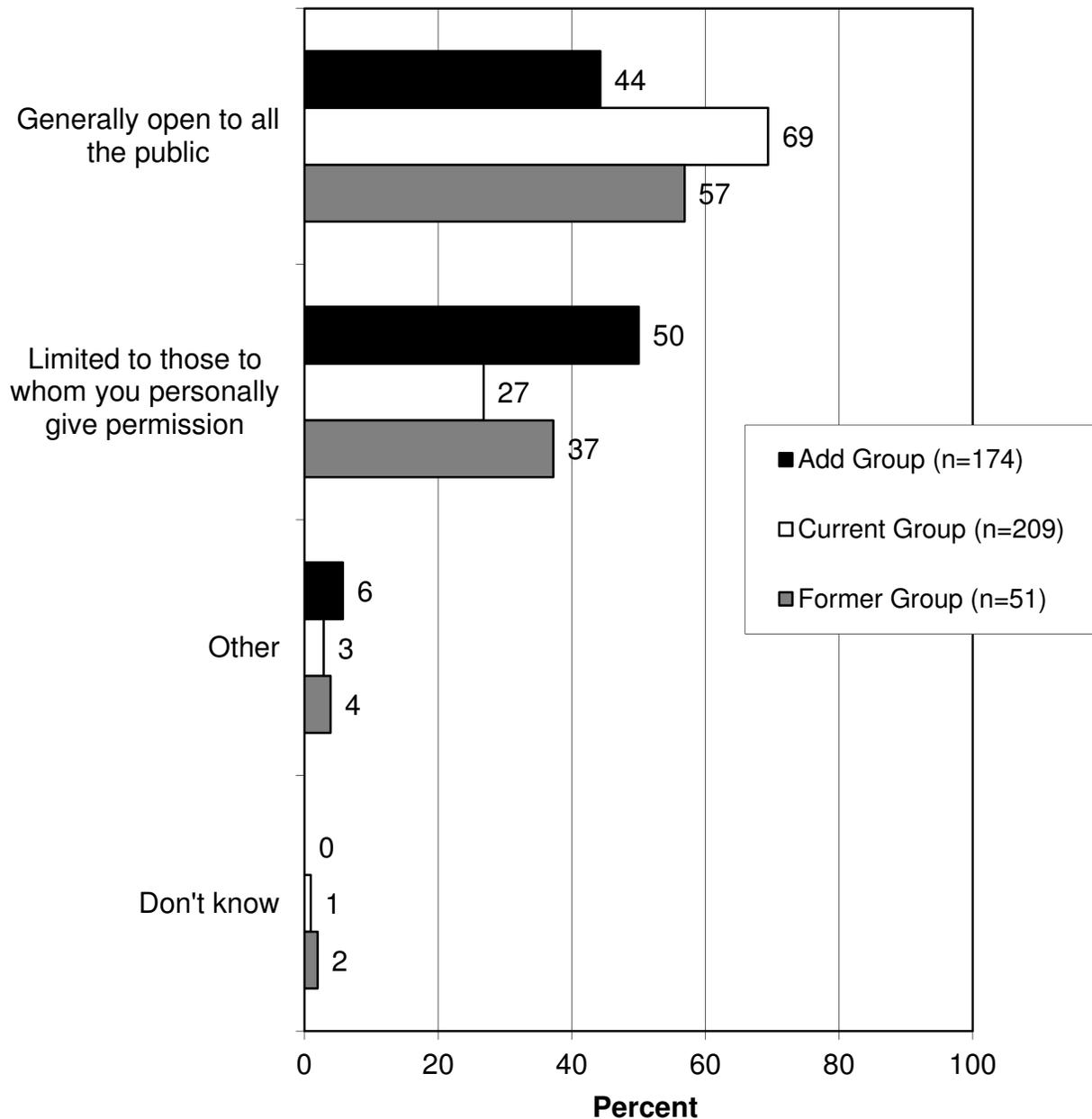
**Q46. Do you lease your land for hunting?
(Among all respondents.)**



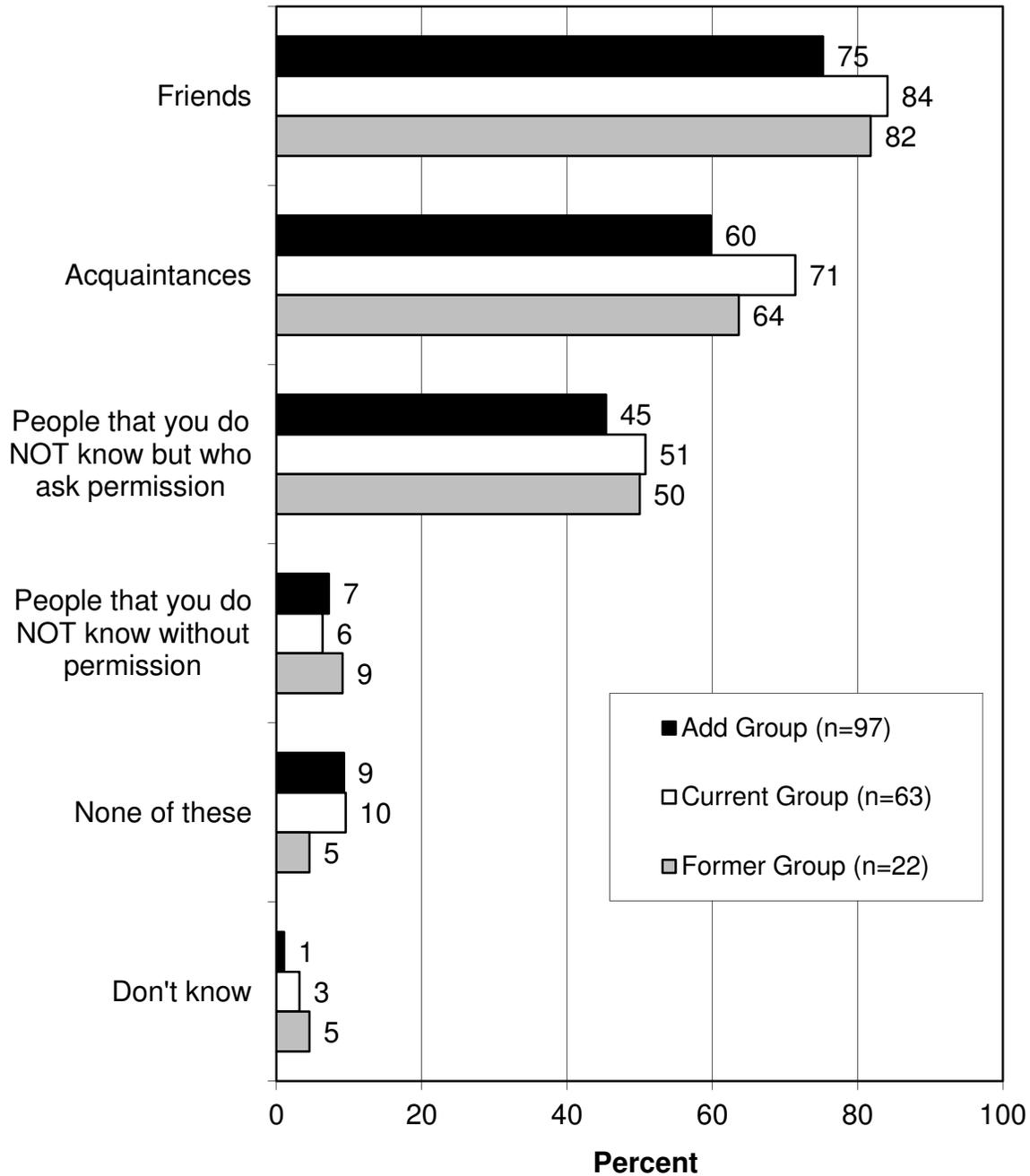
WHOM ALLOWED TO ACCESS LAND

- Those who allow access for fishing were asked if that access was generally open to the public or limited to those to whom they personally give permission. A little less than half of the Add Group (44%) and more than half of the Current Group and Former Group (69% and 57%, respectively) say that the access is generally open to the public.
- In follow-up, those who allow limited access were asked about the people whom they allow: nearly all allow friends (from 75% to 84% generally allow friends) or acquaintances (from 60% to 71%), while about half allow people that they do not know but who asked for permission (from 45% to 51%).
 - (In a bit of a logic disconnect, from 6% to 9% of landowners who were asked the question said that they allow people whom they do not know without permission, despite previously saying that they allow access only to those to whom they give permission. It may be that their intention is to allow only people to whom they give permission, but that they do not always confront every angler who is there without permission.)

Q38. Is that access for fishing generally open to all the public or limited to those to whom you personally give permission? (Asked of those who allow access for fishing.)



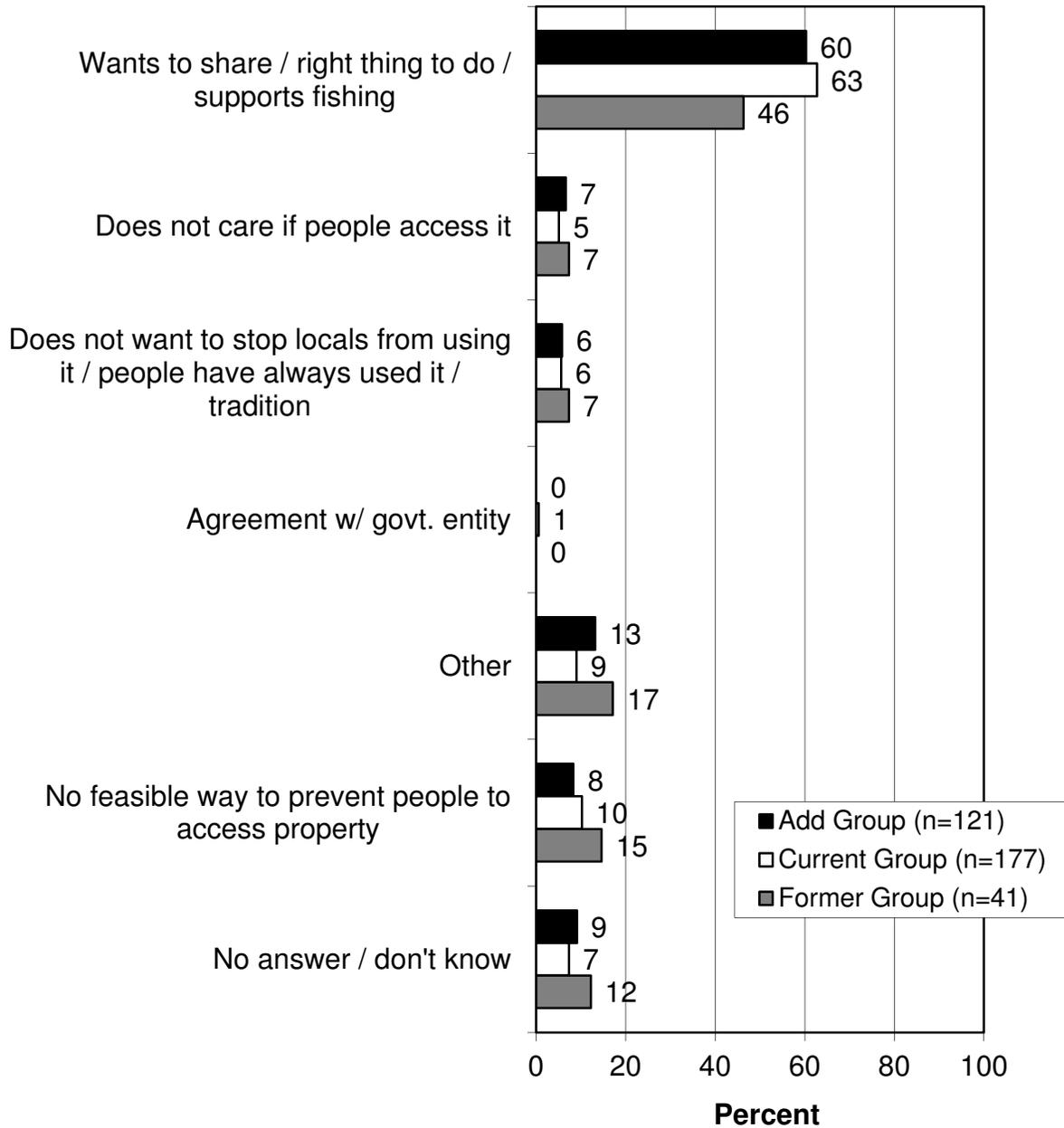
**Q41. Do you allow any of the following to access the water for fishing on your land?
(Asked of those who allow access only to those to whom they give permission.)**



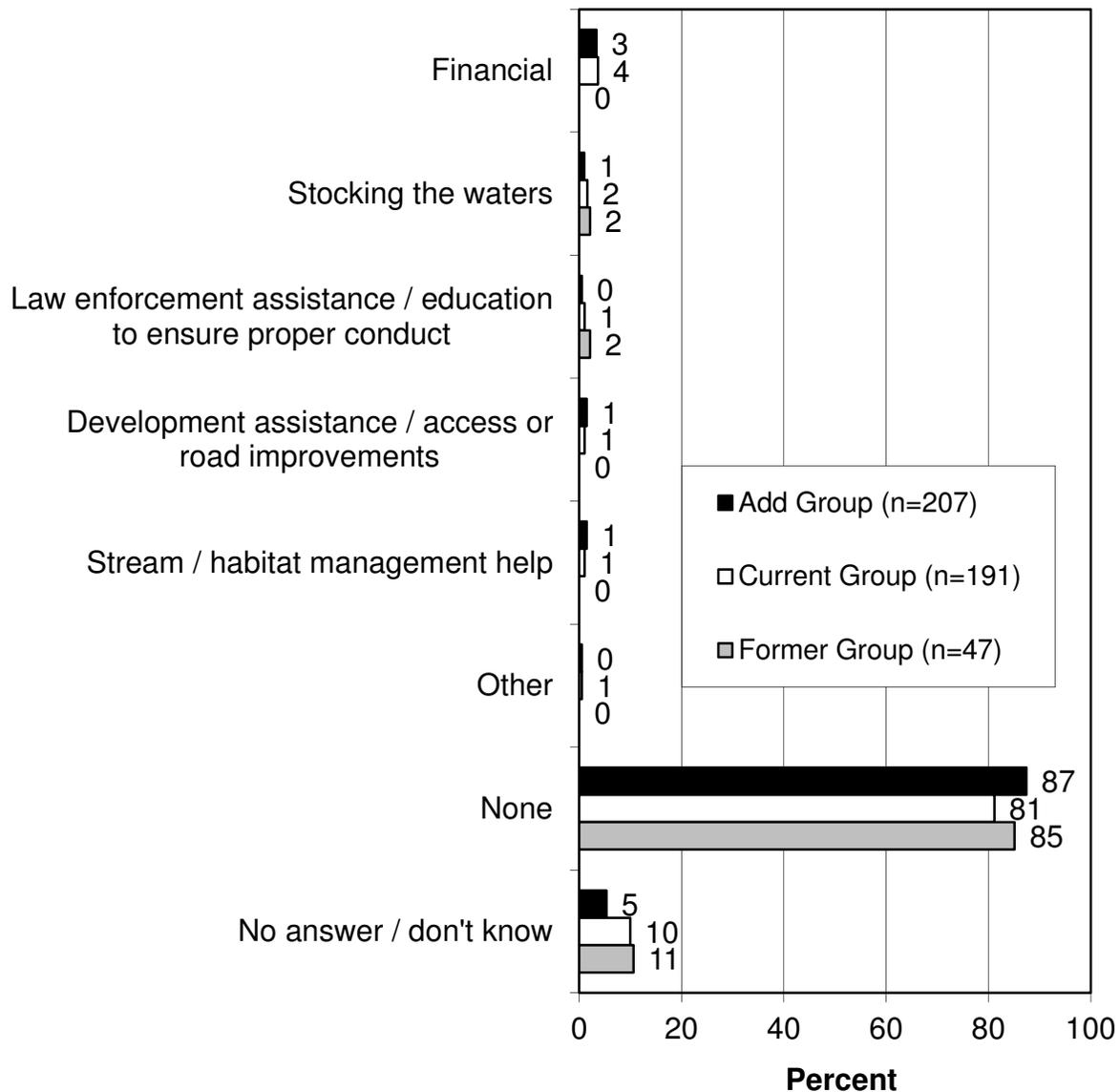
FACTORS CONSIDERED IN DECIDING ABOUT ACCESS, AND MOTIVATIONS AND INCENTIVES FOR ALLOWING ACCESS

- A basic question simply asked landowners who allow those whom they do not know to access their land why they allow access to the water. The most common reason is, by far, that they feel it is the right thing to do/that it supports fishing. Otherwise, small percentages simply do not care or say that locals have always done it and they are hesitant to stop them or to stop this tradition. Finally, from 8% to 15% of the groups indicate that they have no feasible way to stop people from accessing the land.
- While the overwhelming majority of respondents, in an open-ended question, did not name any incentive or assistance that would encourage them to allow fishing access (asked of those who do *not* currently allow it), small percentages of respondents said that:
 - financial incentives would encourage them to allow fishing access,
 - having the waters stocked would encourage them to allow access (presumably because they would benefit from having fish that they could catch),
 - either law enforcement or educational measures being taken to ensure better behavior among those accessing the waters would encourage them to allow access, or
 - some type of assistance in maintaining roads or the stream area itself would encourage them to allow access.
- All landowners were asked a series of questions about the importance of various factors in their decisions on allowing or not allowing anglers to access the water on the survey land. For each factor presented to them, they rated it as *very* important, *somewhat* important, or *not at all* important in making access decisions.
 - The top items are litter (66% to 68% say that this factor is very important), the poor behavior of the public (56% to 62%), liability concerns (54% of each group), and property damage (49% to 53%).
 - The results are fairly similar across the three groups with two exceptions: privacy or not wanting anyone on the land in general (the Add Group is markedly higher than the other groups in *very* important responses) and wanting to allow only personal or family use of the access area (again, the Add Group is more concerned with this).
 - Three graphs are shown: the *very* important responses by themselves, the *very* and the *somewhat* important responses combined, and then the percentages saying *not at all* important.

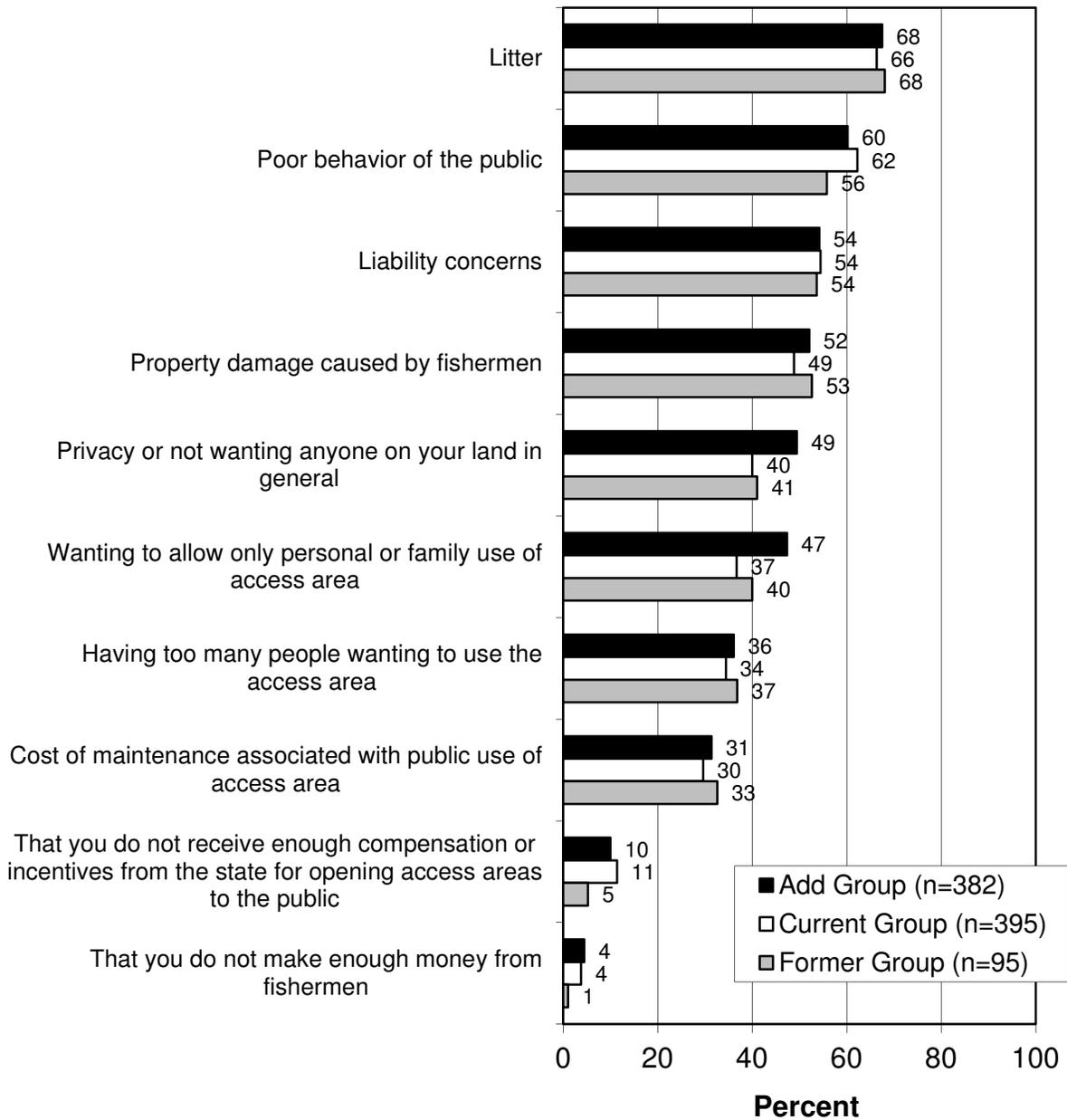
Q42. Why do you allow access to the water on your land for fishing? (Asked of those who allow open access to their land for fishing.)



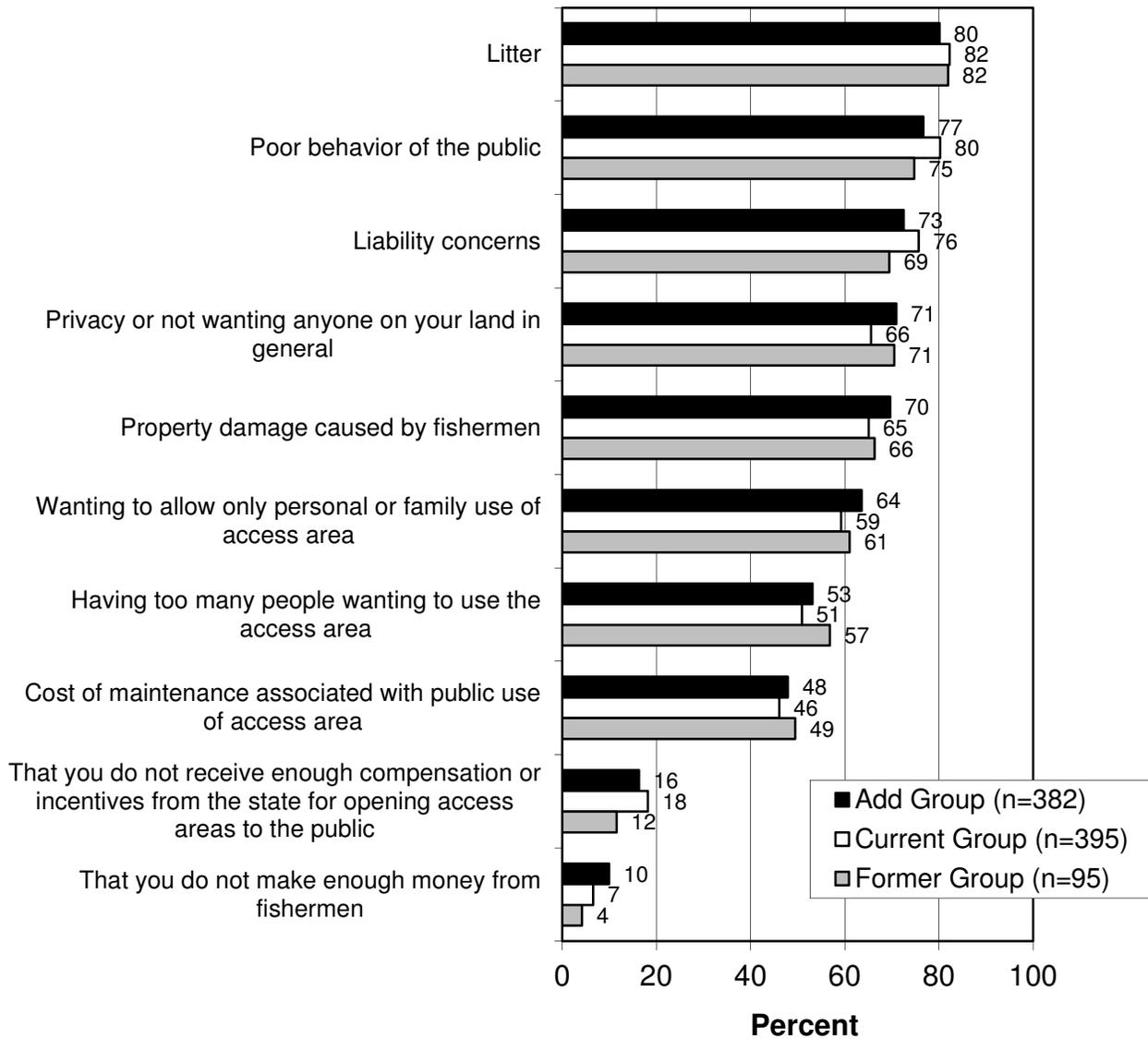
Q53. Are there any incentives or assistance from the state you can think of that might encourage you to allow fishing access on or across your land? (Asked of those who do NOT allow access to their land for fishing.)



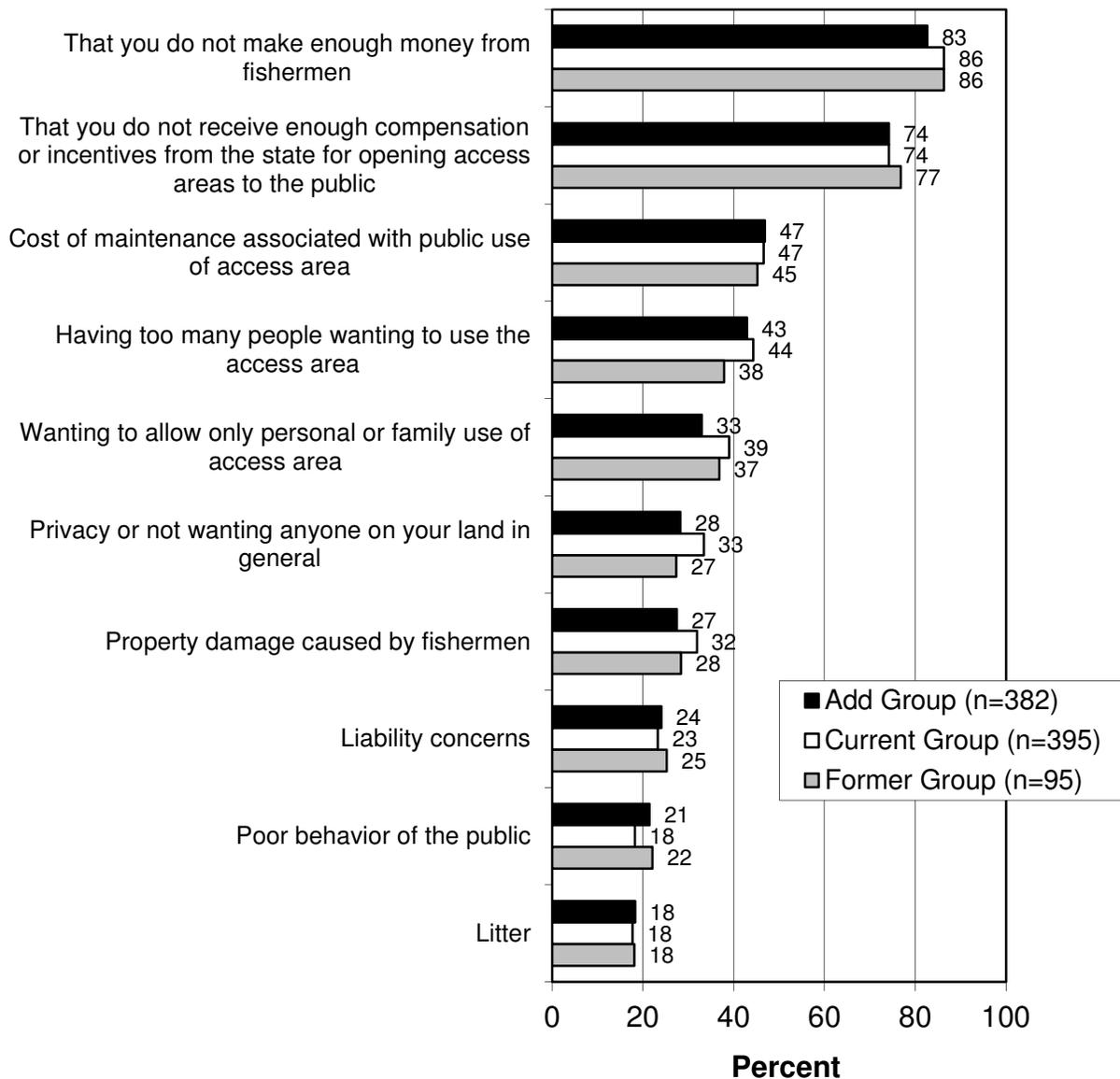
Percent of respondents who indicated that each of the following is very important to their decisions whether to allow or not allow access for fishing now or in the future on their land:



Percent of respondents who indicated that each of the following is very or somewhat important to their decisions whether to allow or not allow access for fishing now or in the future on their land:



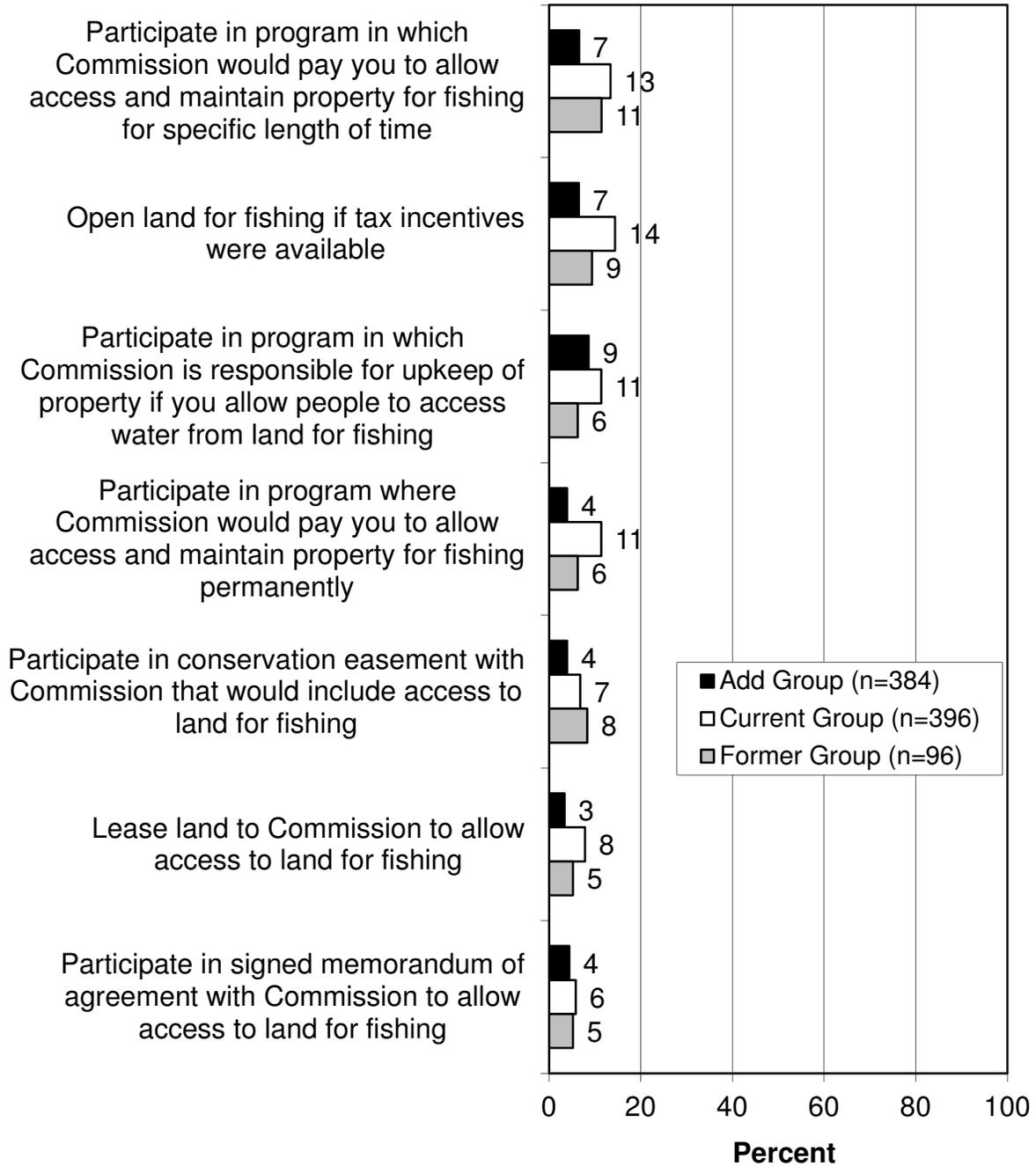
Percent of respondents who indicated that each of the following is not important to their decisions whether to allow or not allow access for fishing now or in the future on their land:



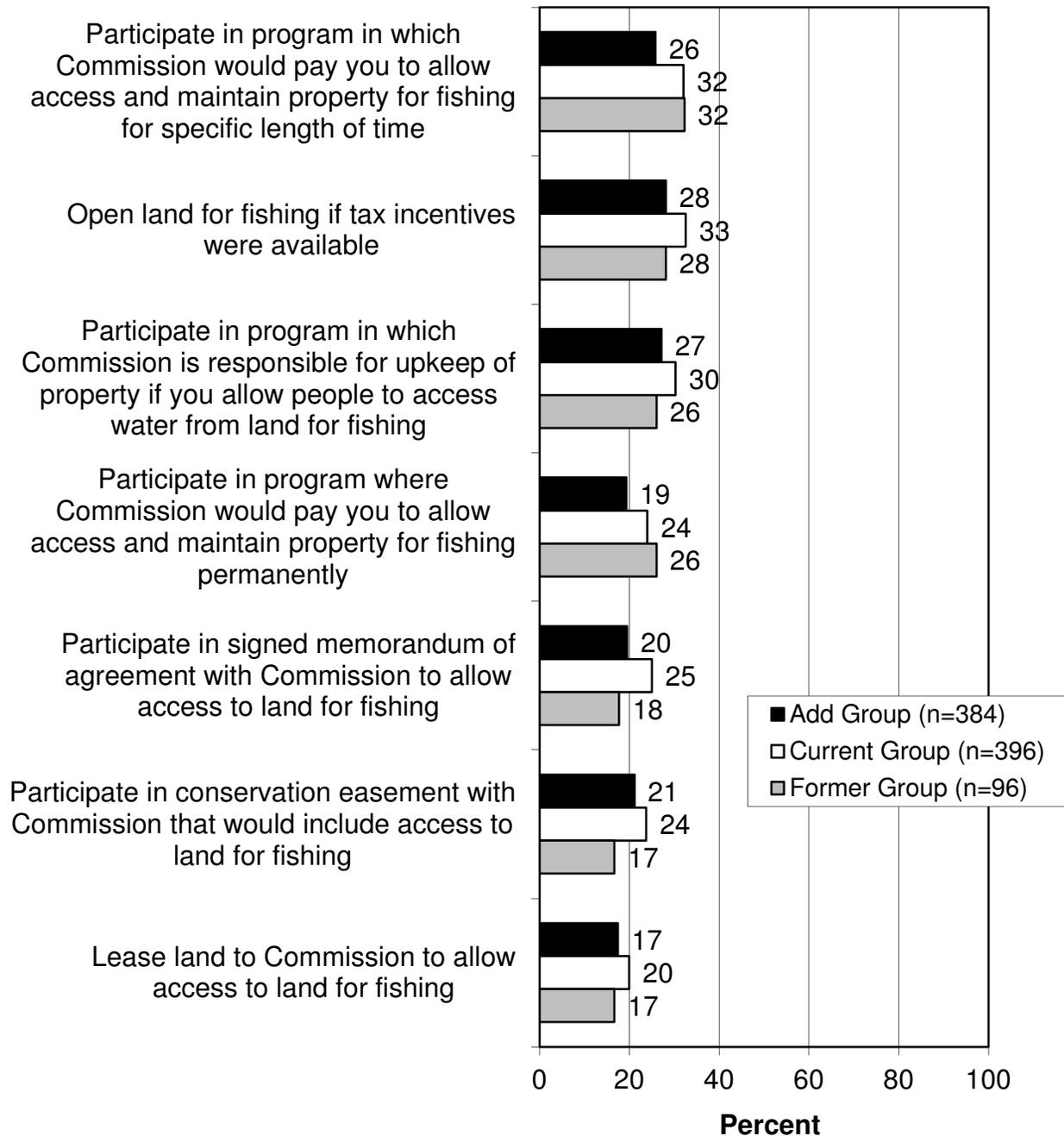
LIKELIHOOD TO ALLOW VARIOUS TYPES OF ACCESS AND UNDER VARIOUS SCENARIOS

- Seven actions (such as to “open lands for fishing if tax incentives were available”) were presented to landowners; for each, they were asked about their likelihood (*very*, *somewhat*, or *not at all*) of doing the action.
 - All of the possible actions have about the same ratings of likelihood: from 17% to 32% of the groups indicated being *very* or *somewhat* likely to do the action (or, looking at it from the other side, from 59% to 79% indicated being *not at all* likely). Despite the close results from one action to the next, two that are at or near the top of the ranking for each group are to “participate in a program in which the Commission would pay you to allow access and maintain property for fishing for a specific length of time” and to “open land for fishing if tax incentives were available.”
 - Three graphs are shown: the percentages saying *very* likely, the percentages saying either *very* or *somewhat* likely, and the percentages saying *not at all* likely.

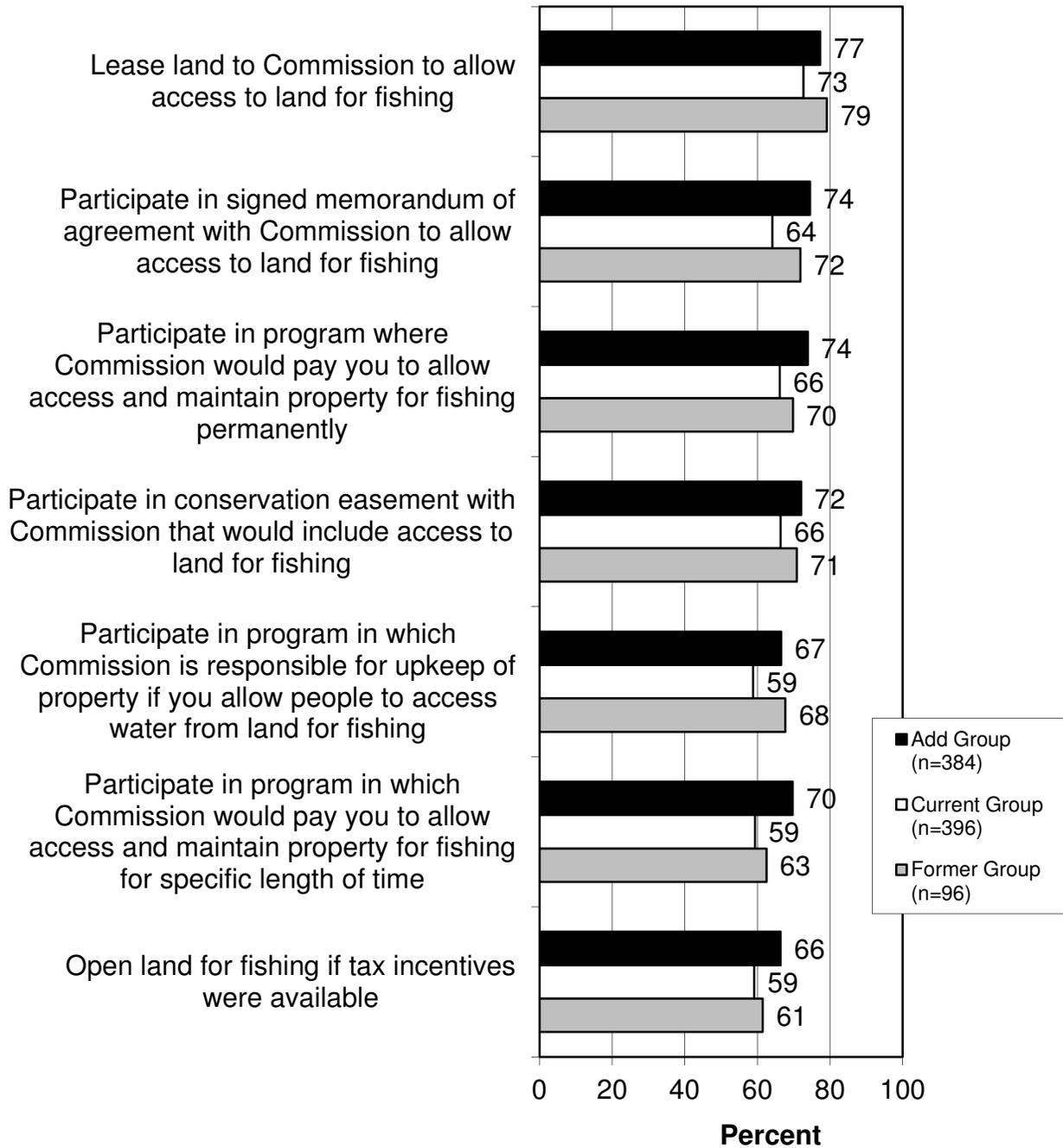
Percent of respondents who indicate being very likely to participate in each of the following:



Percent of respondents who indicate being very or somewhat likely to participate in each of the following:



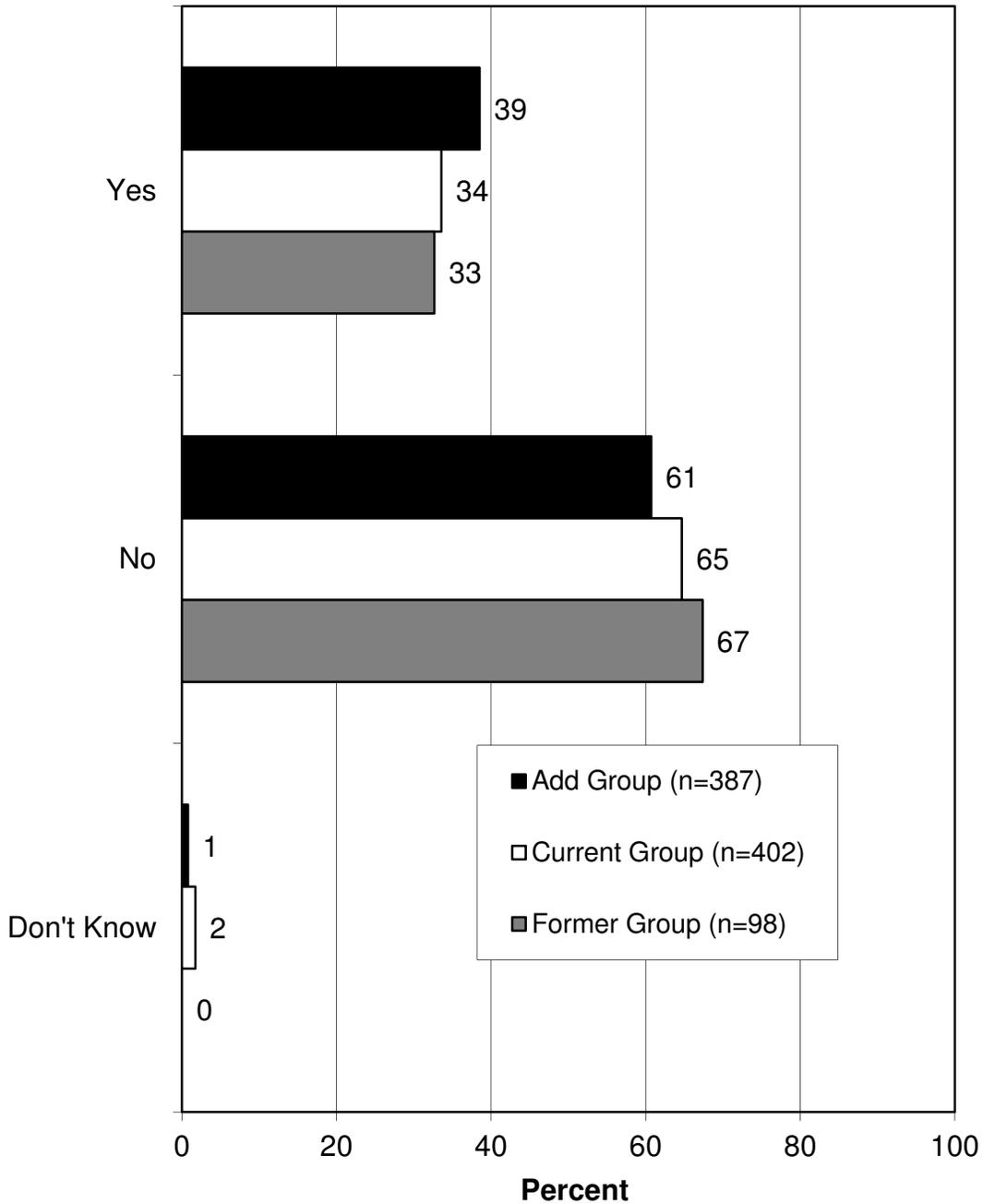
Percent of respondents who indicate being not at all likely to participate in each of the following:

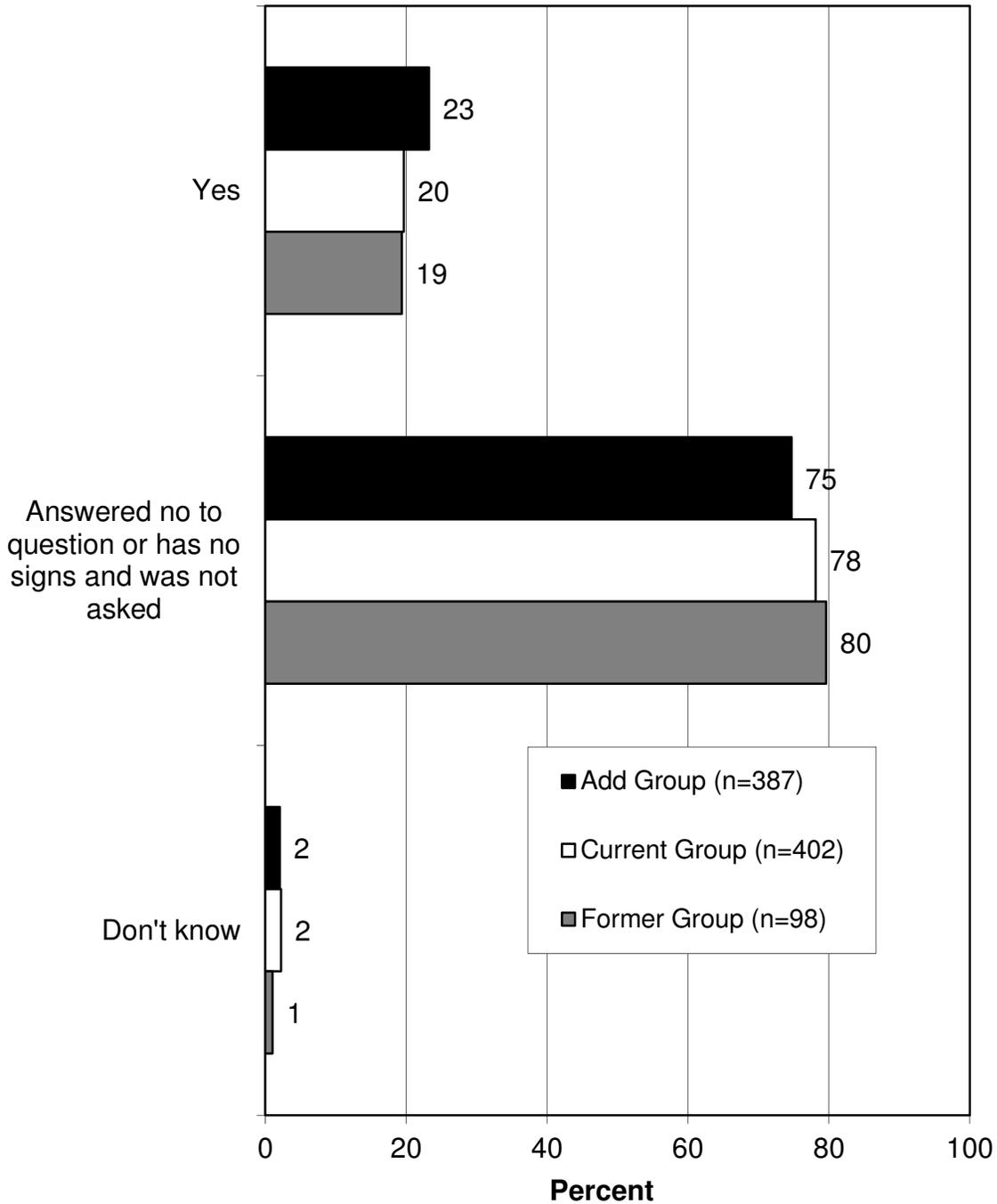


SIGNAGE ON LAND

- About a third of respondents indicate that they have “private,” “no trespassing,” or similar signs posted on their land, including purple paint in place of a worded sign (39% of the Add Group, 34% of the Current Group, and 33% of the Former Group). Additionally, about a fifth of all respondents have such signs posted at or near the water (23% of the Add Group, 20% of the Current Group, and 19% of the Former Group).

Q48. Do you have 'private,' 'no trespassing,' or other similar signs posted on your land, including purple paint?



Q49. Is your sign posted at or near the water?

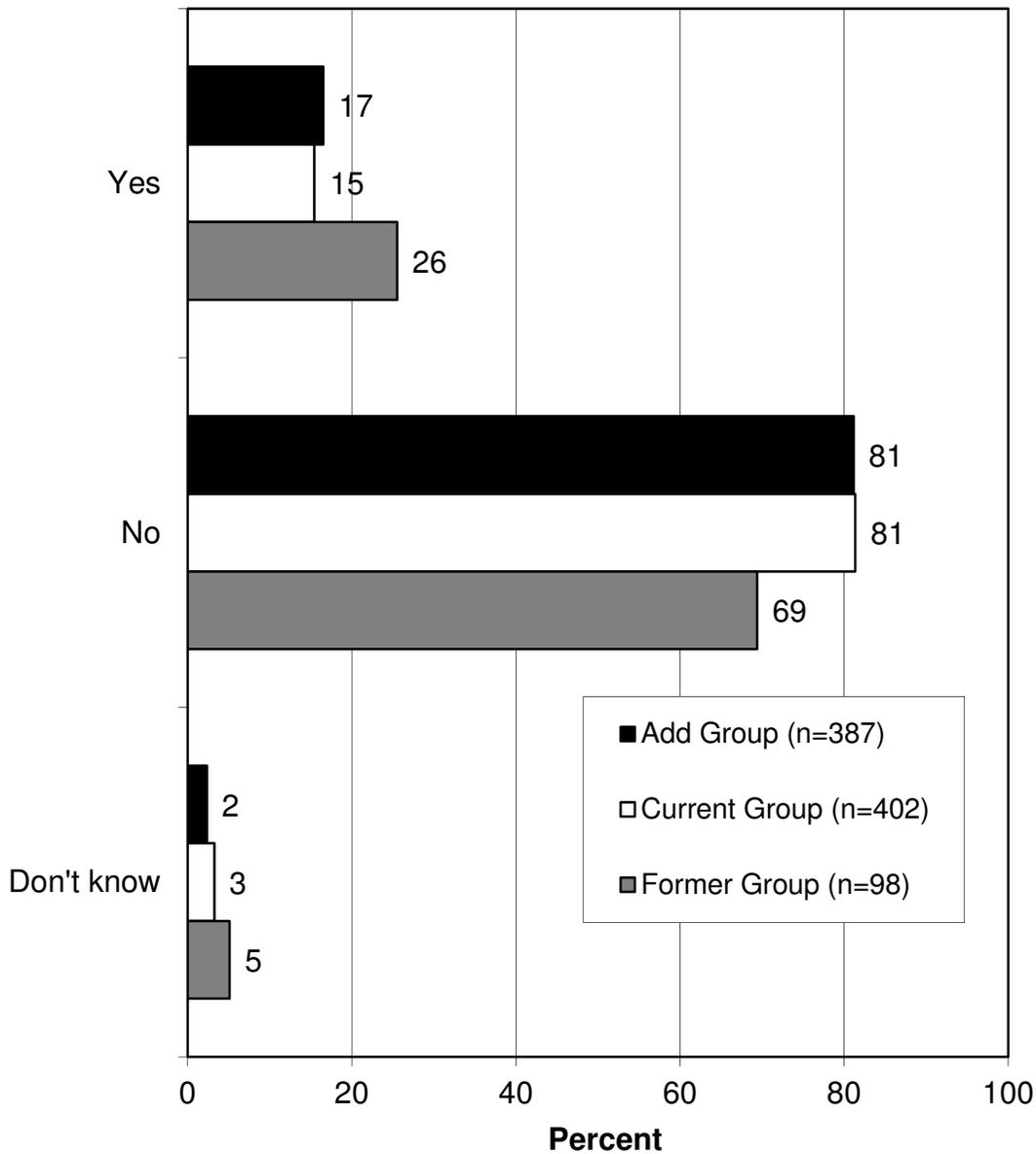
PROBLEMS EXPERIENCED

- While all three groups, over the past 5 years, have respondents who experienced problems with fishermen accessing their land, the rate among the Former Group is notably higher: 17% and 15% of the Add Group and the Current Group said that they experienced problems, while 26% of the Former Group indicated that they had problems.
 - In follow-up, the survey asked respondents to name the problems, in an open-ended question to which any response could be given. Trespassing and litter were most commonly named. The graph shows the full list.
 - A similar theme was explored in an open-ended question that asked those who allow access for fishing to name any circumstances in which they would not allow access. The most commonly named circumstances are if people were damaging property or resources, if they were littering, and if they were being rowdy or disrespectful. Again, the graph shows the full list of response categories.

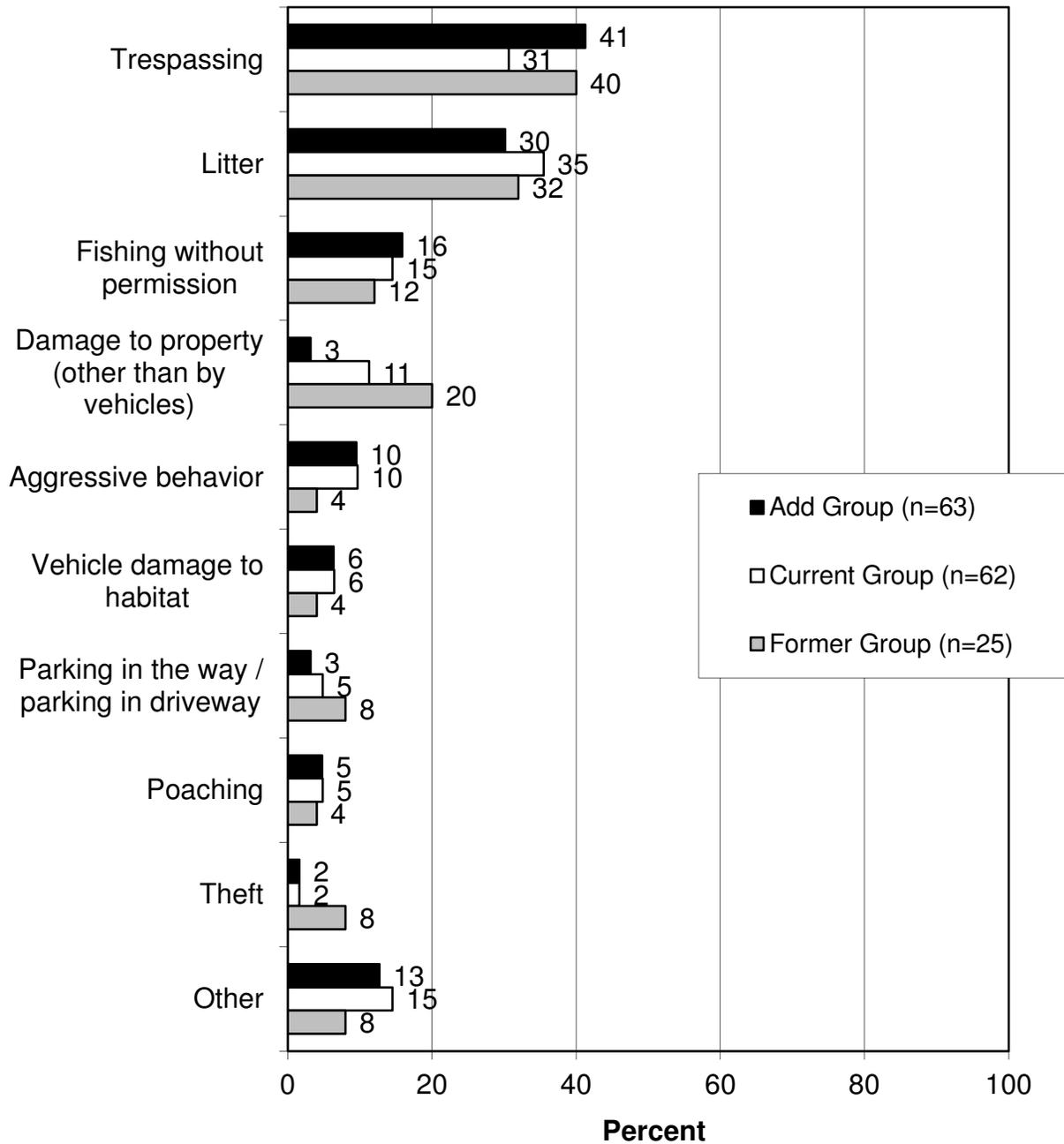
- The survey asked all landowners (regardless of their response to Q50 about whether they had experienced problems with fishermen) about ten items that could potentially be a problem with people on their land—including people *not* fishing. For each item, the survey asked landowners to rate it as a *major* problem, a *moderate* problem, a *minor* problem, or *not a problem at all*.
 - The top problems are littering, people trespassing/using water without permission, poor behavior of the public, vandalism, poor stewardship of the resource, and loss of privacy.
 - It is worth noting that the Former Group generally had a higher percentage saying each was a major or moderate problem compared to the Add Group and the Current Group—particularly those top problems named above.
 - Four graphs are shown: *major* problem responses by themselves; *major* and *moderate* responses combined; *major*, *moderate*, and *minor* responses combined; and finally the *not a problem* responses by themselves.

- The converse of looking at problems is looking at things that might be effective in reducing problems. For each of ten items, landowners were asked if they thought it would be *very* effective, *somewhat* effective, or *not at all* effective at reducing problems that landowners may have had.
 - There are six items being rated as very or somewhat effective by at least a third of landowners in the three groups, most of which pertain to providing information. The top items are a map showing private lands open to the public by permission, having the agency provide fishermen with information about access laws, an information source that indicates whether private land is open or closed, having the agency provide landowners with information about access laws, information on the agency website showing private lands that allow access, and signage indicating how/where/when access is allowed.
 - Three graphs are shown: *very* effective responses by themselves, *very* and *somewhat* effective responses combined, and *not at all* effective responses by themselves.

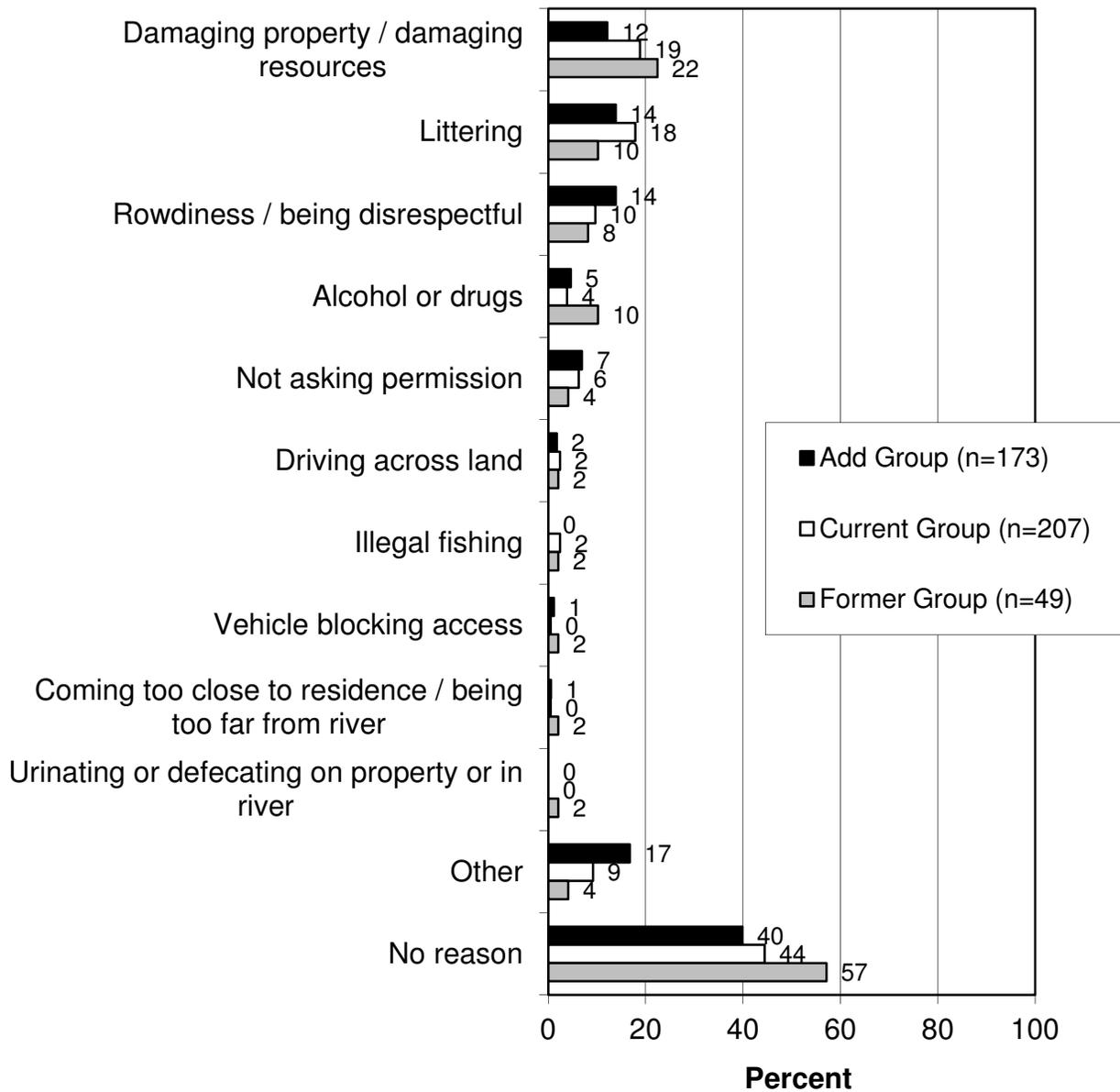
Q50. Regardless of whether you allow others to access the water from your land, have you experienced any problems with fishermen on your land or accessing the water from your land in the past 5 years?



Q51. What problems have you experienced with fisherman on the land? (Asked of those who had problems with fishermen.)



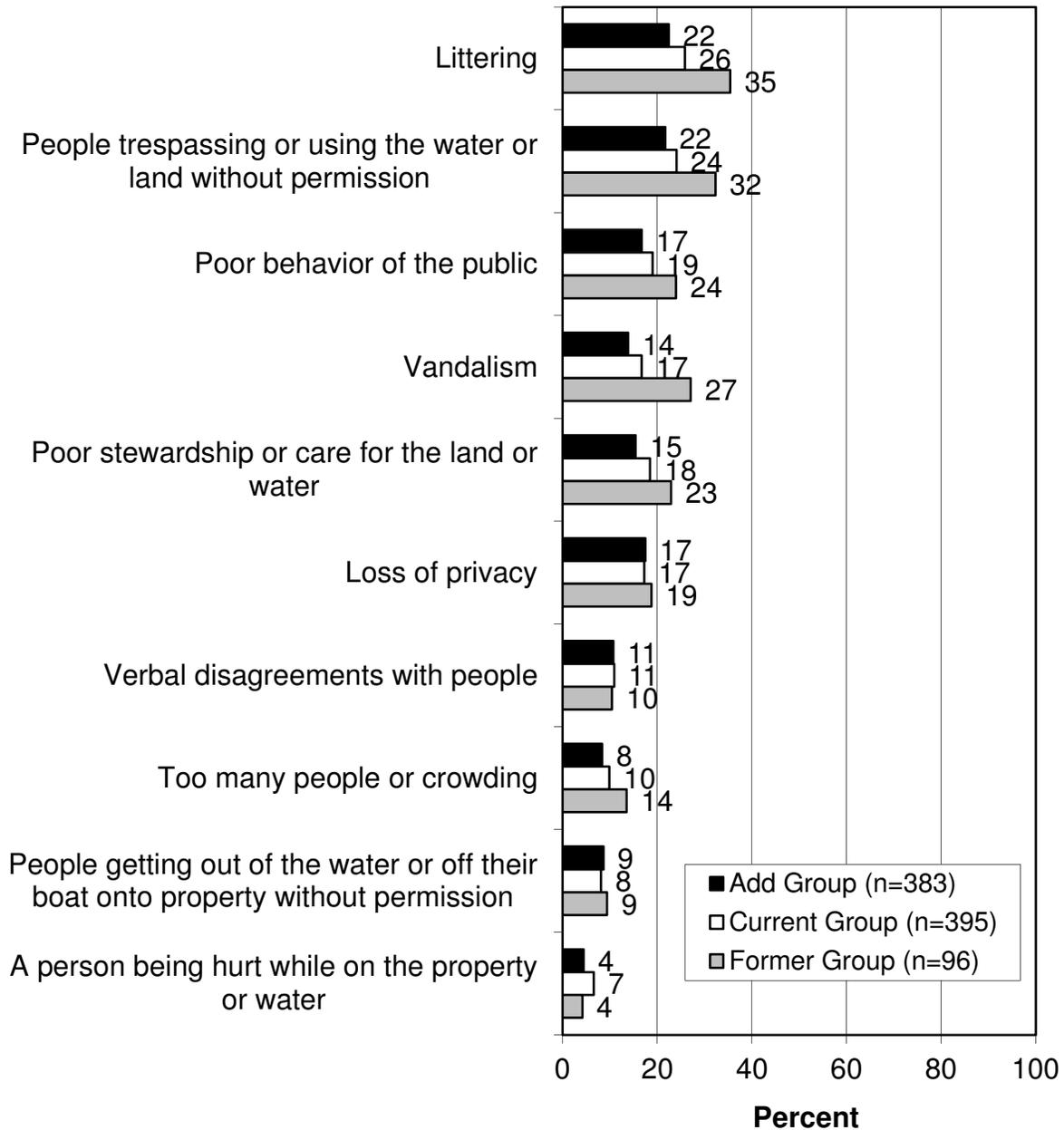
Q52. Are there specific reasons or circumstances in which you would NOT allow others to access the water from your property for fishing? (Asked of those who allow access to their land for fishing.)



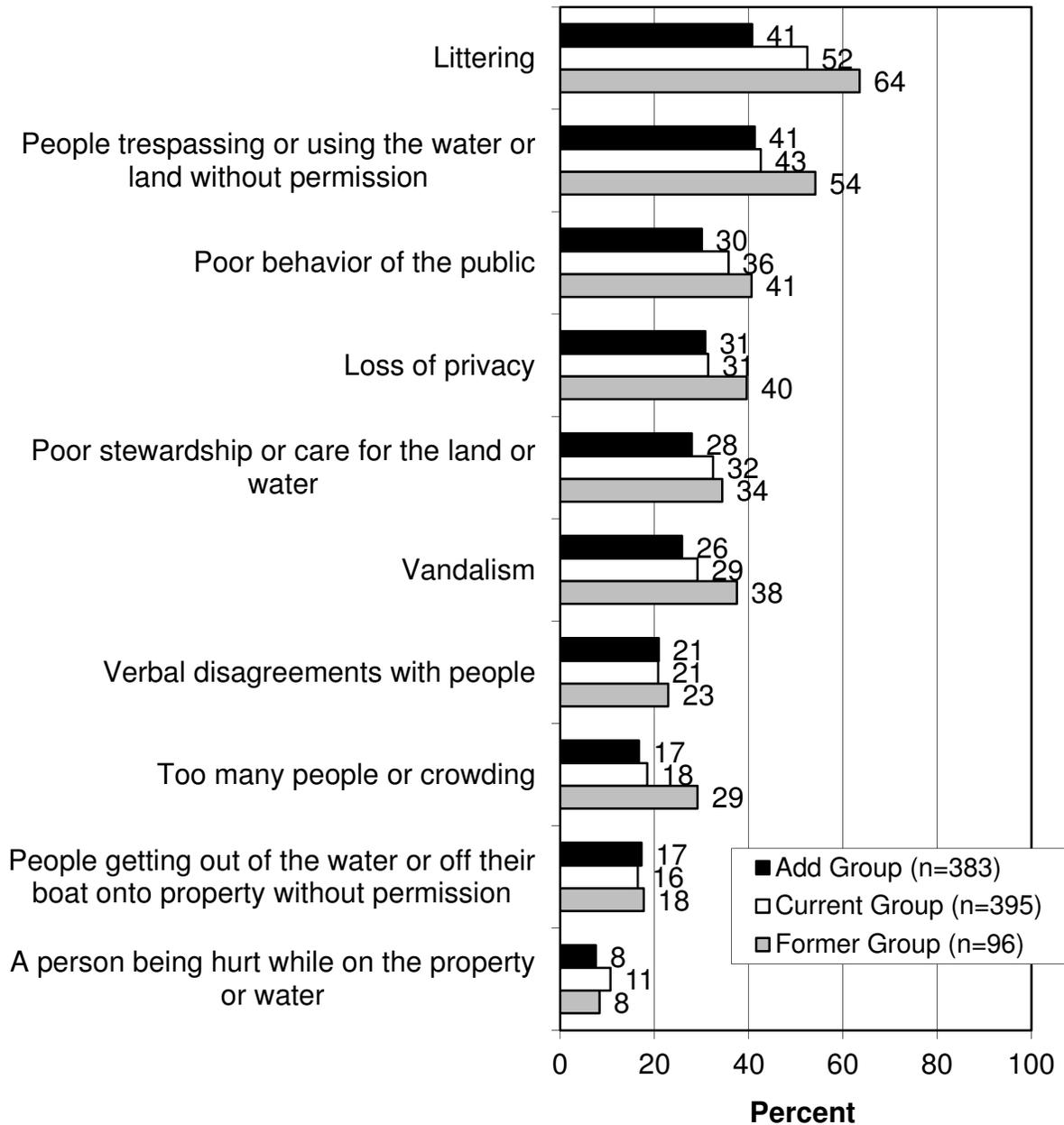
Percent of respondents who indicated that each of the following has been a major problem in the past 5 years:



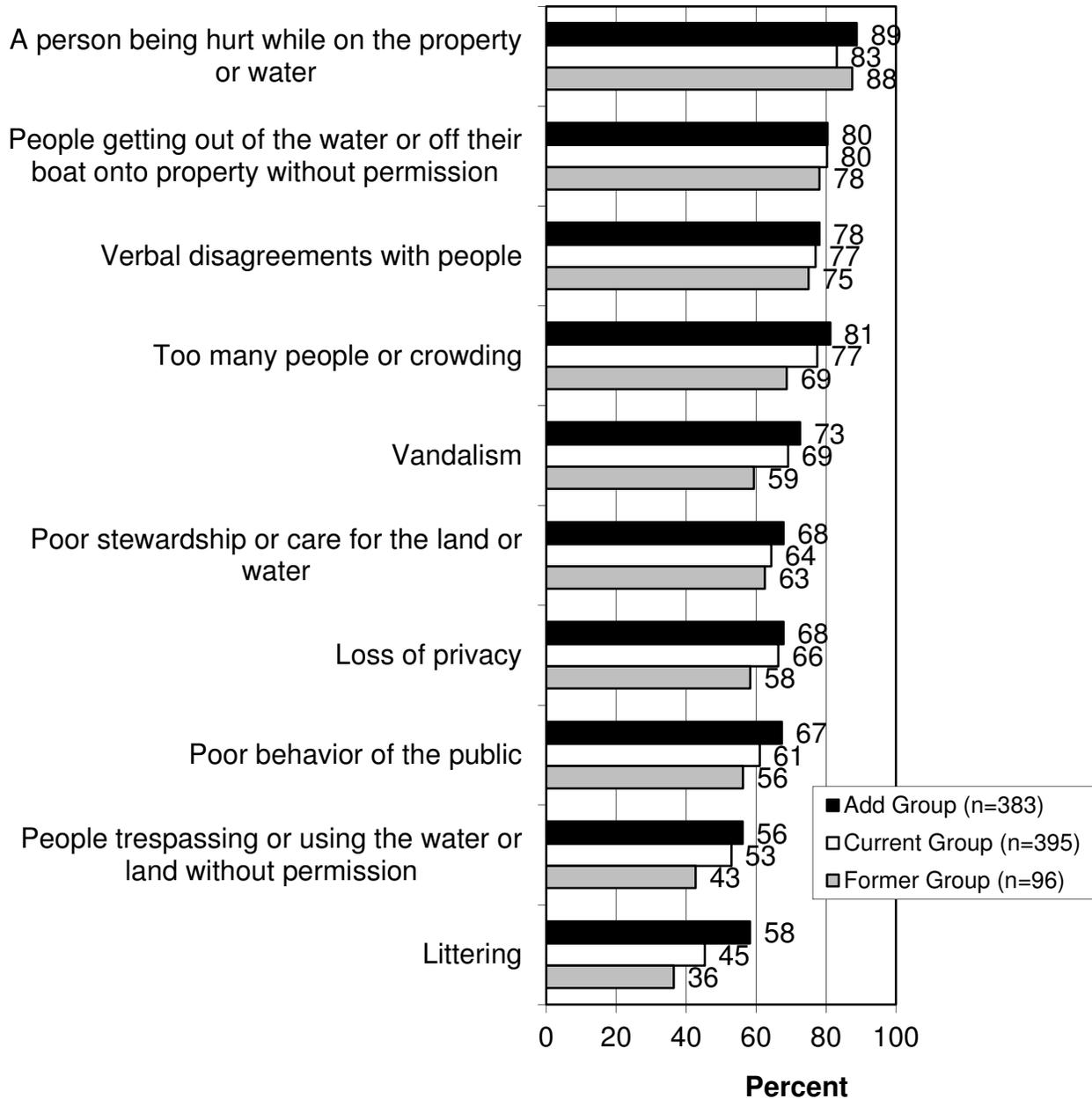
Percent of respondents who indicated that each of the following has been a major or minor problem in the past 5 years:



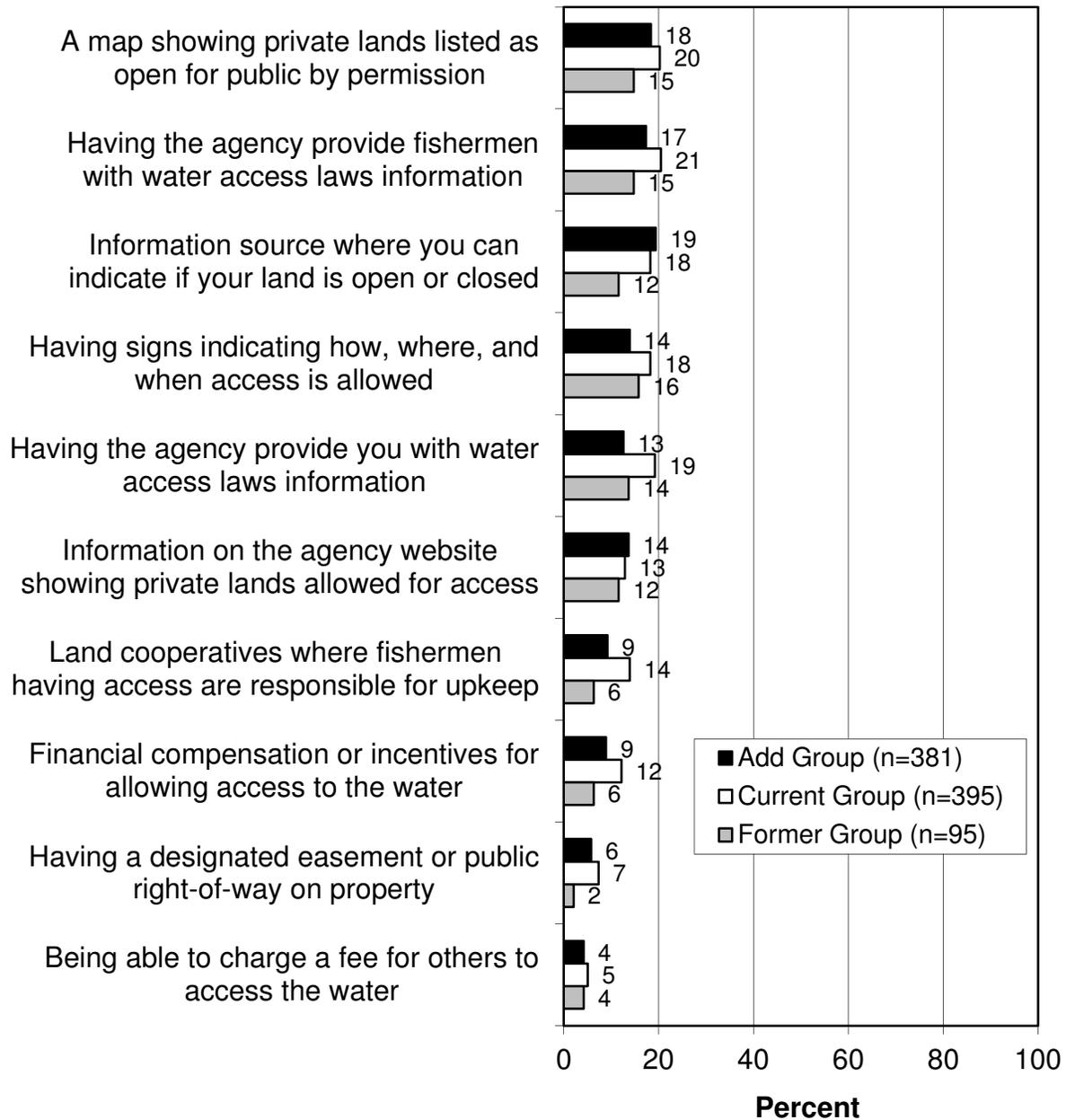
Percent of respondents who indicated that each of the following has been a major, moderate, or minor problem in the past 5 years:



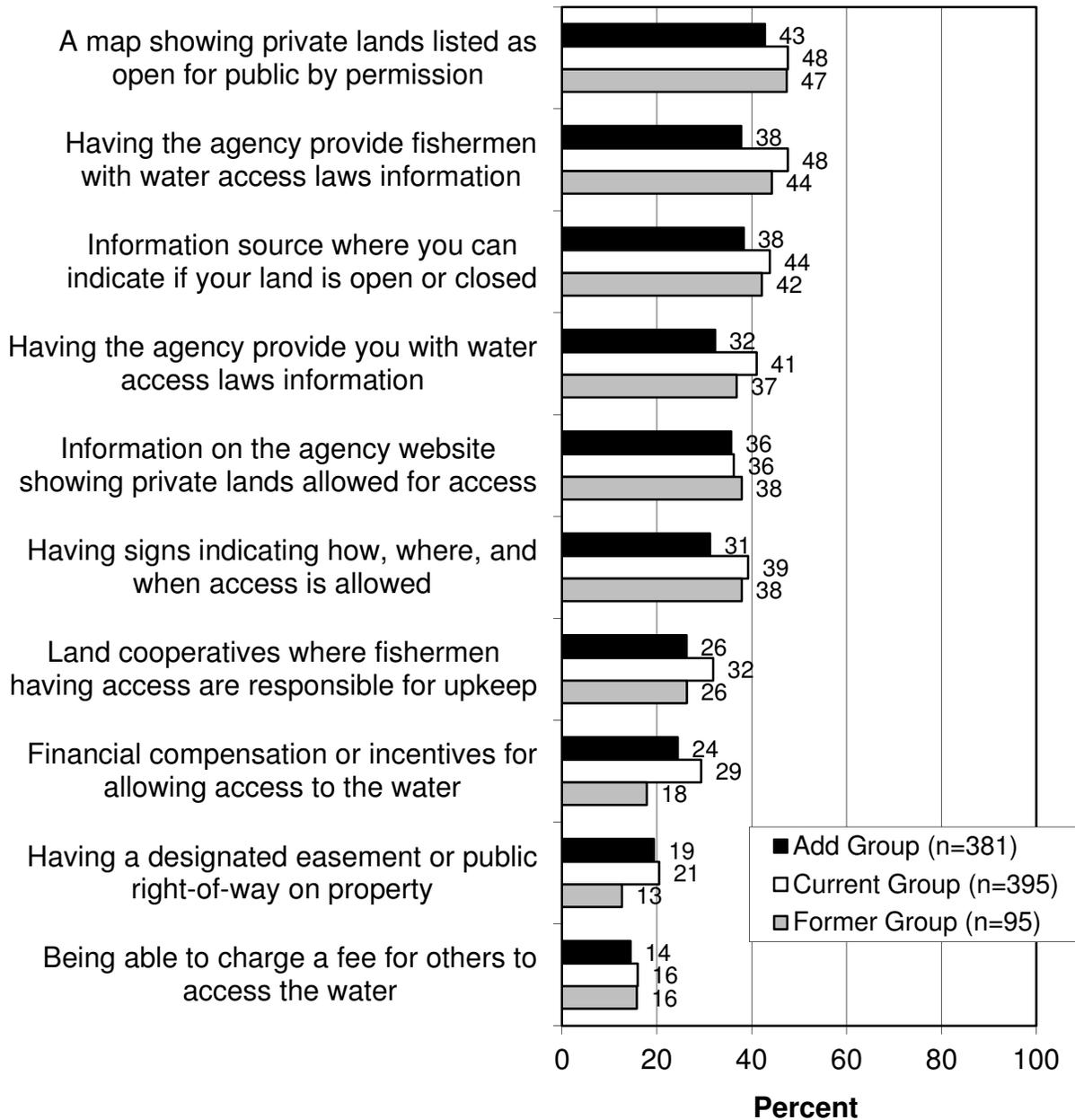
Percent of respondents who indicated that each of the following has been not been a problem in the past 5 years:



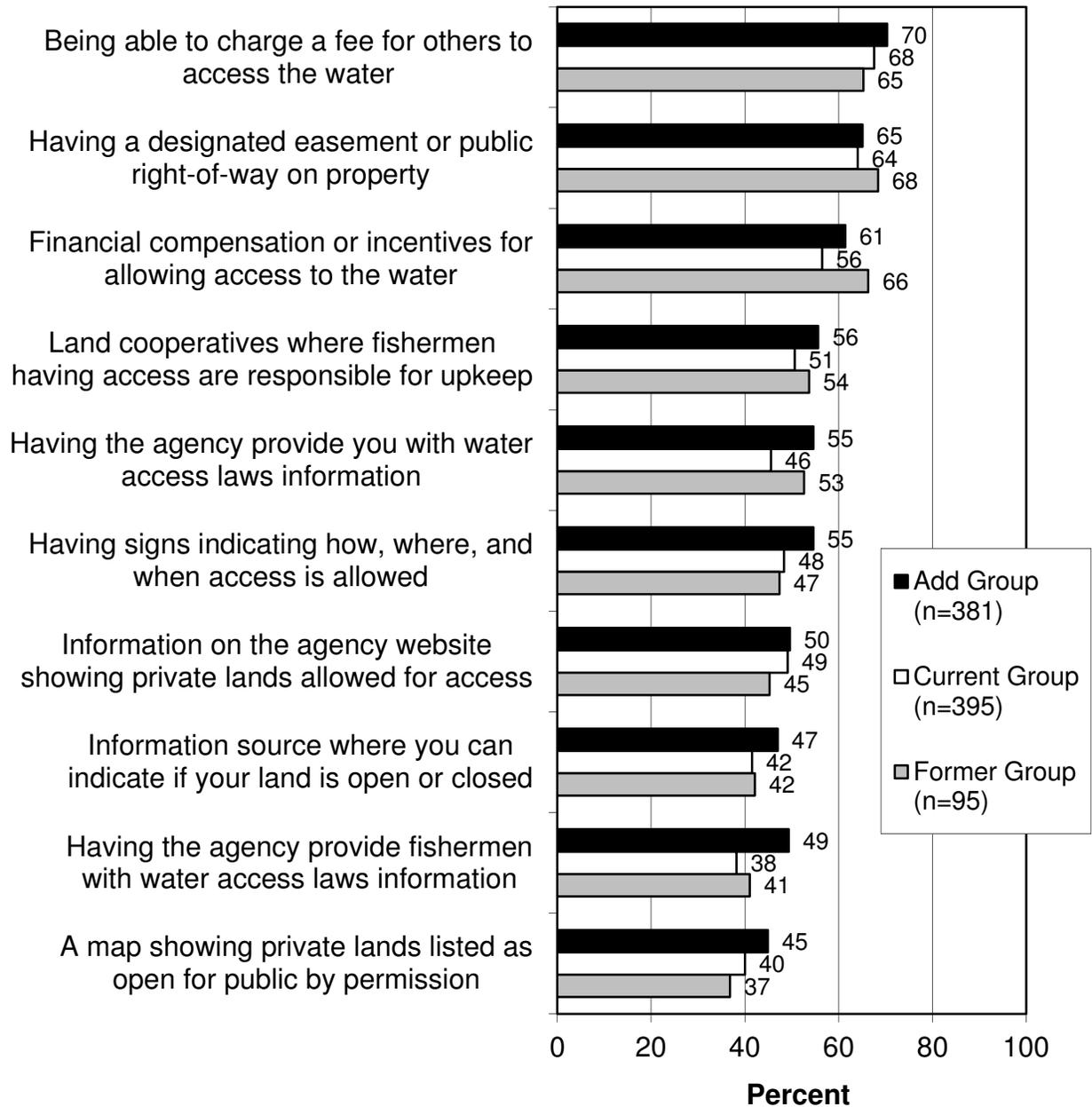
Percent of respondents who indicated that each of the following would be very effective in reducing problems on their land:



Percent of respondents who indicated that each of the following would be very or somewhat effective in reducing problems on their land:



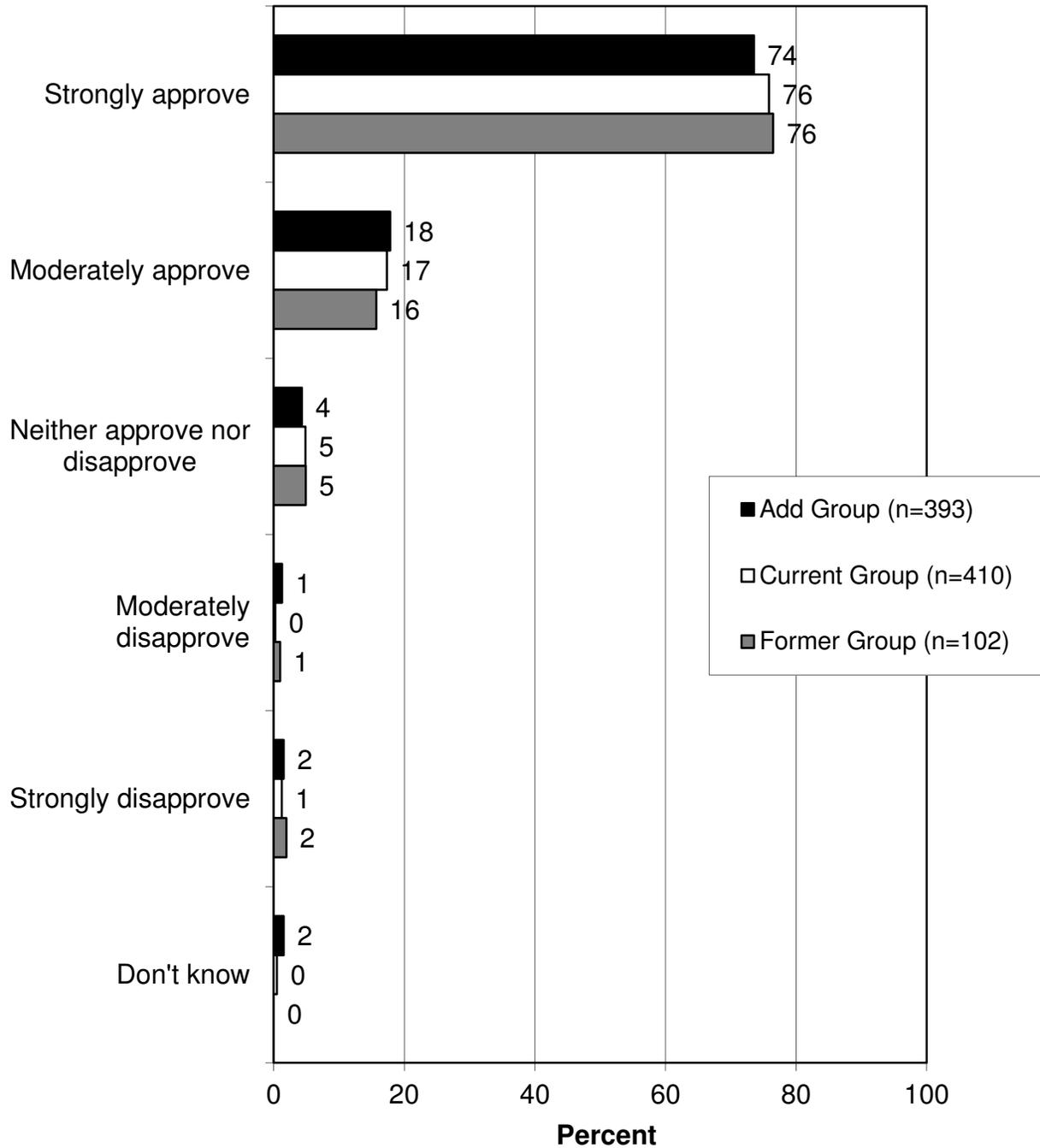
Percent of respondents who indicated that each of the following would not be effective in reducing problems on their land:



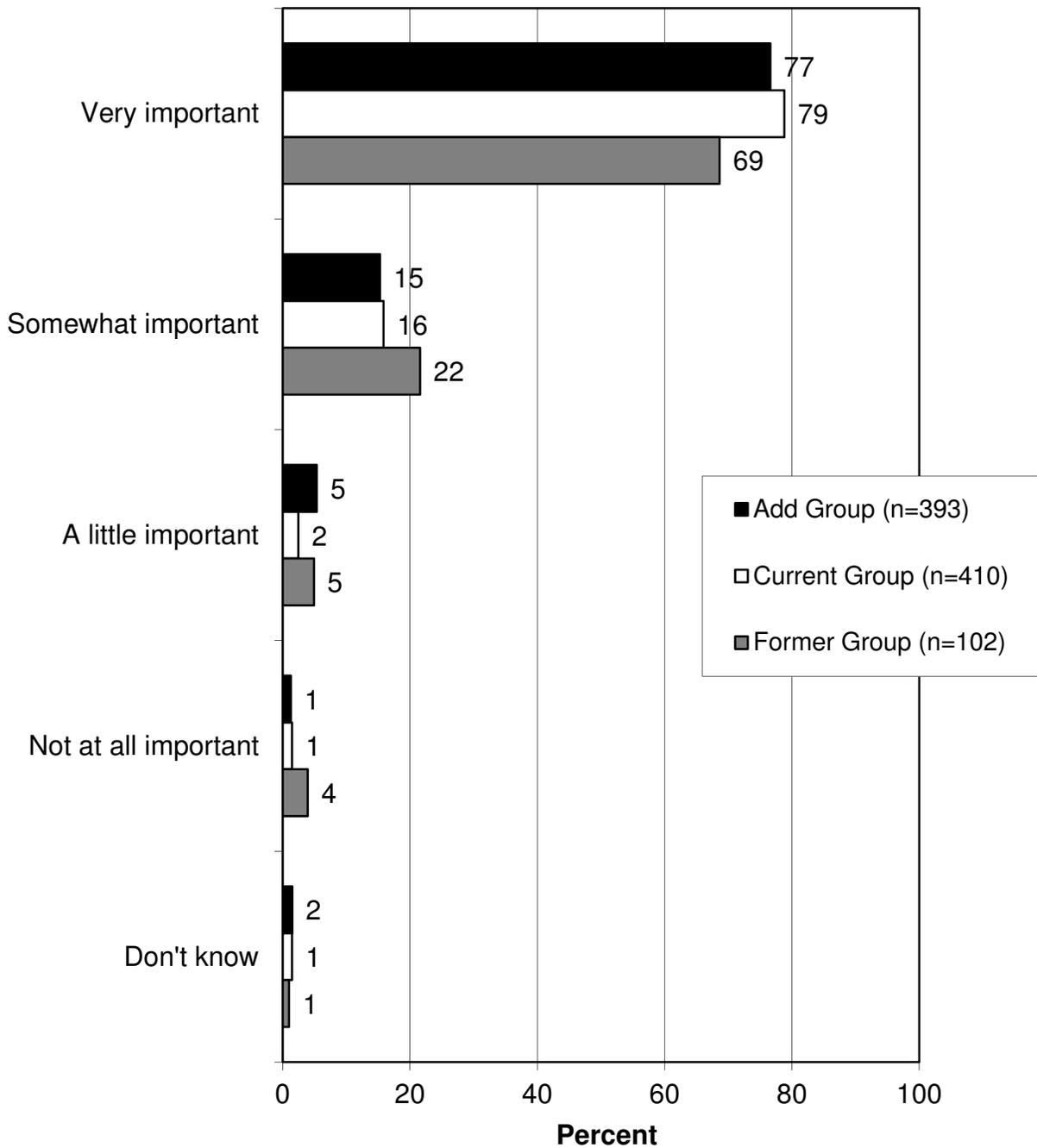
APPROVAL AND IMPORTANCE OF FISHING

- Approval of legal, recreational fishing is high among all groups: 91% to 93% of landowners in the survey approve; only 1% to 3% disapprove, and the remainder give neutral responses. Additionally, 90% to 95% of landowners say that it is *very* or *somewhat* important that people have the opportunity to fish in North Carolina; only 1% to 4% say it is *not at all* important. On this latter question, there is a marked difference in the percentage responding that it is *very* important, with the Former Group a bit lower than the other groups.
- While cause and effect cannot be determined, it is interesting to note that those landowners whose land has Hatchery Supported Trout Waters on or adjacent to it show more positive views toward fishing, compared to those whose land has Wild Trout Waters or other waters (all of the remaining water classifications other than Hatchery Supported Trout Waters and Wild Trout Waters), as shown in the crosstabulations included in this section.

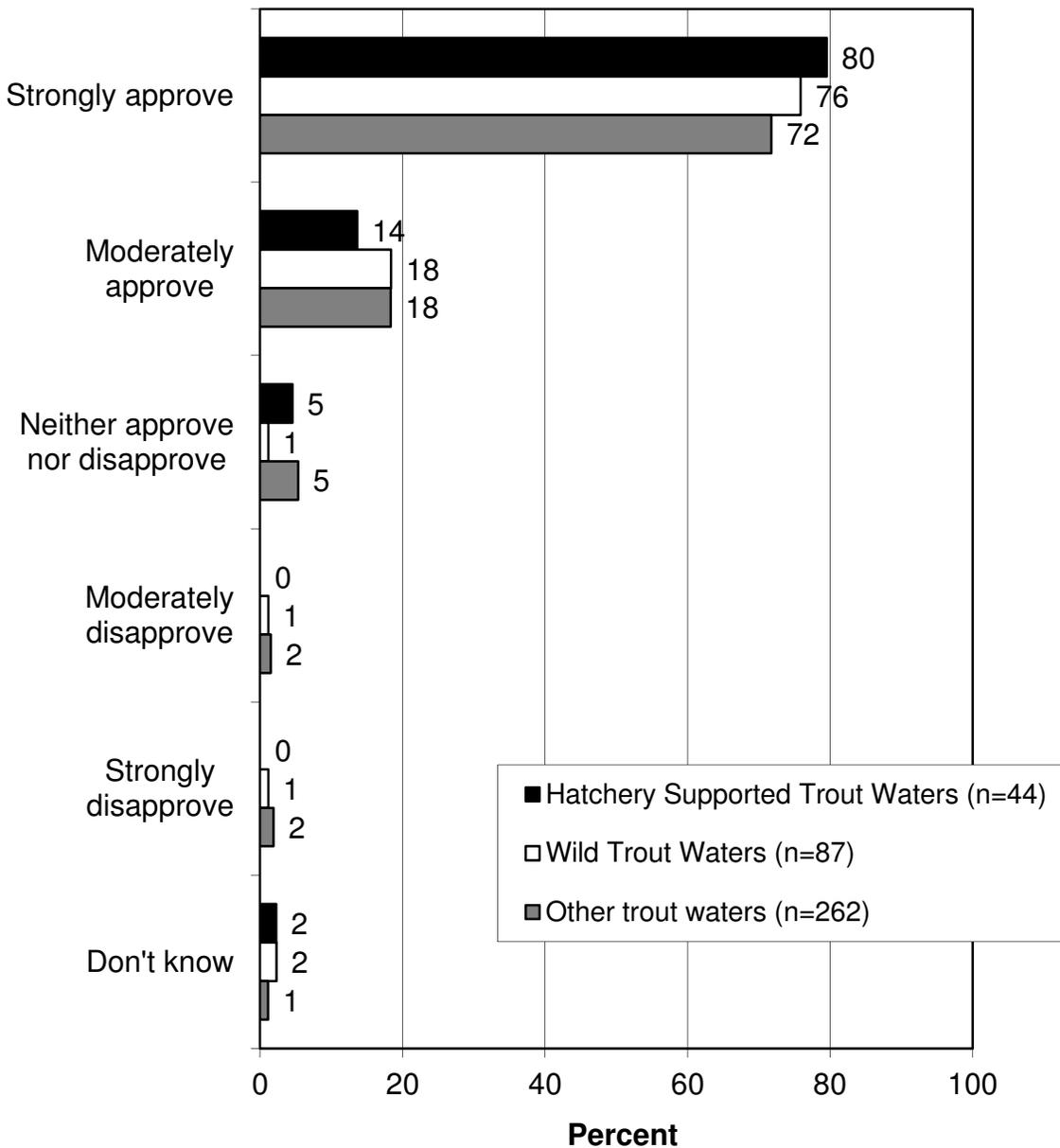
Q20. Do you approve or disapprove of legal, recreational fishing?



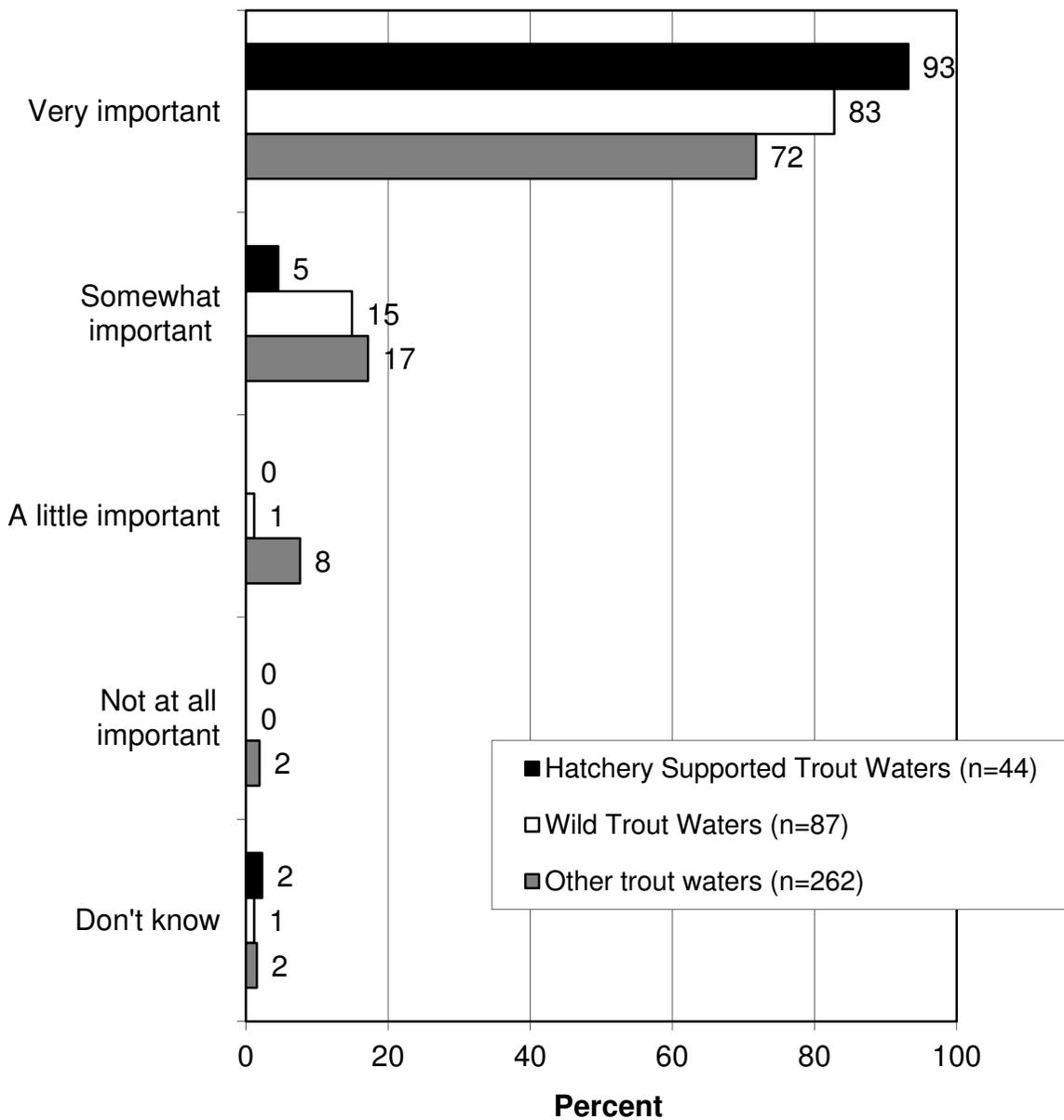
Q22. How important or unimportant is it to you that people have the opportunity to fish in North Carolina?



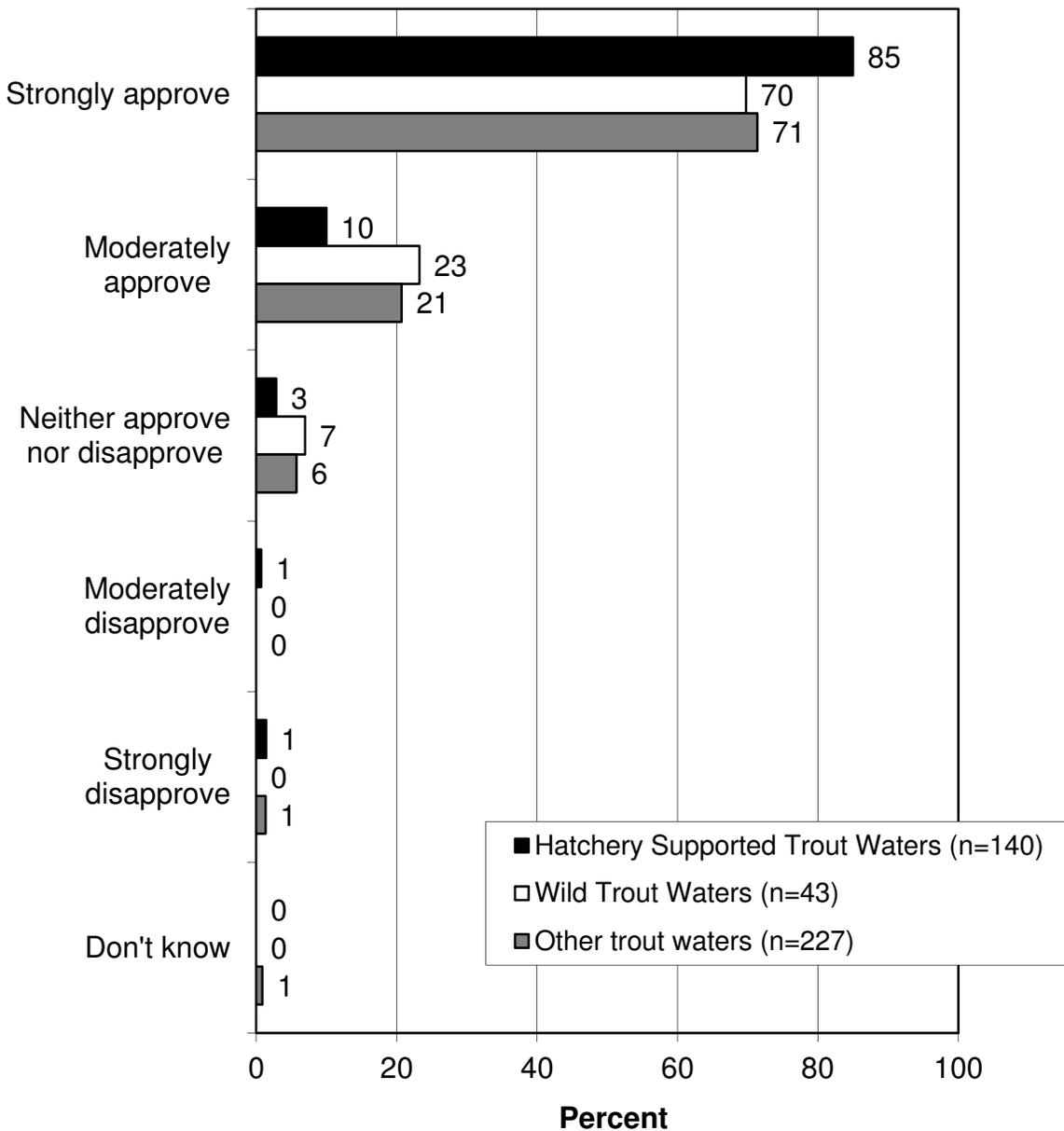
Q20. Do you approve or disapprove of legal, recreational fishing? (Among the Add Group.)



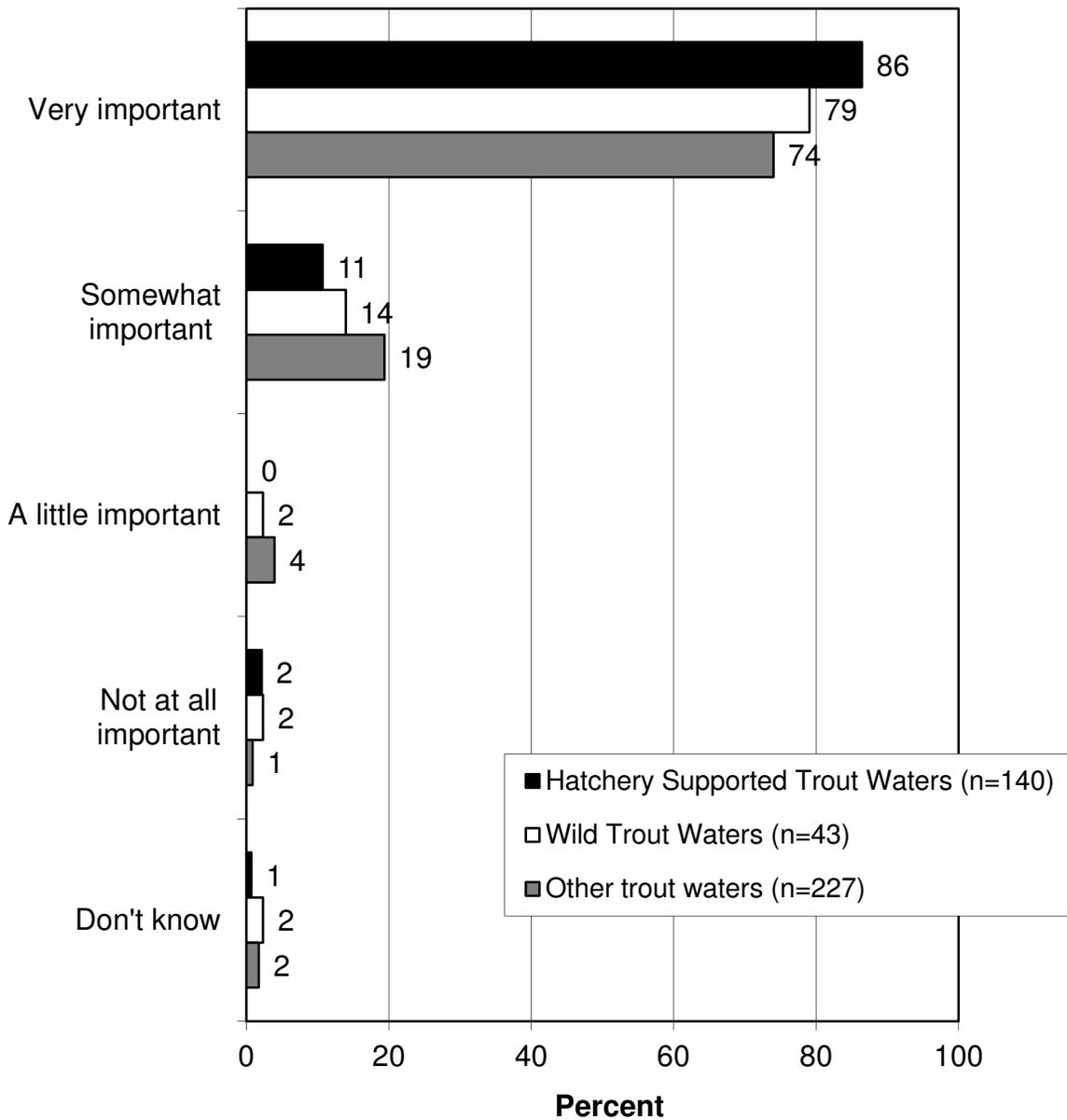
Q22. How important or unimportant is it to you that people have the opportunity to fish in North Carolina? (Among the Add Group.)



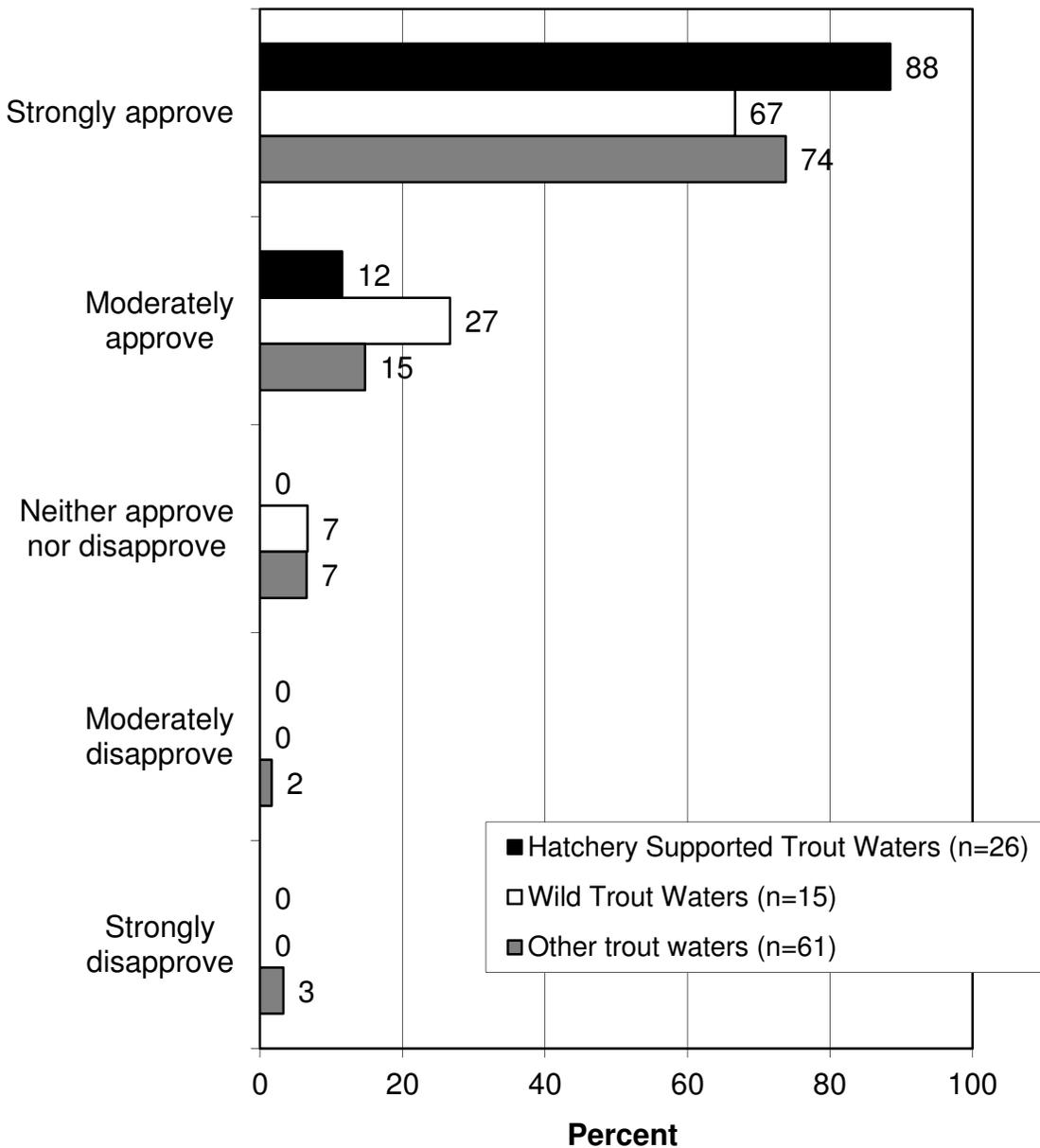
Q20. Do you approve or disapprove of legal, recreational fishing? (Among the Current Group.)



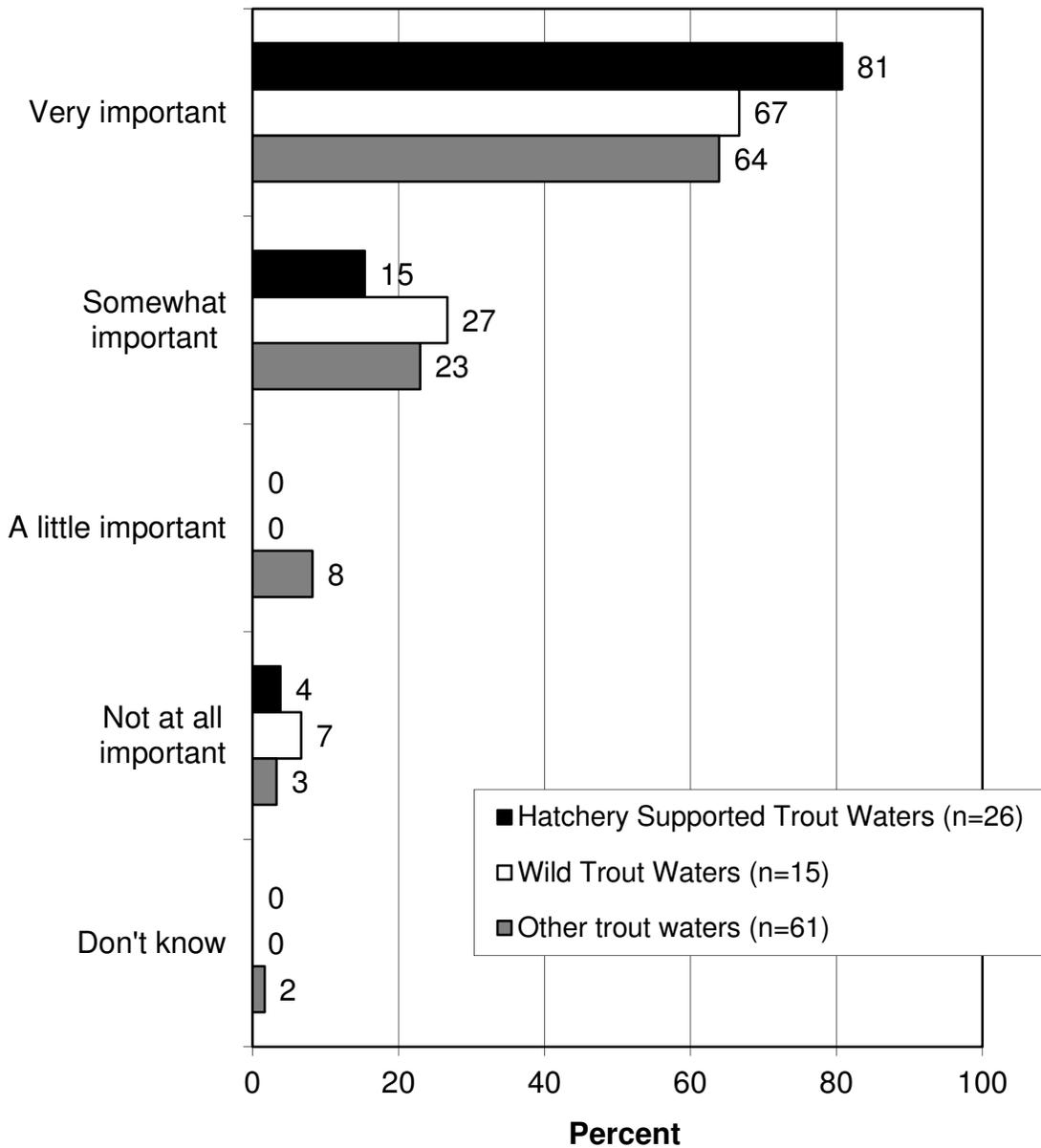
Q22. How important or unimportant is it to you that people have the opportunity to fish in North Carolina? (Among the Current Group.)



Q20. Do you approve or disapprove of legal, recreational fishing? (Among the Former Group.)



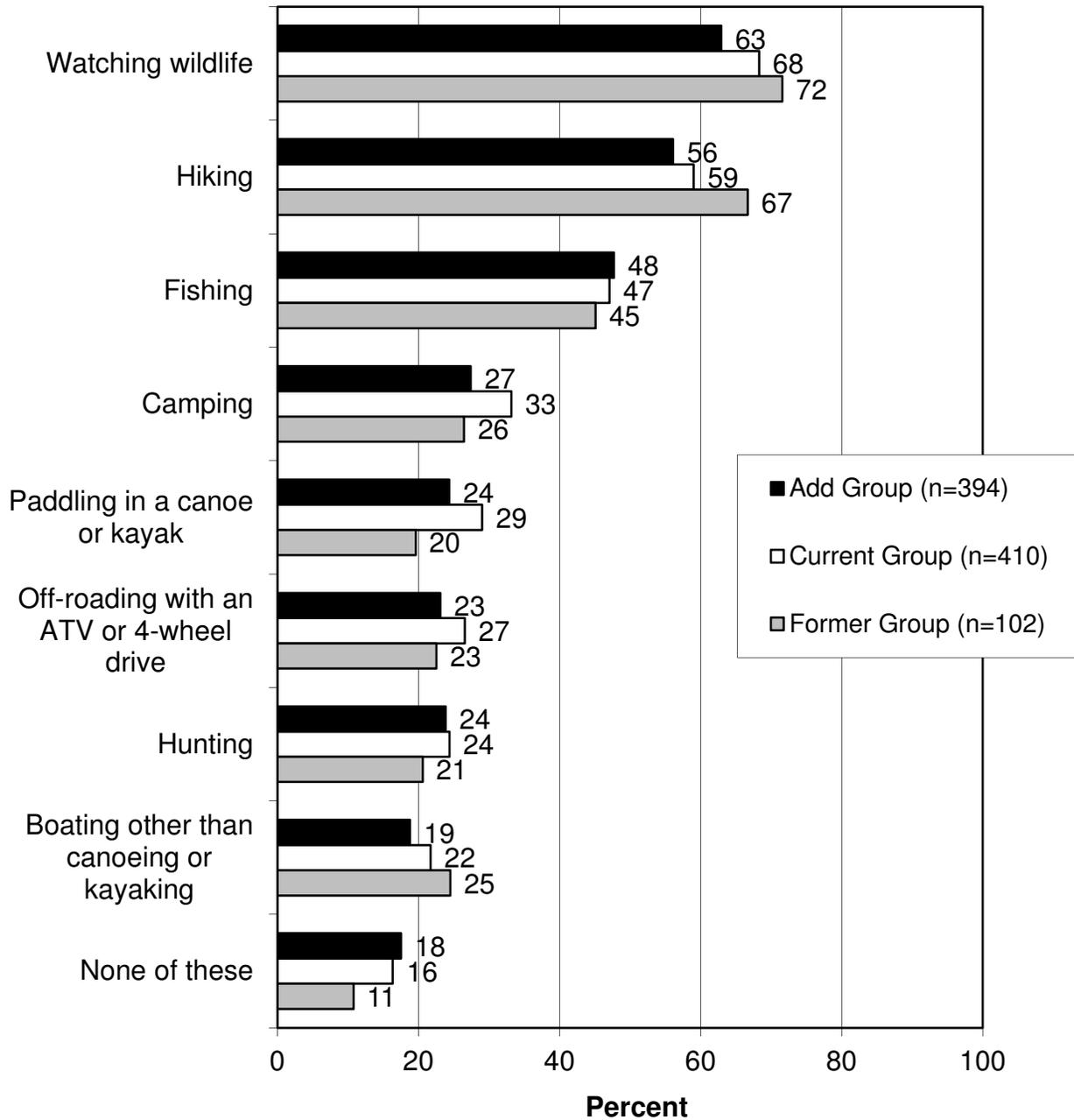
Q22. How important or unimportant is it to you that people have the opportunity to fish in North Carolina? (Among the Former Group.)



PARTICIPATION IN OUTDOOR RECREATION

- Of the eight outdoor recreation activities asked about in the survey, those that were most commonly done by the landowners are watching wildlife, hiking, and fishing. Note that the activities could be done anywhere in North Carolina in the past 5 years; the question was not specific to the survey land.

Q18. Did you participate in any of these activities anywhere in North Carolina in the past 5 years? What about...?



ABOUT RESPONSIVE MANAGEMENT

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

Utilizing our in-house, full-service telephone, mail, and web-based survey facilities with 50 professional interviewers, we have conducted more than 1,000 telephone surveys, mail surveys, personal interviews, and focus groups, as well as numerous marketing and communication plans, needs assessments, and program evaluations.

Clients include the federal natural resource and land management agencies, most state fish and wildlife agencies, state departments of natural resources, environmental protection agencies, state park agencies, tourism boards, most of the major conservation and sportsmen's organizations, and numerous private businesses. Responsive Management also collects attitude and opinion data for many of the nation's top universities.

Specializing in research on public attitudes toward natural resource and outdoor recreation issues, Responsive Management has completed a wide range of projects during the past 25 years, including dozens of studies of hunters, anglers, wildlife viewers, boaters, park visitors, historic site visitors, hikers, birdwatchers, campers, and rock climbers. Responsive Management has conducted studies on endangered species; waterfowl and wetlands; and the reintroduction of large predators such as wolves, grizzly bears, and the Florida panther.

Responsive Management has assisted with research on numerous natural resource ballot initiatives and referenda and has helped agencies and organizations find alternative funding and increase their membership and donations. Additionally, Responsive Management has conducted major organizational and programmatic needs assessments to assist natural resource agencies and organizations in developing more effective programs based on a solid foundation of fact.

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 has also conducted focus groups and personal interviews with residents of the African countries of Algeria, Cameroon, Mauritius, Namibia, South Africa, Tanzania, Zambia, and Zimbabwe.

Responsive Management routinely conducts surveys in Spanish and has conducted surveys in Chinese, Korean, Japanese and Vietnamese and has completed numerous studies with specific target audiences, including Hispanics; African-Americans; Asians; women; children; senior citizens; urban, suburban, and rural residents; large landowners; and farmers.

Responsive Management's research has been upheld in U.S. District Courts; used in peer-reviewed journals; and presented at major natural resource, fish and wildlife, and outdoor recreation conferences across the world. Company research has been featured in most of the nation's major media, including CNN, *The New York Times*, *The Wall Street Journal*, and on the front pages of *USA Today* and *The Washington Post*. Responsive Management's research has also been highlighted in *Newsweek* magazine.

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