

Responsive Management



LAKE TAHOE BOATER SURVEY

**Conducted for the Tahoe Regional Planning Agency
by Responsive Management**

2006

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EXECUTIVE SUMMARY

INTRODUCTION AND METHODOLOGY

This study was conducted for the Tahoe Regional Planning Agency (TRPA) to determine the types and characteristics of boats and boat engines that Lake Tahoe boaters use, their avidity for boating, their opinions on boating at Lake Tahoe and boating regulations, and their opinions on and awareness of the TRPA, as well as their opinions and actions affecting Lake Tahoe's environment. The study entailed a telephone survey of Lake Tahoe boaters who had boated on Lake Tahoe in the previous year using a motorized watercraft.

The sample was obtained from several sources, including intercepts at launch facilities and from companies that provide samples. Responsive Management conducted the telephone interviews 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. Responsive Management conducted the survey in September and October 2006 and obtained a total of 310 completed interviews. The software used for data collection was Questionnaire Programming Language 4.1. The research team analyzed the data using Statistical Package for the Social Sciences software as well as proprietary software developed by Responsive Management.

OVERALL PARTICIPATION IN BOATING ON LAKE TAHOE

Among the entire sample of potential Lake Tahoe boaters obtained for the survey, 17% had boated on Lake Tahoe in the 12 months previous to the survey and were, therefore, eligible for the boater survey. (Common reasons for not boating *on Lake Tahoe in the previous 12 months* include that the boaters prefer another lake, that Lake Tahoe is too far away, or that Lake Tahoe regulations are too strict; common reasons for not boating at all in the previous 12 months include that the respondents do not own a boat, that they had no time, or that health and age prevented their boating.)

TYPES OF BOATS USED ON LAKE TAHOE

- Boaters were asked to name the types of boats that they had operated on Lake Tahoe in the past year: the most common answer was vee bottom boat (44% gave this answer), followed

by high-speed runabout (21%), and personal watercraft (16%). (Note that these may not be mutually exclusive answers.)

- When asked to name the type of boat they most often use, boaters most commonly answered vee bottom boat (36%) or high-speed runabout (30%); 8% said personal watercraft.
- Regarding length of boats on Lake Tahoe, the majority of boaters (82%) said their most-used boat on Lake Tahoe is a Class 1 boat, with a length of 16 to 25 feet. The median length is 21 feet. Regarding width, boaters most commonly said their most-used boat is 8 feet wide.
- Inboard/outboard engines are the most common engine type among the most-used boats on Lake Tahoe (45%), followed closely by inboard engines (36%). By far, the most common fuel type of boat engine is a four-stroke gasoline engine (88%). The median is 250 horsepower. Finally, boaters are about evenly split between those whose boat engine has an automatic altitude adjustment (43%) and those whose boat engine is manually adjusted for altitude (34%).
- Mercruiser, Mercury, Volvo, and Chevrolet engines are the most common makes in most-used boats on Lake Tahoe.

ACTIVITIES WHILE BOATING AND MOTIVATIONS FOR BOATING ON LAKE TAHOE

- Sightseeing is the most popular activity for boaters on Lake Tahoe (43% gave this answer), followed by fishing (26%), water-skiing (23%), wake-boarding (19%), water-tubing (15%), and swimming (14%).
- Related to activities in which boaters participate is their motivations for boating on Lake Tahoe. When asked about their primary reasons for doing so, 54% of boaters say that they boat on Lake Tahoe simply because they like boating/like being on the water/for relaxation. Additionally, 23% say they boat on Lake Tahoe to be close to nature/view wildlife, 19% do so to be with family and friends, and 15% do so to fish.

- For boaters, outdoor recreation is highly important: 88% say outdoor recreation is *very* important. Additionally, water-related activities are important: 83% say that they are *very* important.

BOATING COMPANIONS

- Most typically, boaters take four other people along on a typical boating trip on Lake Tahoe: 30% gave this answer. A slight majority (57%) take from three to five people. Most commonly, the boater's spouse is a boating companion (61% answered spouse), followed by friends (50%) and minor children/stepchildren (36%).

AVIDITY FOR BOATING ON LAKE TAHOE

- Avidity for boating on Lake Tahoe is robust, as measured by the number of years out of the previous 5 years that boaters had boated on Lake Tahoe: a majority (60%) had boated all 5 of the past 5 years, and the mean was 4.0 years out of the past 5.
- The majority of boaters (61%) had boated on Lake Tahoe in the previous year from 1 to 9 days, and 80% had boated less than 20 days. The mean was 13.4 days.
- Typically, boaters spend from 4 to 6 hours on the water in a single day when boating on Lake Tahoe.
- The majority of boaters (61%) say that their boating participation on Lake Tahoe remained about the same last year as in previous years; otherwise, the remainder are about evenly split between increased (17%) and decreased (21%).

SATISFACTION WITH BOATING ON LAKE TAHOE

- Satisfaction with boating on Lake Tahoe is quite high: the overwhelming majority of boaters (91%) are satisfied with their boating on the Lake, with most of them *very* satisfied.
 - Those who are dissatisfied most commonly cite crowding and/or interference by other recreationists.

- The majority of boaters (63%) say the quality of their boating experiences over the past 5 years has remained about the same (and note that most are satisfied with their boating); otherwise, they are about evenly split between those who say the quality of their boating on Lake Tahoe has improved (17%) and those who say it has declined (14%).
- When asked directly about interference by other recreationists, most boaters had not experienced any interference that took away from their enjoyment. Those who did experience interference most commonly cite other boaters, including personal watercraft operators.

FACILITIES ON LAKE TAHOE

- Boaters are about evenly split regarding whether Lake Tahoe has enough launching facilities: 43% agree, but 46% disagree that there are enough facilities.
- Most commonly, boaters on Lake Tahoe use a ramp at a marina to launch their boat (42% indicated this type of facility), followed distantly by a public buoy at a marina (16%).
- Those who have an opinion regarding the number of private mooring buoys in Lake Tahoe (i.e., they did not answer, “Don’t know”) most commonly say that there are about the right number of them; otherwise, the number saying that there are too few private mooring buoys exceeds the number saying that there are too many by 2 to 1.
- Boaters most commonly say that there are too few public mooring buoys (a marked contrast to the way they feel about private mooring buoys); only a few feel that there are too many.
- Most commonly, boaters say that there are about the right amount of private piers on Lake Tahoe; otherwise, they are about evenly split between saying that there are too many and saying that there are too few (excluding those saying, “Don’t know”).
- Half of boaters on Lake Tahoe (50%) say that there are too few public piers, a third (33%) say that there are about the right number, and almost none say that there are too many.

OPINIONS ON AND AWARENESS OF REGULATIONS ON LAKE TAHOE

- Boaters overwhelmingly are satisfied (82%) with the current boating regulations on Lake Tahoe; only 9% are dissatisfied. The majority of boaters (67%) say that the current boating regulations are about right in strictness. Otherwise, those saying that they are not strict enough slightly exceed those saying that they are too strict. Finally, the large majority of boaters (76%) think that the regulations are clear and easy to understand.
- Boaters are fairly widely distributed in their answers regarding how many nights a boater should be allowed to anchor off shore, without a buoy or permit: while 12% say at least 6 nights (near the higher number of nights respondents indicated), 11% say no nights.
- Boaters are about evenly split regarding whether they are aware of the noise restrictions on Lake Tahoe: while 54% say that they are very or somewhat aware, 46% say that they are not at all aware.
- Awareness is very high that a regulation for Lake Tahoe bans carbureted two-stroke engines: 87% of boaters are *very* aware, and 9% are *somewhat* aware, for a total of 96% who are aware.
- Awareness is also fairly high (but not as high as for the regulation above) about the 600-foot no-wake zone regulation on Lake Tahoe: 64% are *very* aware, and 13% are *somewhat* aware; only 23% are not at all aware. Awareness is high that the boat speed limit in a 600-foot no-wake zone is 5 miles per hour: 74% are *very* aware, and 12% are *somewhat* aware; only 14% are not at all aware.
- Just over half of boaters (52%) were aware prior to the survey that a boater must obtain a permit for a mooring buoy that is in the lake off of his/her littoral property on Lake Tahoe; 41% said that they were not at all aware.

ENGINE NOISE AT LAKE TAHOE

- More than a quarter of Lake Tahoe boaters (28%) think that there is a boat noise problem at the Lake.
- Boaters are about evenly split regarding whether they are aware of the noise restrictions on Lake Tahoe: while 54% say that they are very or somewhat aware, 46% say that they are not at all aware.
- Most boaters did not know the decibel level of their boat engine. Otherwise, boats are fairly evenly distributed among categories of decibel levels.

WATER QUALITY OF LAKE TAHOE

- Boaters, in general, are good about checking the bilge for leaks prior to going out on Lake Tahoe: 80% say that they always (76%) or usually (4%) check the bilge for leaks.
- Boaters are also good about checking the bilge for engine fluid leaks prior to boating on Lake Tahoe: 81% say that they always (77%) or usually (4%) check the bilge for engine fluid leaks.
- Boaters are good about checking the bilge for contaminants prior to running the bilge pump: 73% of boaters always (69%) or usually (4%) check the bilge for contaminants prior to running the bilge pump. Additionally, nearly half of boaters take precautions to avoid pumping out contaminants when pumping bilge water overboard, most typically oil absorbent pads in the bilge pump; 30% say that they do *not* take any precautions. Finally, slightly more boaters pump bilge water on to land than pump it directly into Lake Tahoe.
- Regarding bilge pumps, most boaters say that the boat they most often use has an automatic bilge pump (64%).
- The overwhelming majority of boaters (82%) say that their most-used boat on Lake Tahoe does *not* have a holding tank for gray water.

- Most boaters (80%) say that their most-used boat does *not* have an installed or portable toilet with a holding tank onboard.
- Fortunately, most boaters do not pump their gray water directly into Lake Tahoe: only 2% of boaters do so consistently, and 5% *may* do so sometimes (the answer, “Some combination of these,” which may include, “Pump directly into Lake Tahoe”).
- Home is the most common place that people wash their boat (73%). Otherwise, 7% do so at a marina, and 3% do so in the Lake. Those who wash their boat typically use dish soap (27%), although substantial percentages use car wash solution (18%) or boat wash solution (15%).
- Most Lake Tahoe boaters (74%) cannot name any invasive plant species currently threatening Lake Tahoe; otherwise, 8% named the Eurasian milfoil, and 2% named the curly leaf pondweed. About 1 in 5 boaters have seen (or, to be more exact, know that they have seen) an invasive plant species while boating on Lake Tahoe.

BOATING SAFETY

- Boaters are about evenly split between those who have taken a recognized boating safety class (51%) and those who have not (47%).

AWARENESS AND RATING OF THE TAHOE REGIONAL PLANNING AGENCY

- The majority of boaters (76%) say that they had heard a great deal or a moderate amount about the TRPA (the full name, not the acronym, was used in the survey) prior to the survey; only 6% say that they had heard nothing.
- Ratings of the TRPA’s efforts at providing boating access to Lake Tahoe is mixed: while 42% of boaters rate their efforts as excellent or good, 45% rate them as fair or poor.

IMPORTANCE OF OUTDOOR RECREATION

- For boaters, outdoor recreation is highly important: only 2% say outdoor recreation is not at all important to them, while 88% say it is *very* important. Additionally, water-related activities are important: 83% say that they are *very* important, and only 2% say that they are not important at all.

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INTRODUCTION AND METHODOLOGY

This study was conducted for the Tahoe Regional Planning Agency (TRPA) to determine the types and characteristics of boats and boat engines that Lake Tahoe boaters use, their avidity for boating, their opinions on boating at Lake Tahoe and boating regulations, and their opinions on and awareness of the TRPA, as well as their opinions and actions affecting Lake Tahoe's environment. The study entailed a telephone survey of Lake Tahoe boaters who had boated on Lake Tahoe in the previous year using a motorized watercraft. Specific aspects of the research methodology are discussed below.

For the survey, the research team selected telephones 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. Responsive Management developed the telephone survey questionnaire cooperatively with the TRPA. Responsive Management conducted a pre-test of the questionnaire and made revisions to the questionnaire based on the pre-test.

The sample was obtained from several sources. Responsive Management staff and contractors conducted intercepts at boat launching facilities. One staff member from Responsive Management conducted intercepts at boat launch facilities for 8 hours each day from June 30 to July 4, 2006. Later, local residents were hired through a temporary agency to conduct additional intercepts for 8 hours per day from August 7 to August 13, 2006, entailing nearly 400 intercept hours at Lake Tahoe. In addition to providing some of the sample for the survey, the intercepts provided the data used in weighting the data so that local and non-local boaters were proportionally represented in the survey.

Additional sample was purchased, as well. Analysts first established an area of interest, which included the Lake Tahoe area, the Carson City area, the Reno area, the Sacramento area, and the corridors from those areas (e.g., along I-80) to Lake Tahoe. The zip codes for these areas are

shown in the tabulation below. Boat owner data for these areas were purchased from a direct marketing firm, but the data included addresses only, without telephone numbers; the boat owner addresses were submitted for a telephone match to another sampling company. The final product was boat owner data that included the telephone numbers for the specific geographic area of interest.

Zip Codes for the Area of Interest		
894xx	895xx	897xx
956xx	957xx	958xx
961xx		

Analysts proportioned the data so that the sample properly represented the mix of local and non-local boaters on Lake Tahoe. Local was defined as a roughly 40-mile zone around the lake, based on 40-mile radiuses of the three centroids of the zip codes most proximal to the lake (961XX, 894XX, and 897XX). All zip codes within that area were considered local; these included the cities and towns in the tabulation below. All remaining zip codes were considered non-local.

LOCAL CITIES/TOWNS	
Auburn	Herlong
Beckwourth	Homewood
Blairsdan-Graeagle	Incline Village
Calpine	Janesville
Canyon Dam	Kings Beach
Carnelian Bay	Kirkwood
Carson City	Kyburz
Chilcoot	Litchfield
Clio	Lovelock
Crescent Mills	Loyalton
Crystal Bay	Markleeville
Dayton	Meadow Valley
Doyle	Milford
Echo Lake	Minden
Floriston	Norden
Gardnerville	Olympic Valley
Genoa	Portola
Glenbrook	Quincy
Greenville	Reno

LOCAL CITIES/TOWNS	
Silver City	Topaz
Silver Springs	Truckee
Smith	Twain
Soda Springs	Twin Bridges
South Lake Tahoe	Verdi
Sparks	Vinton
Standish	Virginia City
Stateline	Washoe Valley
Sun Valley	Wellington
Susanville	Wendel
Tahoe City	Westwood
Tahoe Vista	Yerington
Tahoma	Zephyr Cove
Taylorsville	

The proportion of local to non-local boaters was established based on the intercepts that were conducted at Lake Tahoe. The weighting factors are shown below.

	Intercept Count	Intercept Percent	Telephone Survey Count	Telephone Survey Percent	Weighting Factors
Local	40	58.82	242	78.06	0.75
Non-Local	28	41.18	68	21.94	1.88
Total	68		310		

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 this survey. Interviewers were instructed on type of study, study goals and objectives, handling of survey questions, interview length, termination points and qualifiers for participation, interviewer instructions within the survey instrument, reading of the survey instrument, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey instrument. The Survey Center Managers 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 edited each completed survey to ensure clarity and completeness.

Responsive Management conducted the telephone interviews 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, using a five-callback design 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, interviewers placed subsequent calls on different days of the week and at different times of the day. Responsive Management conducted the survey in September and October 2006 and obtained a total of 310 completed interviews. Note that a requirement for the survey was that the respondent had to have boated on Lake Tahoe in the 12 months prior to the survey. Nonetheless, a few questions were asked of those not eligible for the survey; when discussed in the report, this sample is clearly indicated as *not* being part of the main survey. There were 1,842 respondents in this “non-eligible” survey.

The software used for data collection was Questionnaire Programming Language 4.1 (QPL). The survey data were entered into the computer as each interview was being conducted, eliminating manual data entry after the completion of the survey and the concomitant data entry errors that may occur with manual data entry. The survey instrument was programmed so that QPL branched, coded, and substituted phrases in the survey based on previous responses to ensure the integrity and consistency of the data collection. The research team analyzed the data using Statistical Package for the Social Sciences software as well as proprietary software developed by Responsive Management.

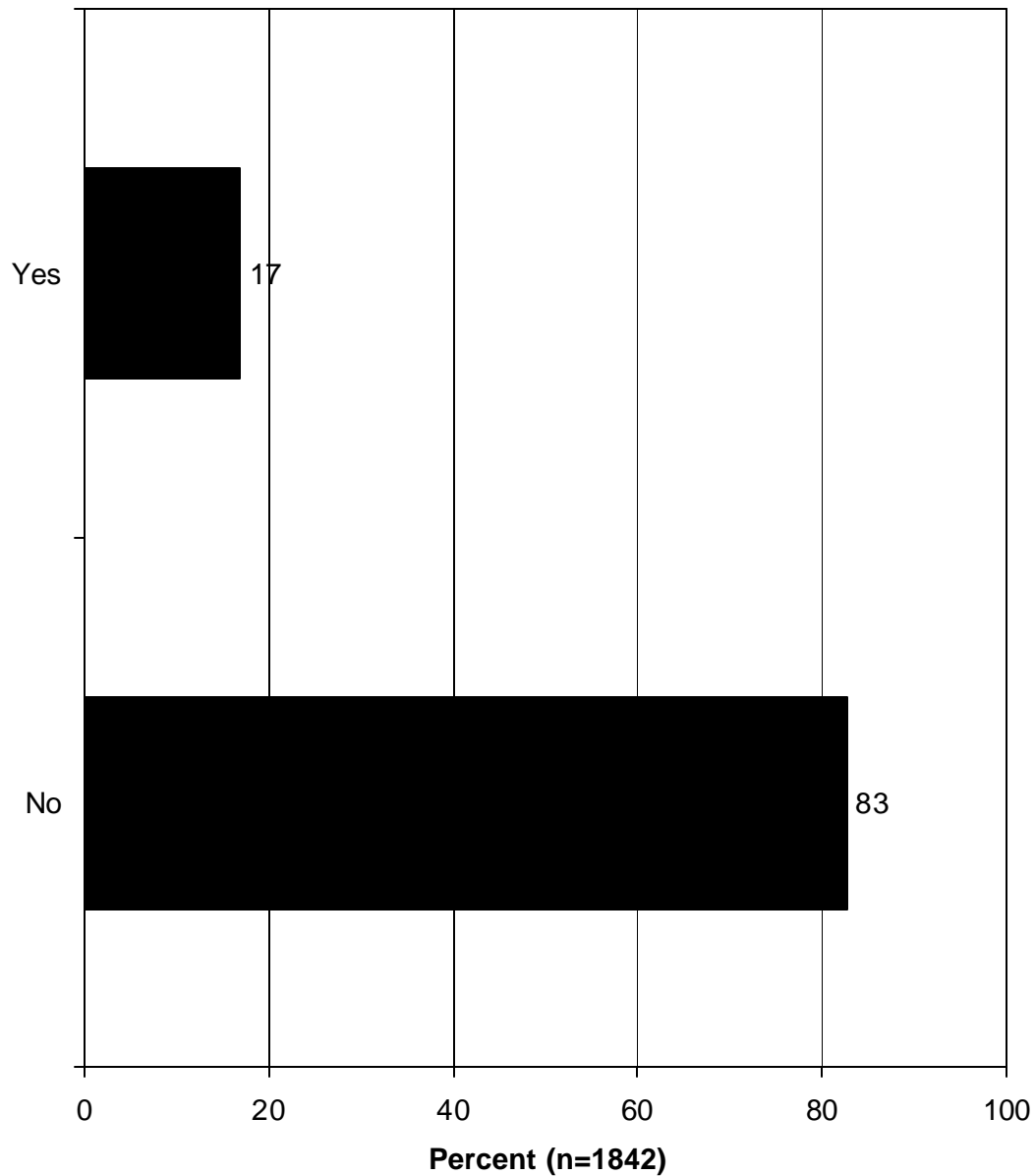
Note that some results may not sum to exactly 100% because of rounding. Additionally, rounding on the graphs may cause apparent discrepancies of 1 percentage point between the graphs and the reported results of combined responses (e.g., when “strongly support” and “moderately support” are summed to determine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

PARTICIPATION IN BOATING ON LAKE TAHOE

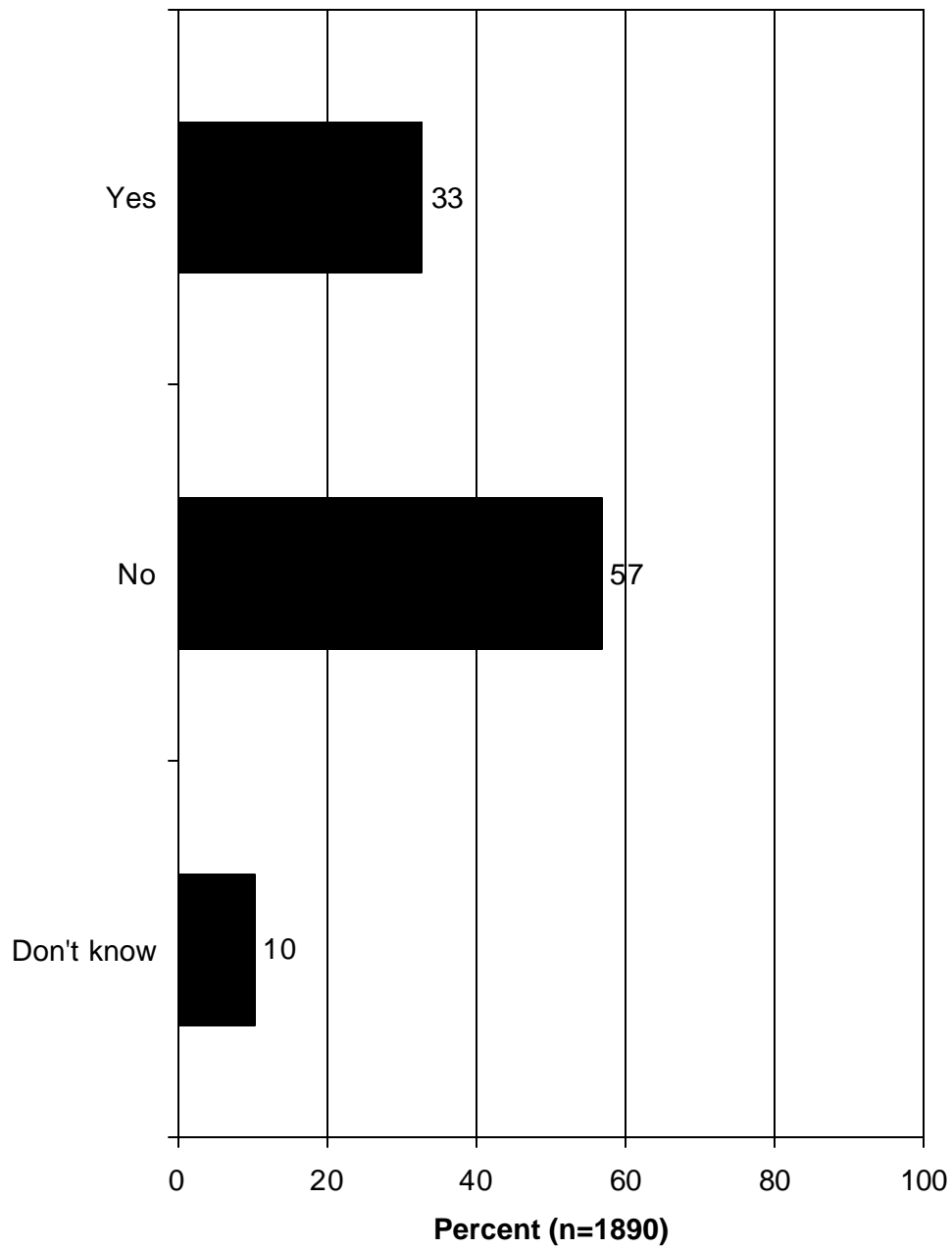
OVERALL PARTICIPATION

- Once the entire sample of potential Lake Tahoe boaters was obtained, as discussed in the methodology, interviewers called from that sample to determine respondents who would be eligible for the boater survey (they had to have boated on Lake Tahoe in the 12 months previous to the survey). On this “screener” question (so called because it screens out ineligible respondents), 17% had boated on Lake Tahoe in the 12 months previous to the survey and were, therefore, eligible for the boater survey. On the other hand, 83% on the screener question had not boated on Lake Tahoe in the previous year. These latter respondents were not eligible for the boater survey but were asked three other questions, discussed immediately below.
- Of those not eligible for the survey because they had *not* boated on Lake Tahoe in the 12 months previous to the survey, a third (33%) had boated on Lake Tahoe at some time in the past.
 - Of those non-eligible respondents who had operated a motorboat or personal watercraft in the 12 months previous to the survey, but not on Lake Tahoe, common reasons for not boating on Lake Tahoe include that they prefer another lake, that Lake Tahoe is too far away, or that Lake Tahoe regulations are too strict.
 - Those non-eligible respondents who had at some time operated a motorboat or personal watercraft but not within the 12 months previous to the survey most commonly said that they had not recently boated because they do not own a boat, that they had no time, or that health and age prevented their boating.

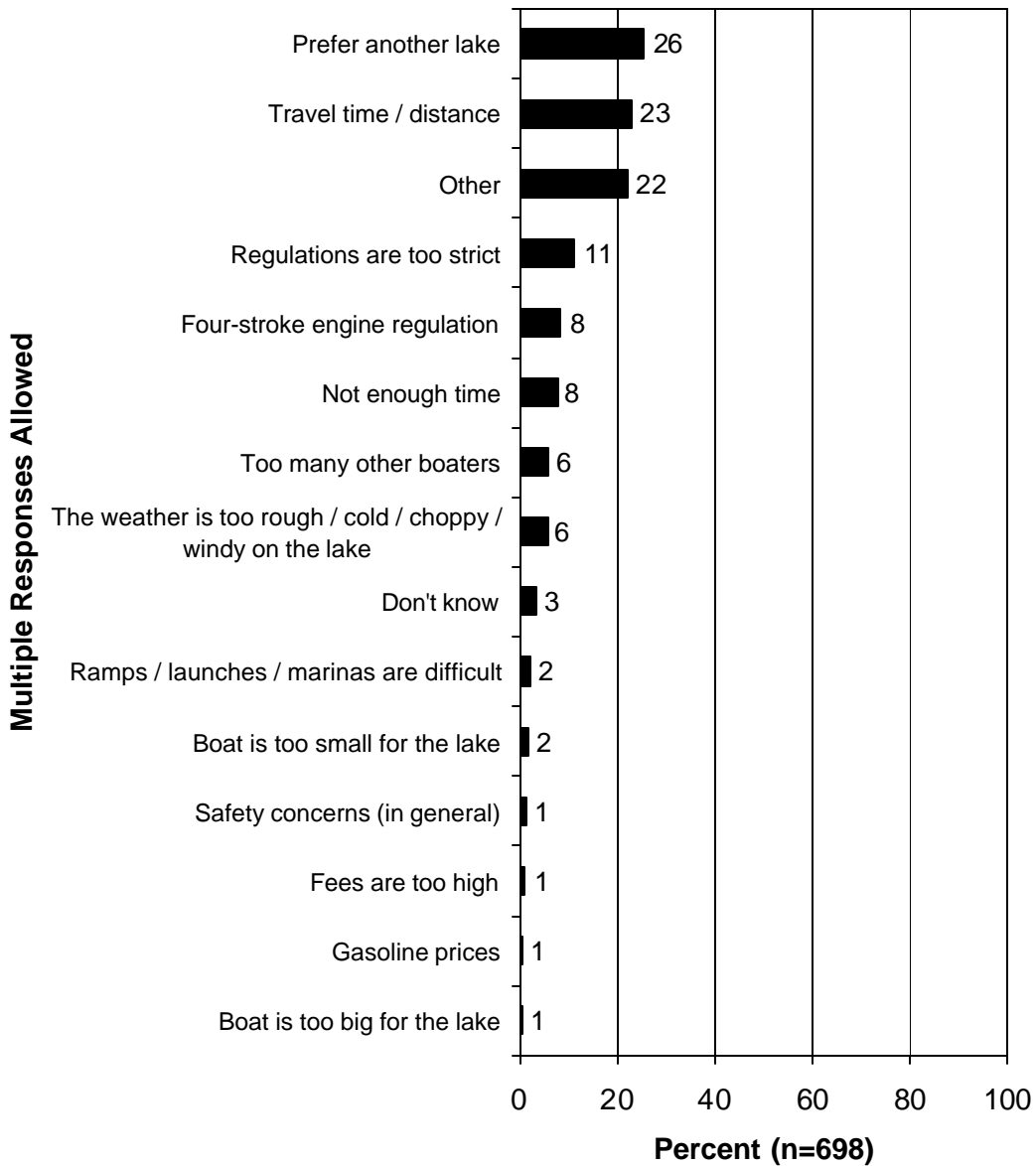
Q7. During the last 12 months, did you operate a motorized boat or personal watercraft on Lake Tahoe? (This was a screener question; all those answering, "Yes," continued with the boater survey.)



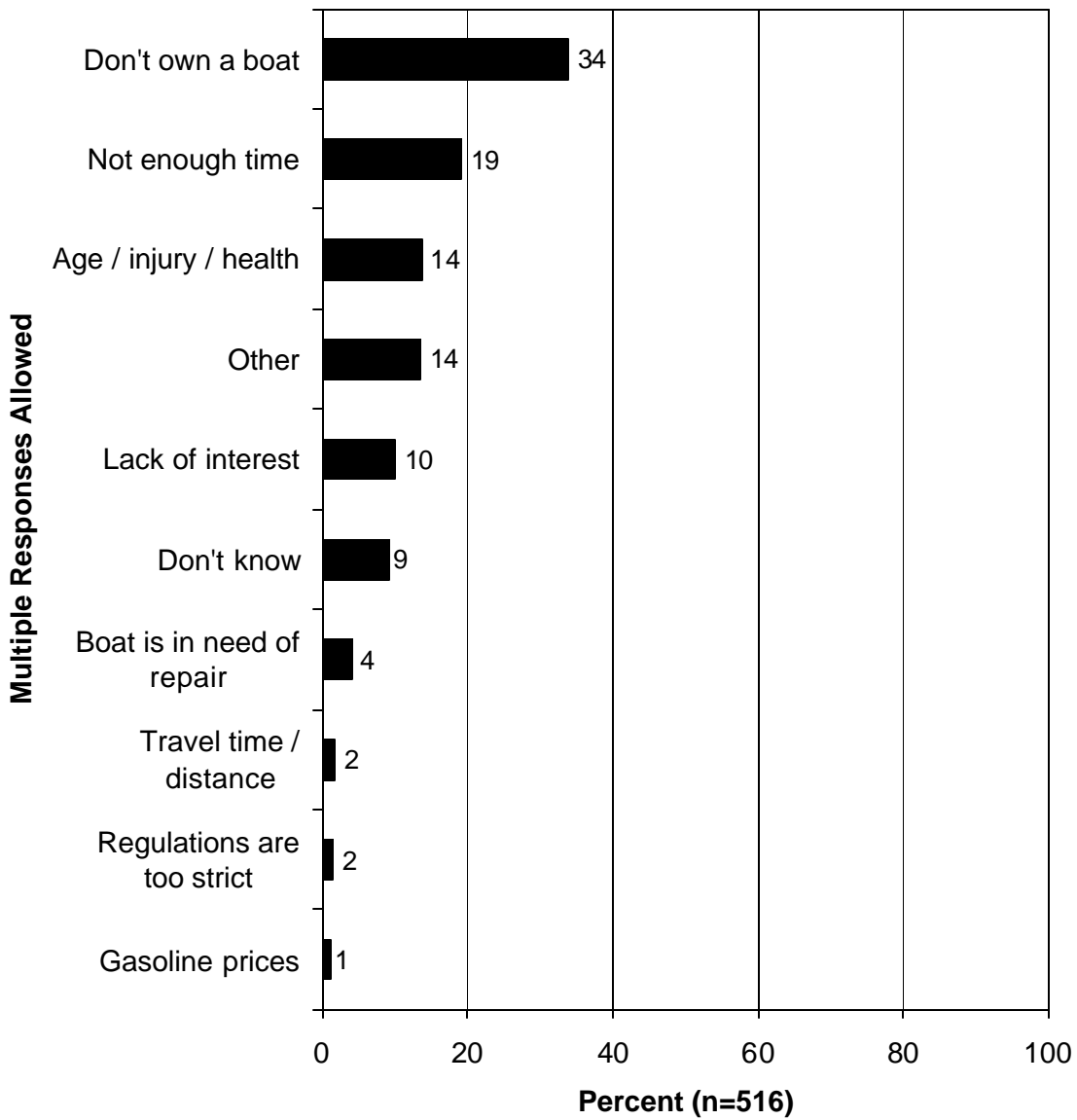
Q162. Have you ever operated a motorized boat or personal watercraft on Lake Tahoe?



Q167. What are the reasons you did not operate a motorized boat or personal watercraft on Lake Tahoe during the last 12 months? (Asked of all those who have operated a motorized boat or personal watercraft in the past 12 months.)



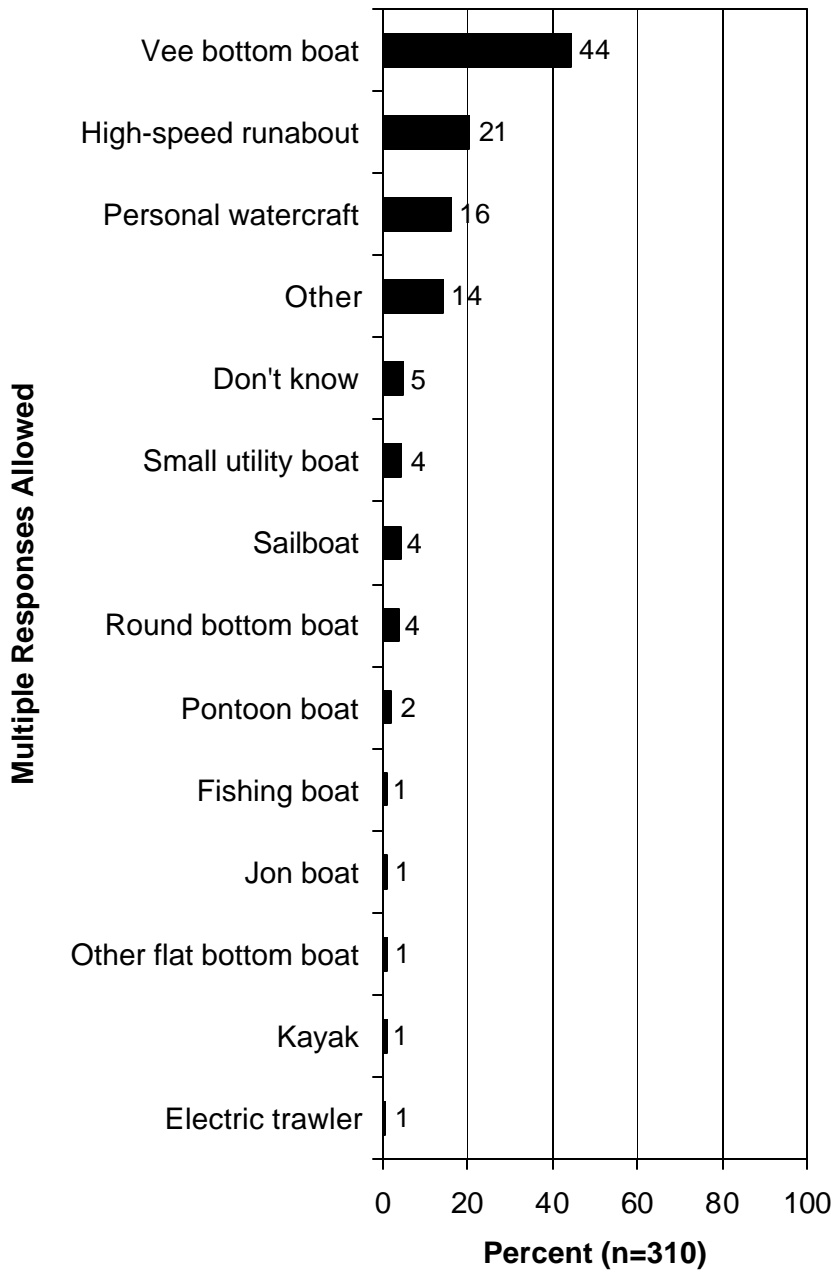
Q171. What are the reasons you did not operate a motorized boat or personal watercraft during the last 12 months? (Asked of those who have operated a motorized boat or personal watercraft at some time, but not in the past 12 months.)



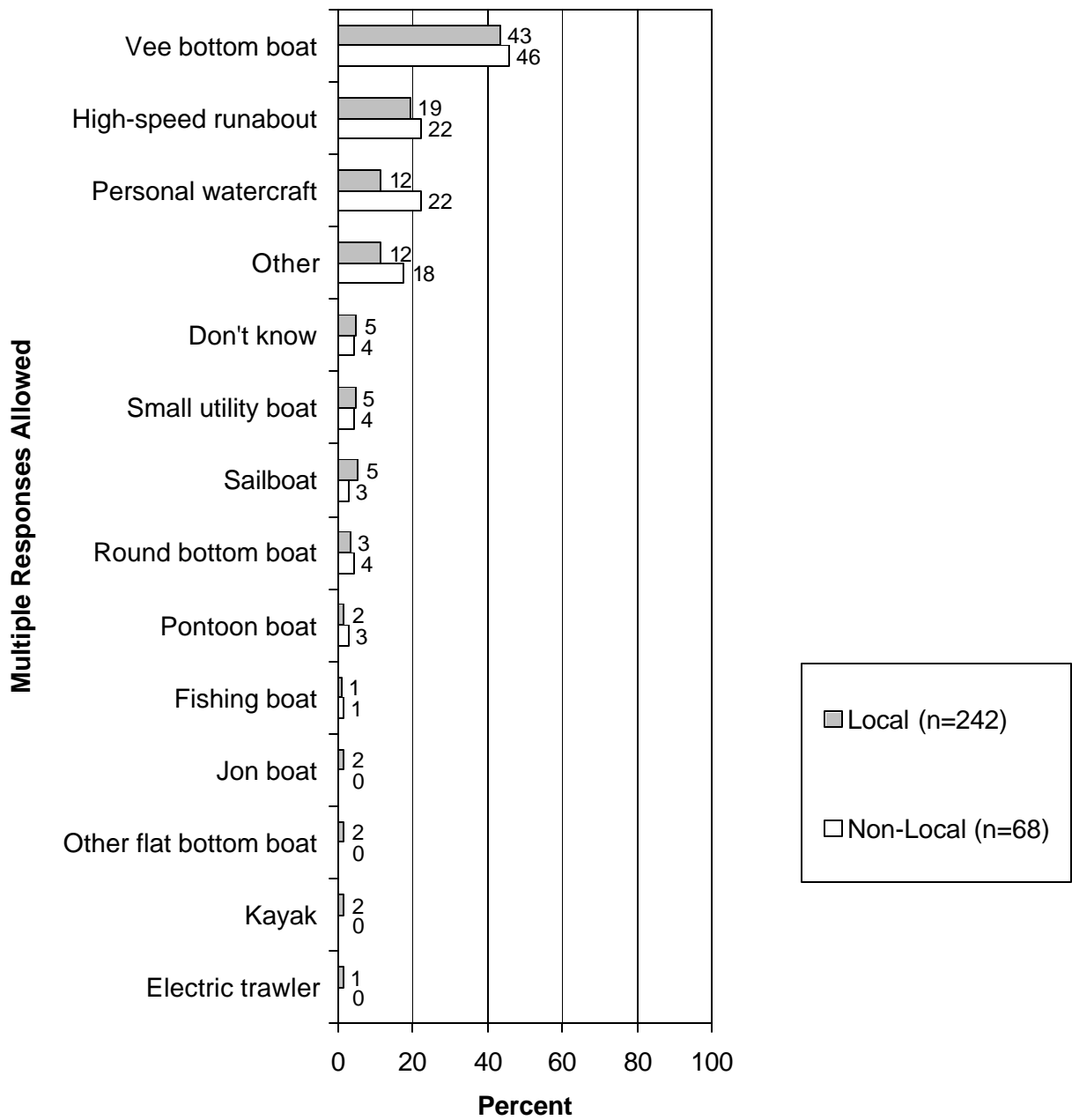
TYPES OF BOATS USED ON LAKE TAHOE

- Boaters were asked to name the types of boats that they had operated on Lake Tahoe in the past year: the most common answer was vee bottom boat (44% gave this answer), followed by high-speed runabout (21%), and personal watercraft (16%). (Note that these may not be mutually exclusive answers.)
 - Non-locals were more likely than locals to have operated personal watercraft.
- When asked to name the type of boat they most often use, boaters most commonly answered vee bottom boat (40%) or high-speed runabout (18%); 10% said personal watercraft.
 - Locals were not markedly different than non-locals on this question, including regarding personal watercraft.
- Regarding length of boats on Lake Tahoe, the majority of boaters (82%) said their most-used boat on Lake Tahoe is a Class 1 boat, with a length of 16 to 25 feet. The median length is 21 feet. Regarding width, boaters most commonly said their most-used boat is 8 feet wide.
 - Locals are more likely than non-locals to have a boat of 26 feet length or longer. The median length is the same for locals and non-locals (21 feet). Locals' boats also tend to be just slightly wider than non-locals' boats: the median for locals is 8 feet, while the median for non-locals is 7 feet.
- Inboard/outboard engines are the most common engine type among the most-used boats on Lake Tahoe (45%), followed closely by inboard engines (36%); only 17% of boaters say that their most-used boat has an outboard engine. By far, the most common fuel type of boat engine is a four-stroke gasoline engine (88%). The horsepower of boat engines used on Lake Tahoe vary widely, with fairly even distribution of engines in the various categories of horsepower. The median is 250 horsepower. Finally, boaters are about evenly split between those whose boat engine has an automatic altitude adjustment (43%) and those whose boat engine is manually adjusted for altitude (34%).
 - Non-locals are more likely than locals to have an inboard/outboard engine; they are less likely to have an inboard engine. The two groups are about the same regarding the fuel type of engine. The median horsepower is the same for locals and non-locals (250 horsepower). The two groups are nearly identical regarding altitude adjustments.
- Mercruiser, Mercury, Volvo, and Chevrolet engines are the most common makes in most-used boats on Lake Tahoe.
 - The local/non-local breakdown of boat manufacturers is shown.

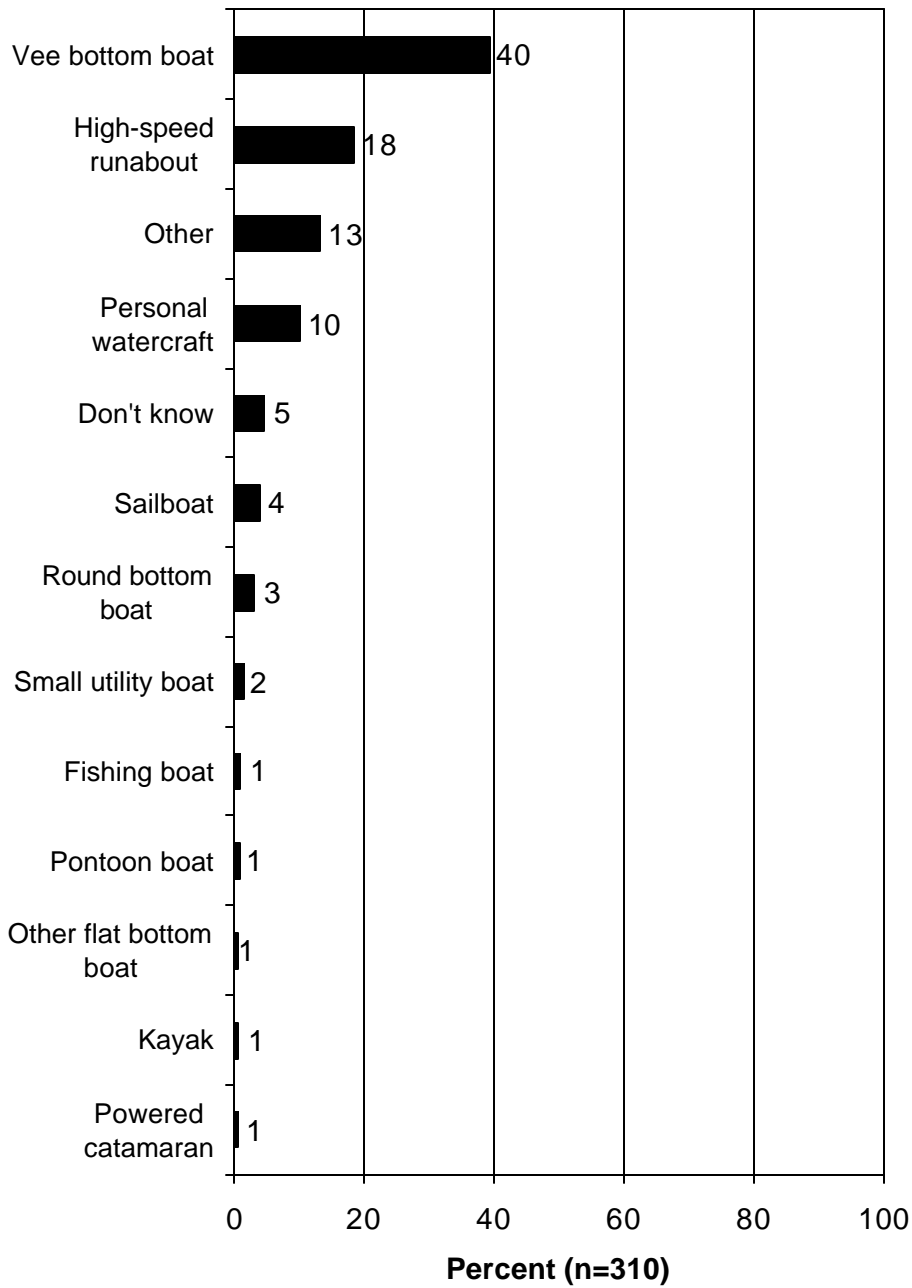
Q68. Which of the following types of motorized watercraft have you operated on Lake Tahoe in the past 12 months?



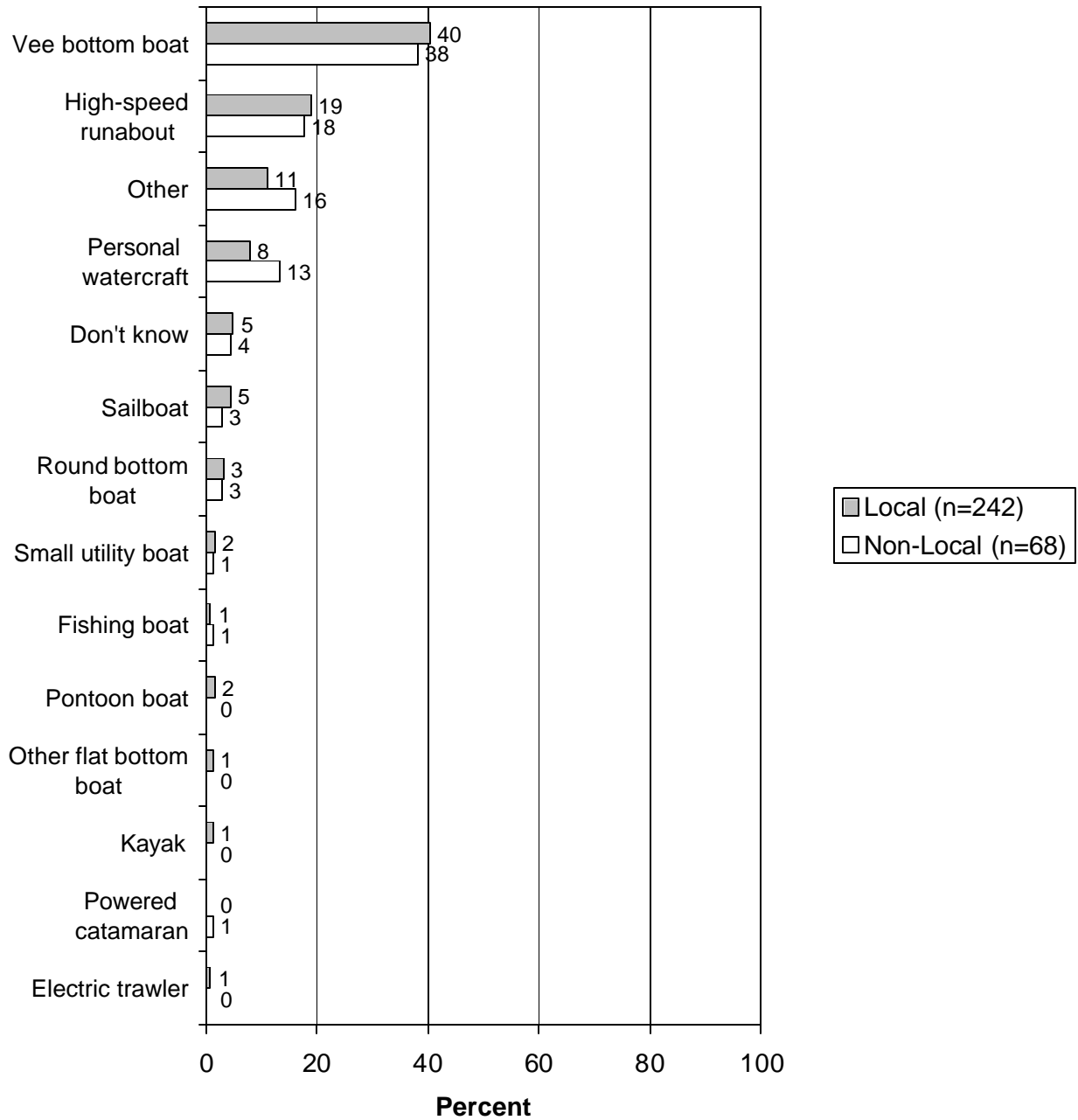
Q68. Which of the following types of motorized watercraft have you operated on Lake Tahoe in the past 12 months?



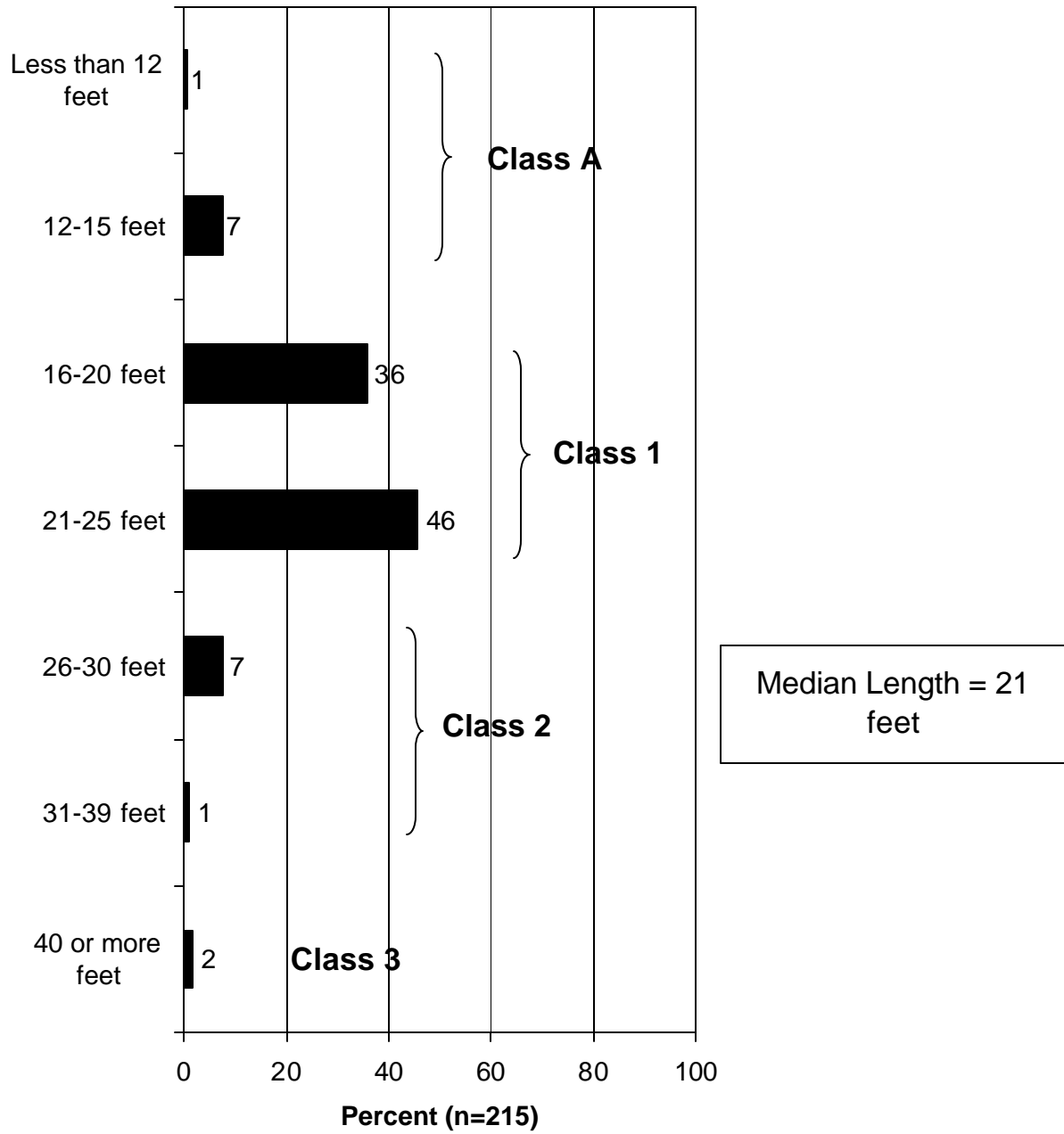
Q70. Which one of the types of watercraft did you use most often on Lake Tahoe in the past 12 months?



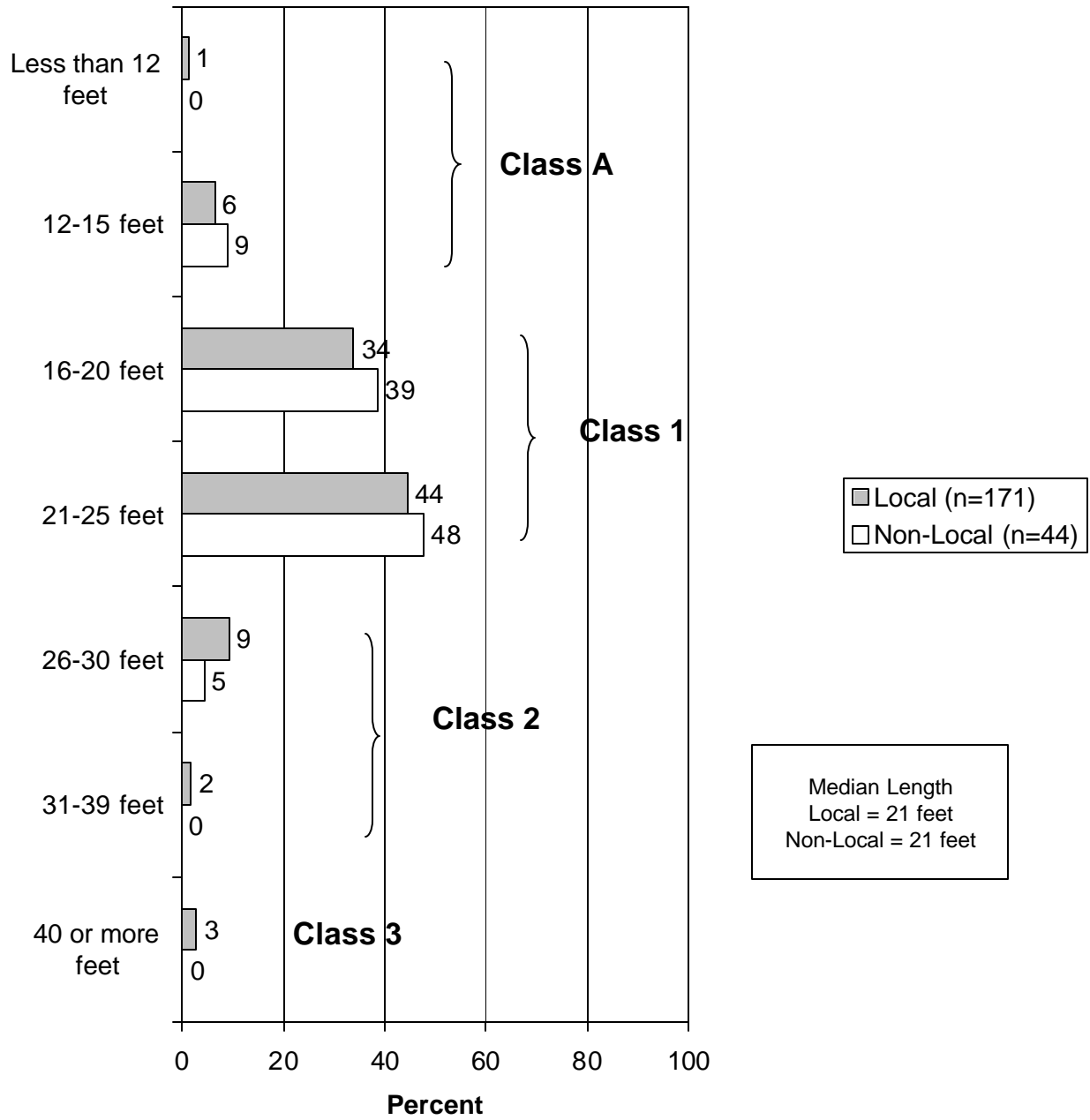
Q70. Which one of the types of watercraft did you use most often on Lake Tahoe in the past 12 months?



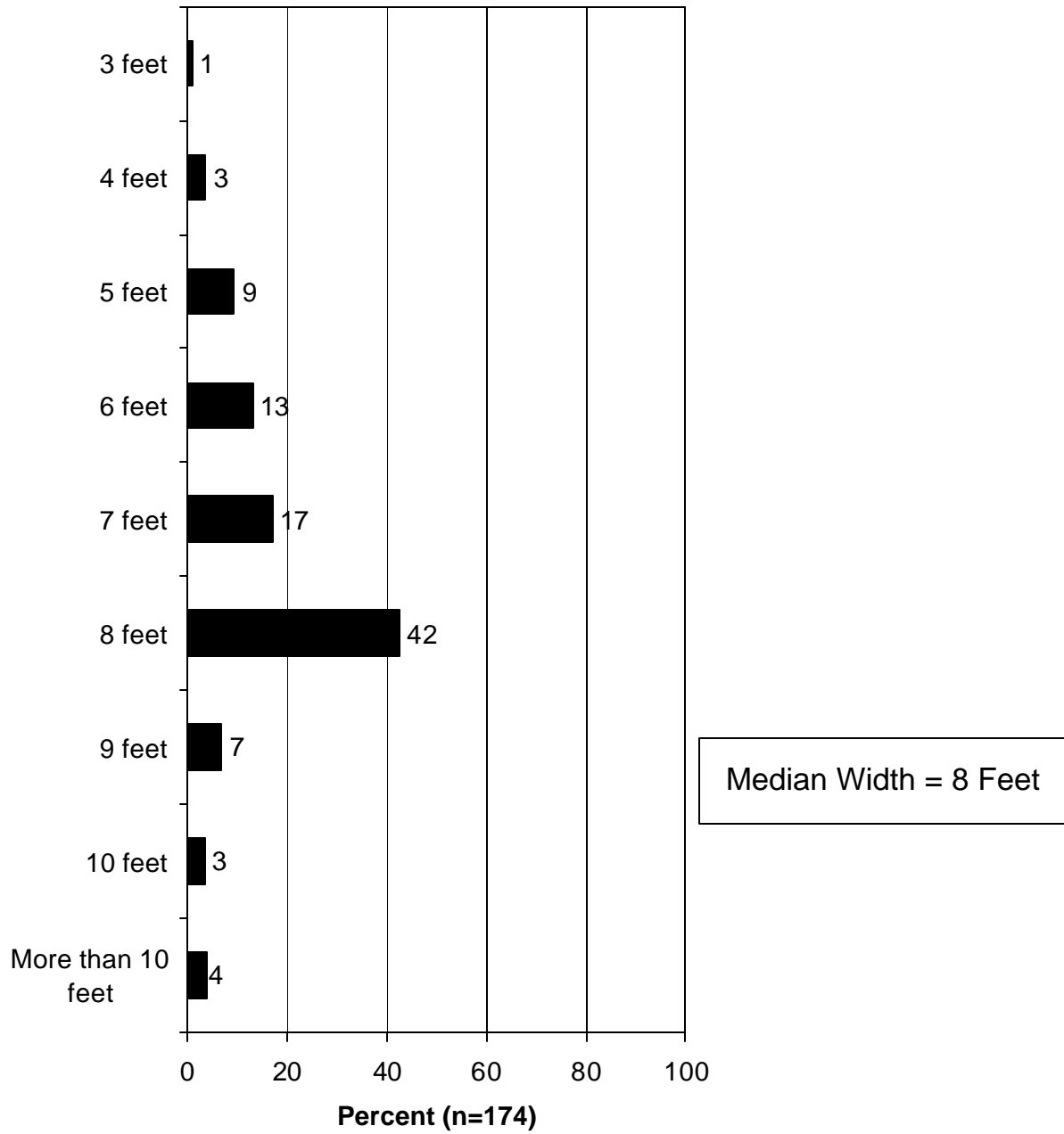
**Q75. In feet, what is the length overall (LOA) of your
[most-used boat]?**



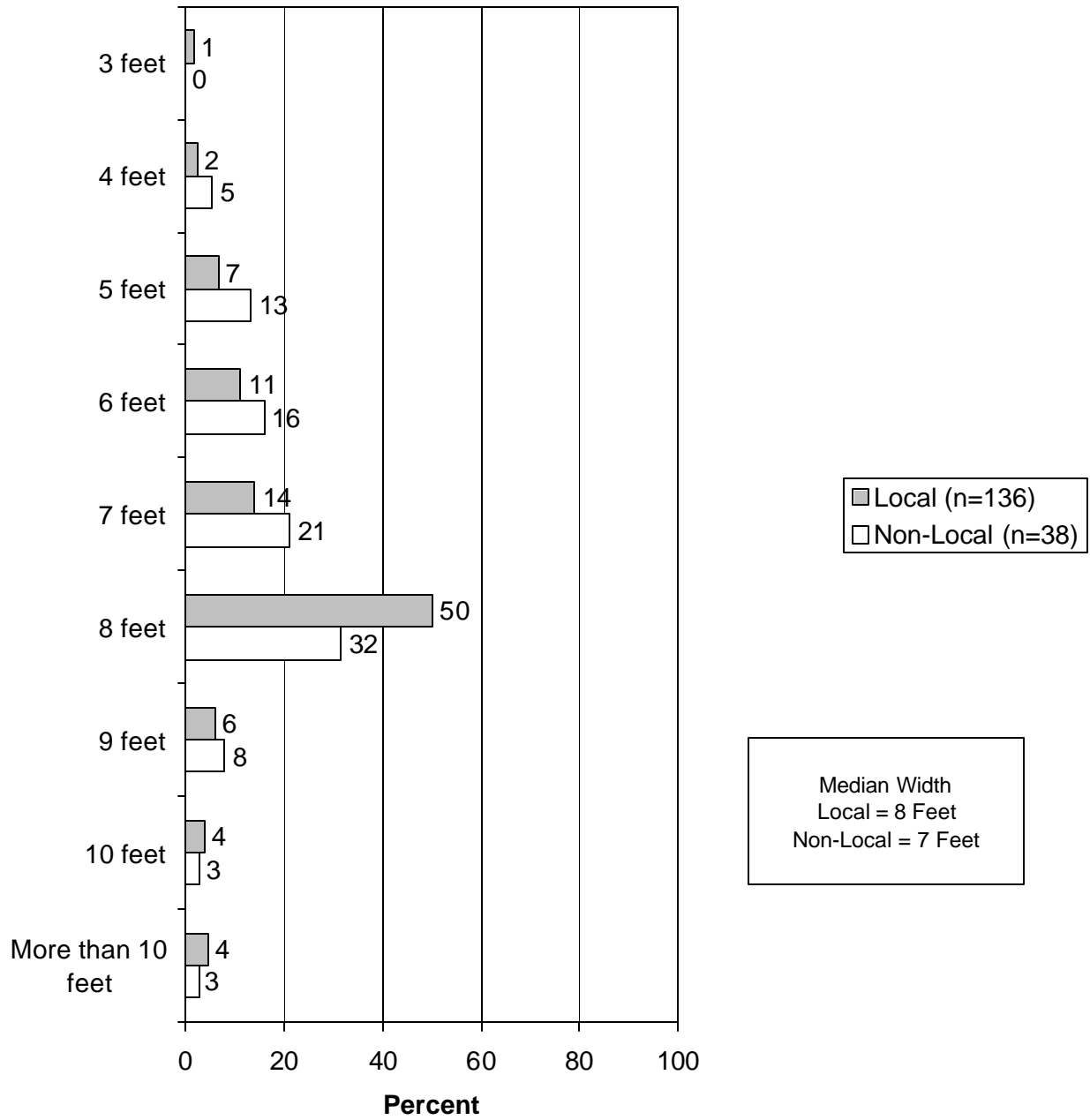
Q75. In feet, what is the length overall (LOA) of your [most-used boat]?



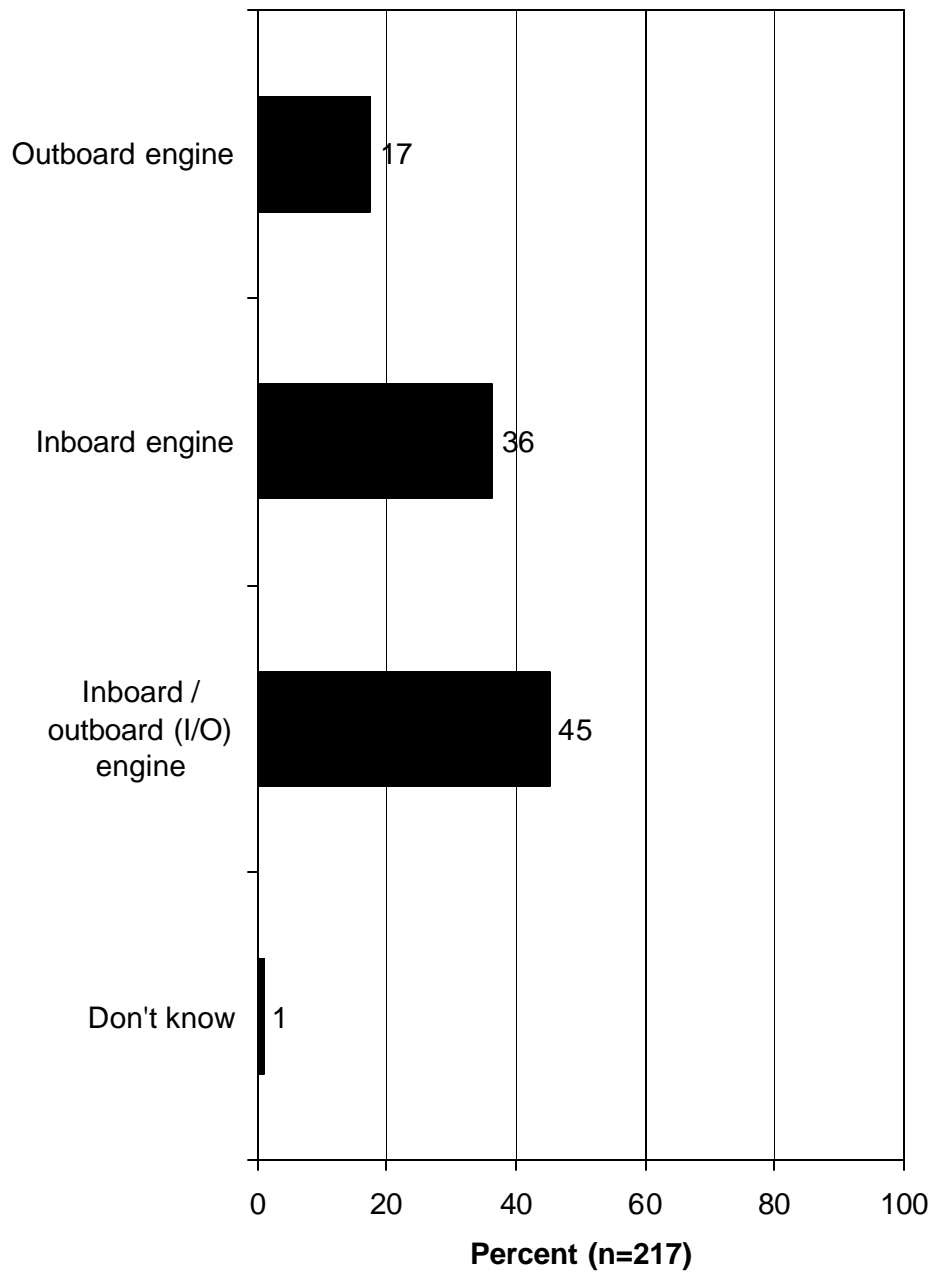
Q77. In feet, what is the width at its widest point of your [most-used boat]?



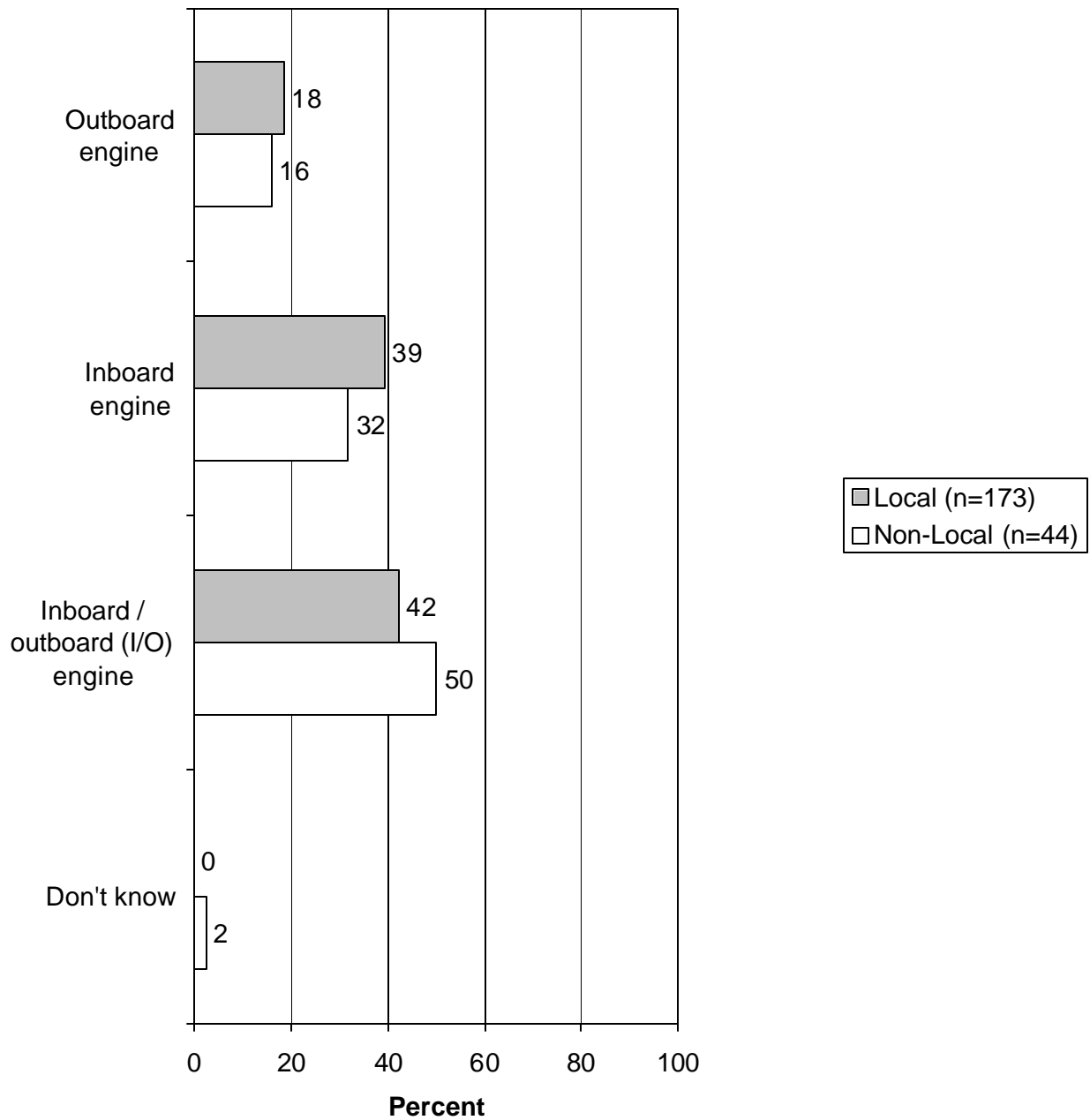
Q77. In feet, what is the width at its widest point of your [most-used boat]?



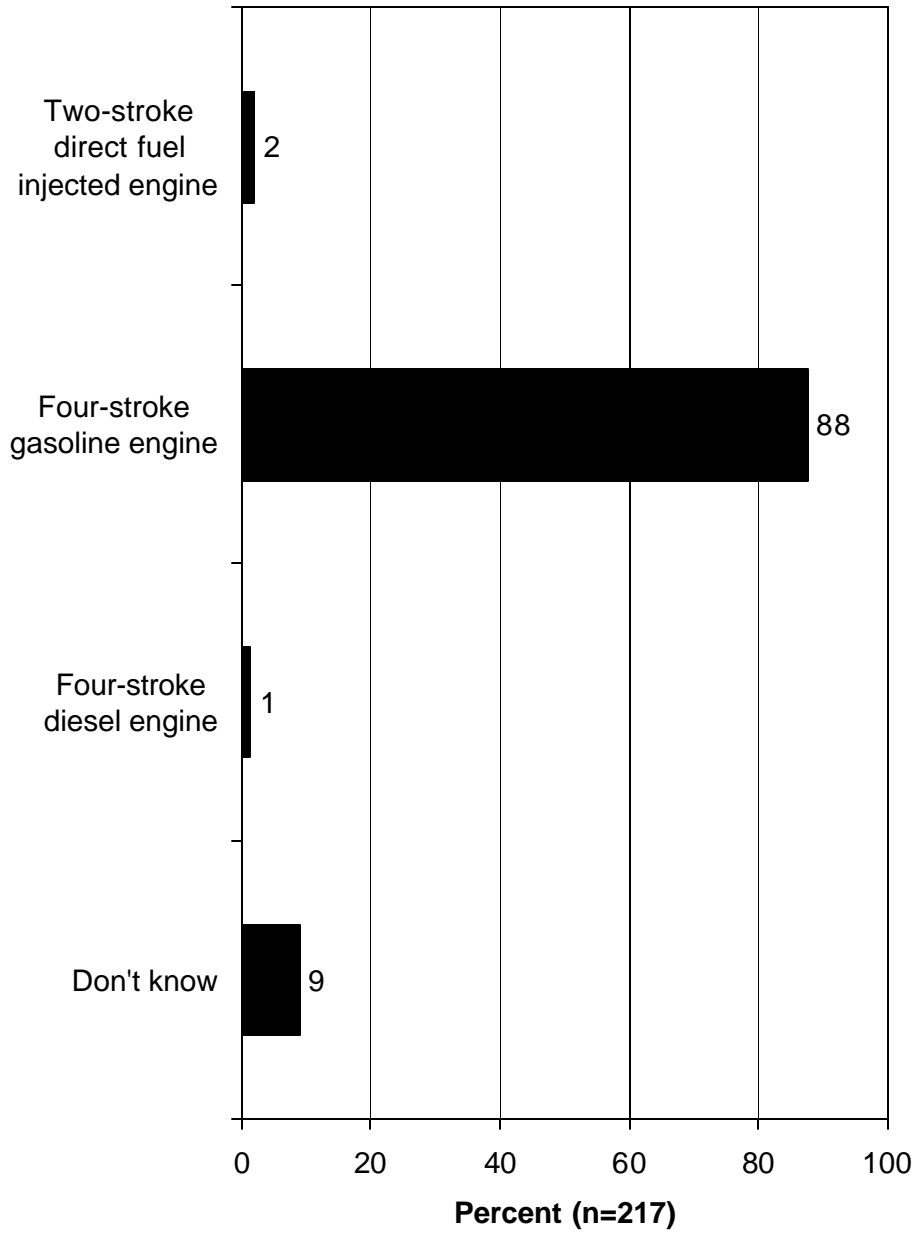
Q79. Does your [most-used boat] have an inboard engine, an outboard engine, or an inboard/outboard (I/O) engine?



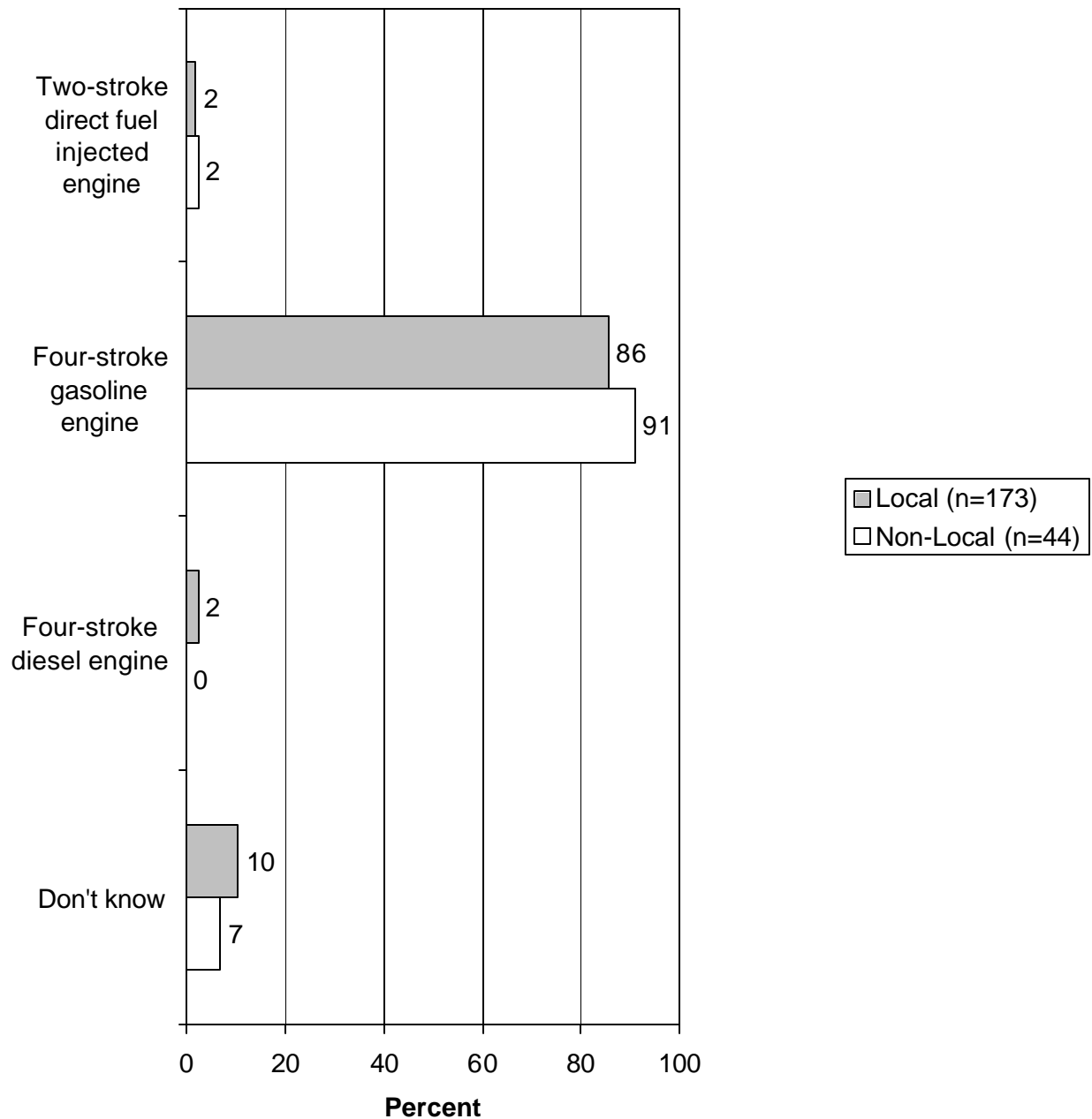
Q79. Does your [most-used boat] have an inboard engine, an outboard engine, or an inboard/outboard (I/O) engine?



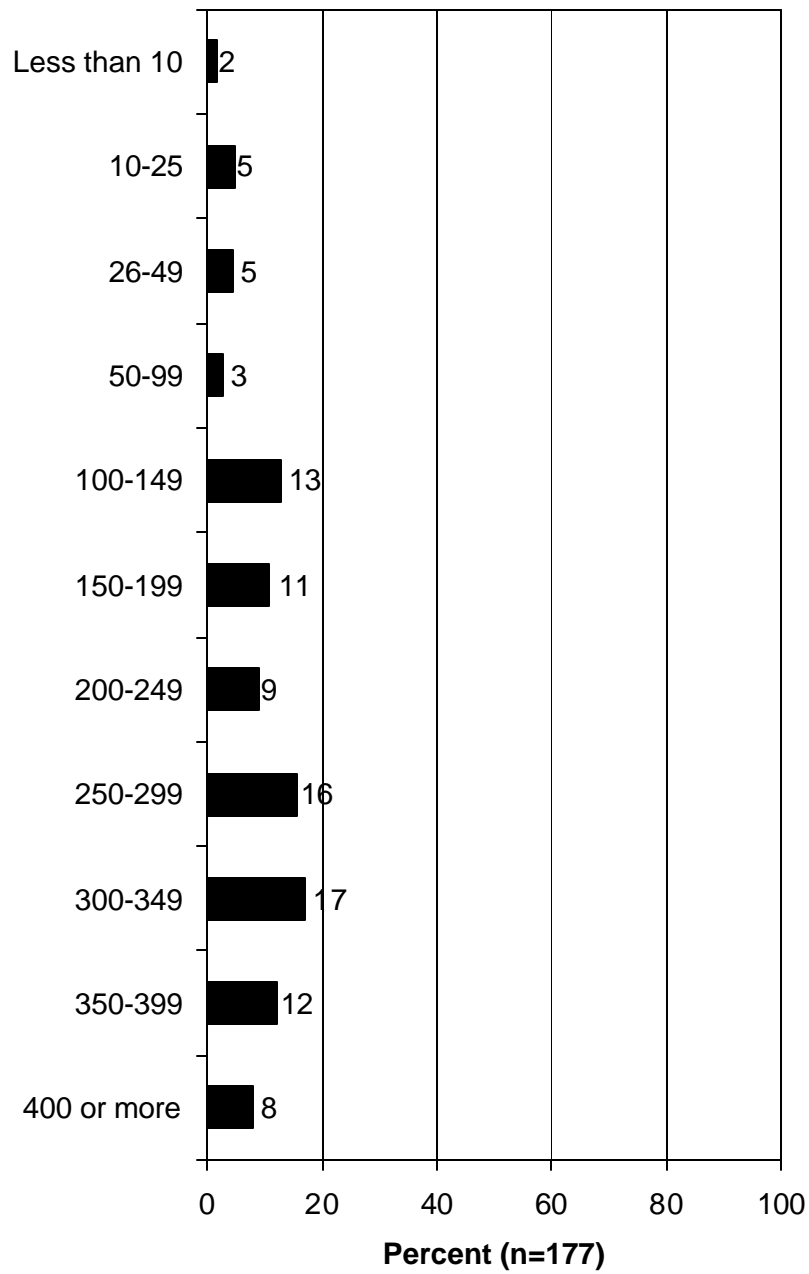
Q82. Is the engine on your [most-used boat] a two-stroke engine that is *not* direct fuel injected, a two-stroke direct fuel injected engine, a four-stroke gasoline engine, or a four-stroke diesel engine?



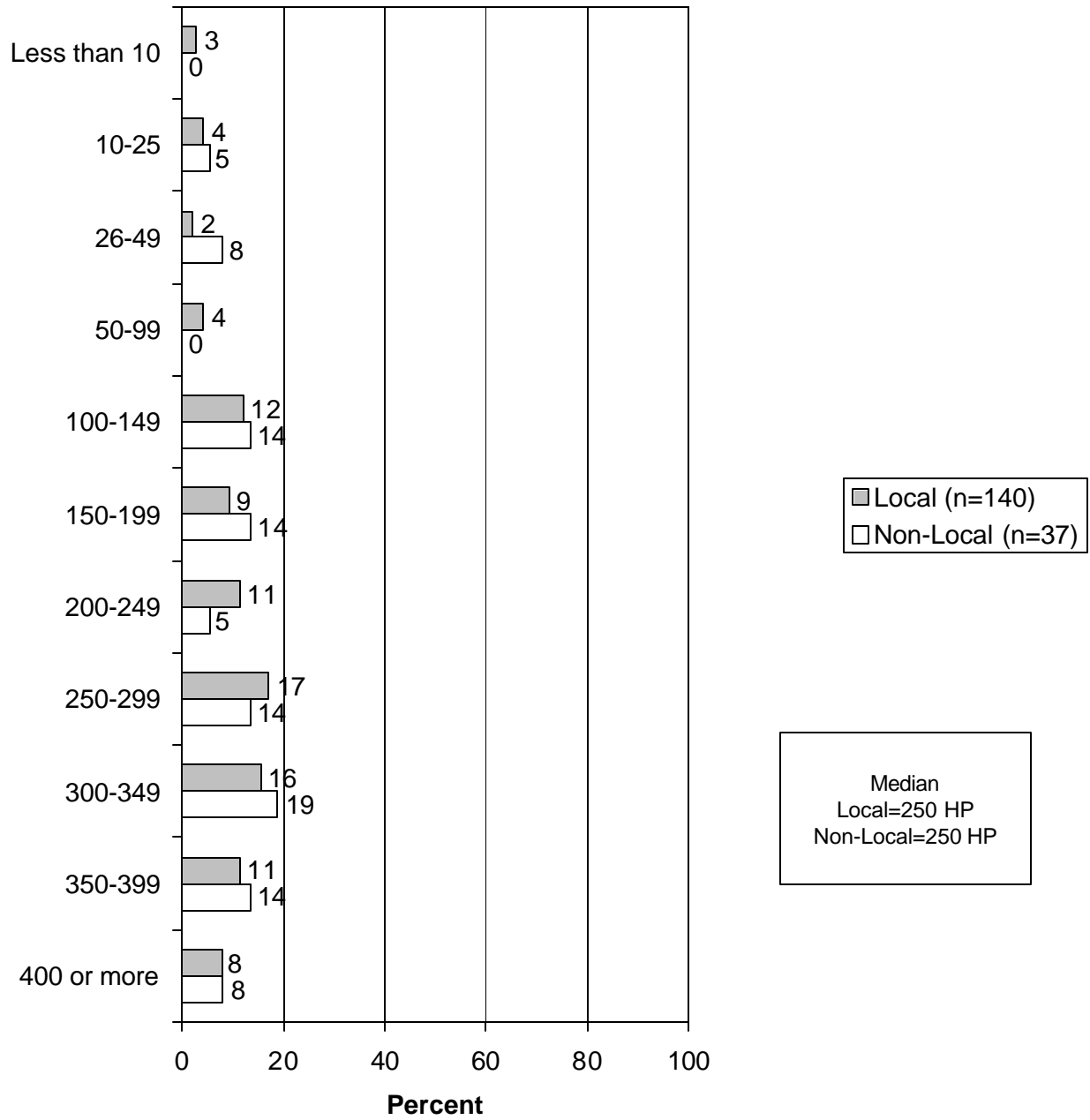
Q82. Is the engine on your [most-used boat] a two-stroke engine that is not direct fuel injected, a two-stroke direct fuel injected engine, a four-stroke gasoline engine, a four-stroke diesel engine, or a four-stroke diesel engine?



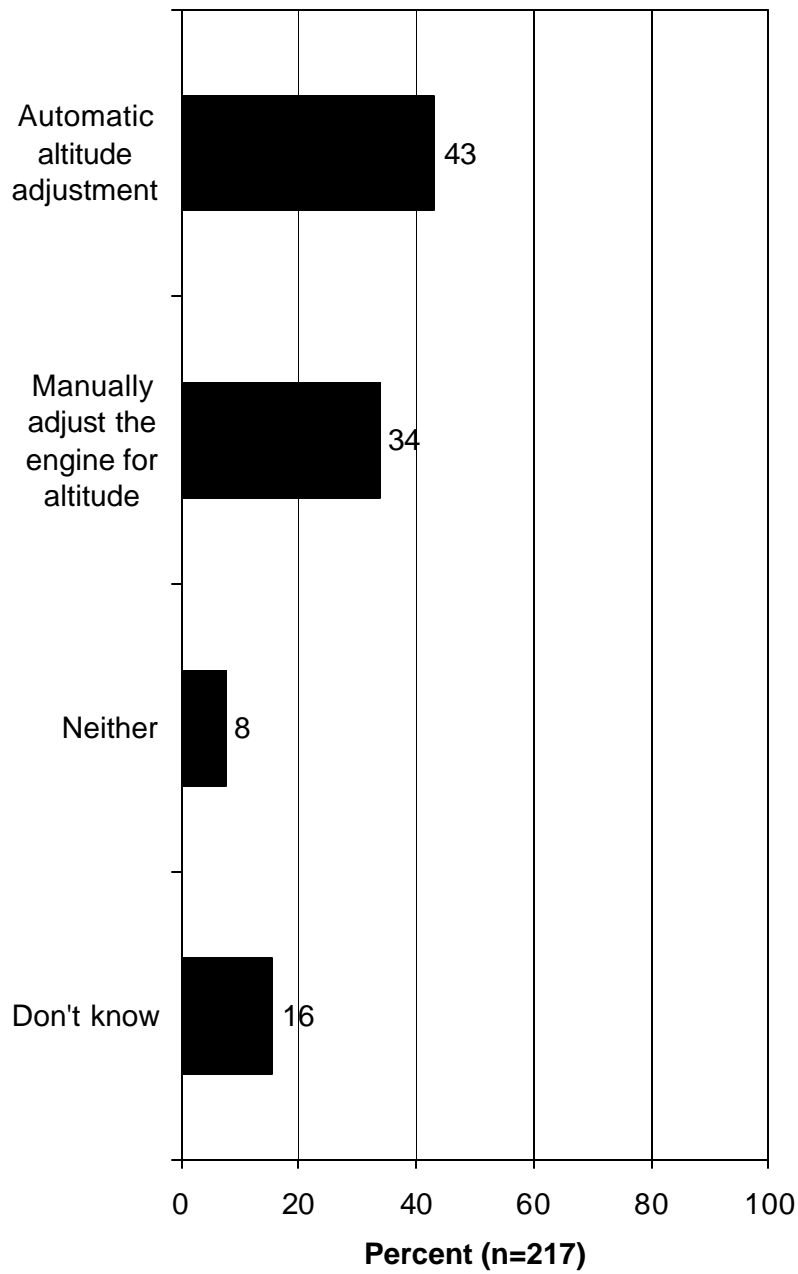
**Q83. What is the horsepower of the engine on your
[most-used boat]?**



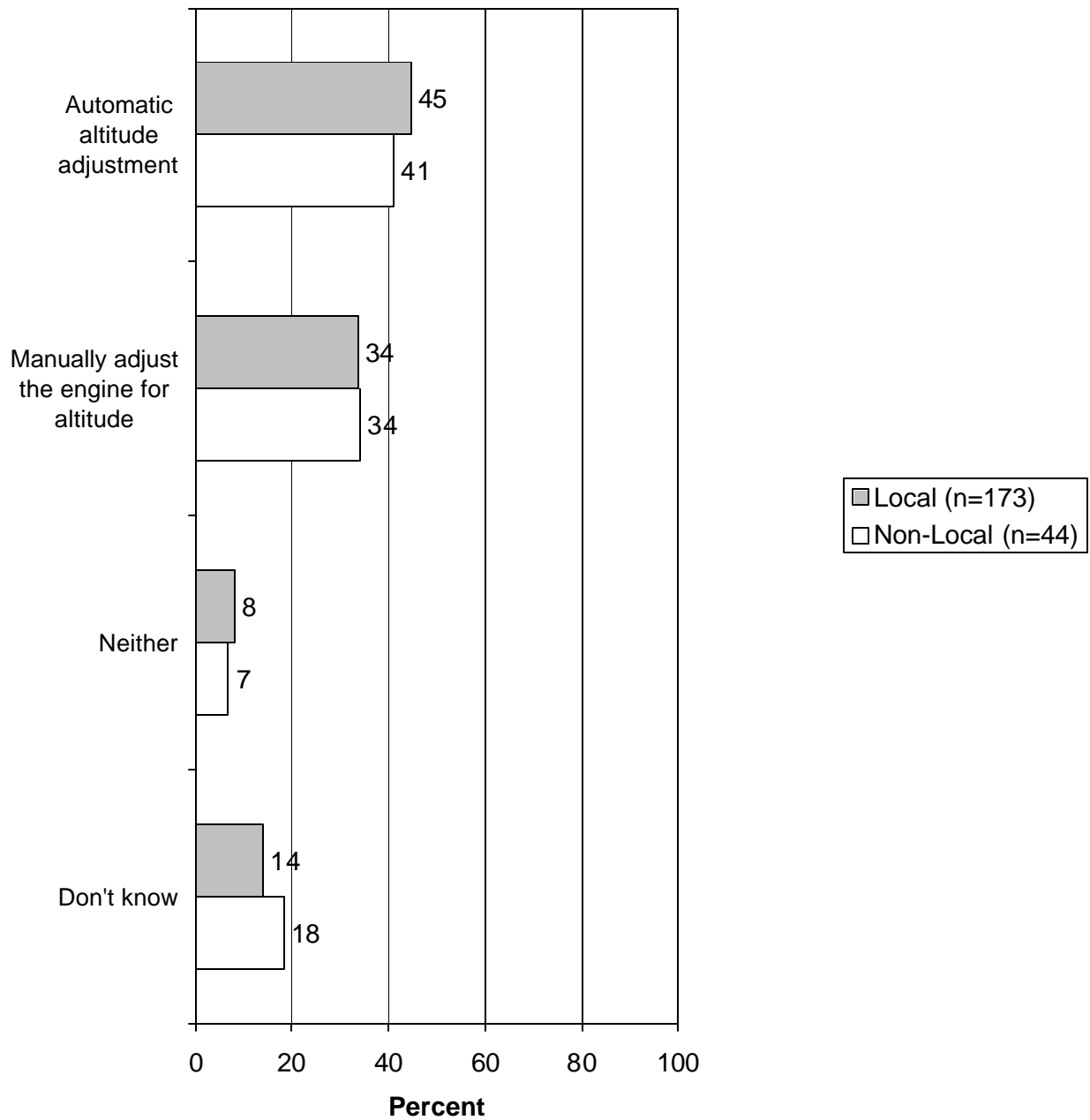
Q83. What is the horsepower of the engine on your [most-used boat]?



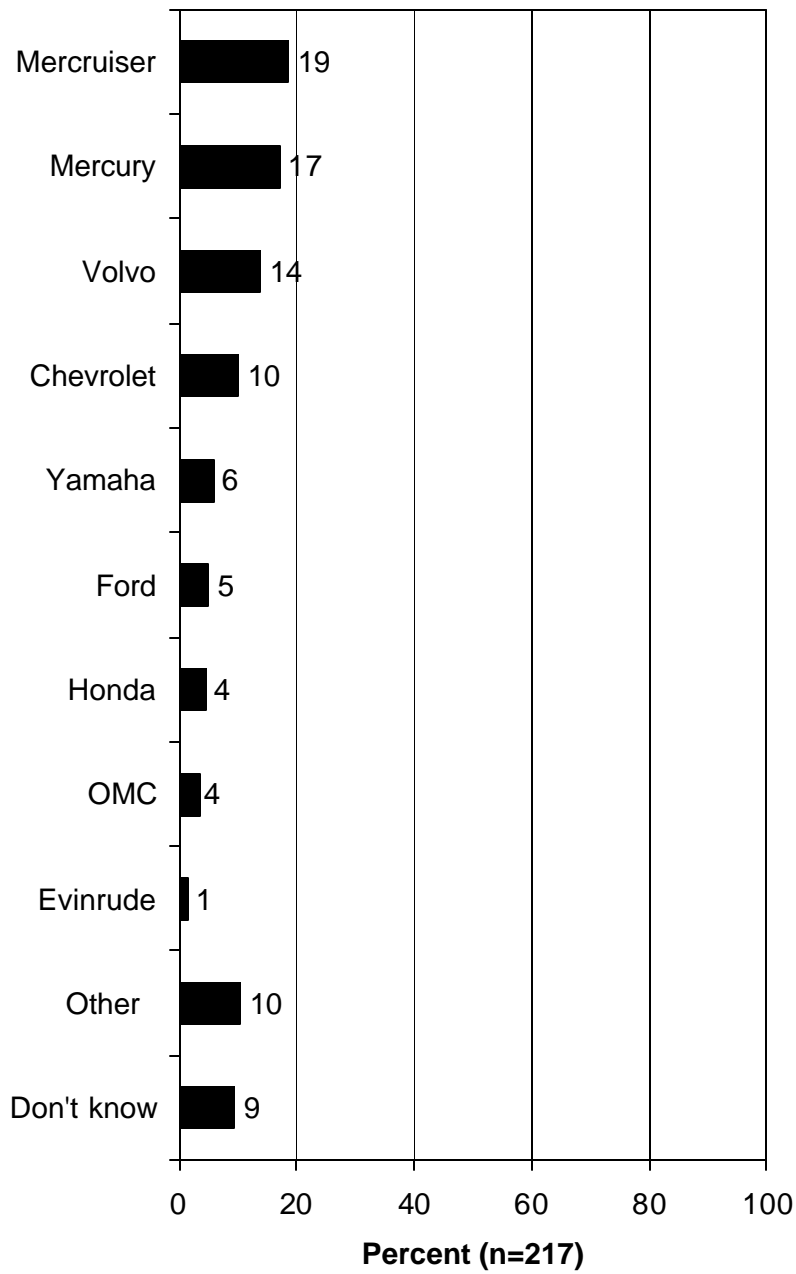
Q89. Does the engine of your [most-used boat] have automatic altitude adjustment or do you manually adjust the engine for altitude?



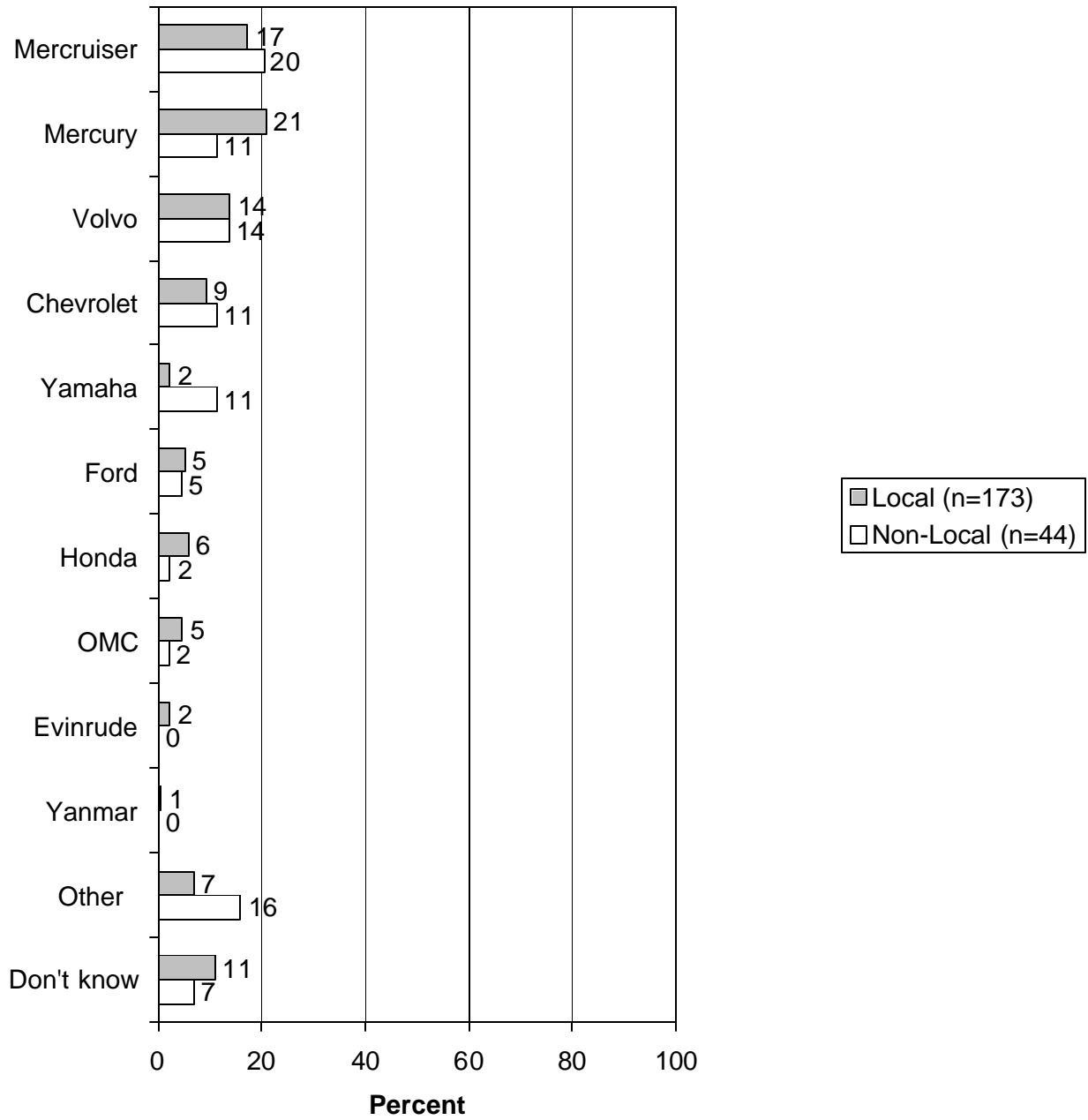
Q89. Does the engine of your [most-used boat] have automatic altitude adjustment or do you manually adjust the engine for altitude?



Q80. What company manufactured the engine on your [most-used boat]?



Q80. What company manufactured the engine on your [most-used boat]?



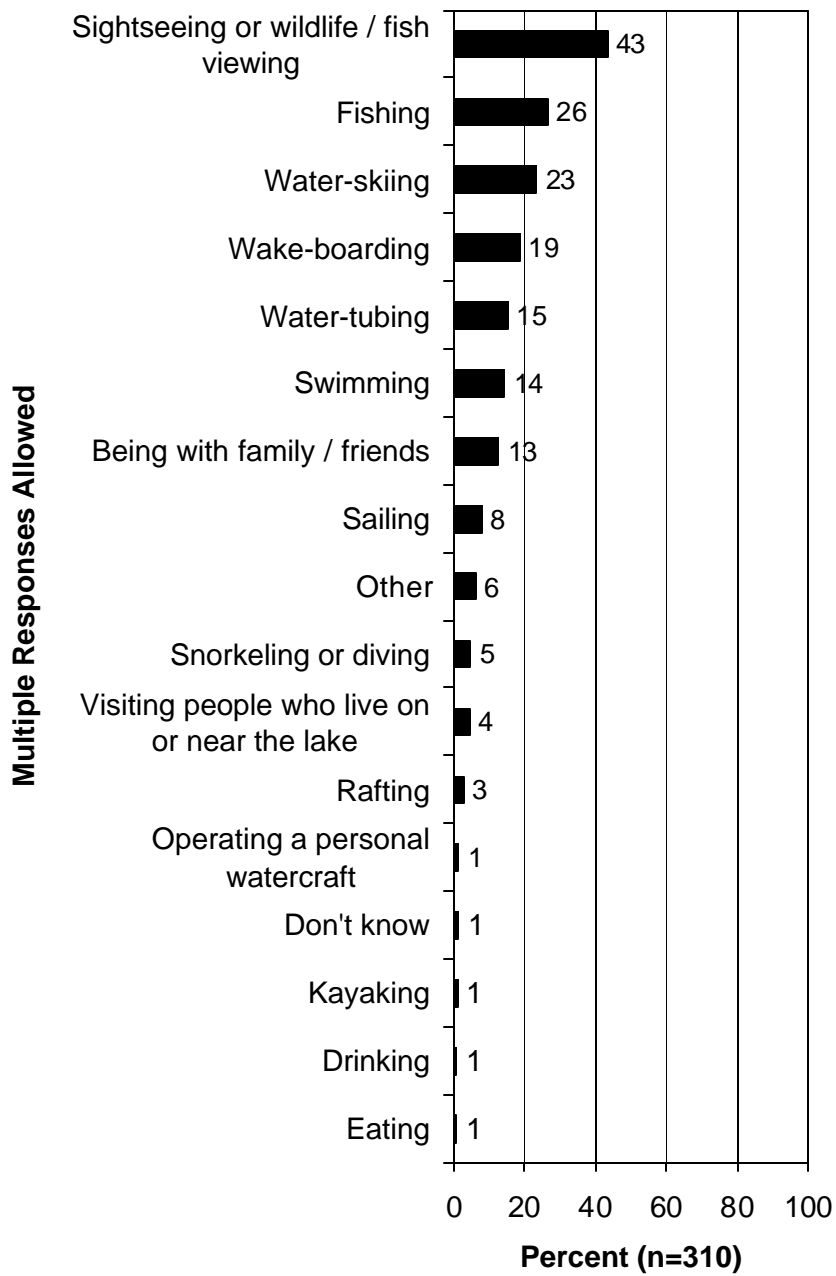
ACTIVITIES WHILE BOATING AND MOTIVATIONS FOR BOATING ON LAKE TAHOE

- Sightseeing is the most popular activity for boaters on Lake Tahoe (43% gave this answer), followed by fishing (26%), water-skiing (23%), wake-boarding (19%), water-tubing (15%), and swimming (14%).
 - Locals and non-locals are not greatly different regarding their activities while boating on Lake Tahoe.

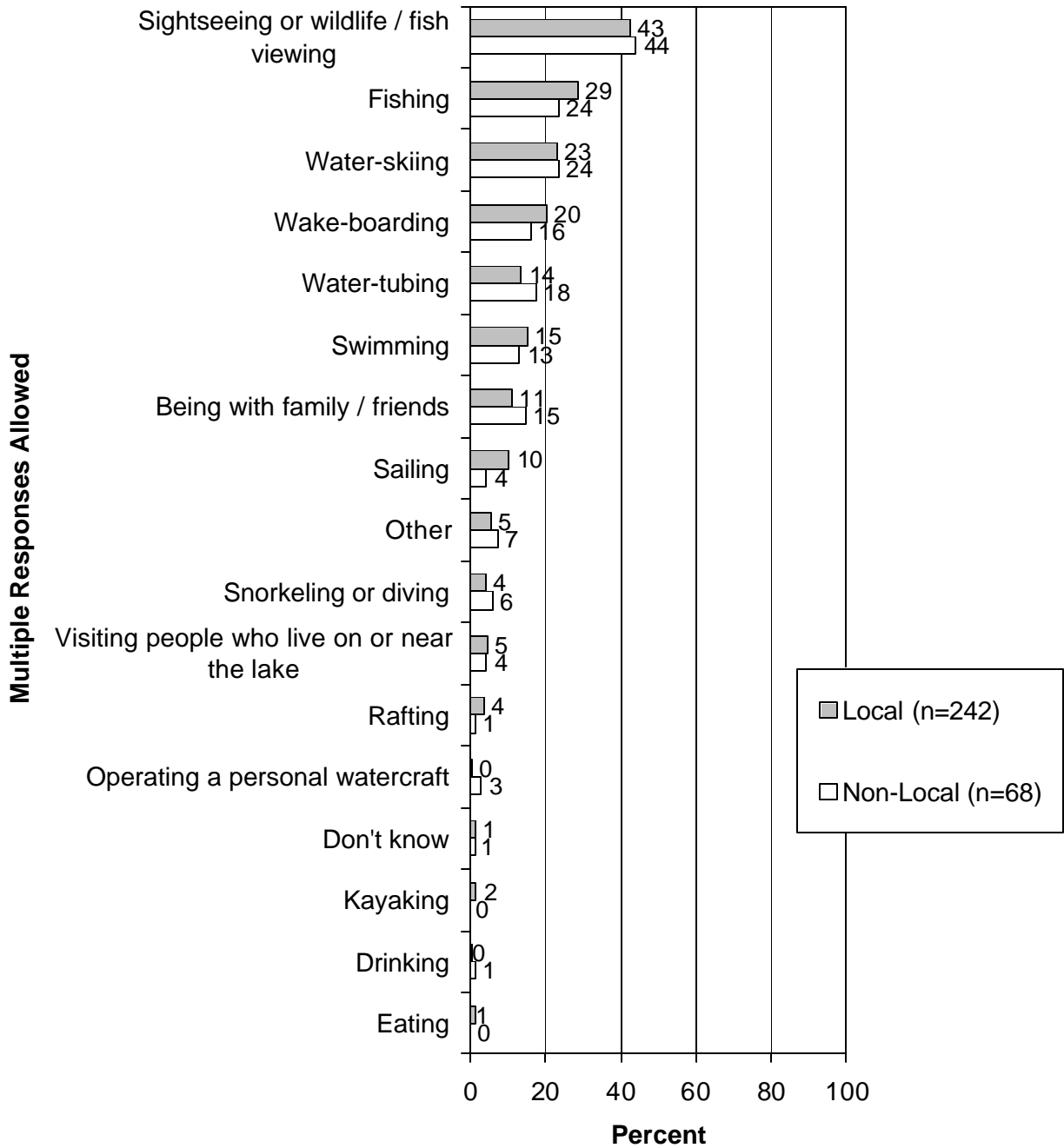
- Related to activities in which boaters participate is their motivations for boating on Lake Tahoe. When asked about their primary reasons for doing so, 54% of boaters say that they boat on Lake Tahoe simply because they like boating/like being on the water/for relaxation. Additionally, 23% say they boat on Lake Tahoe to be close to nature/view wildlife/sightsee, 19% do so to be with family and friends, and 15% do so to fish.
 - Locals and non-locals are not much different regarding motivations for boating on Lake Tahoe.

- For boaters, outdoor recreation is highly important: only 2% say outdoor recreation is not at all important to them, while 88% say it is *very* important. Additionally, water-related activities are important: 83% say that they are *very* important, and only 2% say that they are not important at all.
 - Locals and non-locals are not markedly different on these questions.
 - These graphs are shown and discussed in the section of this report titled, “Importance of Outdoor Recreation.”

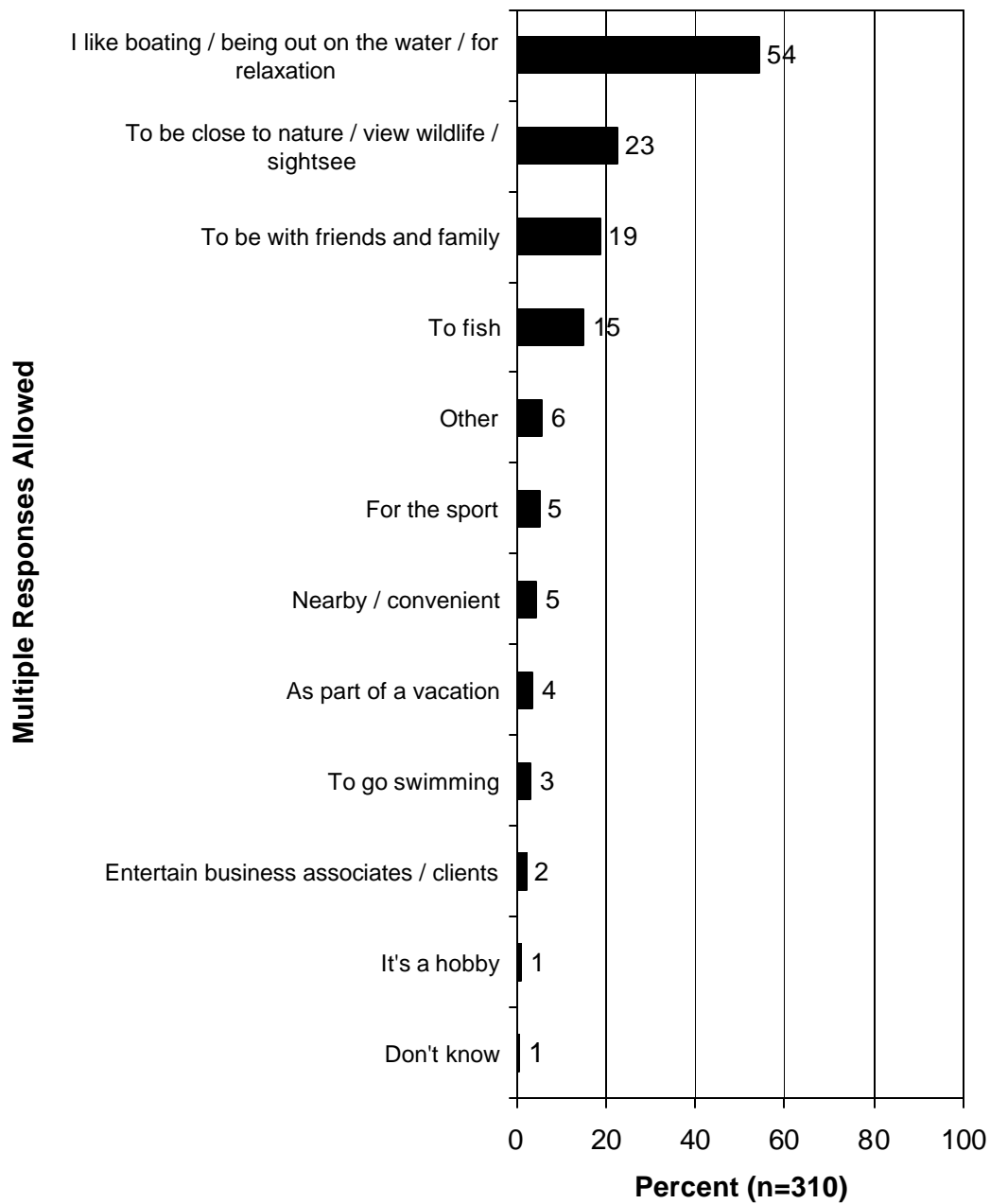
Q18. What activities did you participate in while boating on Lake Tahoe in the past 2 years?



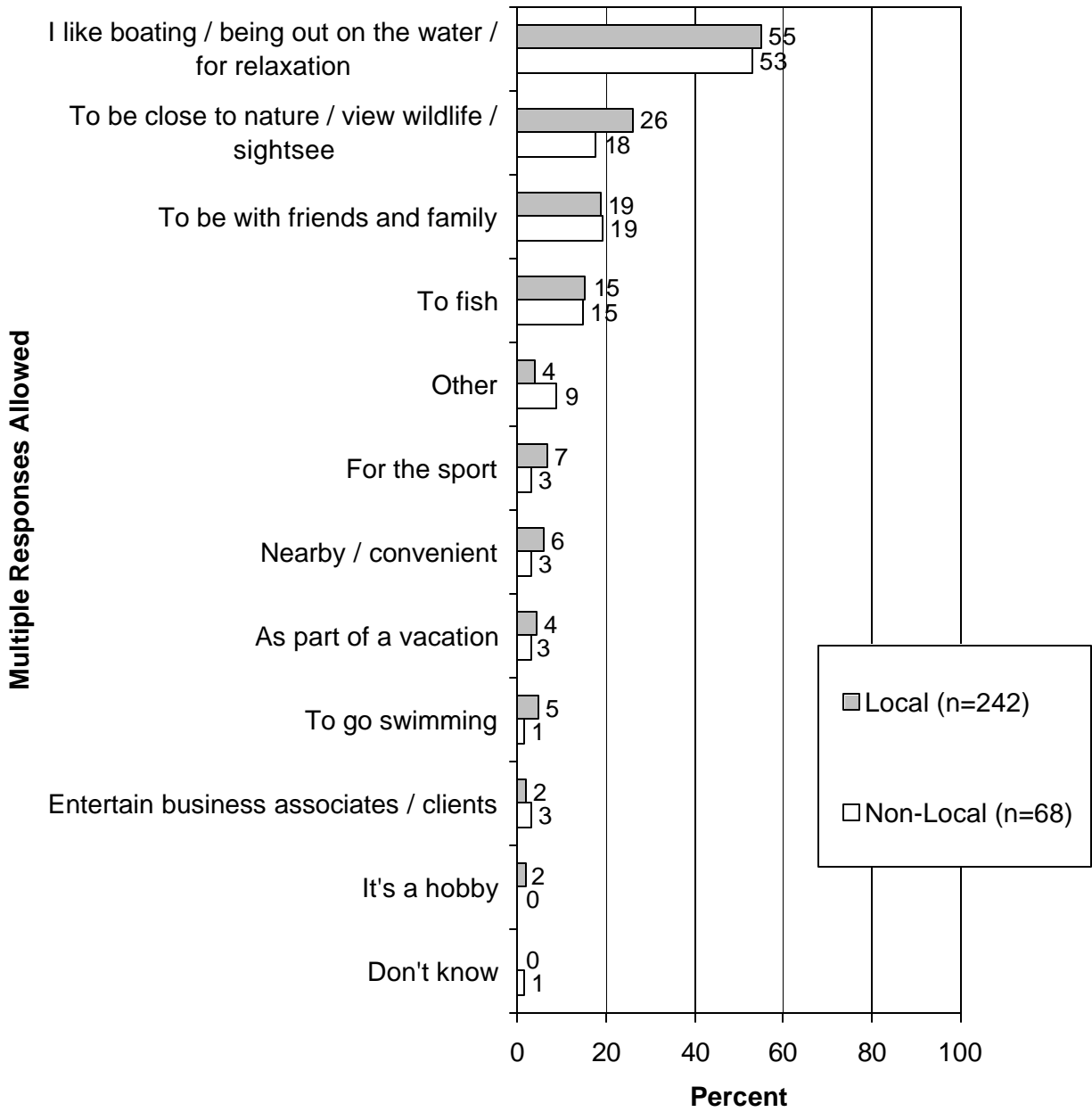
Q18. What activities did you participate in while boating on Lake Tahoe in the past 2 years?



Q28. What are the primary reasons you go boating on Lake Tahoe?



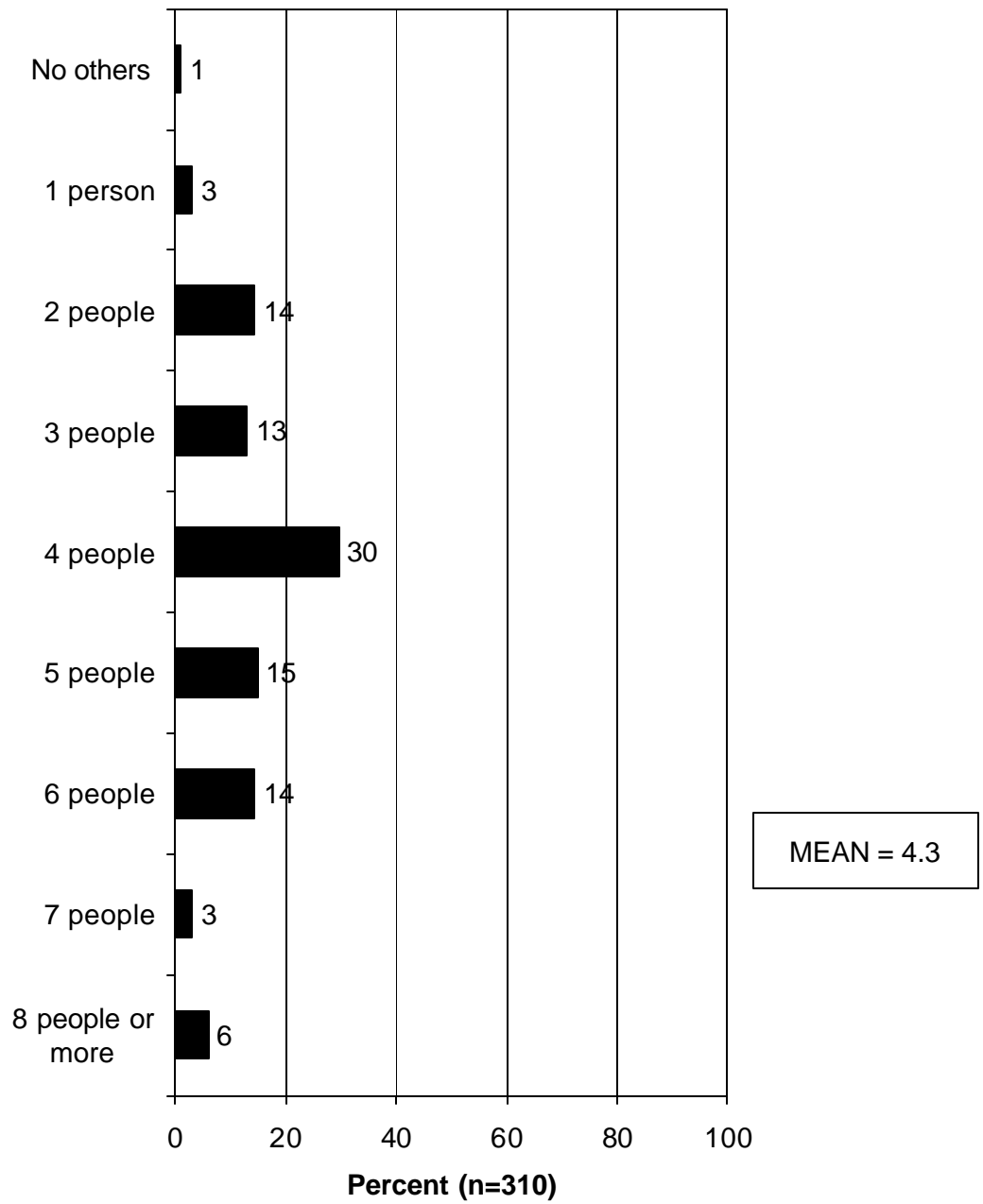
Q28. What are the primary reasons you go boating on Lake Tahoe?



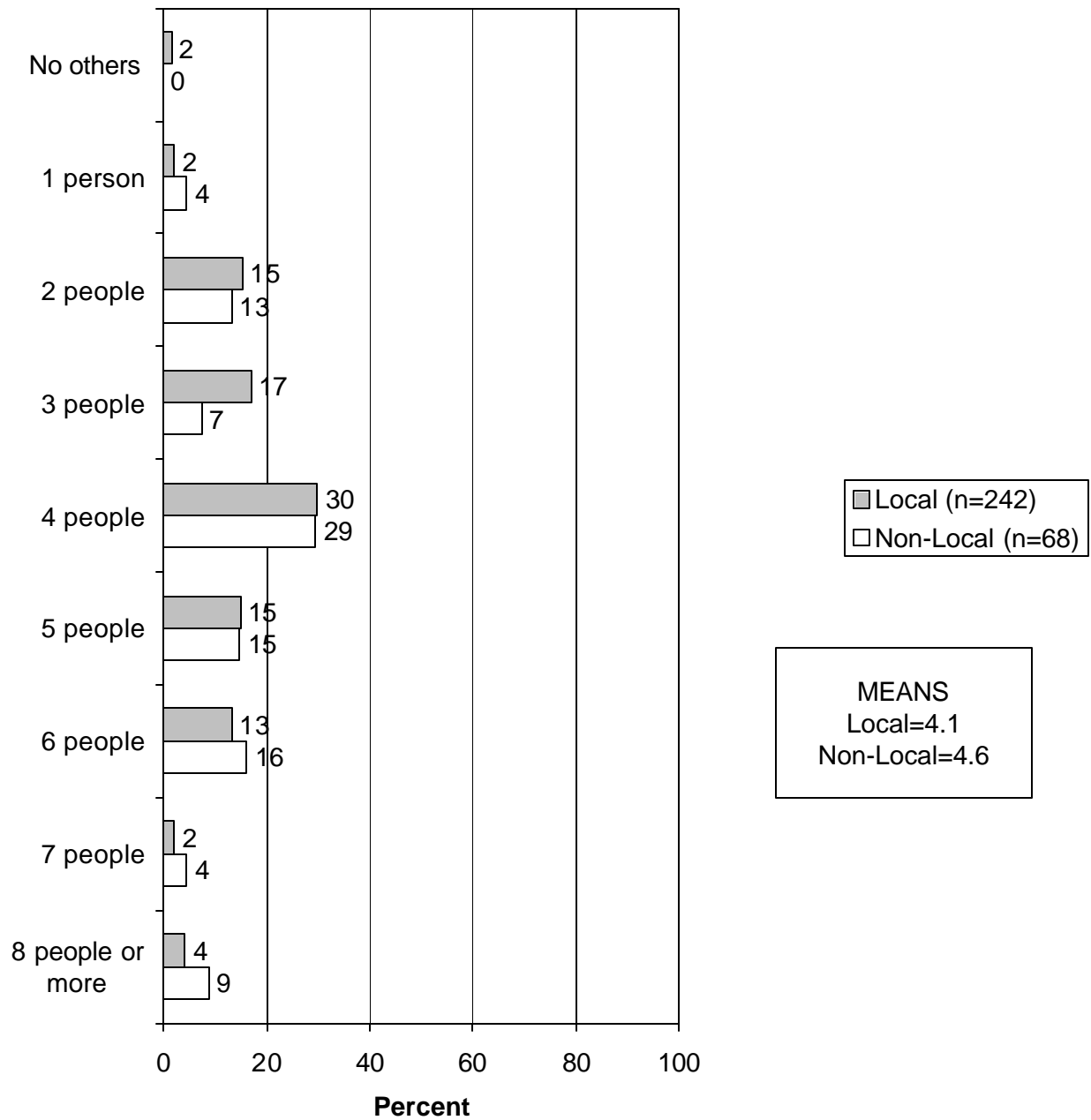
BOATING COMPANIONS

- Most typically, boaters take four other people along on a typical boating trip on Lake Tahoe: 30% gave this answer. A slight majority (57%) take from three to five people. Most commonly, the boater's spouse is a boating companion (61% answered spouse), followed by friends (50%) and minor children/stepchildren (36%).
 - Non-locals typically take slightly more people boating with them, as measured by the means: the mean for locals is 4.1 people, while the mean for non-locals is 4.6 people. Non-locals are slightly more likely than are locals to boat with their spouses and family members, while locals are more likely than are non-locals to boat with friends.

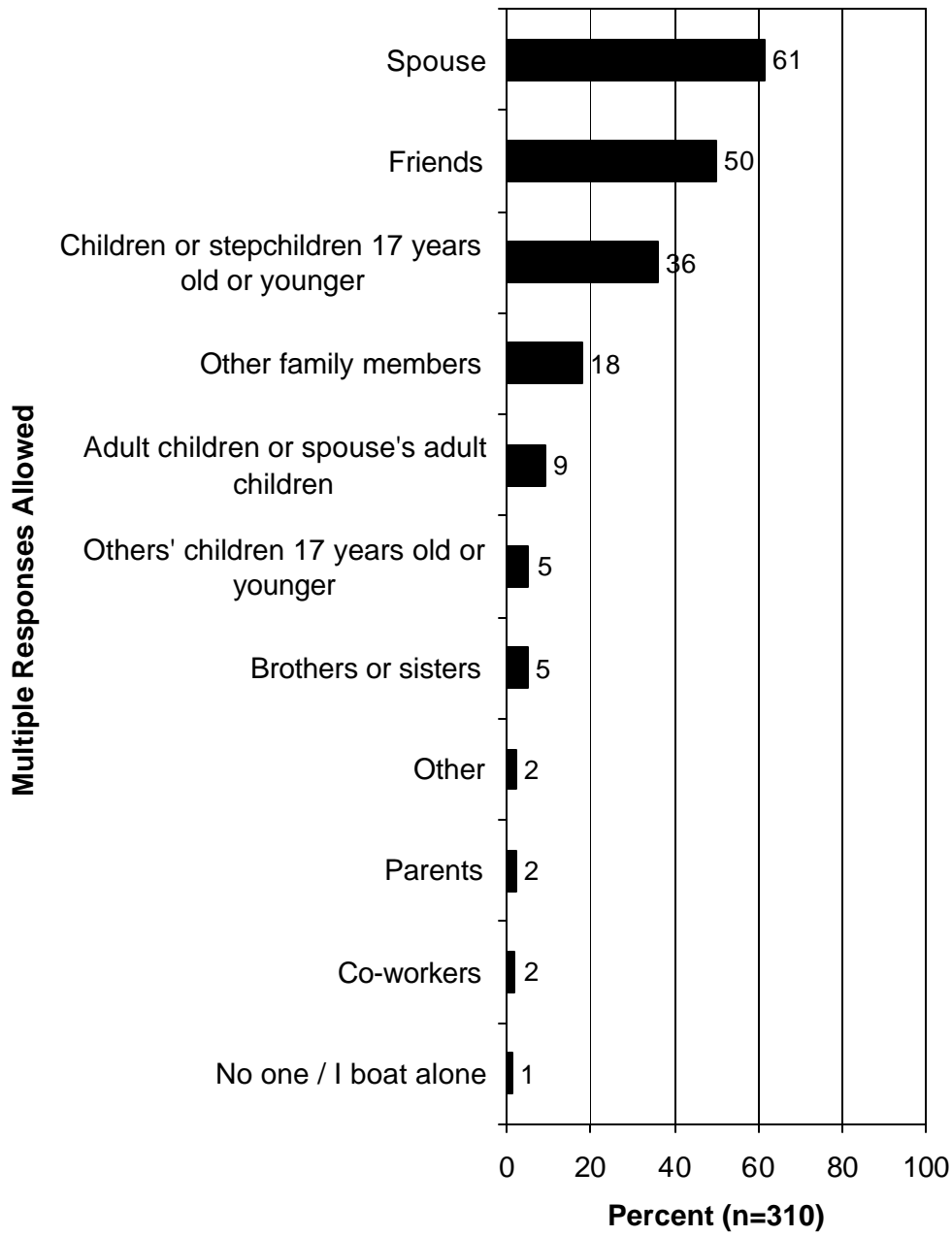
Q20. What is the typical number of people who generally go boating with you during a single outing?



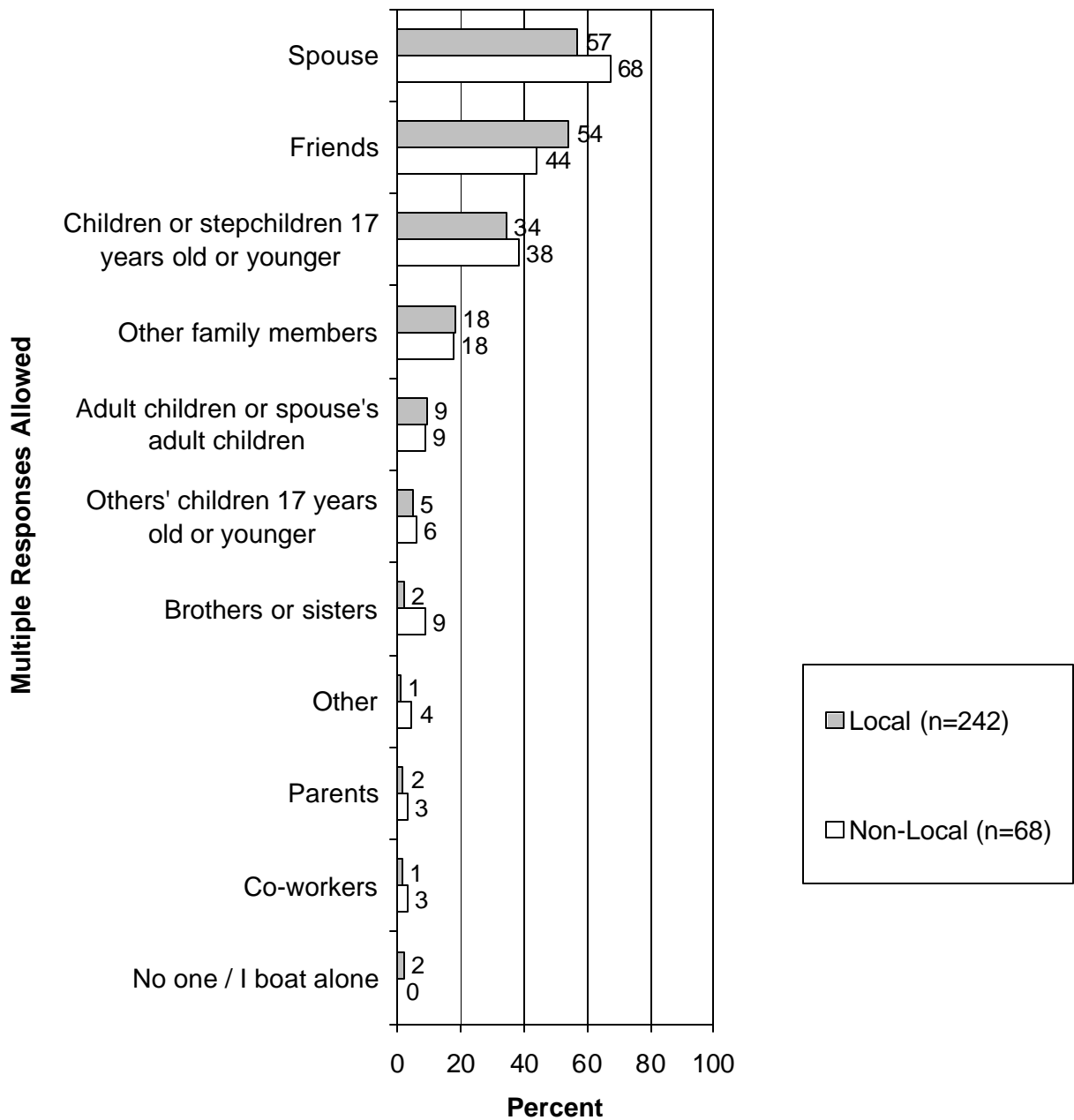
Q20. What is the typical number of people who generally go boating with you during a single outing?



Q24. With whom do you usually go boating?



Q24. With whom do you usually go boating?

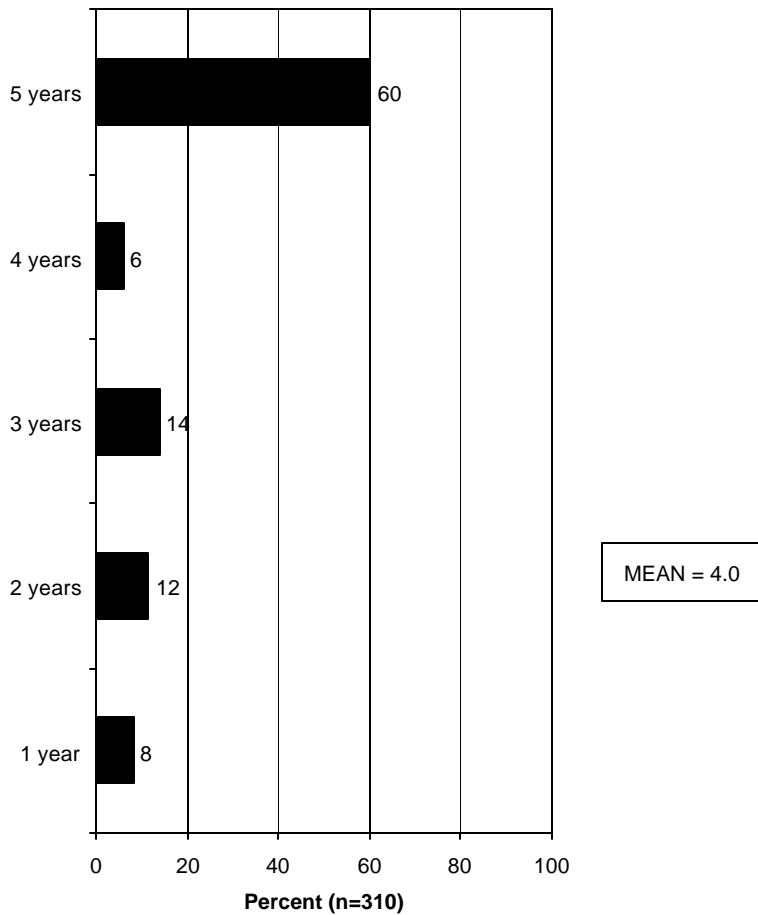


AVIDITY FOR BOATING ON LAKE TAHOE

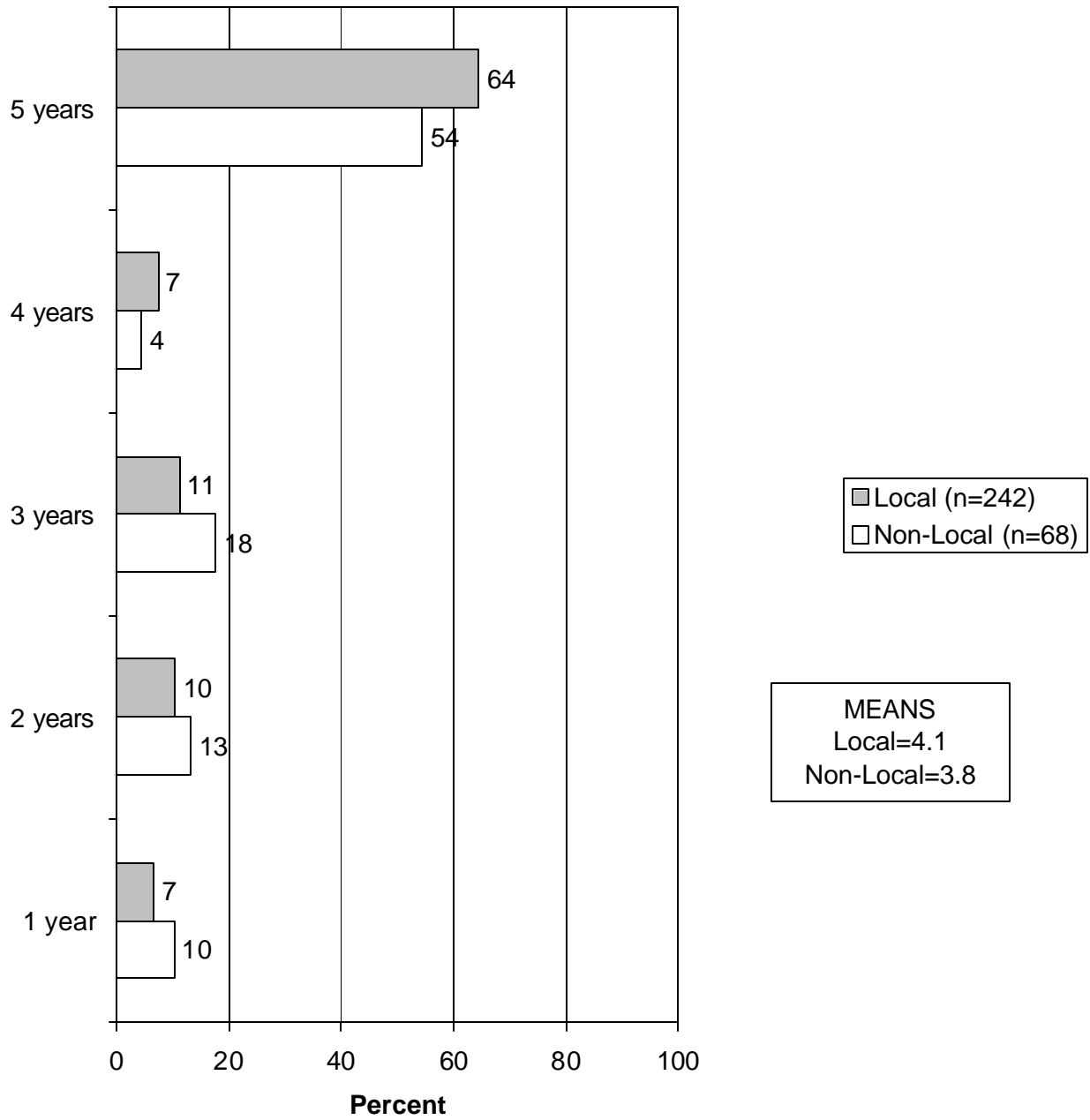
NUMBER OF YEARS BOATING ON LAKE TAHOE IN PAST 5 YEARS

- Avidity for boating on Lake Tahoe is robust, as measured by the number of years out of the previous 5 years that boaters had boated on Lake Tahoe: a majority (60%) had boated all 5 of the past 5 years, and the mean was 4.0 years out of the past 5.
- Not surprisingly, local boaters were slightly more avid: 64% had boated all 5 of the past 5 years, and locals had a higher mean than did non-locals (4.1 for locals; 3.8 for non-locals).

Q9. How many years, out of the past 5 years, did you go boating on Lake Tahoe?



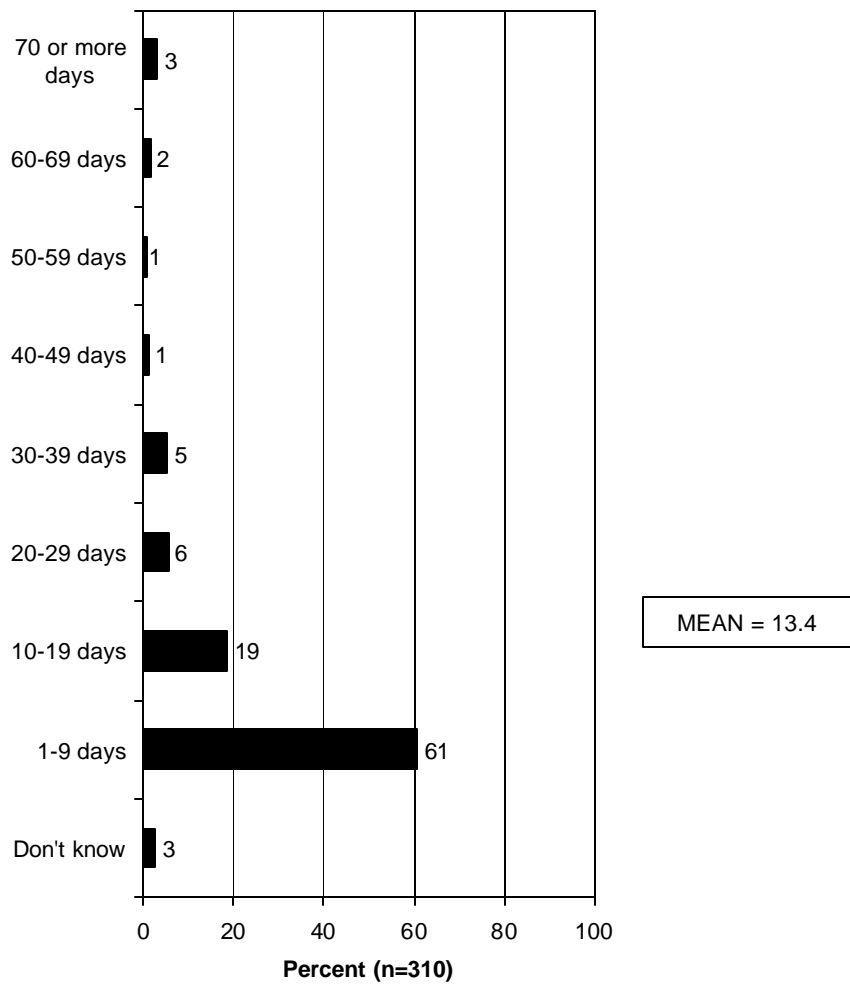
Q9. How many years, out of the past 5 years, did you go boating on Lake Tahoe?



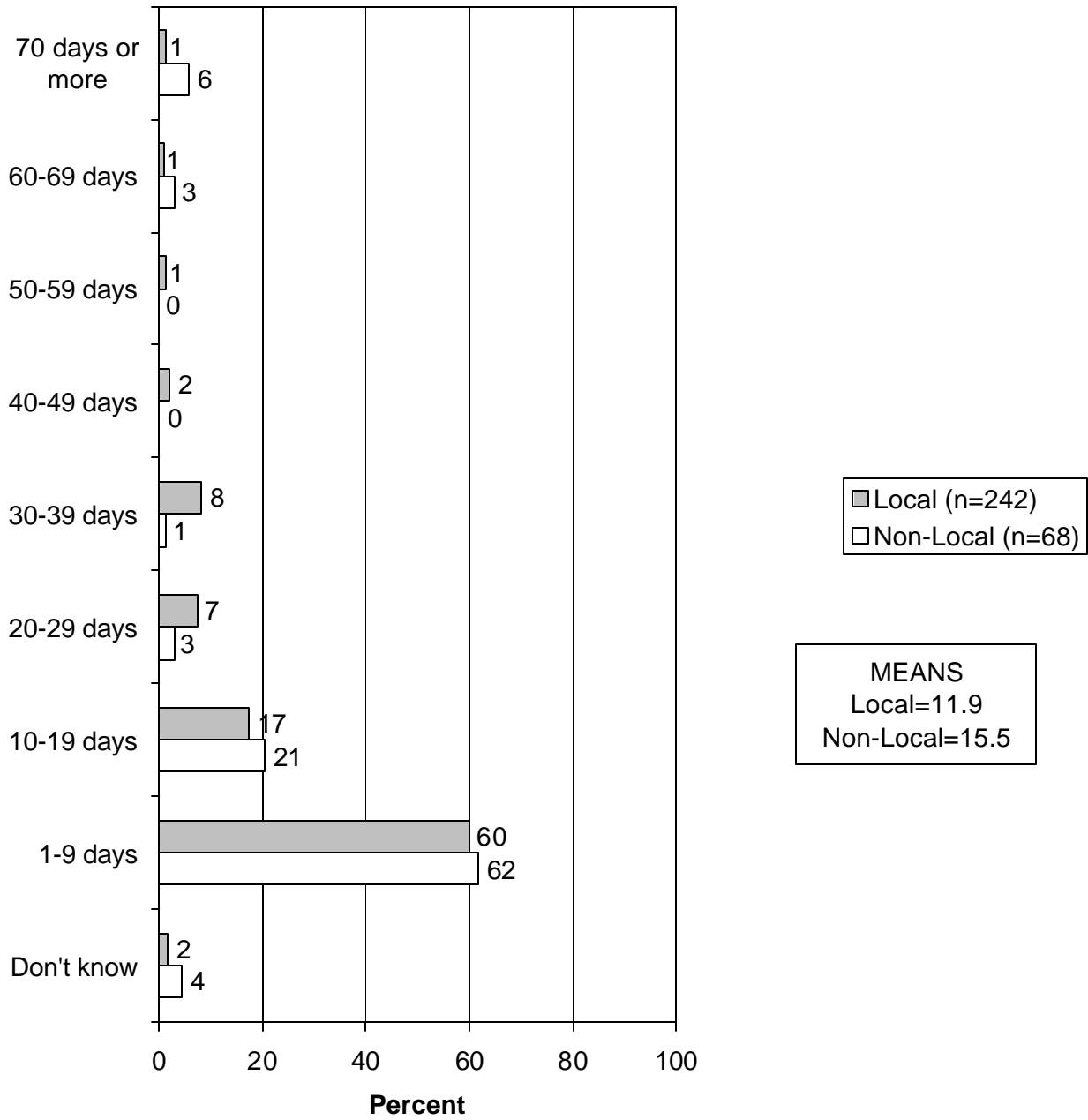
NUMBER OF DAYS BOATING ON LAKE TAHOE IN PAST YEAR

- The majority of boaters (61%) had boated on Lake Tahoe in the previous year from 1 to 9 days, and 80% had boated less than 20 days; a substantial percentage (18%) were quite avid, having boated 20 or more days on Lake Tahoe in the previous year. The mean was 13.4 days.
- Interestingly, non-locals had a higher mean than did locals (15.5 for non-locals; 11.9 for locals).

Q11. How many days total during the past 12 months did you go boating on Lake Tahoe?



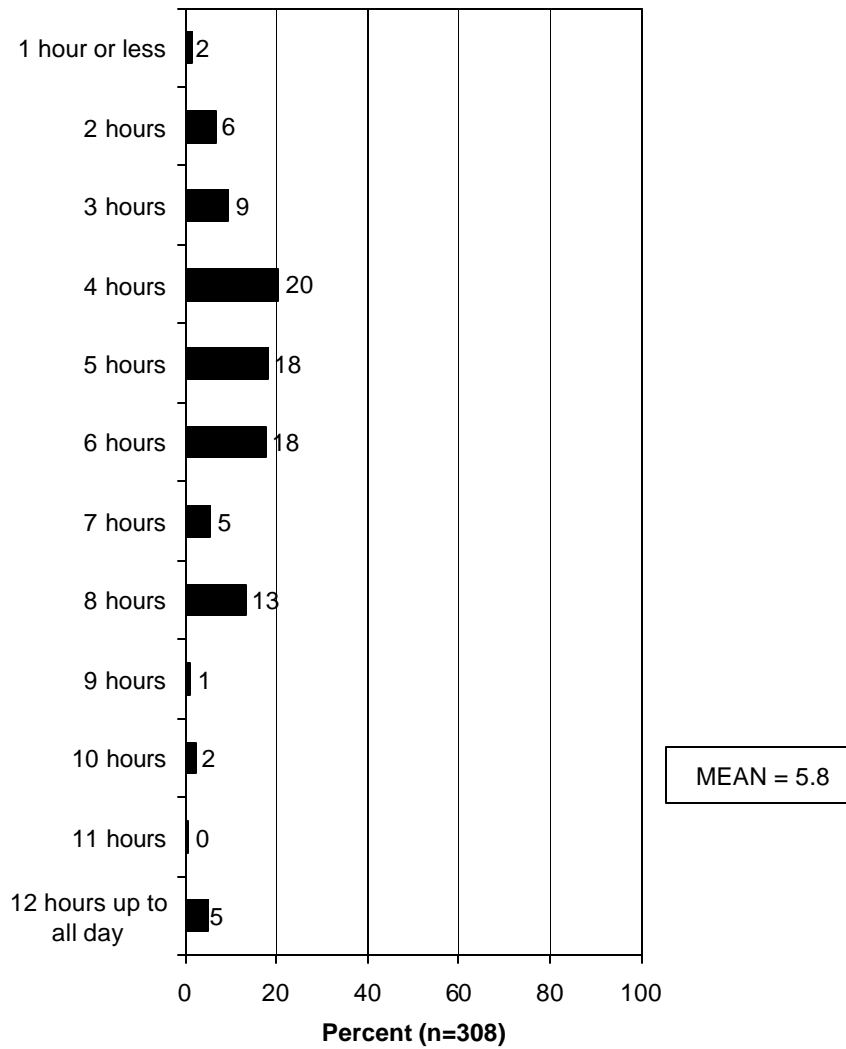
Q11. How many days total during the past 12 months did you go boating on Lake Tahoe?



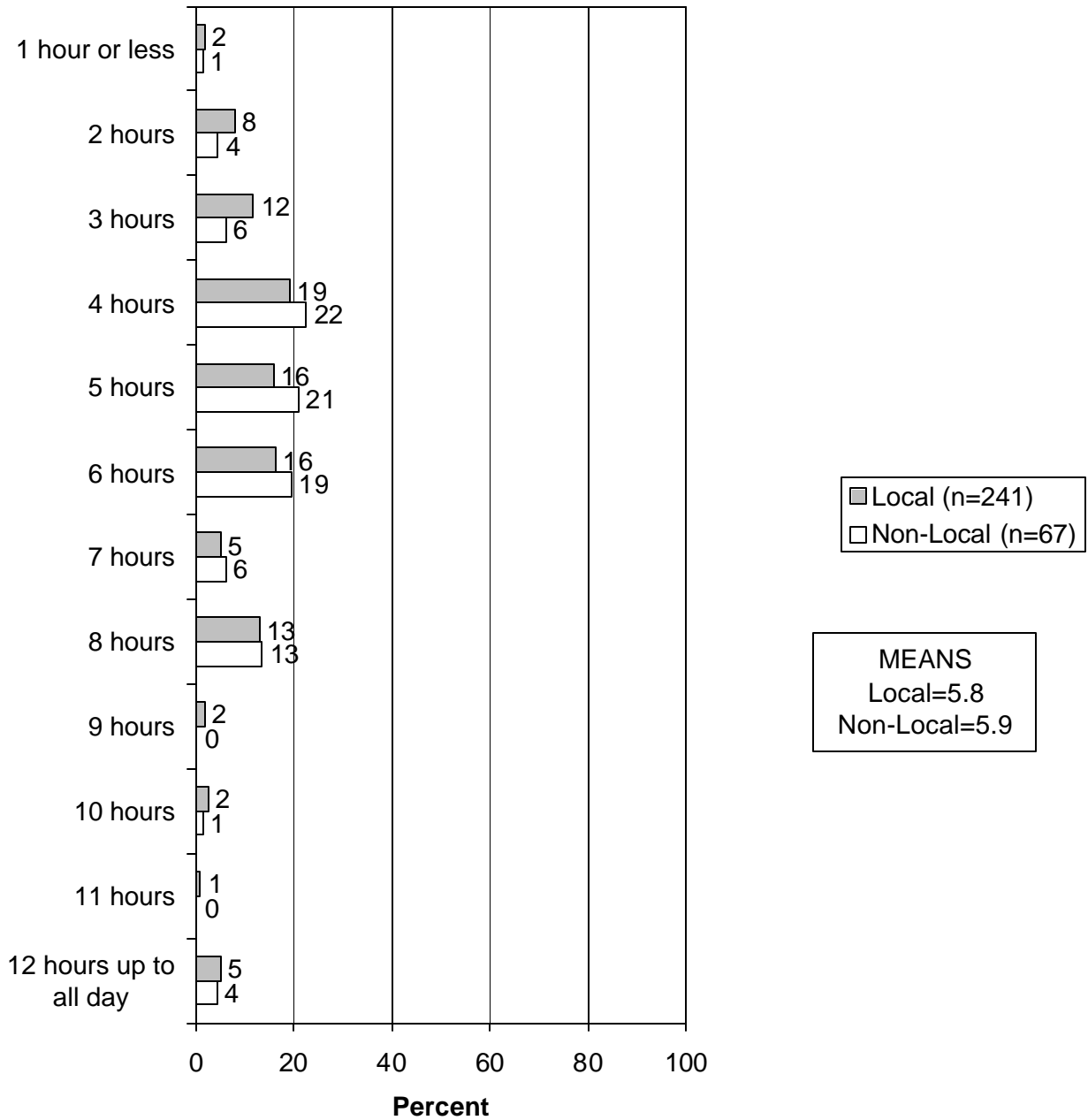
TYPICAL NUMBER OF HOURS PER DAY BOATING ON LAKE TAHOE

- Typically, boaters spend from 4 to 6 hours on the water in a single day when boating on Lake Tahoe: 56% answered 4, 5, or 6 hours, and then mean is 5.8 hours.
- Locals and non-locals are almost identical in the number of hours they typically spend on the water.

Q13. How many hours do you usually spend on the water in a single day when you go boating on Lake Tahoe?



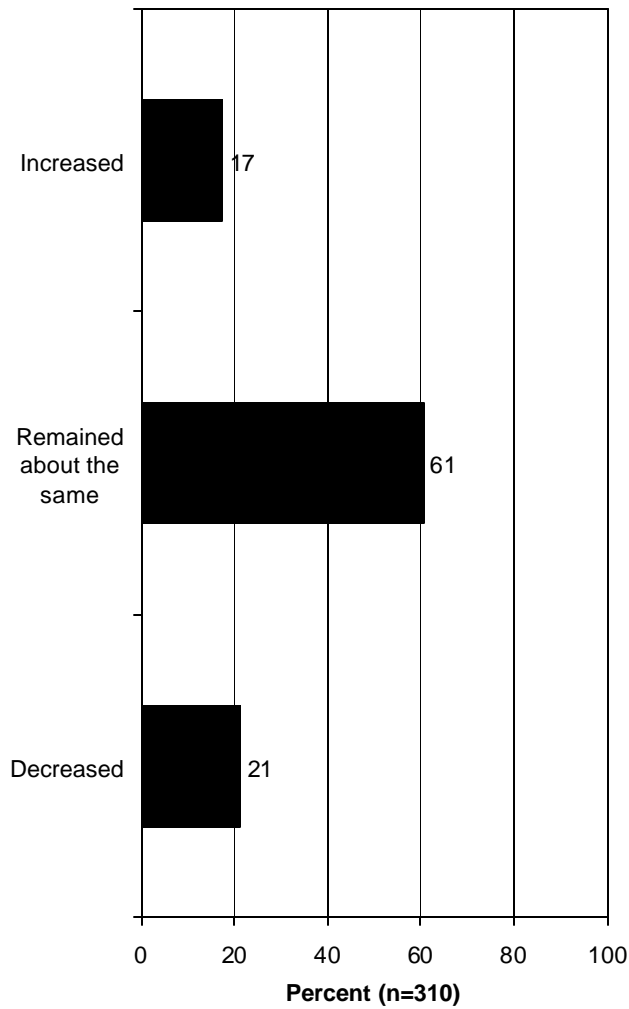
Q13. How many hours do you usually spend on the water in a single day when you go boating on Lake Tahoe?



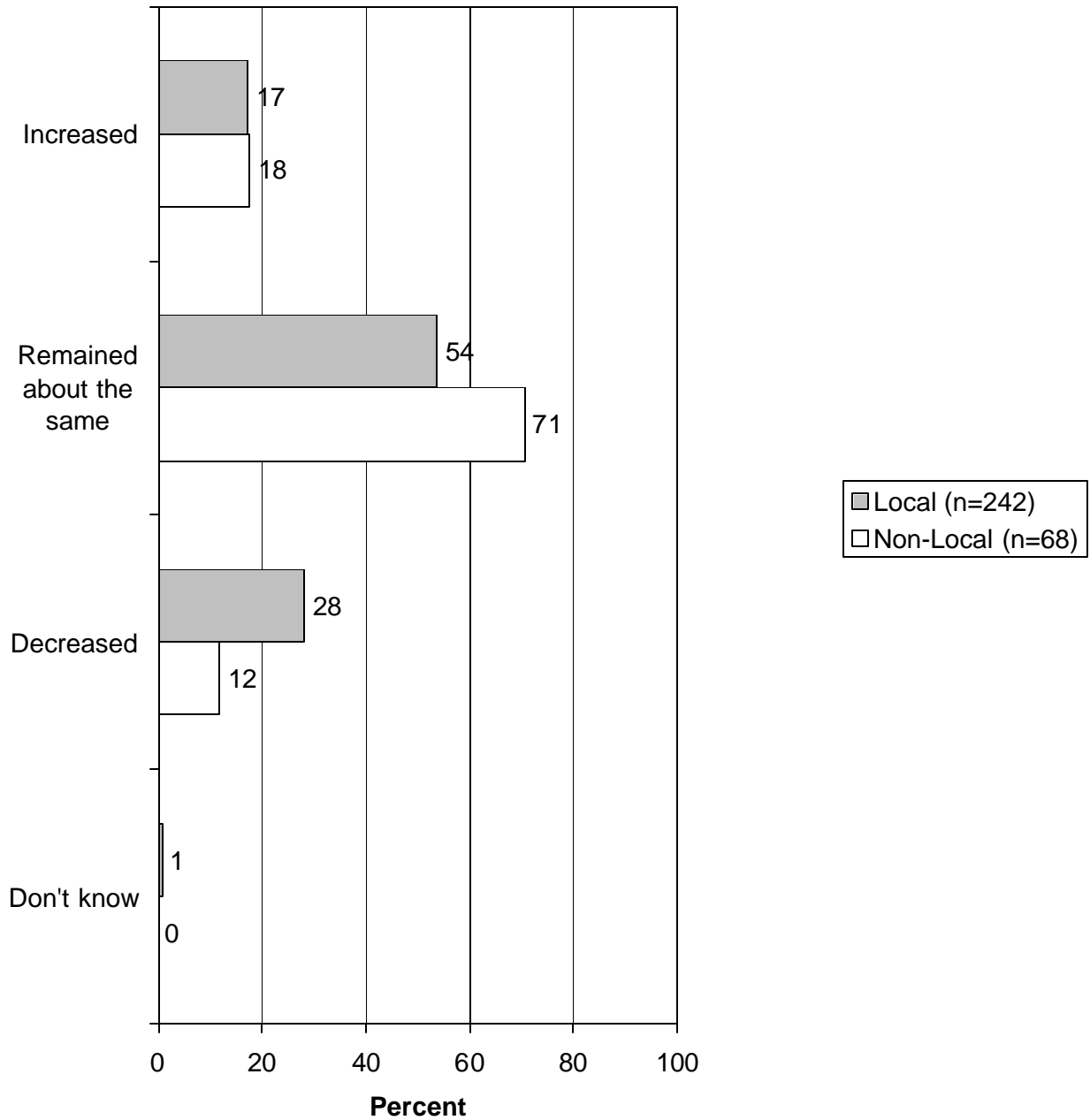
TRENDS IN AVIDITY FOR BOATING ON LAKE TAHOE

- The majority of boaters (61%) say that their boating participation on Lake Tahoe remained about the same last year as in previous years; otherwise, the remainder are about evenly split between increased (17%) and decreased (21%).
 - There is less of a decrease among non-locals relative to locals: while 28% of locals say their boating participation decreased last year, only 12% of non-locals say this.

Q15. Over the past 12 months, would you say your boating activity on Lake Tahoe has increased, decreased, or remained about the same as in previous years?



Q15. Over the past 12 months, would you say your boating activity on Lake Tahoe has increased, decreased, or remained about the same as in previous years?



SATISFACTION WITH BOATING ON LAKE TAHOE

- Satisfaction with boating on Lake Tahoe is quite high: the overwhelming majority of boaters (91%) are satisfied with their boating on the Lake, with most of them *very* satisfied.
 - Those who are dissatisfied most commonly cite crowding and/or interference by other recreationists, although problems with launch facilities and access, as well as a dislike for the regulations, are other reasons for dissatisfaction.
 - Locals and non-locals are nearly identical in satisfaction. Regarding dissatisfactions, locals are more likely than are non-locals to cite crowding and interference by other recreationists, while non-locals are more likely than are locals to cite problems with the launch facilities.

- The majority of boaters (63%) say the quality of their boating experiences over the past 5 years has remained about the same (and note that most are satisfied with their boating); otherwise, they are about evenly split between those who say the quality of their boating on Lake Tahoe has improved (17%) and those who say it has declined (14%).
 - Locals are just slightly more likely than are non-locals to say that the quality of their boating has declined (17% among locals; 10% among non-locals).

- When asked directly about interference by other recreationists, most boaters had not experienced any interference that took away from their enjoyment. Those who did experience interference most commonly cite other boaters, including personal watercraft operators.
 - Locals are slightly more likely than are non-locals to cite other boaters.

- In five questions that pertain to satisfaction:
 - Boaters are about evenly split regarding whether Lake Tahoe has enough launching facilities: 43% agree, but 46% disagree that there are enough facilities, with locals and non-locals being about the same on this question.
 - Those who have an opinion regarding the number of private mooring buoys in Lake Tahoe (i.e., they did not answer, “Don’t know”) most commonly say that there are about the right number of them; otherwise, the number saying that there are too few exceeds the

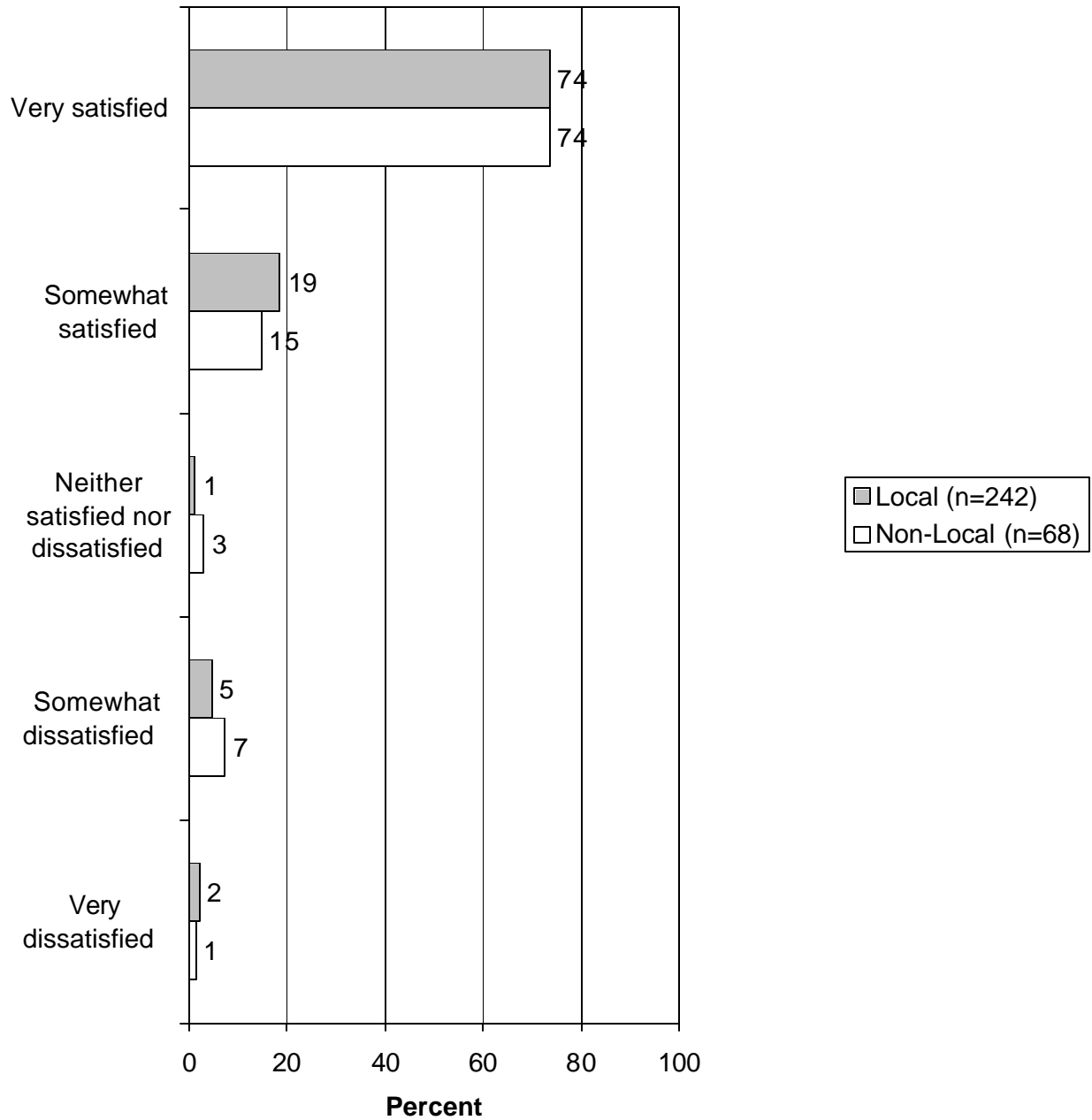
number saying that there are too many, with locals and non-locals being about the same on this question.

- Most commonly, boaters say that there are about the right amount of private piers on Lake Tahoe; otherwise, they are about evenly split between saying that there are too many and saying that there are too few (excluding those saying, “Don’t know”); locals and non-locals are not markedly different on this question.
- Boaters most commonly say that there are too few public mooring buoys; only a few feel that there are too many.
- Half of boaters on Lake Tahoe say that there are too few public piers, a third say that there are about the right number, and almost none say that there are too many.
- These graphs are shown and discussed in the section of this report titled, “Facilities on Lake Tahoe.”

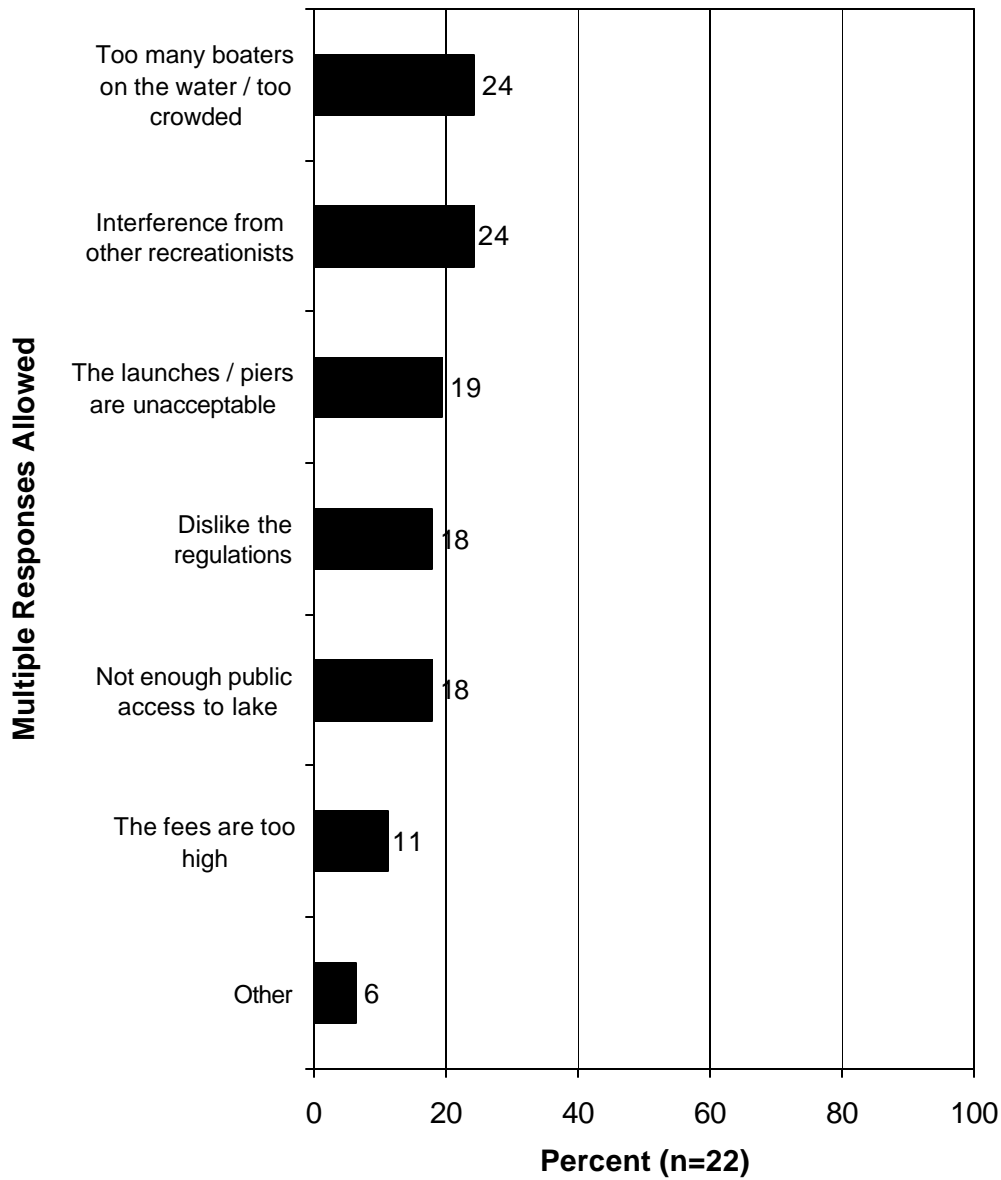
Q30. Overall, are you satisfied or dissatisfied with your boating experiences on Lake Tahoe in the past 12 months?



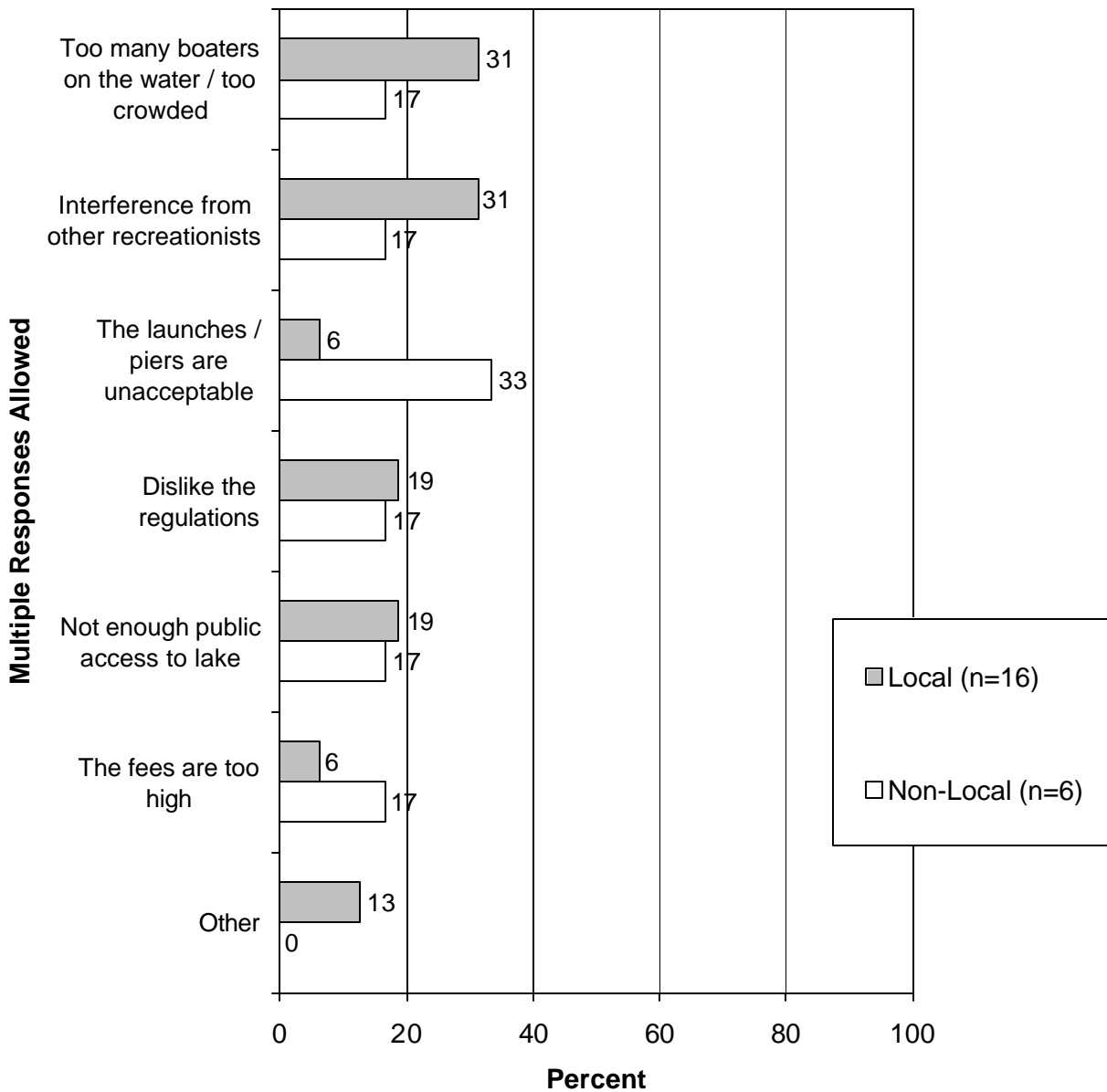
Q30. Overall, are you satisfied or dissatisfied with your boating experiences on Lake Tahoe in the past 12 months?



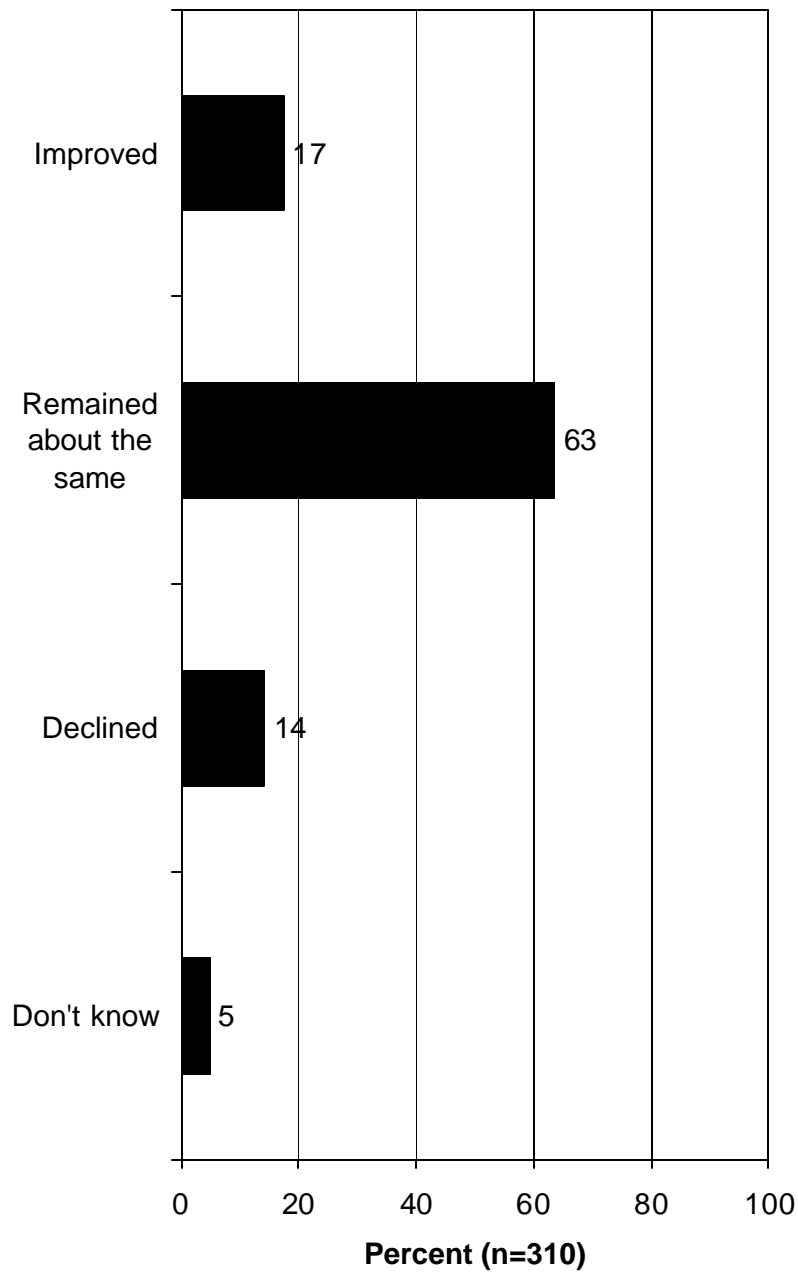
Q33. Why are you dissatisfied with your boating experiences on Lake Tahoe in the past 12 months? (Asked of those who were dissatisfied with boating experiences on Lake Tahoe in the past 12 months.)



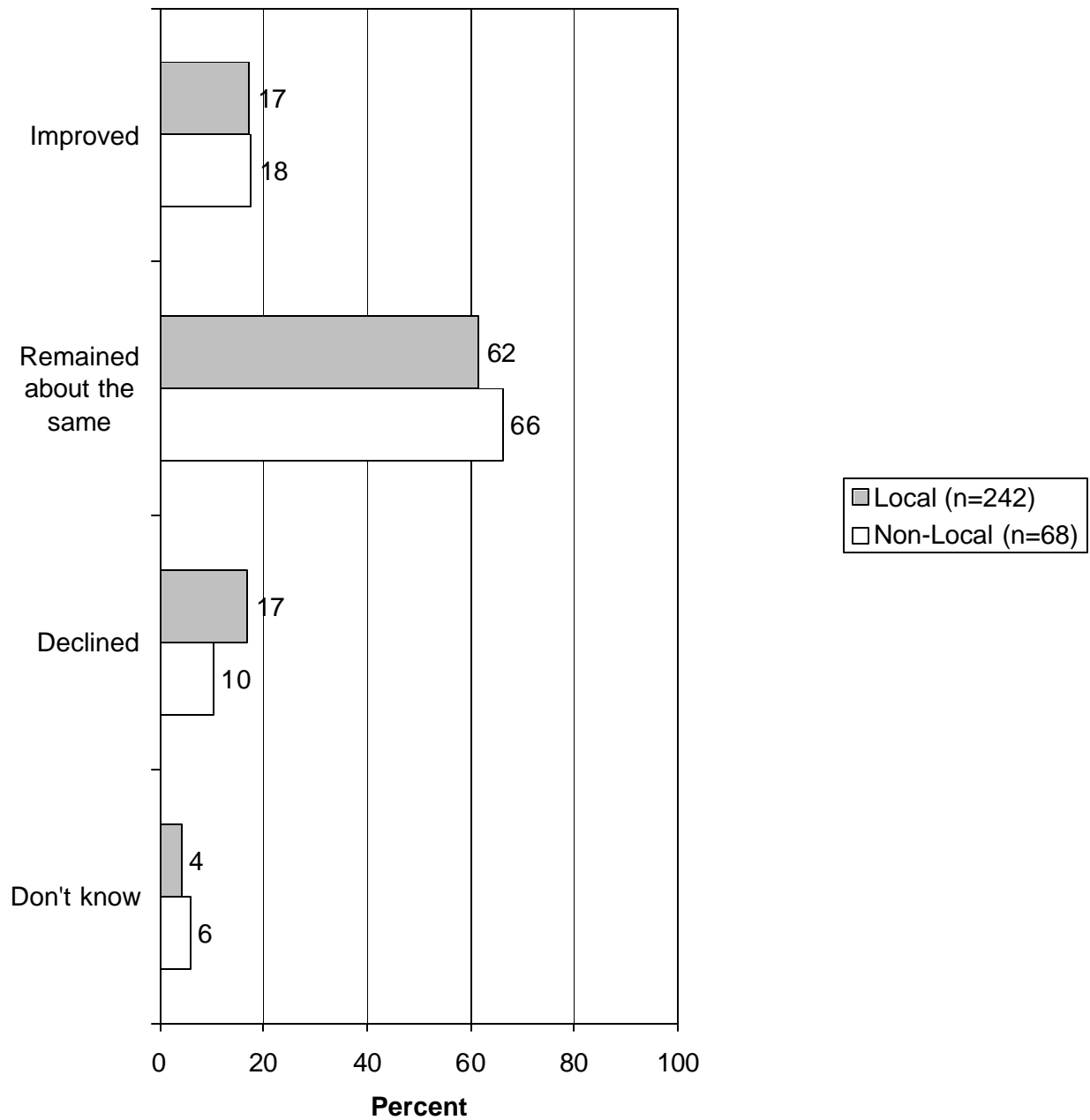
Q33. Why are you dissatisfied with your boating experiences on Lake Tahoe in the past 12 months? (Asked of those who were dissatisfied with boating experiences on Lake Tahoe in the past 12 months.)



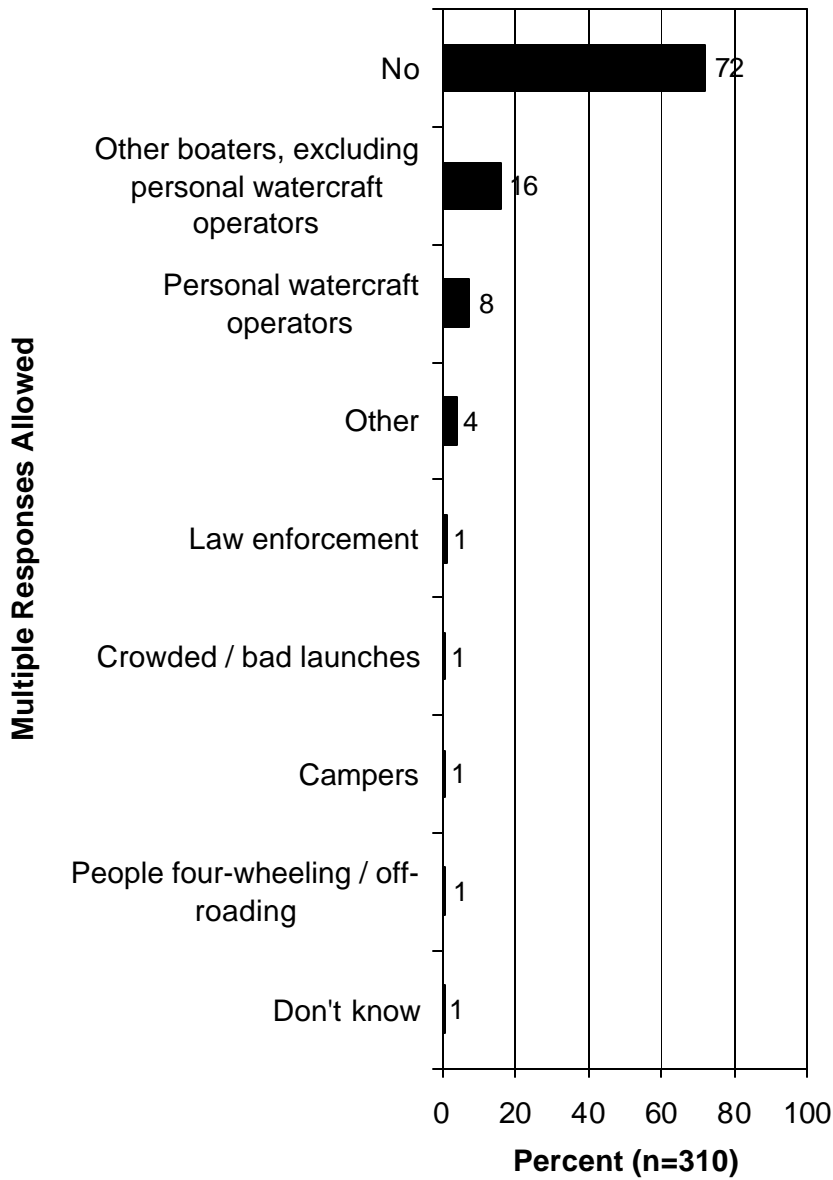
Q39. In the past 5 years, do you think the quality of your boating experiences on Lake Tahoe has improved, remained about the same, or declined?



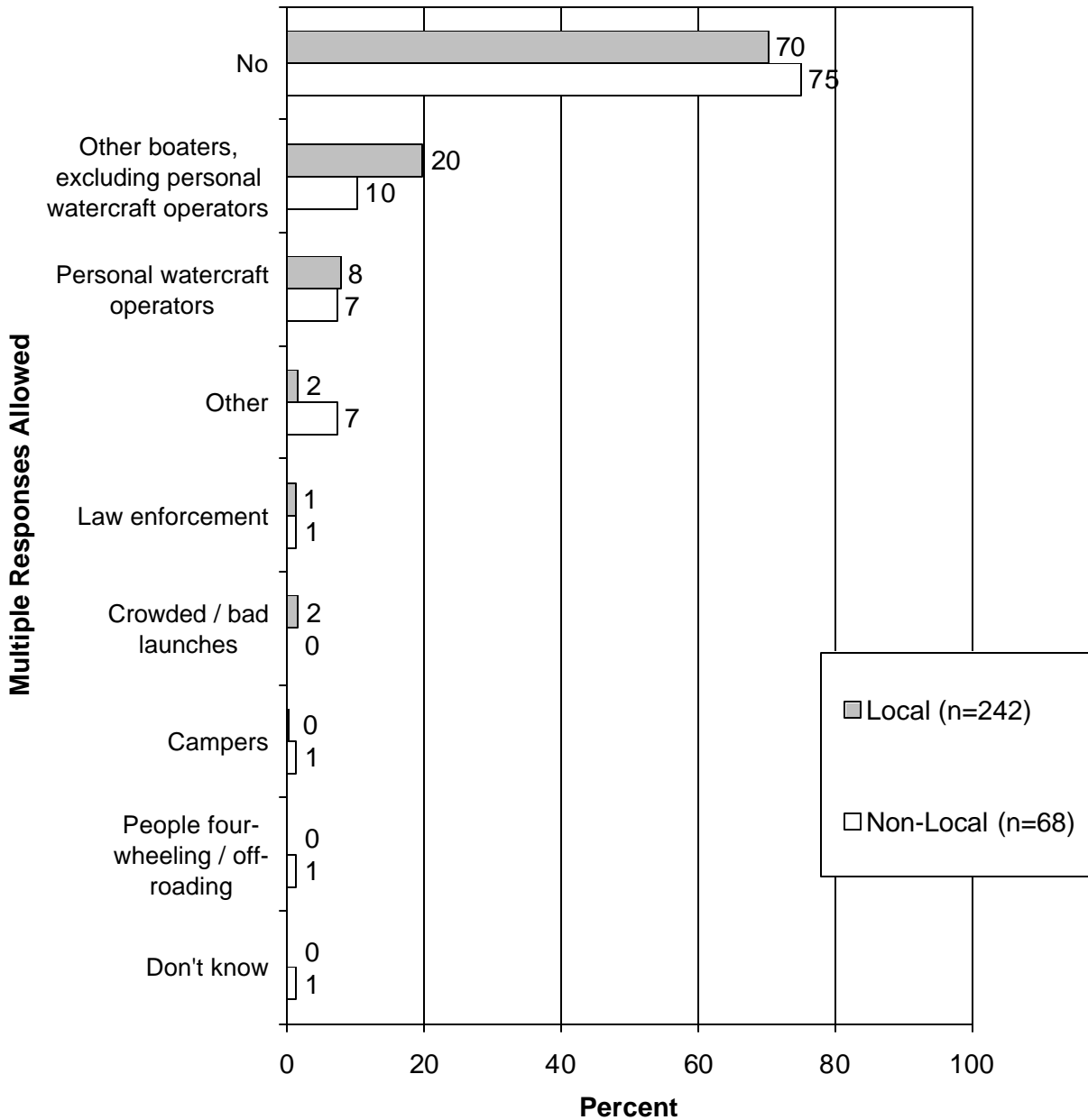
Q39. In the past 5 years, do you think the quality of your boating experiences on Lake Tahoe has improved, remained about the same, or declined?



Q37. While you were boating on Lake Tahoe during the past 2 years, did you experience any interference by other recreationists that took away from your enjoyment? If yes, whom?



Q37. While you were boating on Lake Tahoe during the past 2 years, did you experience any interference by other recreationists that took away from your enjoyment?



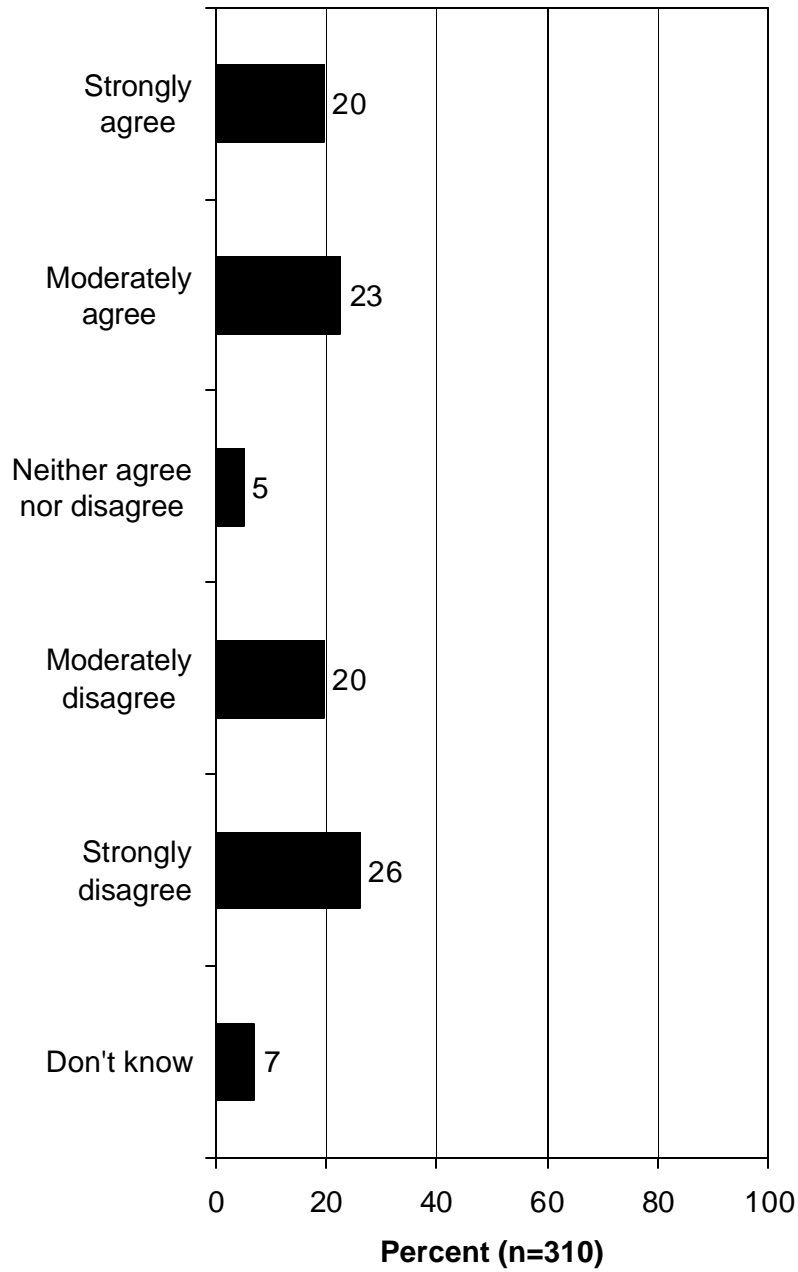
FACILITIES ON LAKE TAHOE

LAUNCHING FACILITIES

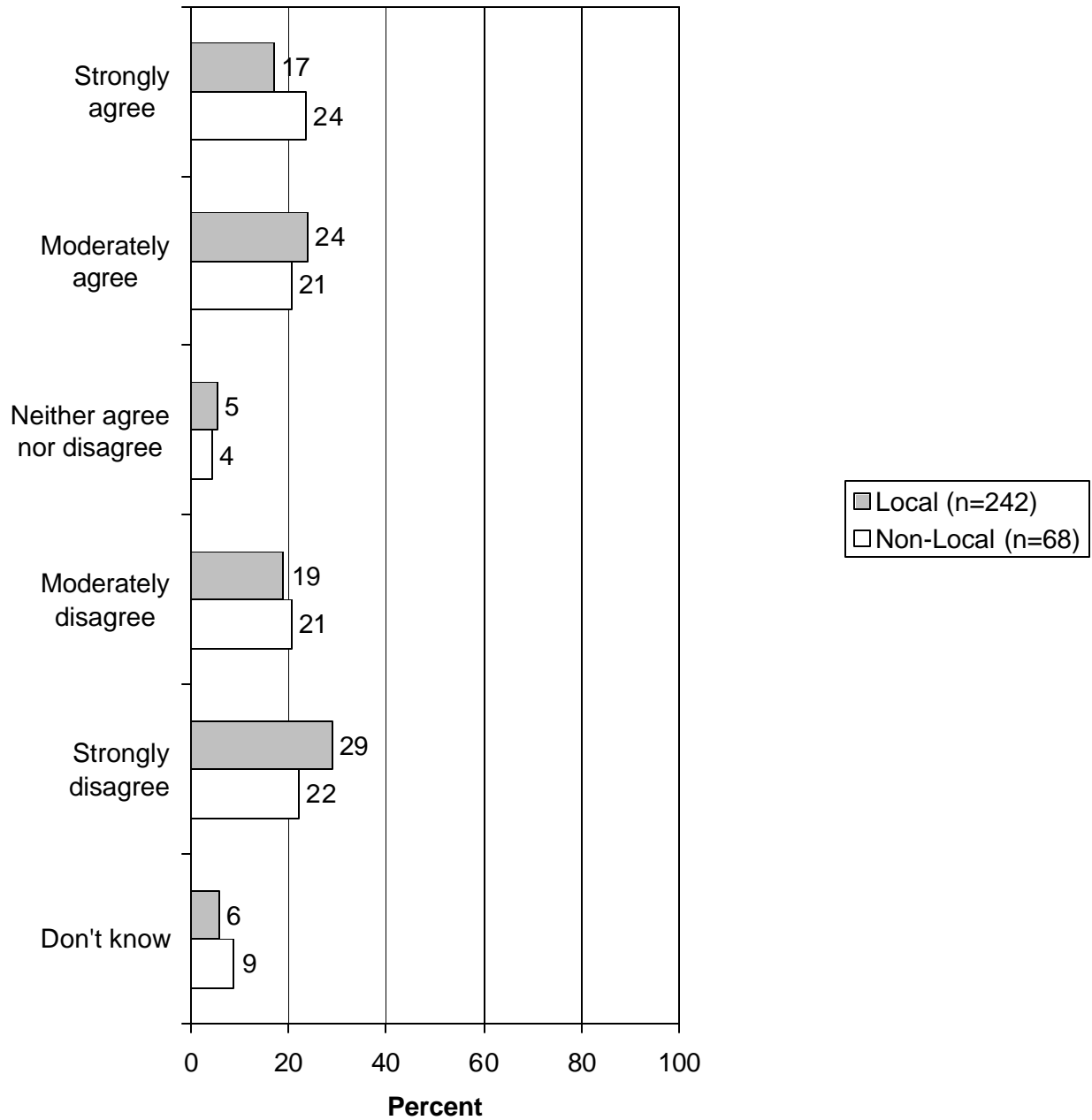
- Boaters are about evenly split regarding whether Lake Tahoe has enough launching facilities: 43% agree, but 46% disagree that there are enough facilities.
 - Locals and non-locals are about the same on this question.

- Most commonly, boaters on Lake Tahoe use a ramp at a marina to launch their boat (42% indicated this type of facility), followed distantly by a public buoy at a marina (16%).
 - Locals and non-locals are about the same on this question.

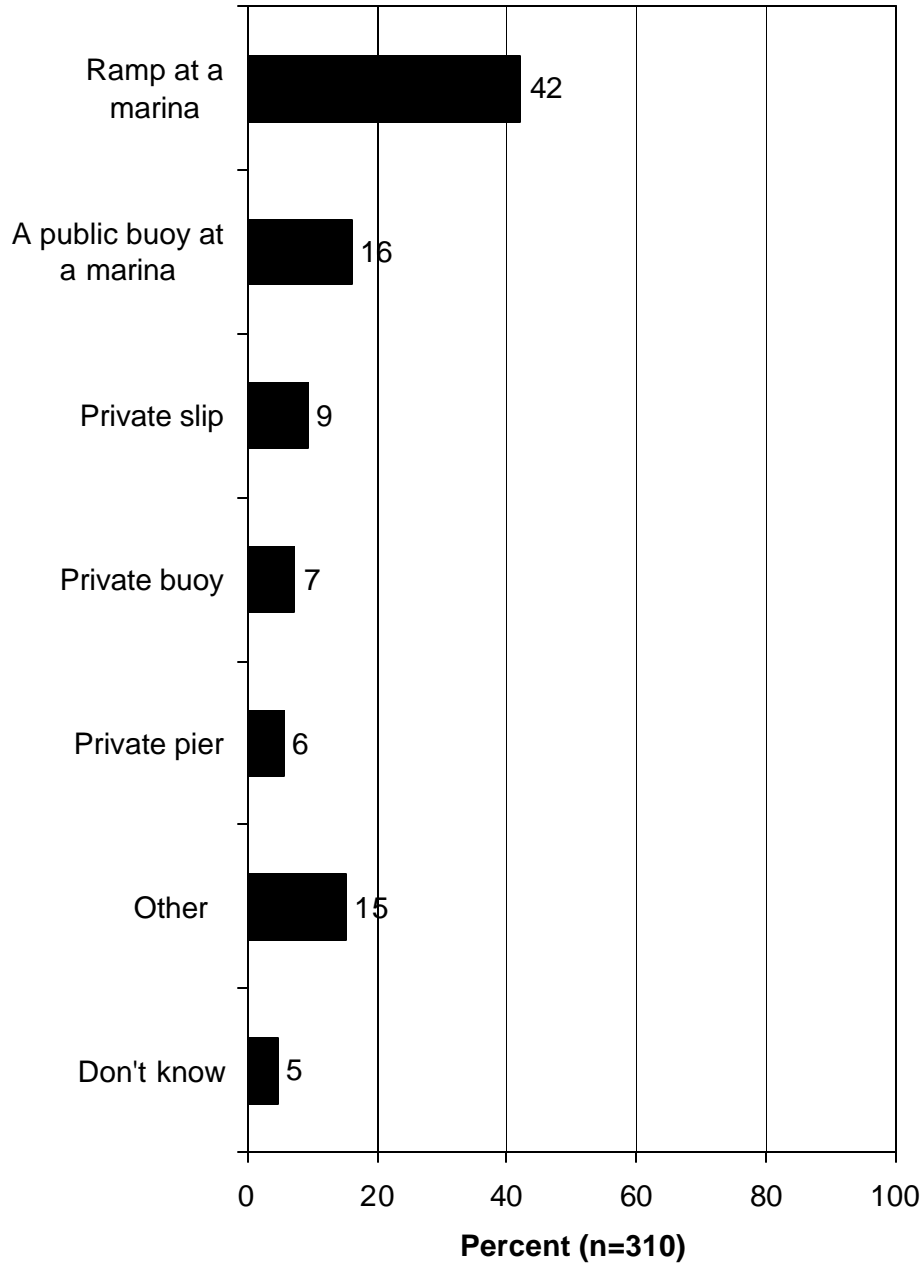
Q40. In general, do you agree or disagree that there are enough launching facilities on Lake Tahoe?



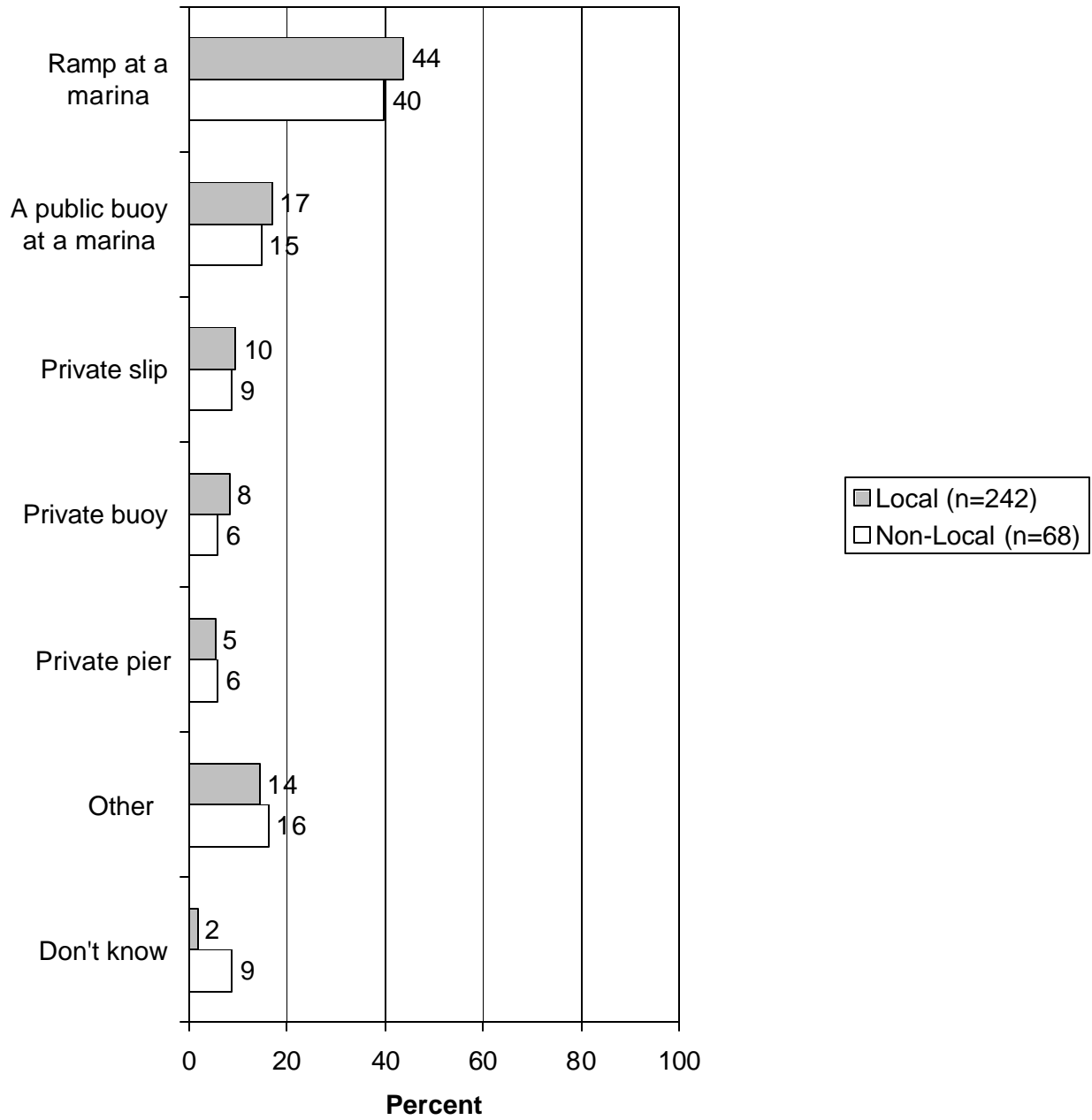
Q40. In general, do you agree or disagree that there are enough launching facilities on Lake Tahoe?



Q41. What type of launching facility to you typically use on Lake Tahoe?



Q41. What type of launching facility to you typically use on Lake Tahoe?

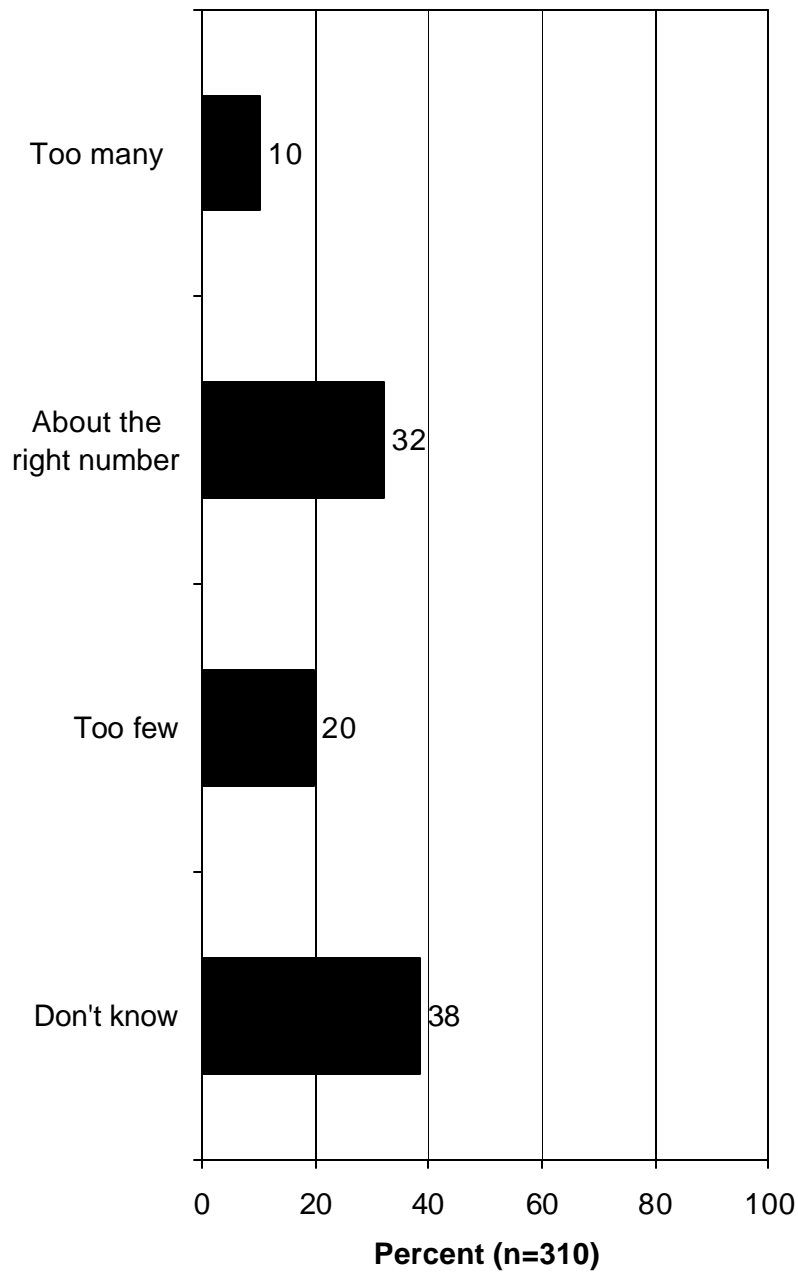


MOORING BUOYS

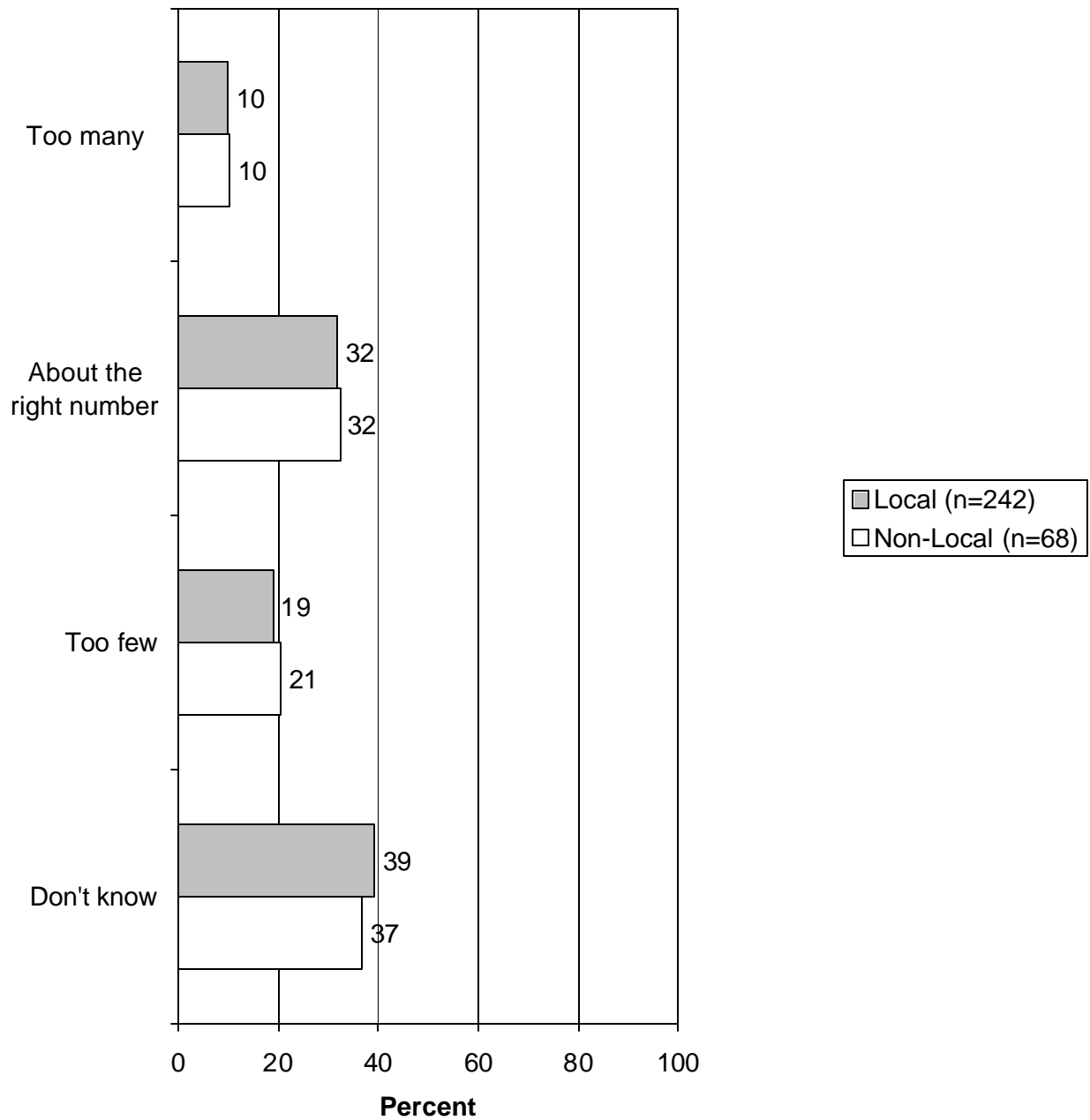
- Those who have an opinion regarding the number of private mooring buoys in Lake Tahoe (i.e., they did not answer, “Don’t know”) most commonly say that there are about the right number of them; otherwise, the number saying that there are too few private mooring buoys exceeds the number saying that there are too many by 2 to 1.
 - Locals and non-locals are nearly identical regarding the number of private mooring buoys.
 - Those who say that there are too many private mooring buoys were asked for the reason that they hold that opinion, and three reasons stand out: private mooring buoys limit public access to Lake Tahoe, they obstruct or take away from the views, and/or they limit public access to the shore.
 - Locals are much more likely than non-locals to say that private mooring buoys limit public access to Lake Tahoe.

- Boaters most commonly say that there are too few public mooring buoys (a marked contrast to the way they feel about private mooring buoys); only a few feel that there are too many.
 - Non-locals are more likely than are locals to say that there are too few of them.
 - Most commonly, those who feel that there are too many public mooring buoys on Lake Tahoe say that they obstruct or take away from scenic views.
 - The local/non-local breakdown is shown, but the sample size is too small to draw conclusions about why some people feel that there are too many.

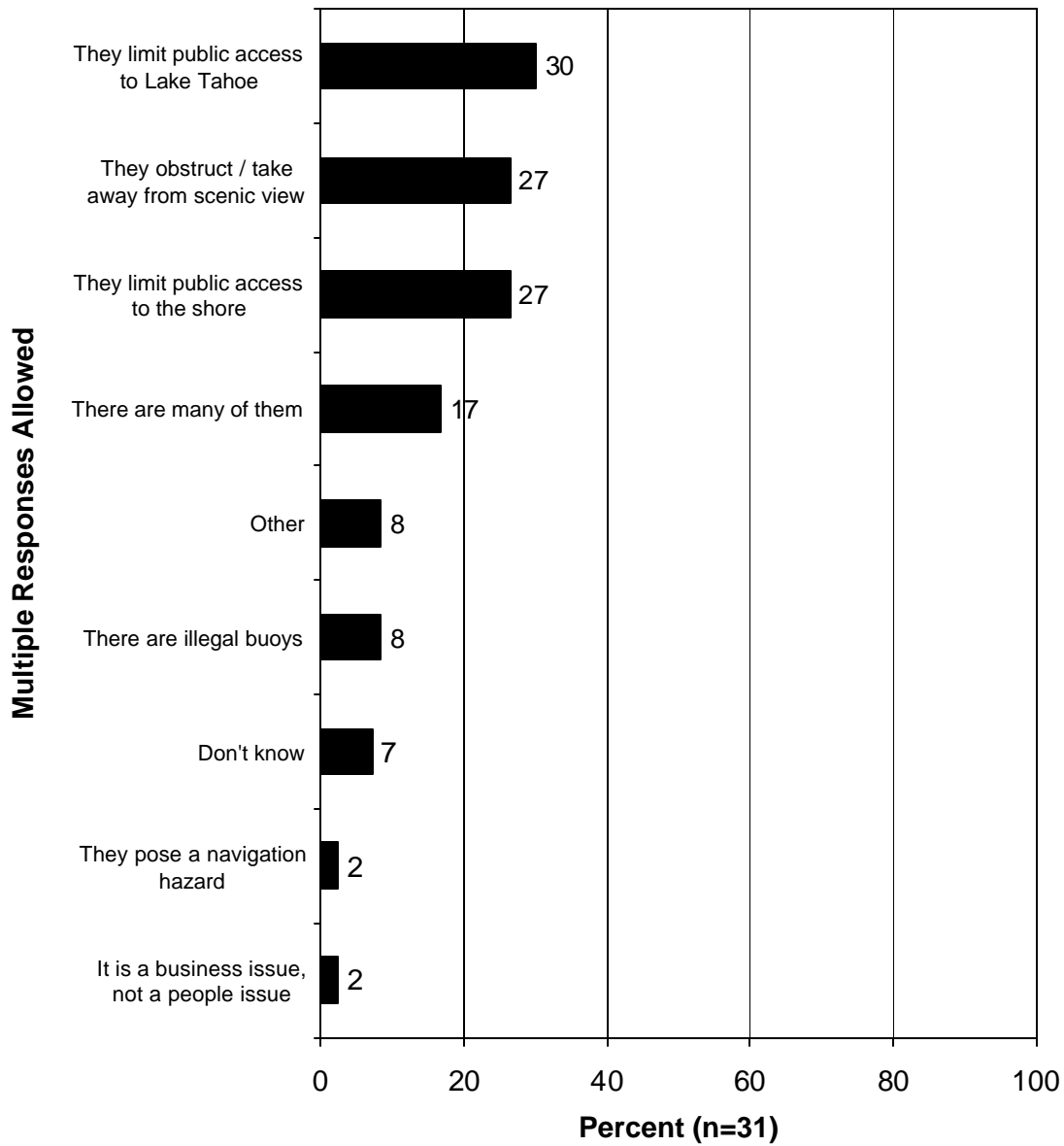
Q43. In your opinion, does Lake Tahoe have too many, about the right number, or too few private mooring buoys?



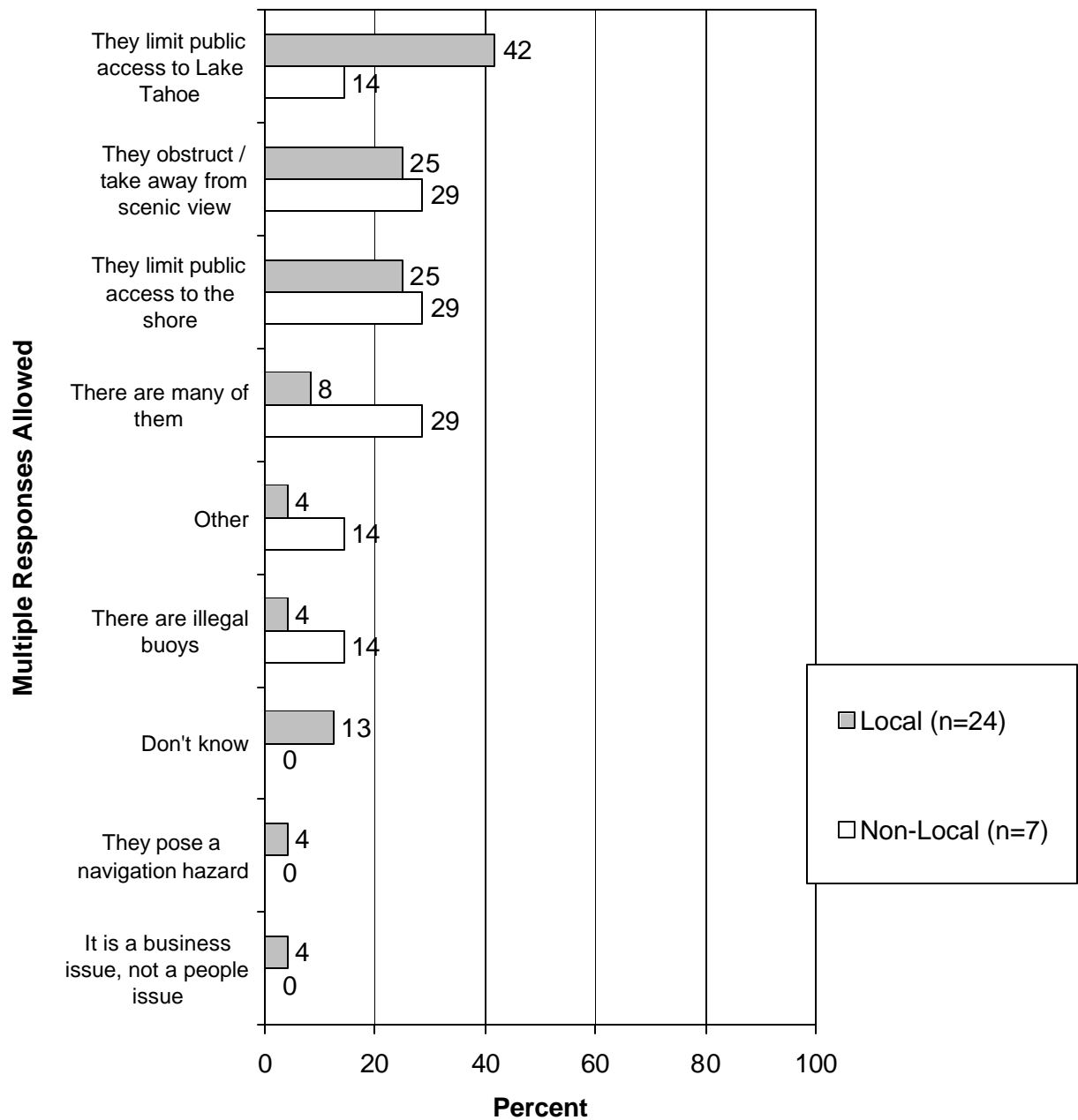
Q43. In your opinion, does Lake Tahoe have too many, about the right number, or too few private mooring buoys?



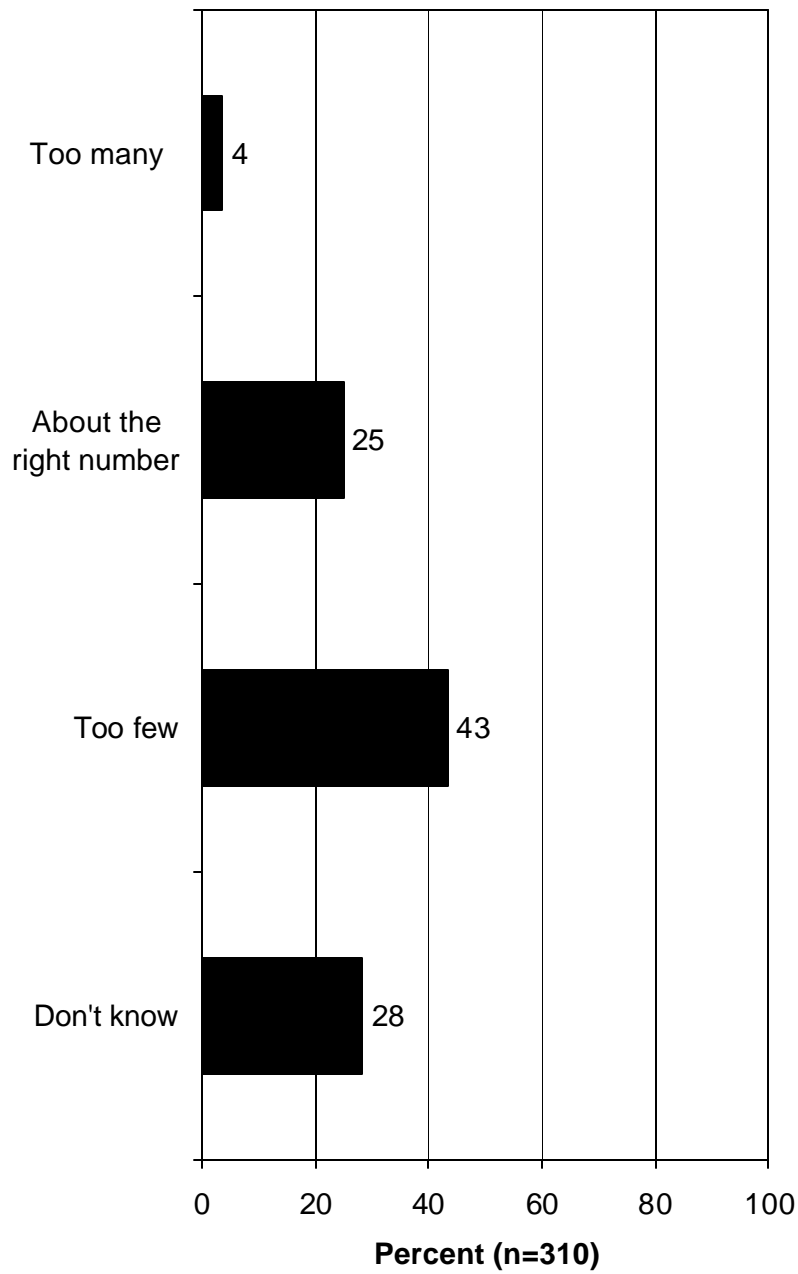
Q46. Why do you think there are too many private mooring buoys on Lake Tahoe? (Asked of those who think there are too many private mooring buoys on Lake Tahoe.)



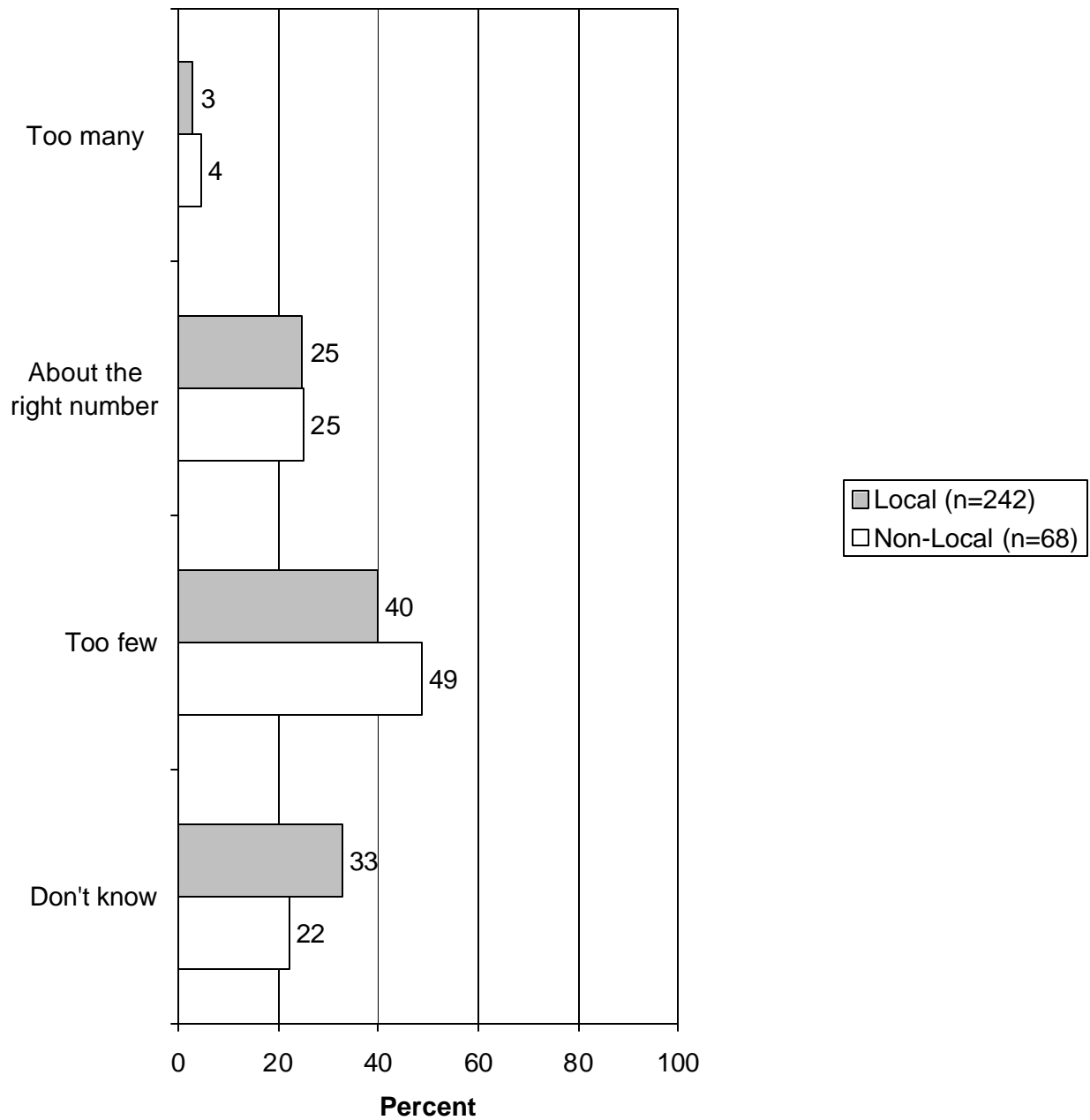
Q46. Why do you think there are too many private mooring buoys on Lake Tahoe? (Asked of those who think there are too many private mooring buoys on Lake Tahoe.)



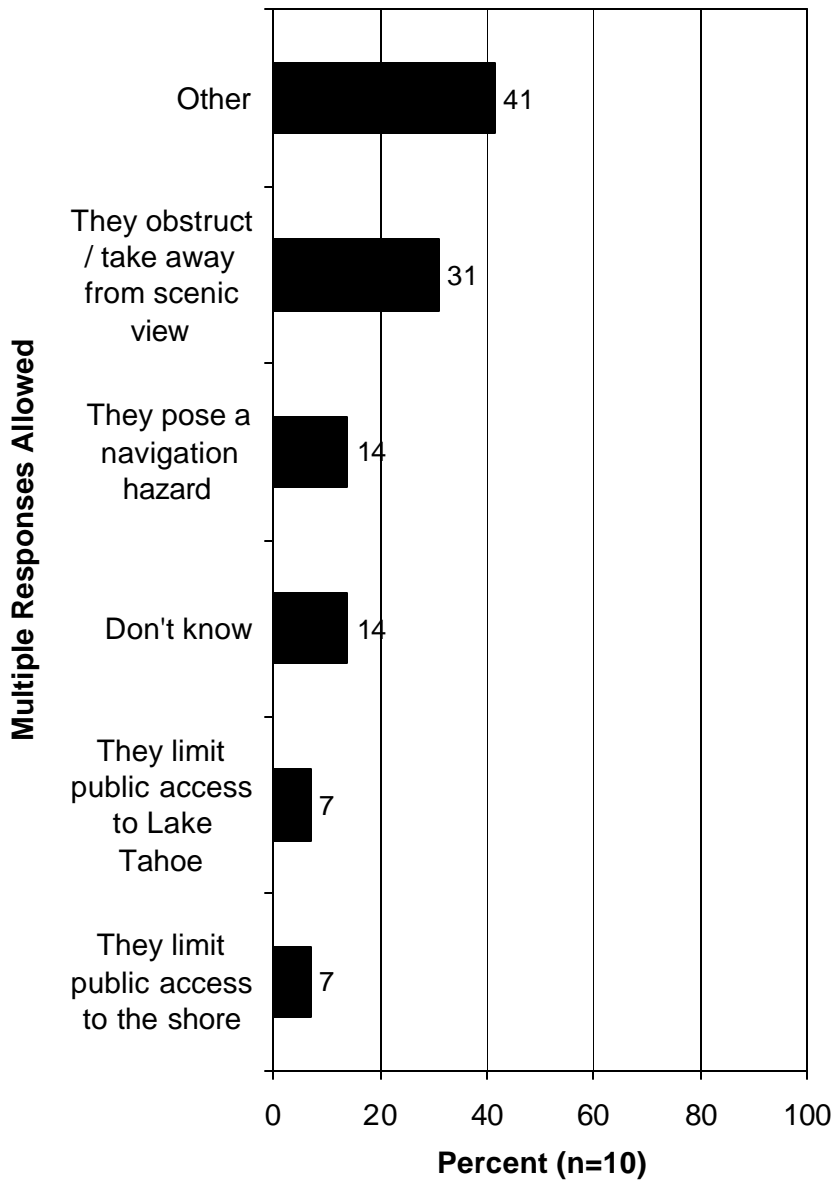
Q53. In your opinion, does Lake Tahoe have too many, about the right number, or too few public mooring buoys at marinas?



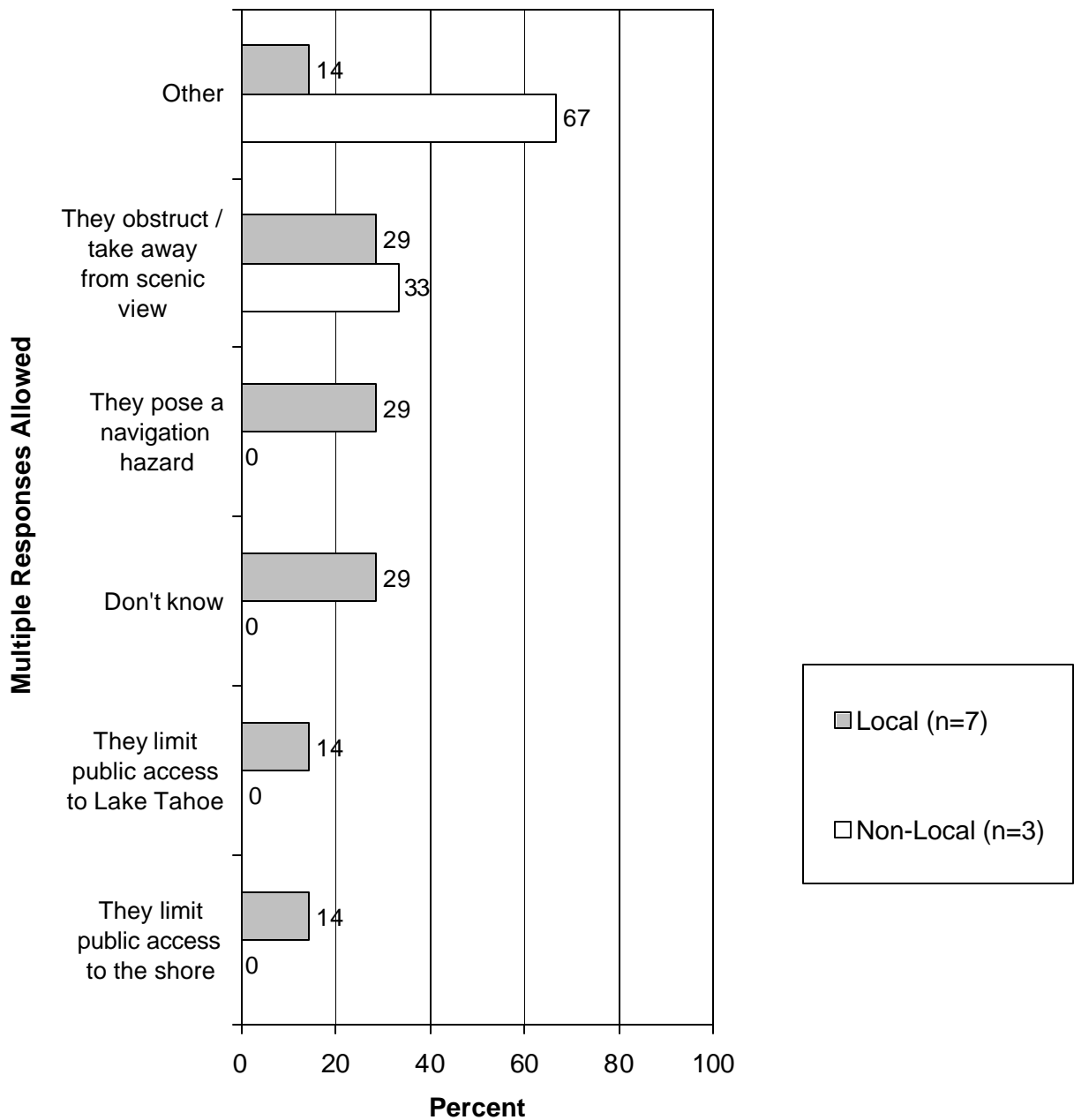
Q53. In your opinion, does Lake Tahoe have too many, about the right number, or too few public mooring buoys at marinas?



Q56. Why do you think there are too many public mooring buoys at marinas on Lake Tahoe? (Asked of those who think there are too many mooring buoys on Lake Tahoe.)



Q56. Why do you think there are too many public mooring buoys at marinas on Lake Tahoe? (Asked of those who think there are too many mooring buoys on Lake Tahoe.)

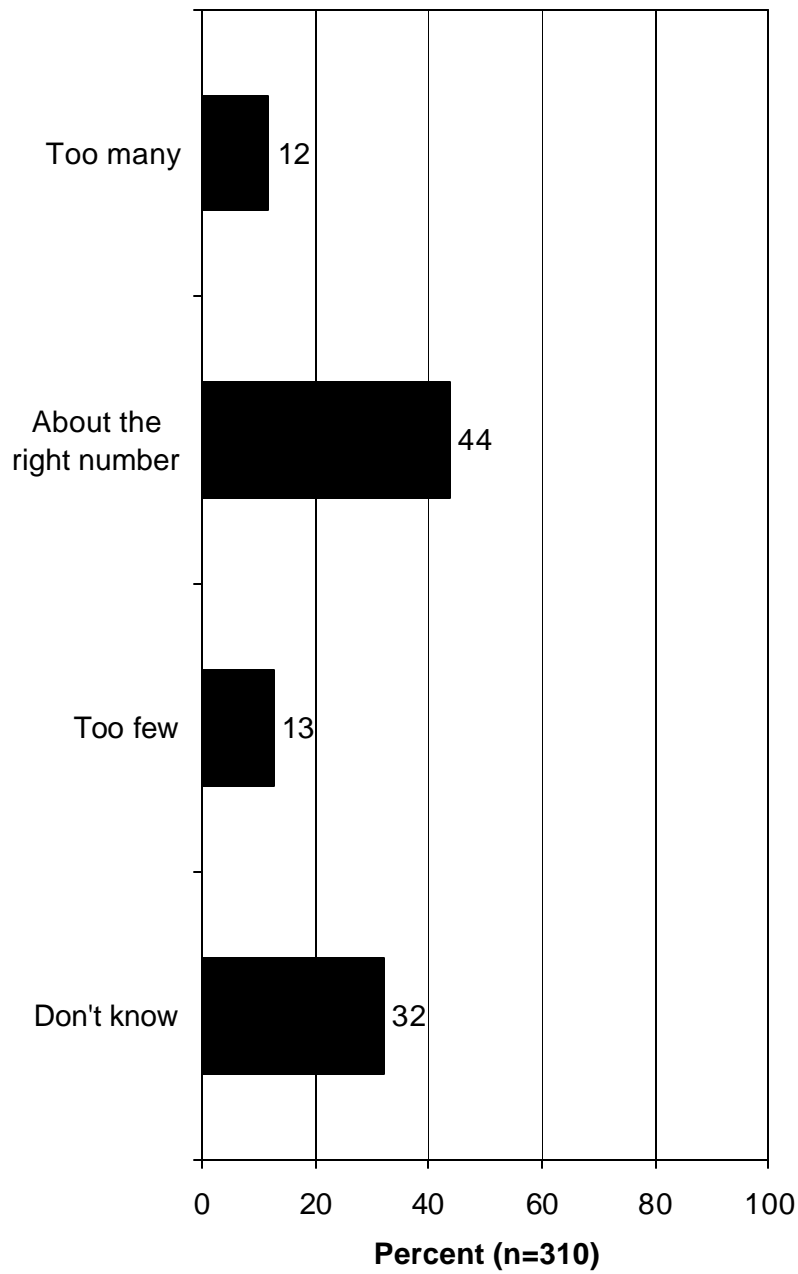


PIERS

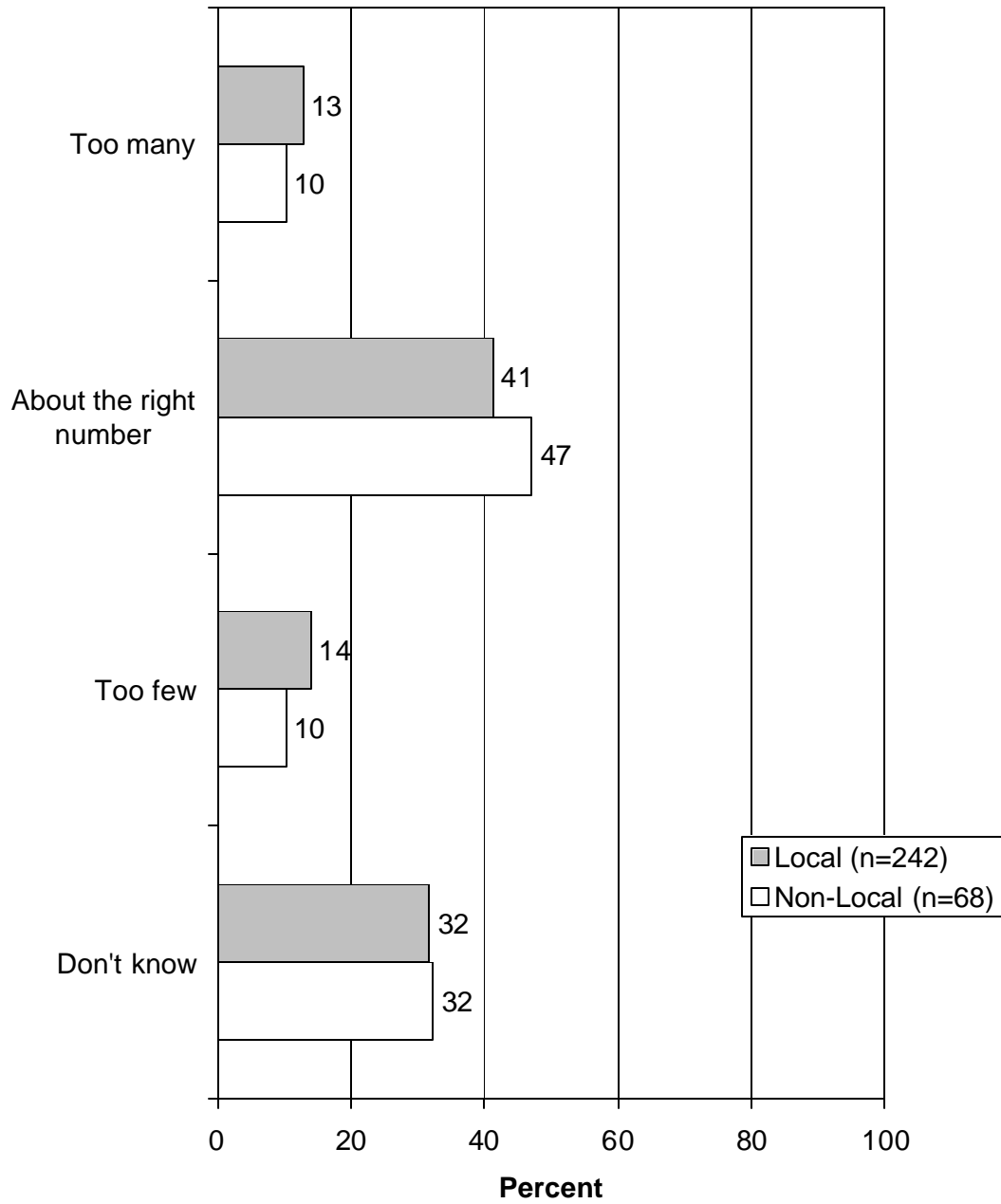
- Most commonly, boaters say that there are about the right amount of private piers on Lake Tahoe; otherwise, they are about evenly split between saying that there are too many and saying that there are too few (excluding those saying, “Don’t know”).
 - Locals and non-locals are not markedly different on this question regarding the number of private piers.
 - Three reasons stand out prompting some boaters to say that there are too many private piers on Lake Tahoe: they limit public access to the Lake, they limit access to its shoreline, and they obstruct or take away from the view. A substantial percentage say that they pose a navigation hazard.
 - Non-locals are more likely than are locals to say that private piers limit public access to the shoreline; on the other hand, locals are more likely than are non-locals to say that private piers on Lake Tahoe obstruct or take away from the view.

- Half of boaters on Lake Tahoe (50%) say that there are too few public piers, a third (33%) say that there are about the right number, and almost none say that there are too many.
 - Locals are slightly more likely than are non-locals to say that there are too few.

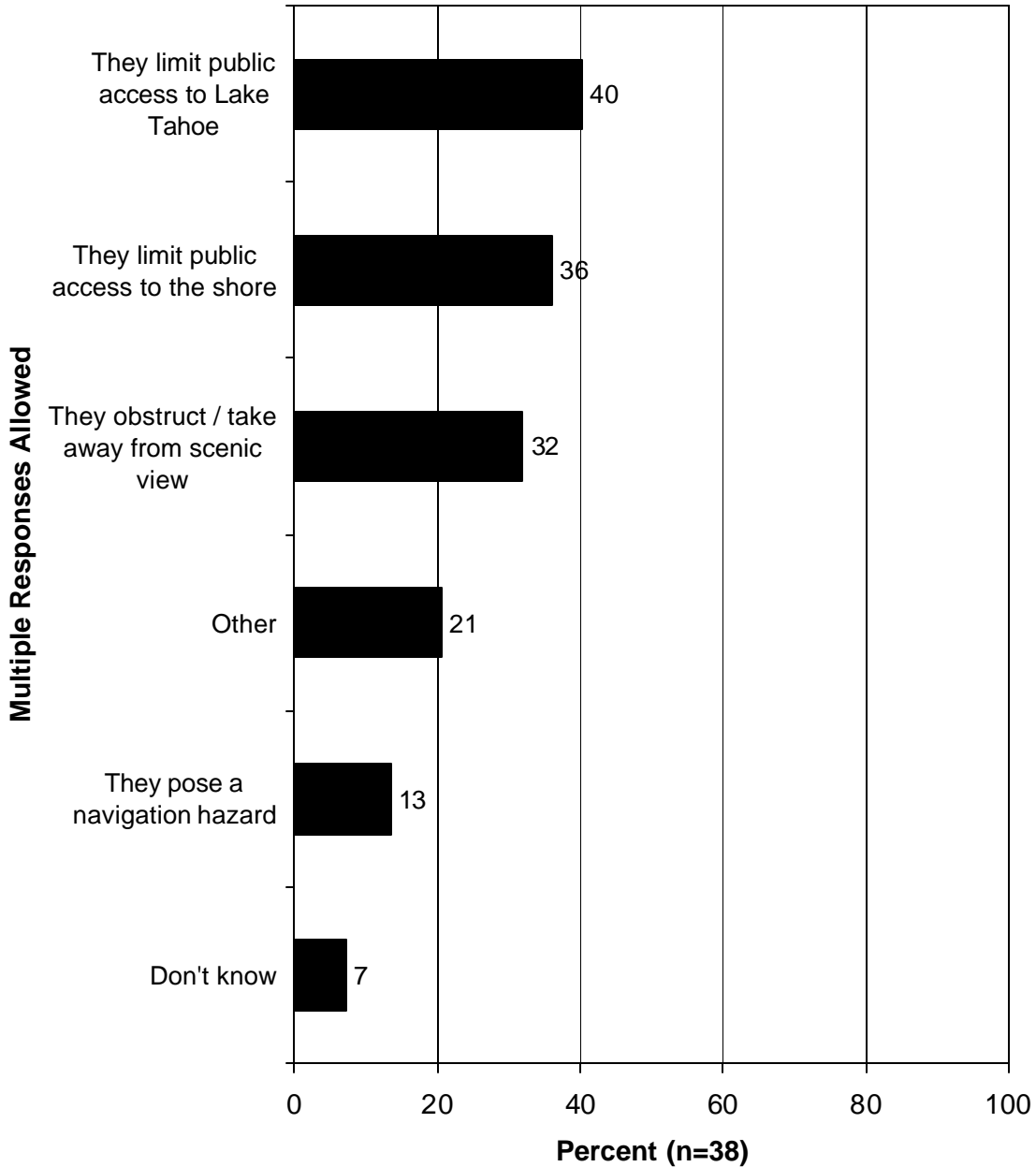
Q48. In your opinion, does Lake Tahoe have too many, about the right number, or too few private piers?



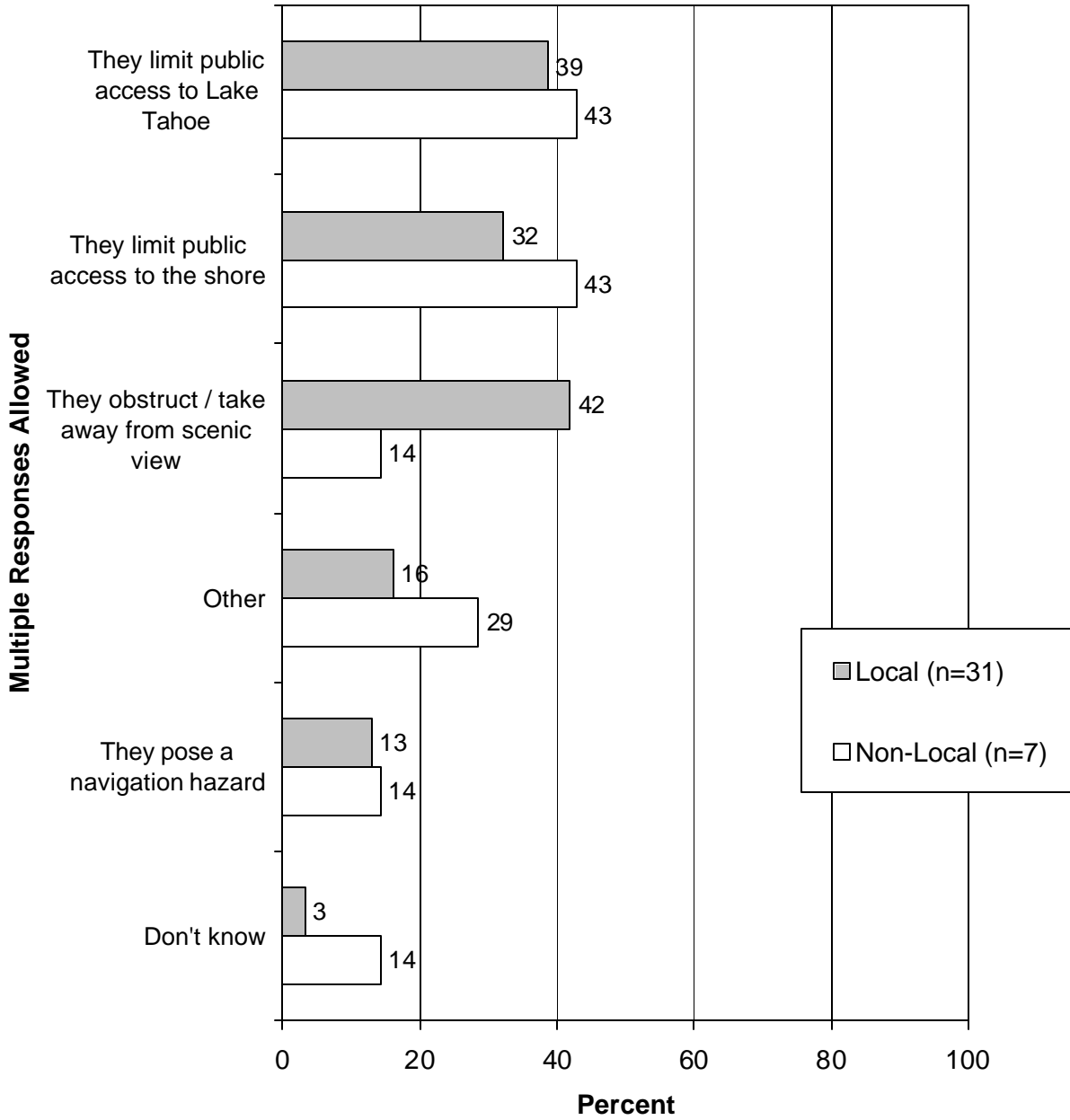
Q48. In your opinion, does Lake Tahoe have too many, about the right number, or too few private piers?



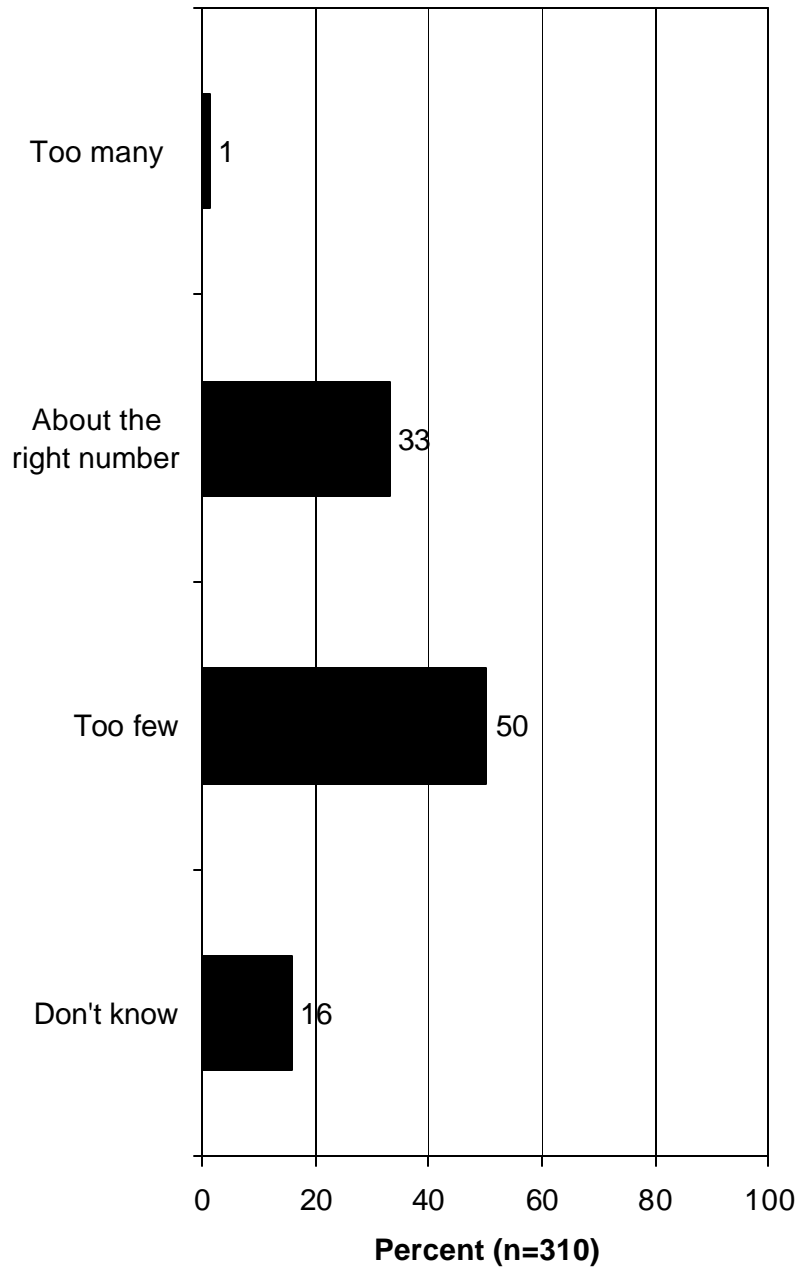
Q51. Why do you think there are too many private piers on Lake Tahoe? (Asked of those who think there are too many private piers on Lake Tahoe.)



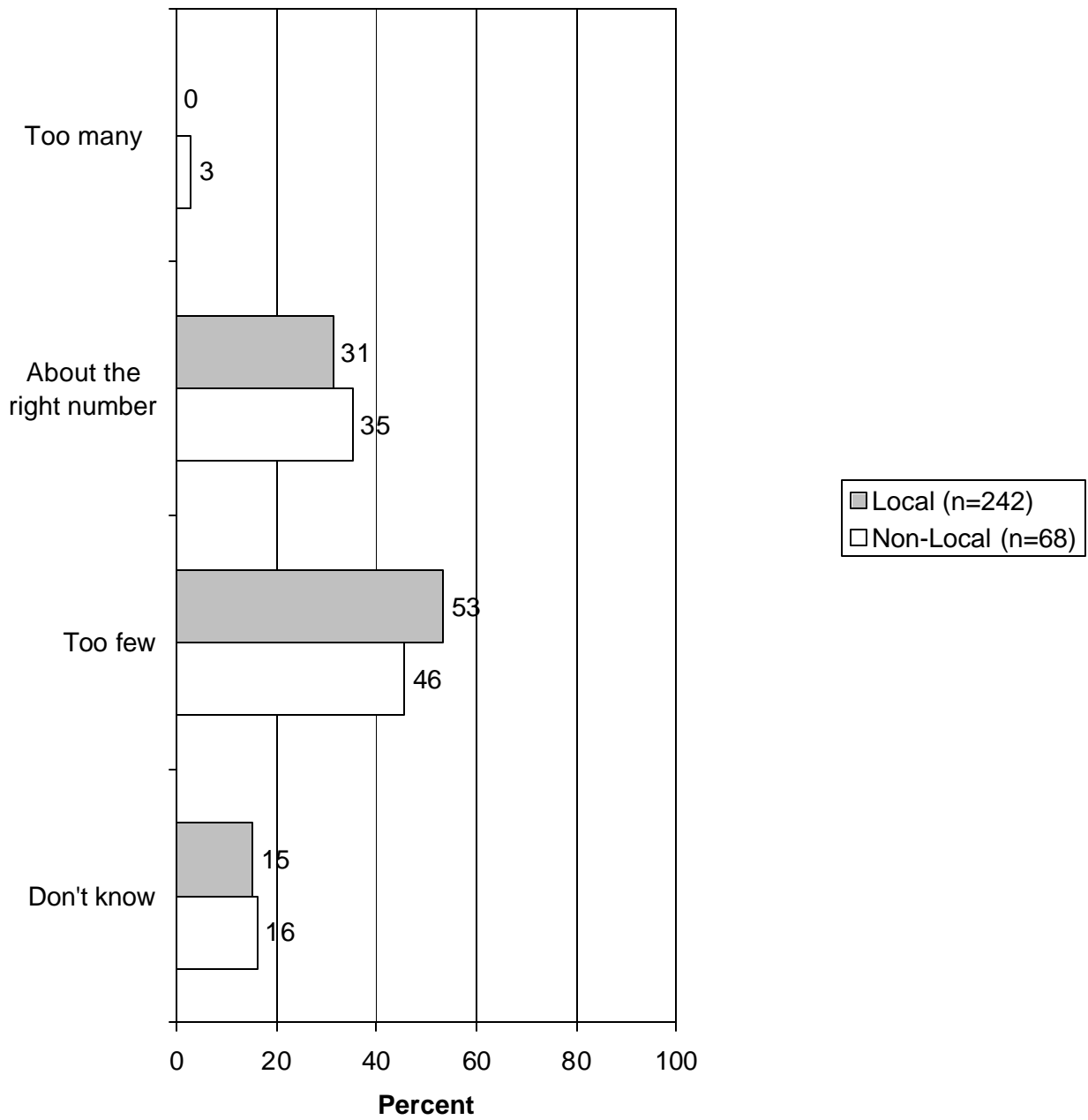
Q51. Why do you think there are too many private piers on Lake Tahoe? (Asked of those who think there are too many private piers on Lake Tahoe.)



Q58. In your opinion, does Lake Tahoe have too many, too few, or the right number of public piers?



Q58. In your opinion, does Lake Tahoe have too many, too few, or the right number of public piers?



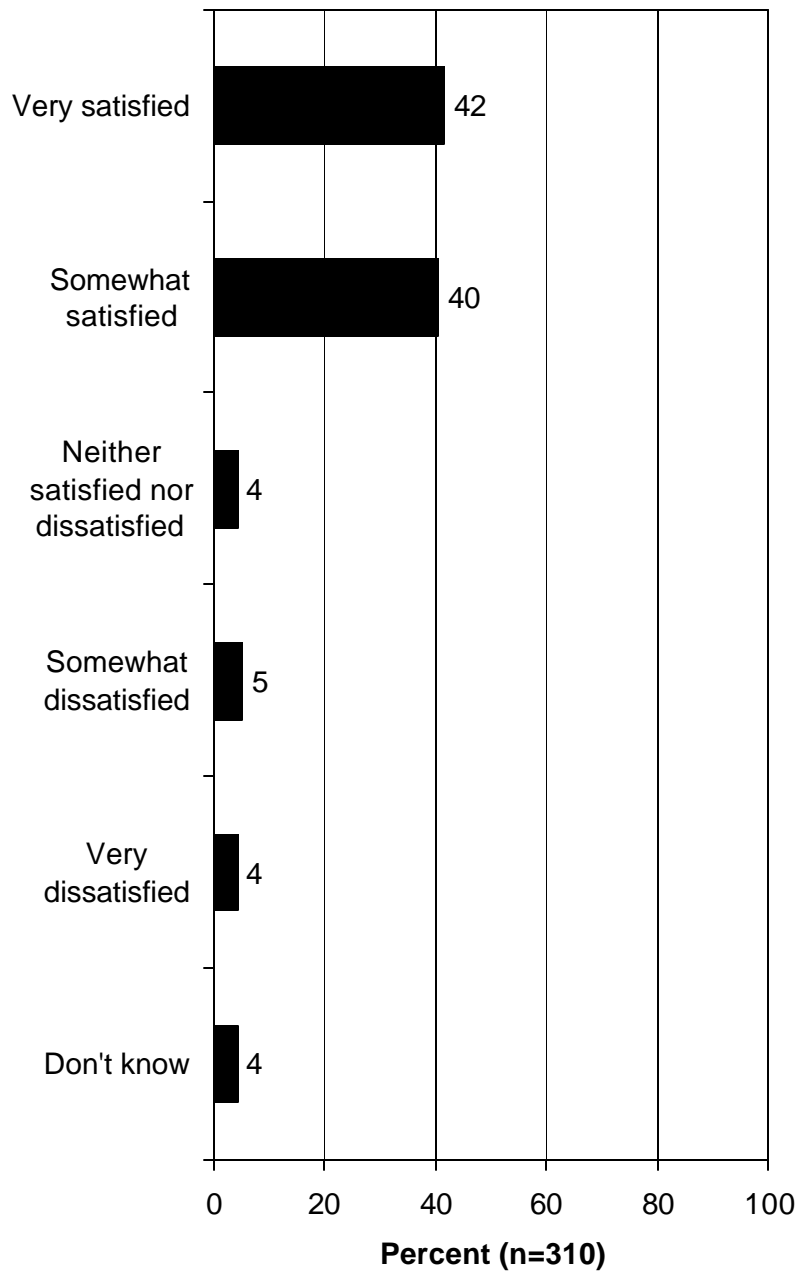
OPINIONS ON AND AWARENESS OF REGULATIONS ON LAKE TAHOE

OPINIONS ON REGULATIONS ON LAKE TAHOE

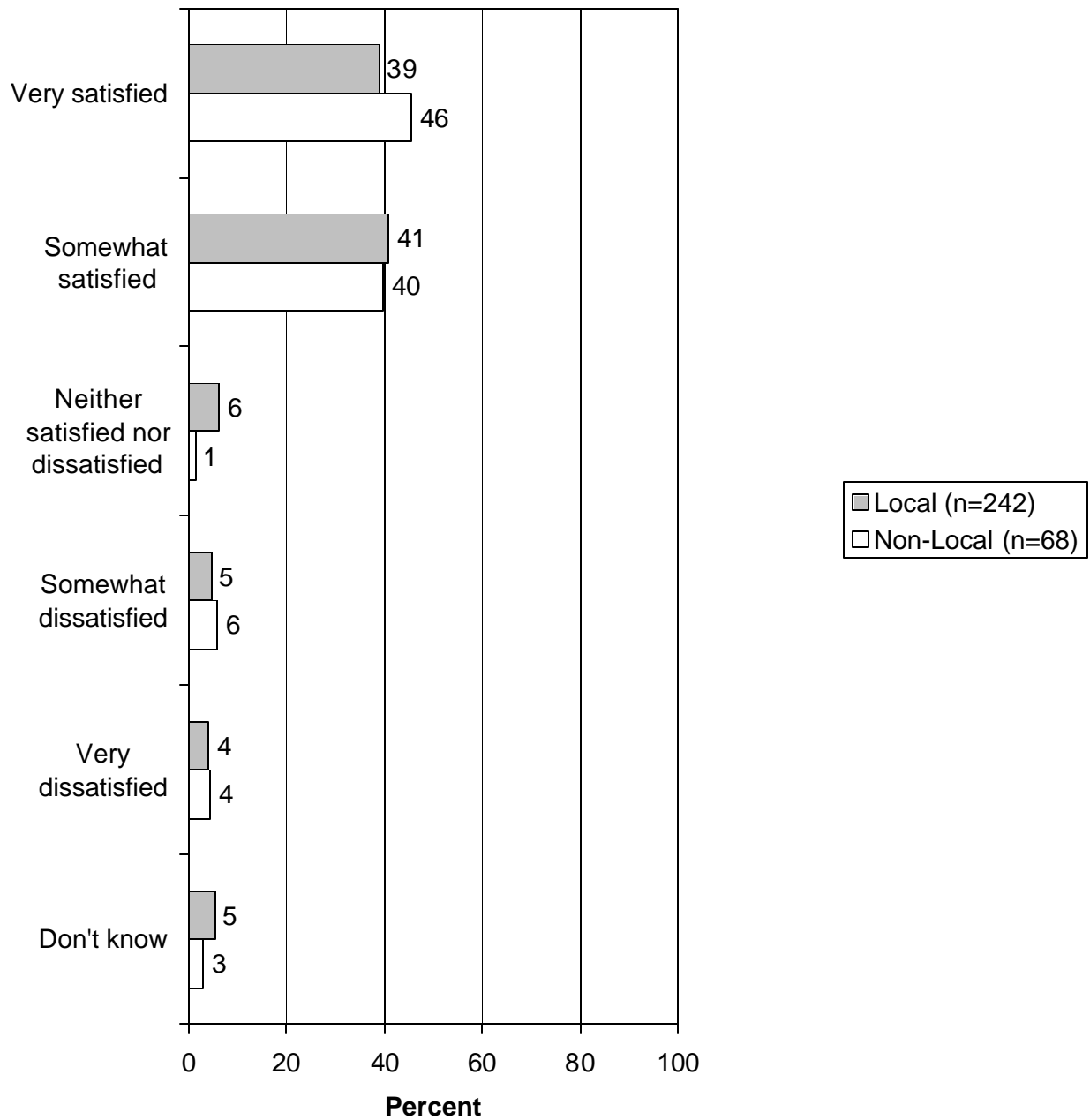
- Boaters overwhelmingly are satisfied (82%) with the current boating regulations on Lake Tahoe; only 9% are dissatisfied. The majority of boaters (67%) say that the current boating regulations are about right in strictness. Otherwise, those saying that they are not strict enough slightly exceed those saying that they are too strict. Finally, the large majority of boaters (76%) think that the regulations are clear and easy to understand.
 - Locals and non-locals are about the same on satisfaction with current boating regulations. Non-locals are more likely than are locals to say that the regulations are not strict enough. Non-locals are more likely than are locals to *strongly* agree that the regulations are clear and easy to understand, but they are less likely to *moderately* agree; overall agreement is not markedly different.

- Boaters are fairly widely distributed in their answers regarding how many nights a boater should be allowed to anchor off shore, without a buoy or permit: while 12% say at least 6 nights, 11% say no nights. Other than “Don’t know,” the most common answer is 2 nights (14% gave this response).
 - Locals have a higher mean on this question than do non-locals.

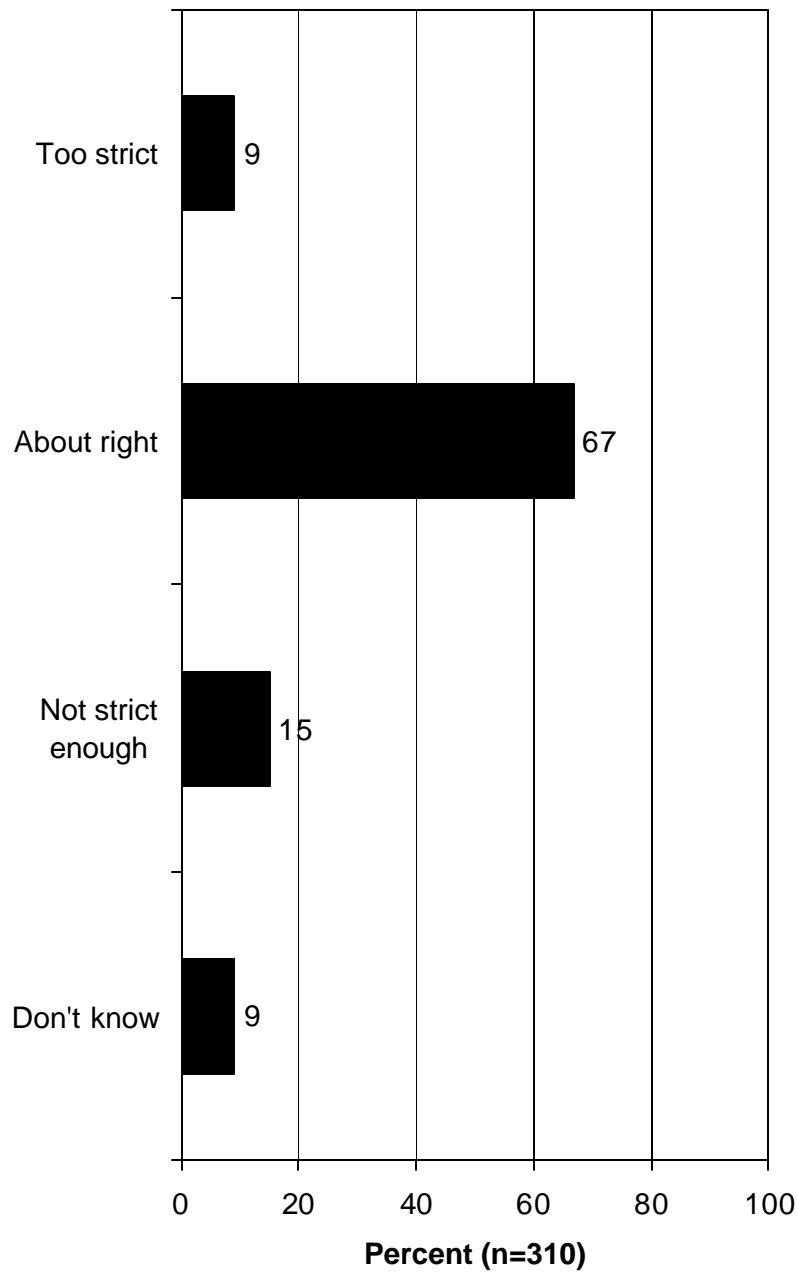
Q114. Are you satisfied or dissatisfied with the current boating regulations for Lake Tahoe?



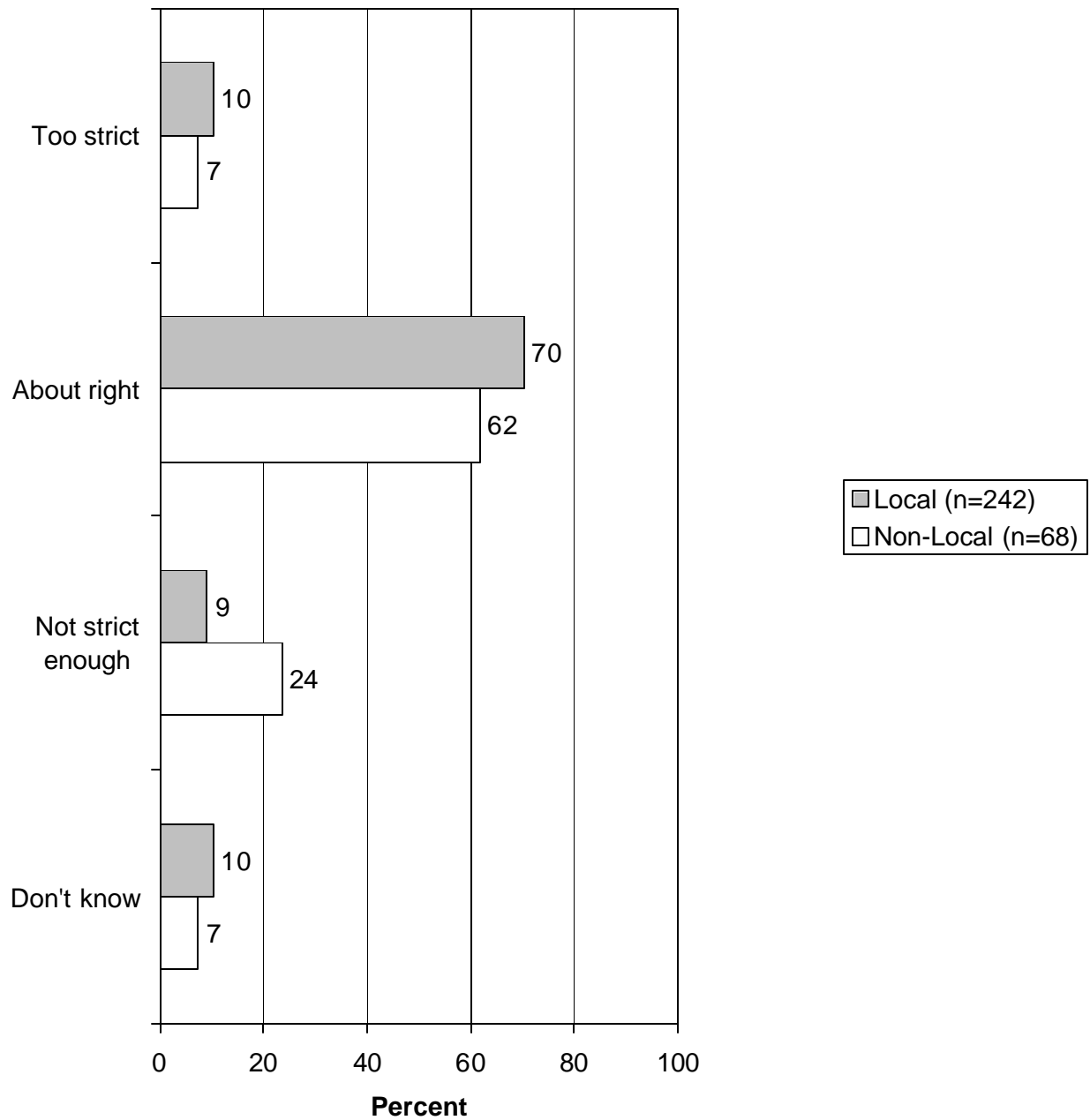
Q114. Are you satisfied or dissatisfied with the current boating regulations for Lake Tahoe?



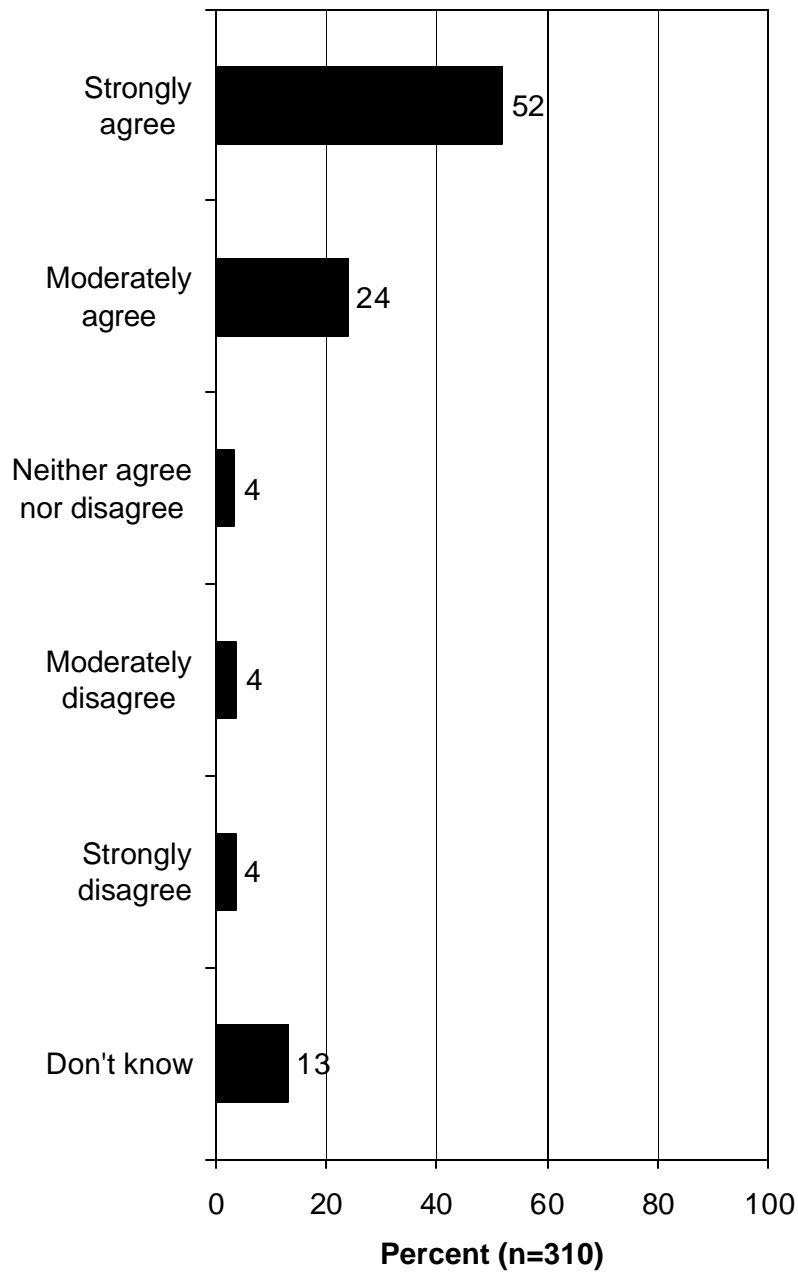
Q115. Are the current boating regulations for Lake Tahoe too strict, about right, or not strict enough?



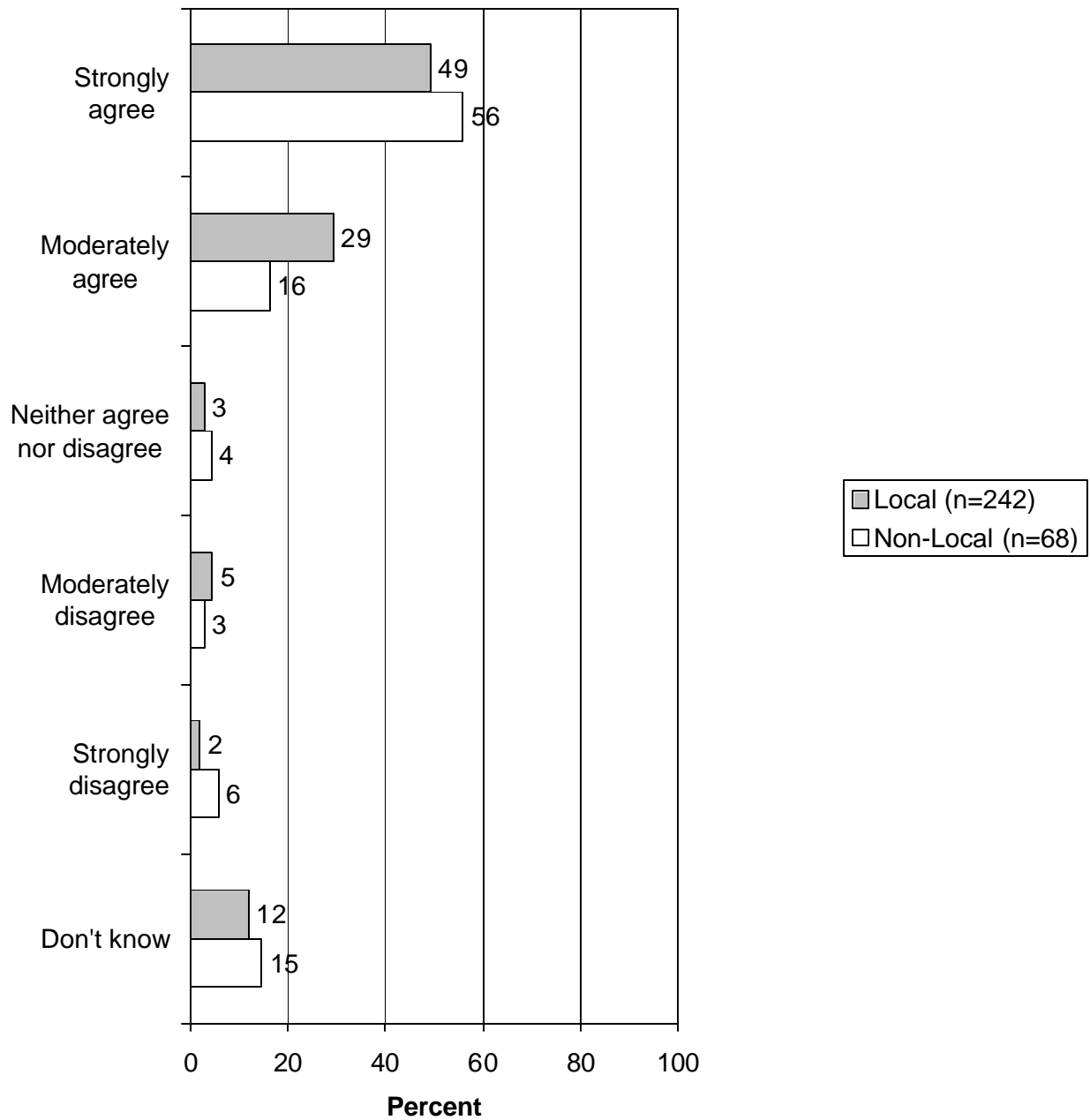
Q115. Are the current boating regulations for Lake Tahoe too strict, about right, or not strict enough?



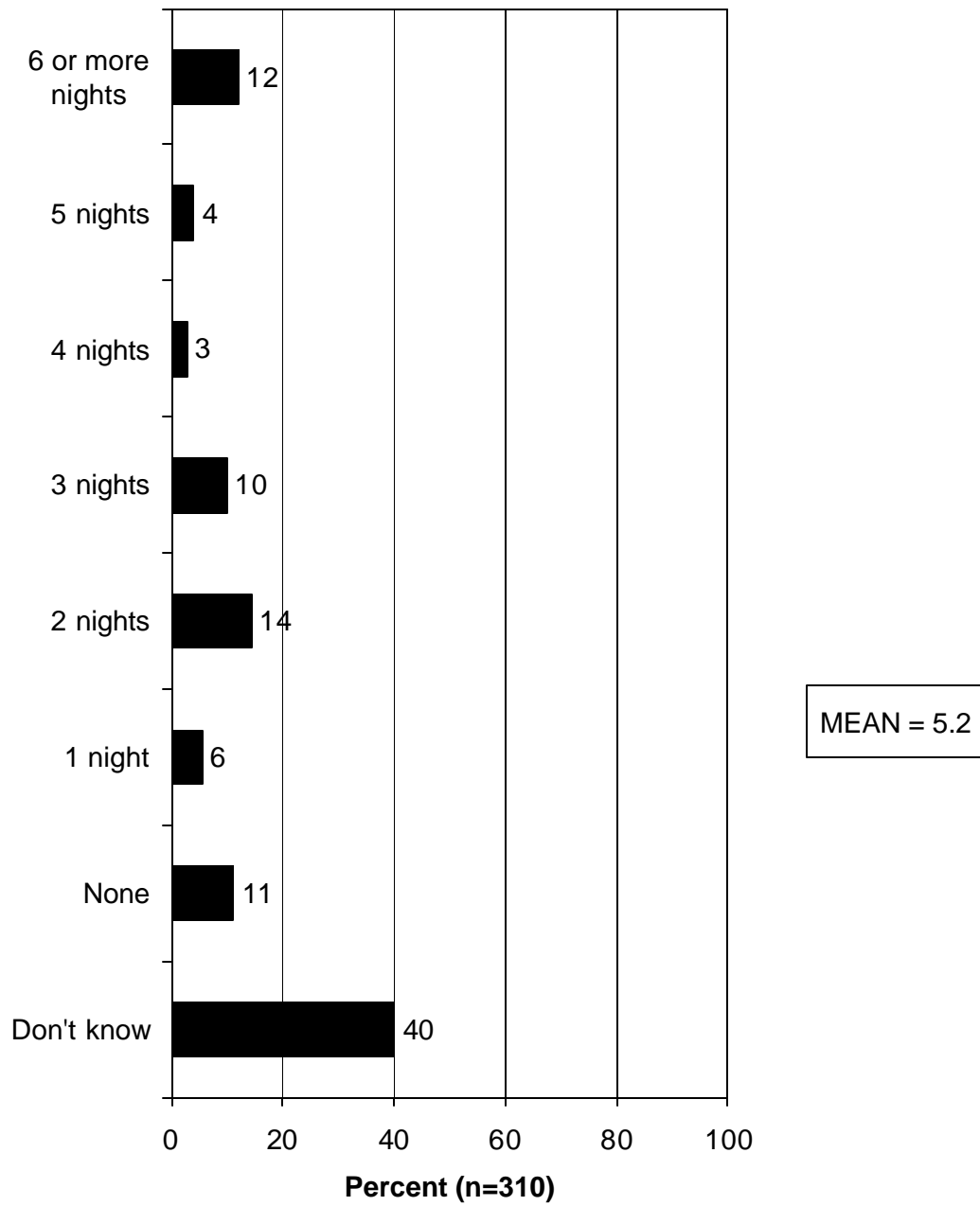
Q116. Do you agree or disagree that Lake Tahoe's boating regulations are clear and easy to understand?



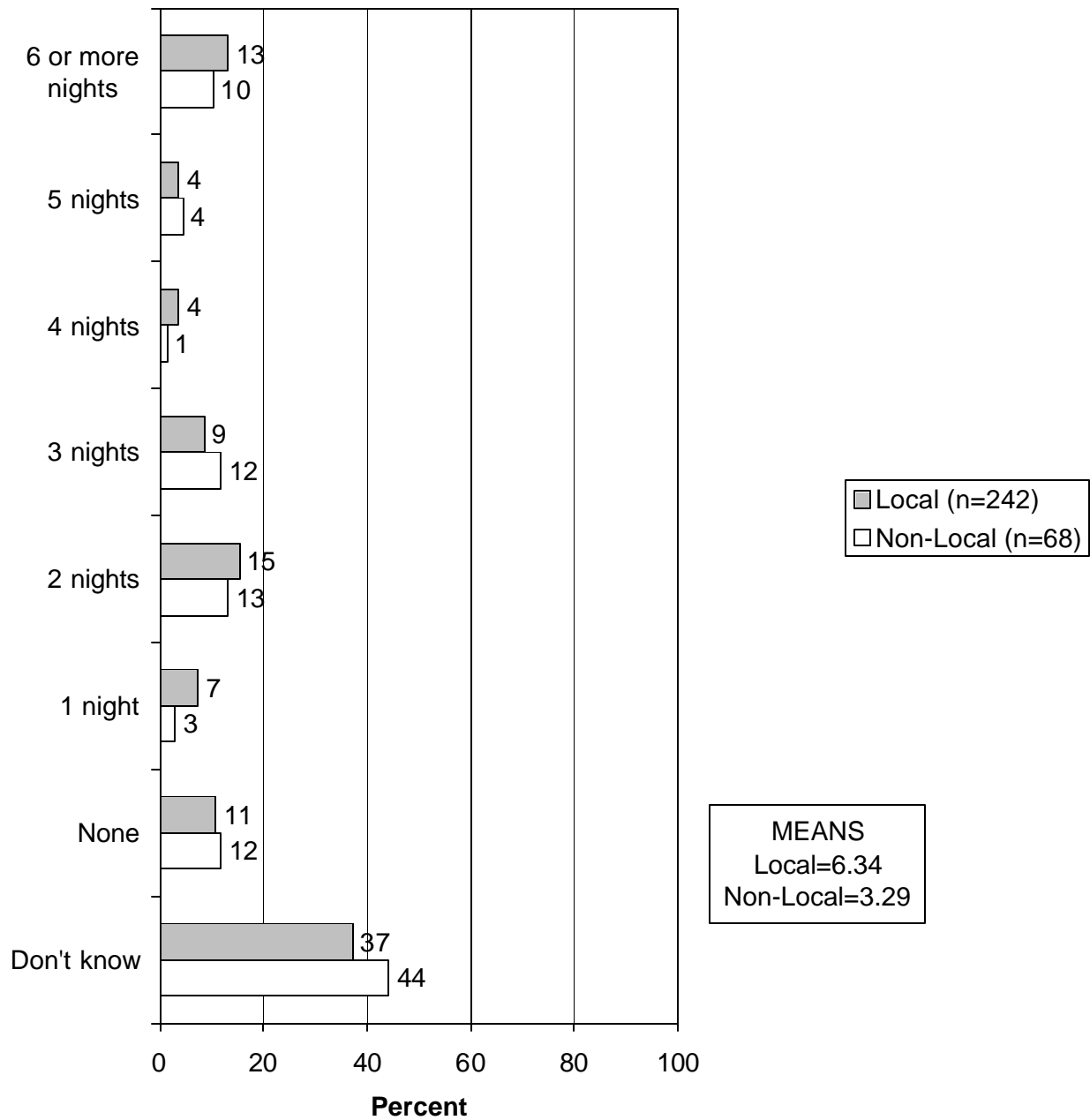
Q116. Do you agree or disagree that Lake Tahoe's boating regulations are clear and easy to understand?



Q63. In your opinion, how many nights should a boater be allowed to anchor off shore, without a buoy or permit?



Q63. In your opinion, how many nights should a boater be allowed to anchor off shore, without a buoy or permit?



AWARENESS OF REGULATIONS ON LAKE TAHOE

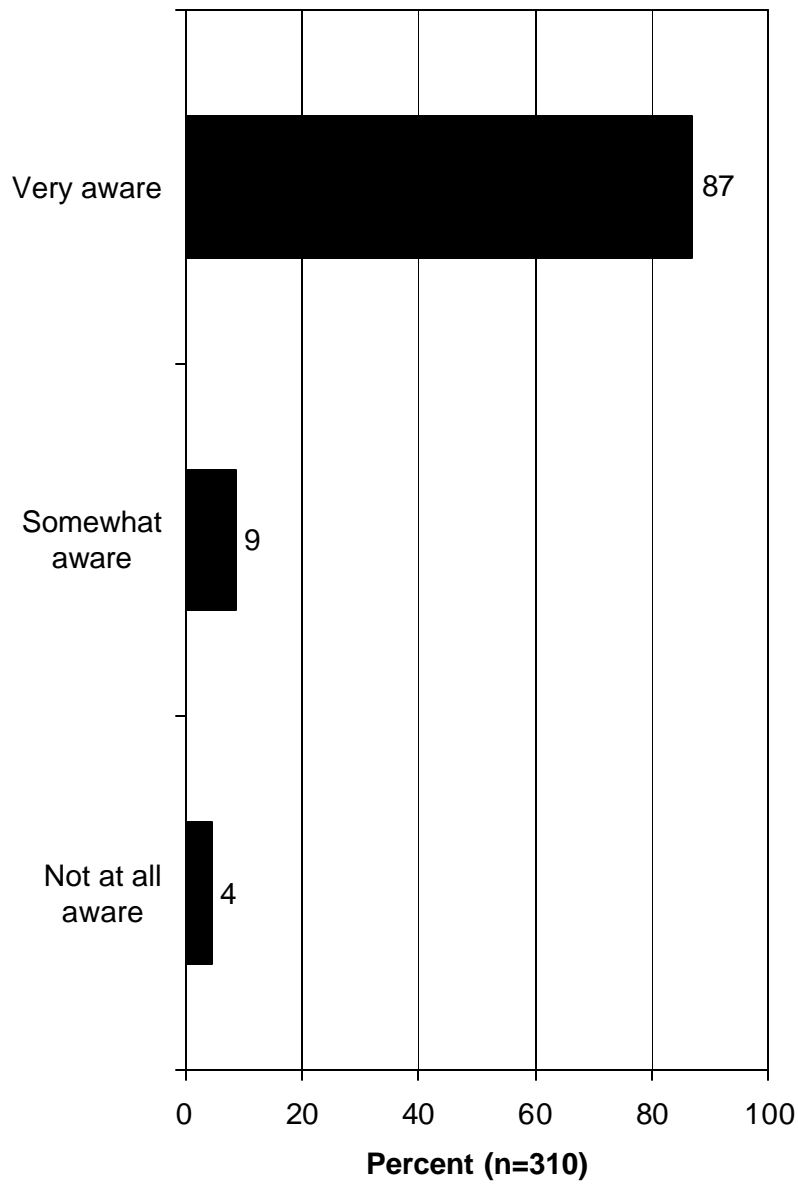
- Boaters are about evenly split regarding whether they are aware of the noise restrictions on Lake Tahoe: while 54% say that they are very or somewhat aware, 46% say that they are not at all aware.
 - Non-locals are less likely to be aware of the noise restrictions on Lake Tahoe.
 - These graphs are shown and discussed in the section of this report titled, “Engine Noise at Lake Tahoe.”

- Awareness is very high that a regulation for Lake Tahoe bans carbureted two-stroke engines: 87% of boaters are *very* aware, and 9% are *somewhat* aware, for a total of 96% who are aware.
 - Non-locals are just slightly more likely relative to locals to not be aware of this regulation.

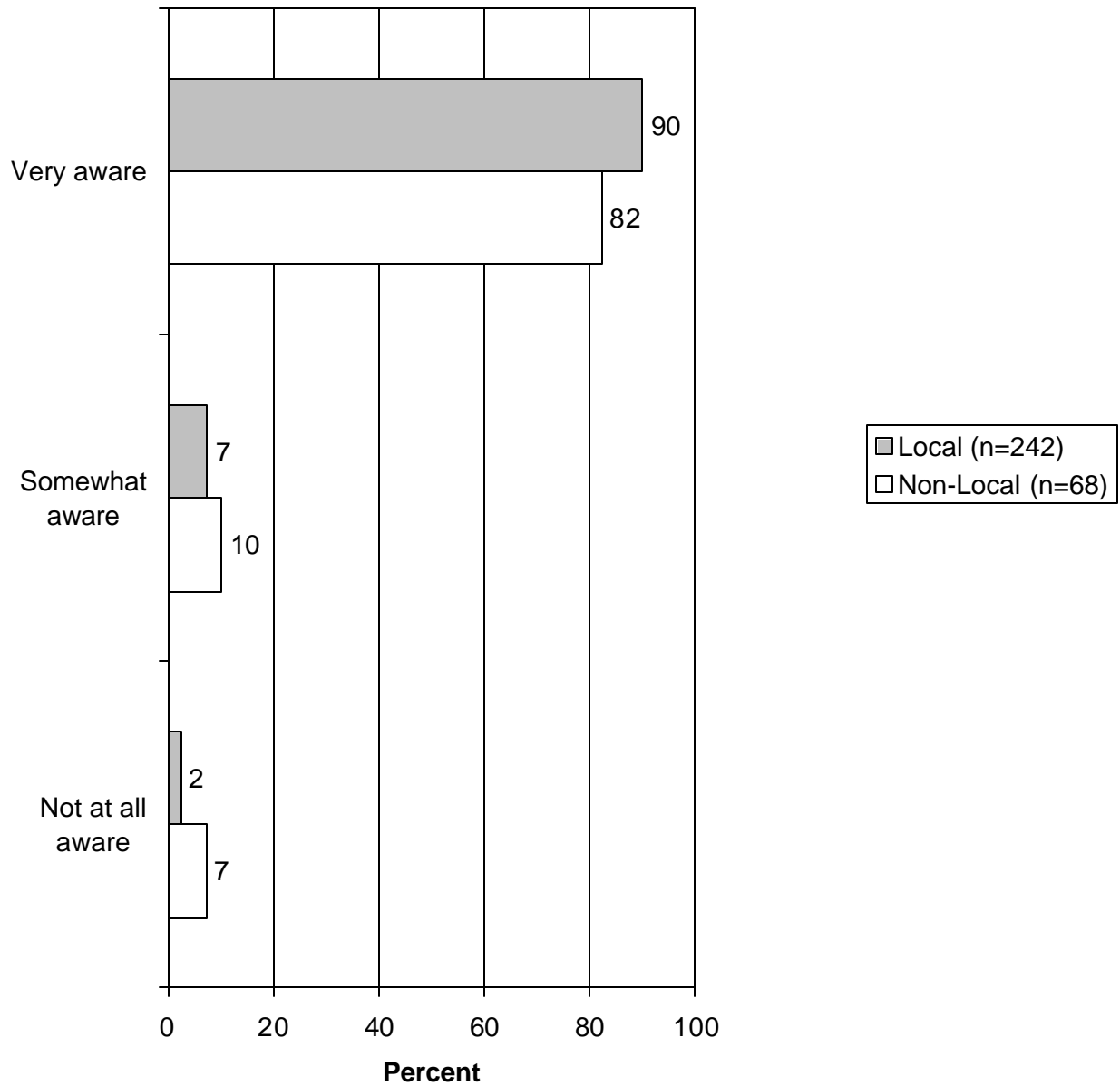
- Awareness is also fairly high (but not as high as for the regulation above) about the 600-foot no-wake zone regulation on Lake Tahoe: 64% are *very* aware, and 13% are *somewhat* aware; only 23% are not at all aware. Awareness is high that the boat speed limit in a 600-foot no-wake zone is 5 miles per hour: 74% are *very* aware, and 12% are *somewhat* aware; only 14% are not at all aware.
 - Locals and non-locals are about the same on these questions.

- Just over half of boaters (52%) were aware prior to the survey that a boater must obtain a permit for a mooring buoy that is in the lake off of his/her littoral property on Lake Tahoe; 41% said that they were not at all aware.
 - Locals are slightly more likely to be *very* aware, relative to non-locals.

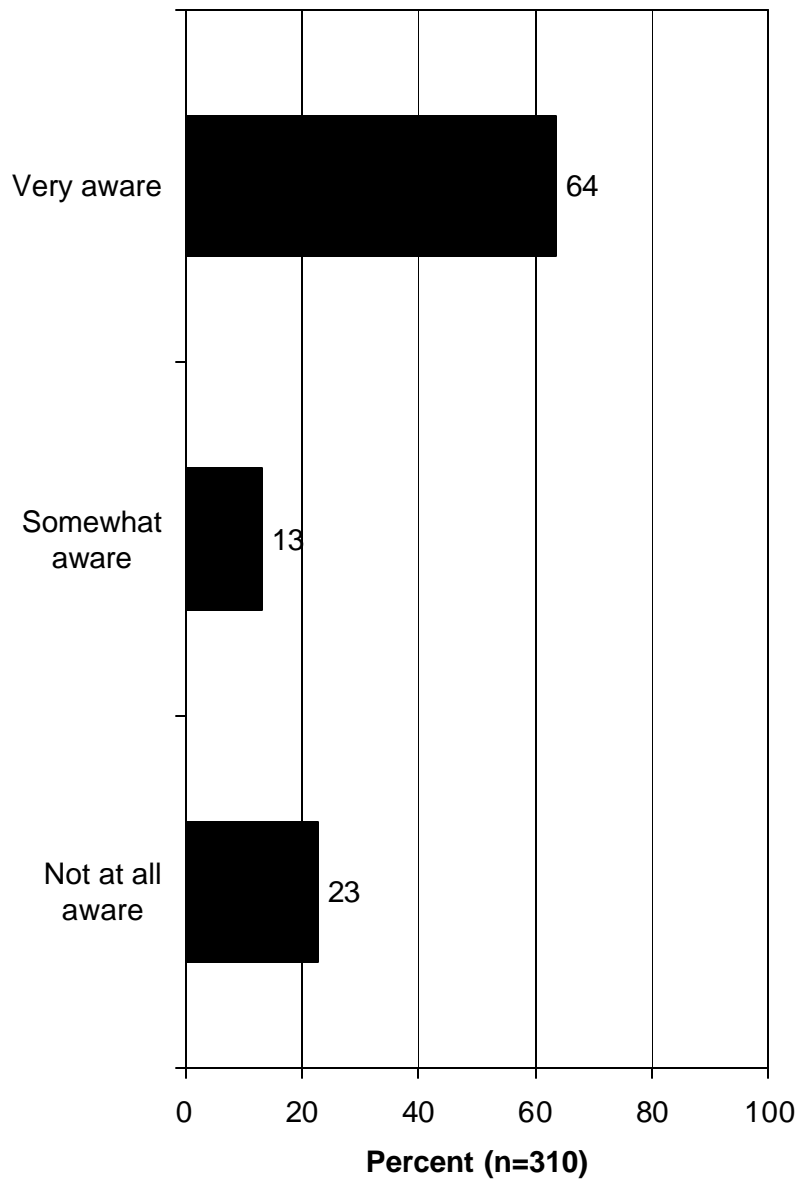
Q117. Prior to this survey, how aware were you of the regulation currently banning carbureted two-stroke engines (i.e., two-stroke engines that are not direct fuel injected)?



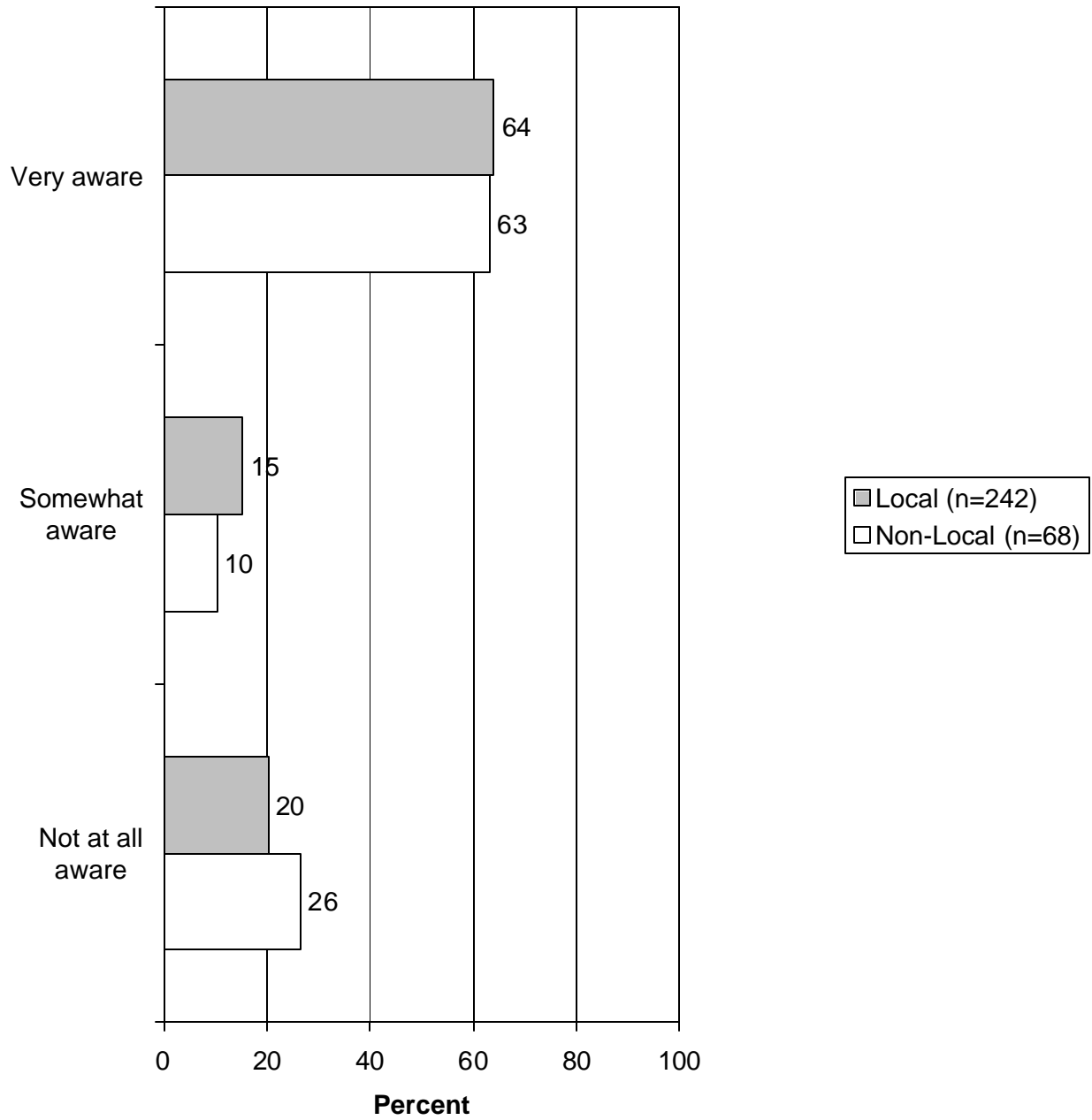
Q117. Prior to this survey, how aware were you of the regulation currently banning carbureted two-stroke engines (i.e., two-stroke engines that are not direct fuel injected)?



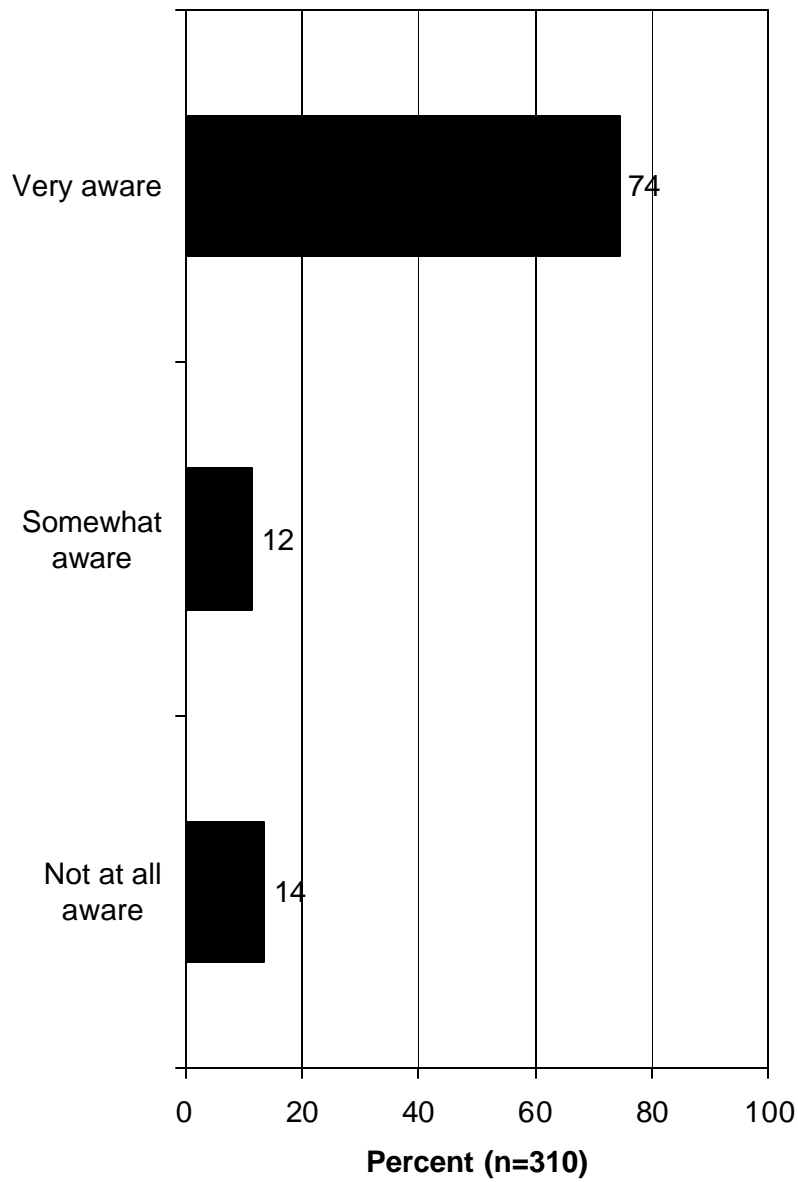
Q118. Prior to this survey, how aware were you of the 600-foot no-wake zone regulation on Lake Tahoe?



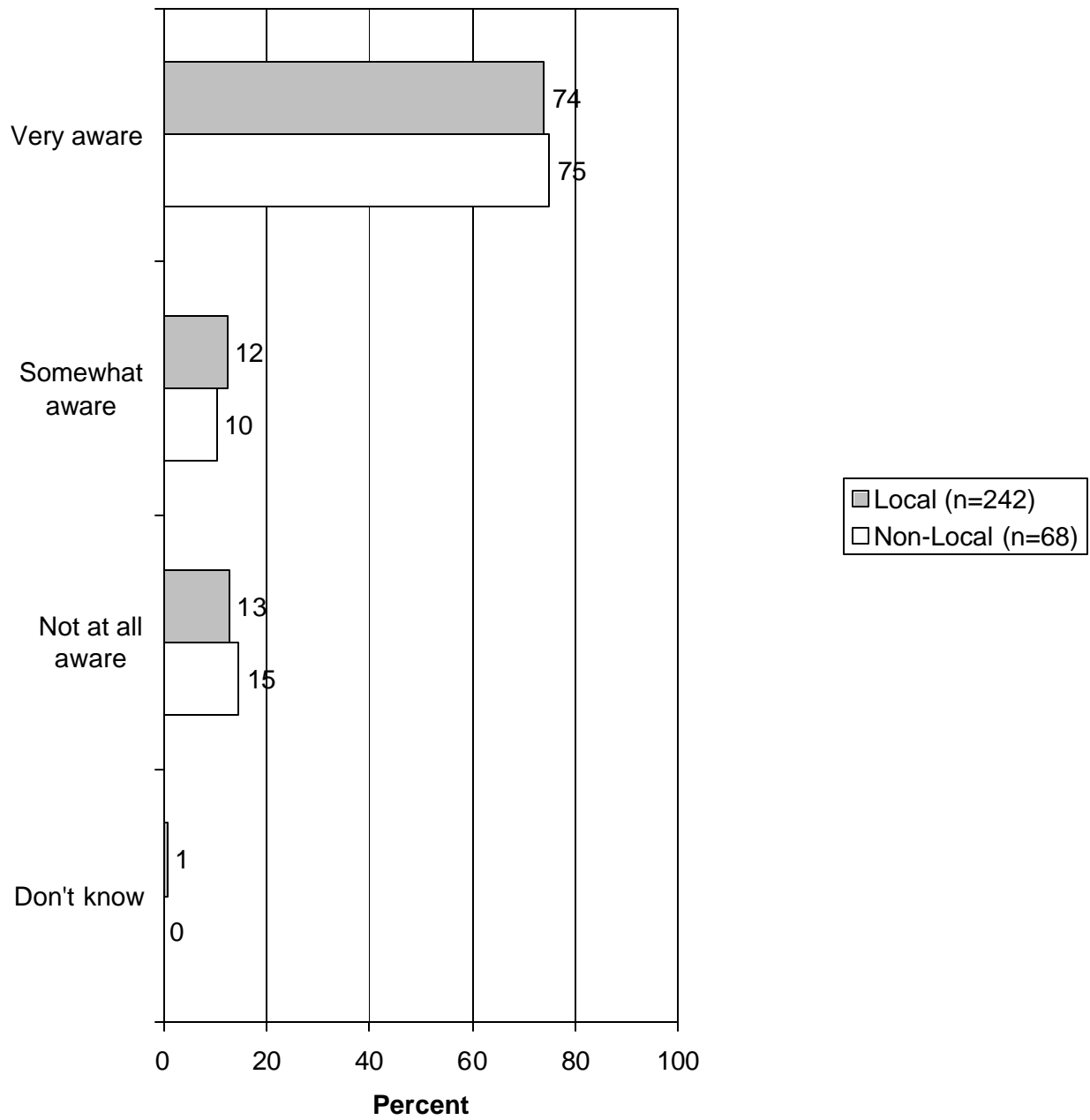
Q118. Prior to this survey, how aware were you of the 600-foot no-wake zone regulation on Lake Tahoe?



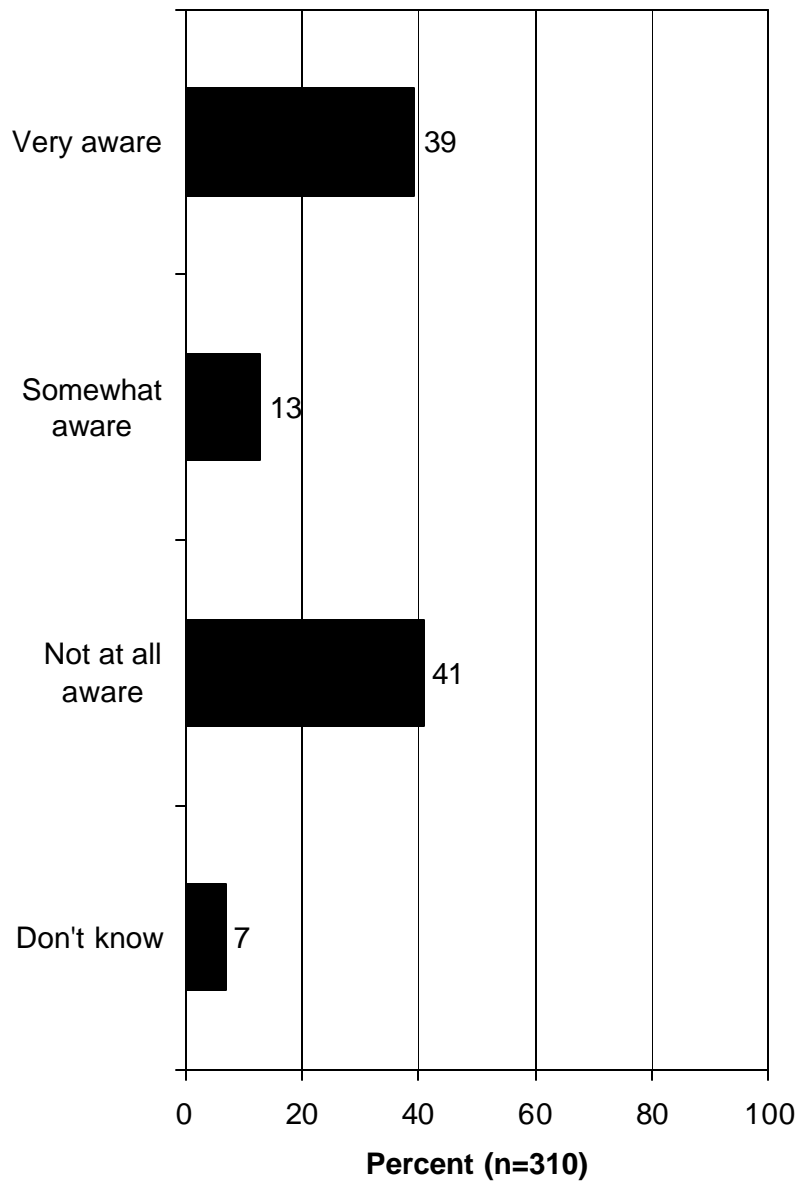
Q119. Prior to this survey, how aware were you that the boat speed limit in the 600-foot no-wake zone is 5 miles per hour on Lake Tahoe?



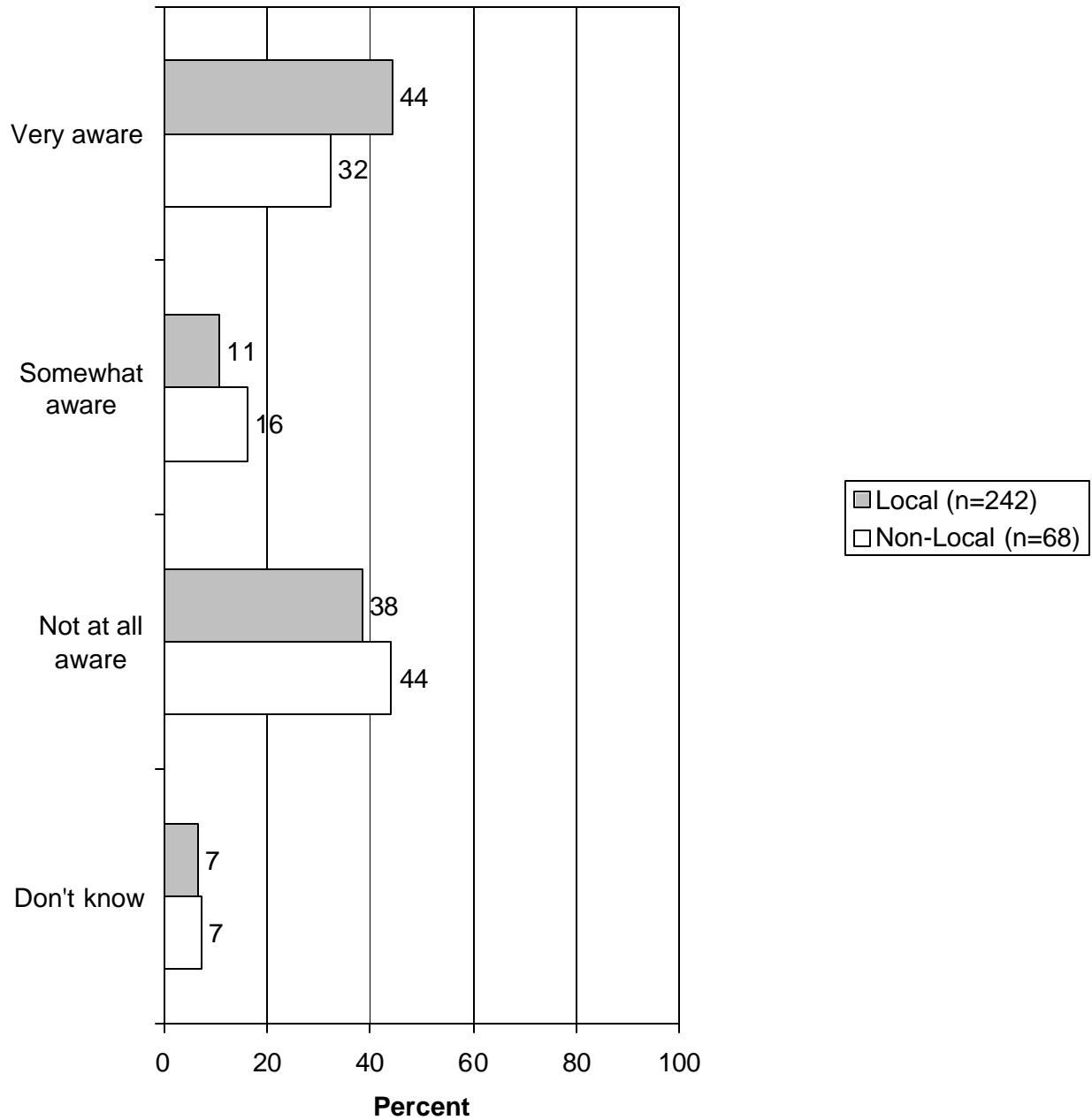
Q119. Prior to this survey, how aware were you that the boat speed limit in the 600-foot no-wake zone is 5 miles per hour on Lake Tahoe?



Q120. Prior to this survey, how aware were you that you must obtain a permit for a mooring buoy that is in the lake off of your littoral property on Lake Tahoe?



Q120. Prior to this survey, how aware were you that you must obtain a permit for a mooring buoy that is in the lake off of your littoral property on Lake Tahoe?



ENGINE NOISE AT LAKE TAHOE

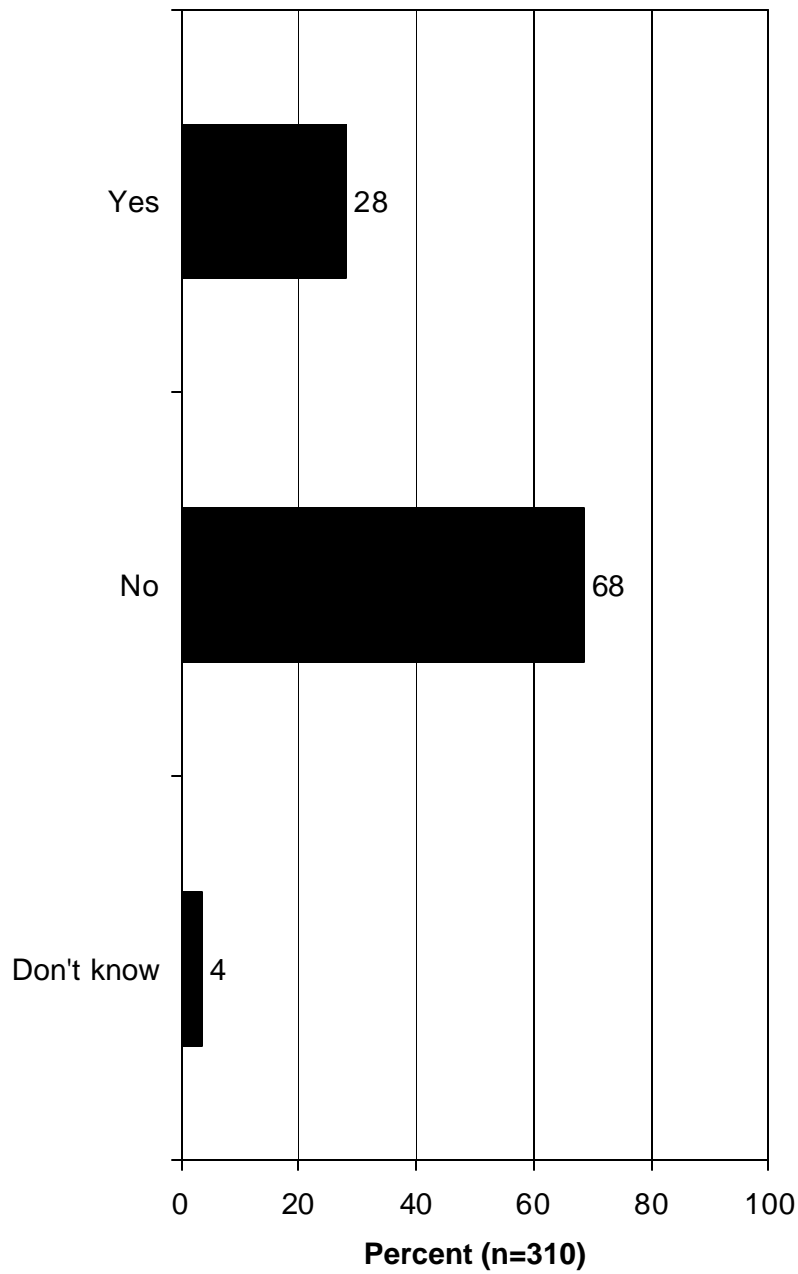
- More than a quarter of Lake Tahoe boaters (28%) think that there is a boat noise problem at the Lake.
 - Locals and non-locals are about the same on this question.

- Boaters are about evenly split regarding whether they are aware of the noise restrictions on Lake Tahoe: while 54% say that they are very or somewhat aware, 46% say that they are not at all aware. Note, however, that only a third (33%) say that they are *very* aware.
 - Non-locals are less likely to be aware of the noise restrictions on Lake Tahoe.

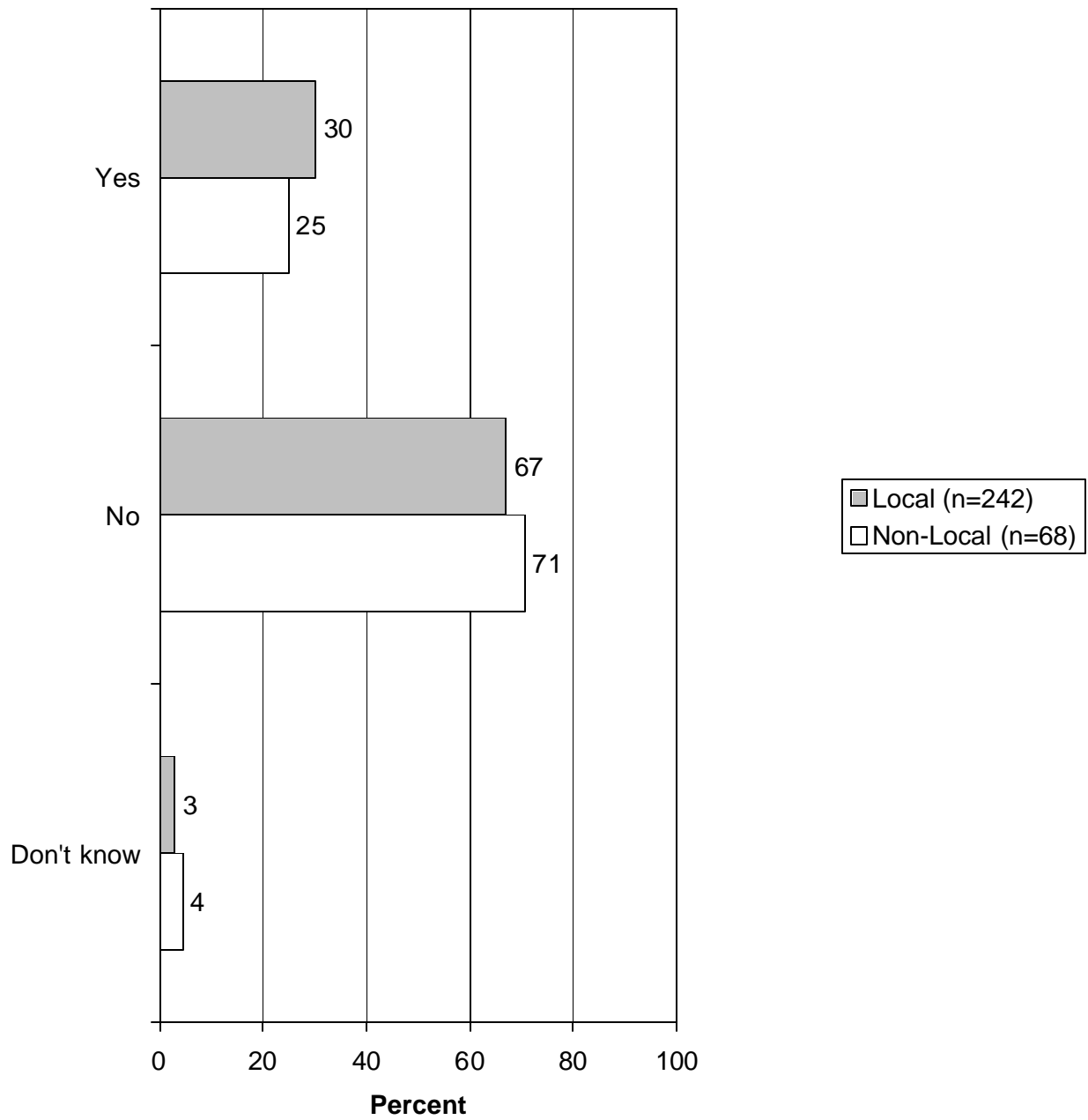
- Most boaters did not know the decibel level of their boat engine (they are not shown in the graph, as the graph includes only those who gave a numeric answer). Otherwise, boats are fairly evenly distributed among categories of decibel levels.
 - Non-locals tend to have louder boats than locals (among those who knew the decibel level of their boat).

- Graphs are shown regarding the number of hours per day that boaters typically spend on the water in their most-used boat, the number of hours per day they spend with the engine running, and the number of hours they spend with the engine running at full throttle.

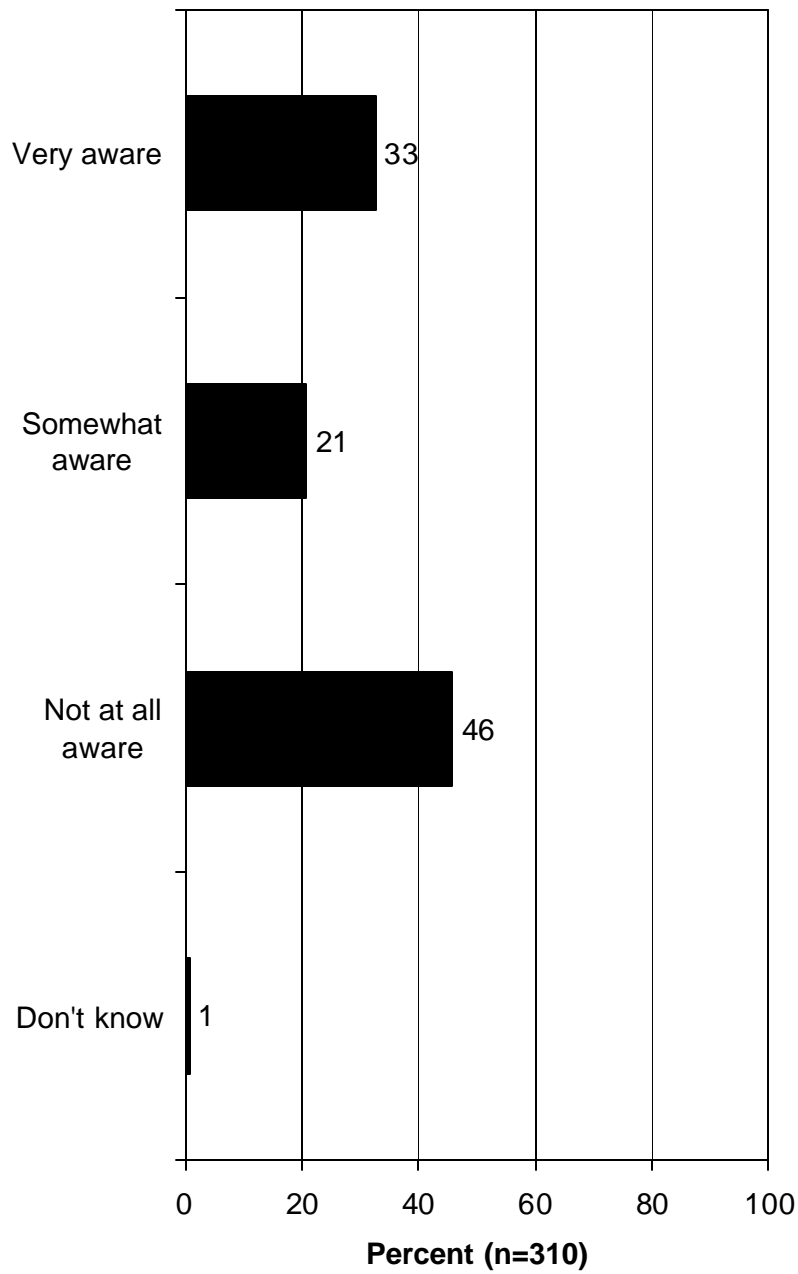
Q86. Do you think boat noise is a problem at Lake Tahoe?



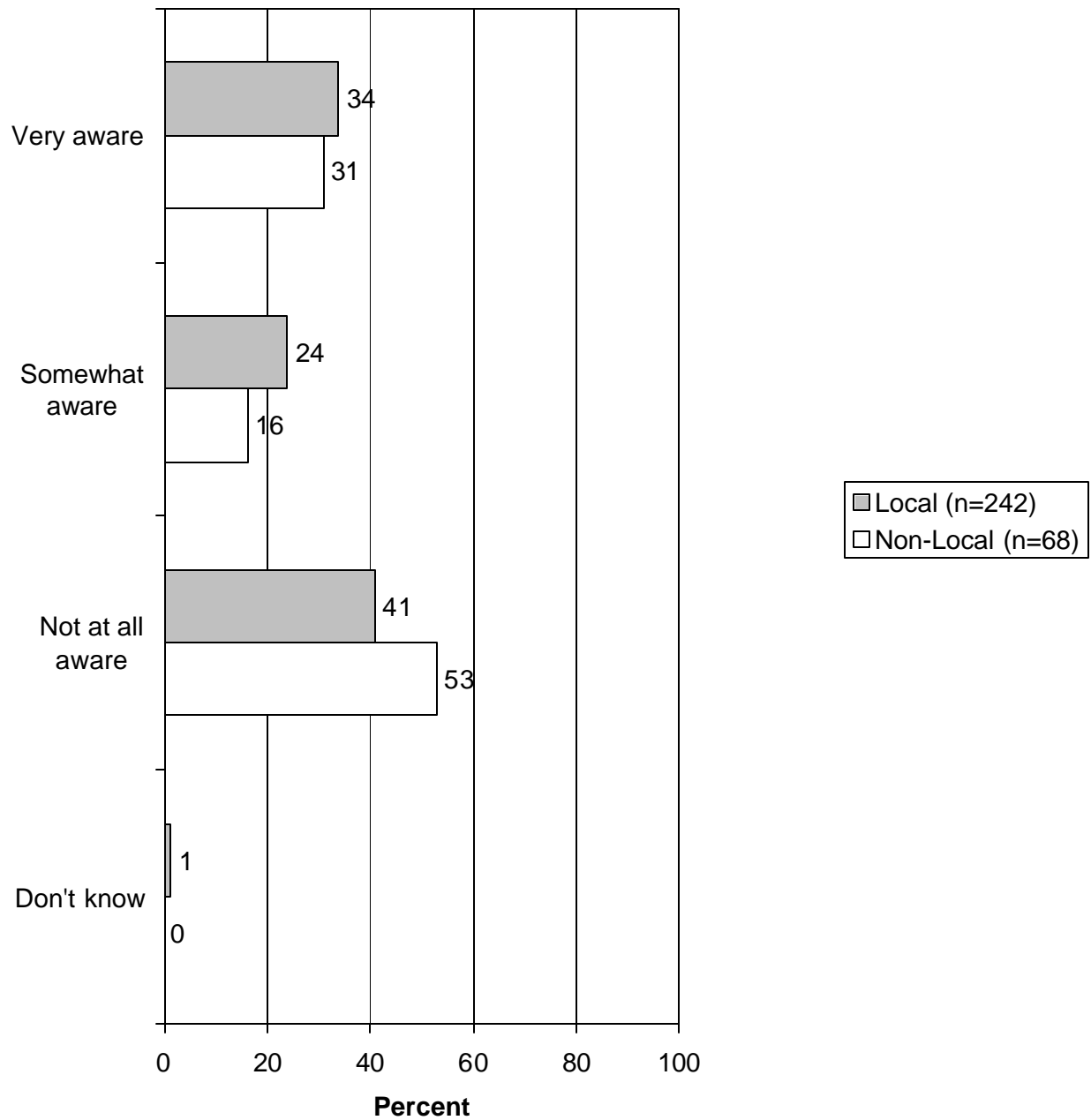
Q86. Do you think boat noise is a problem at Lake Tahoe?



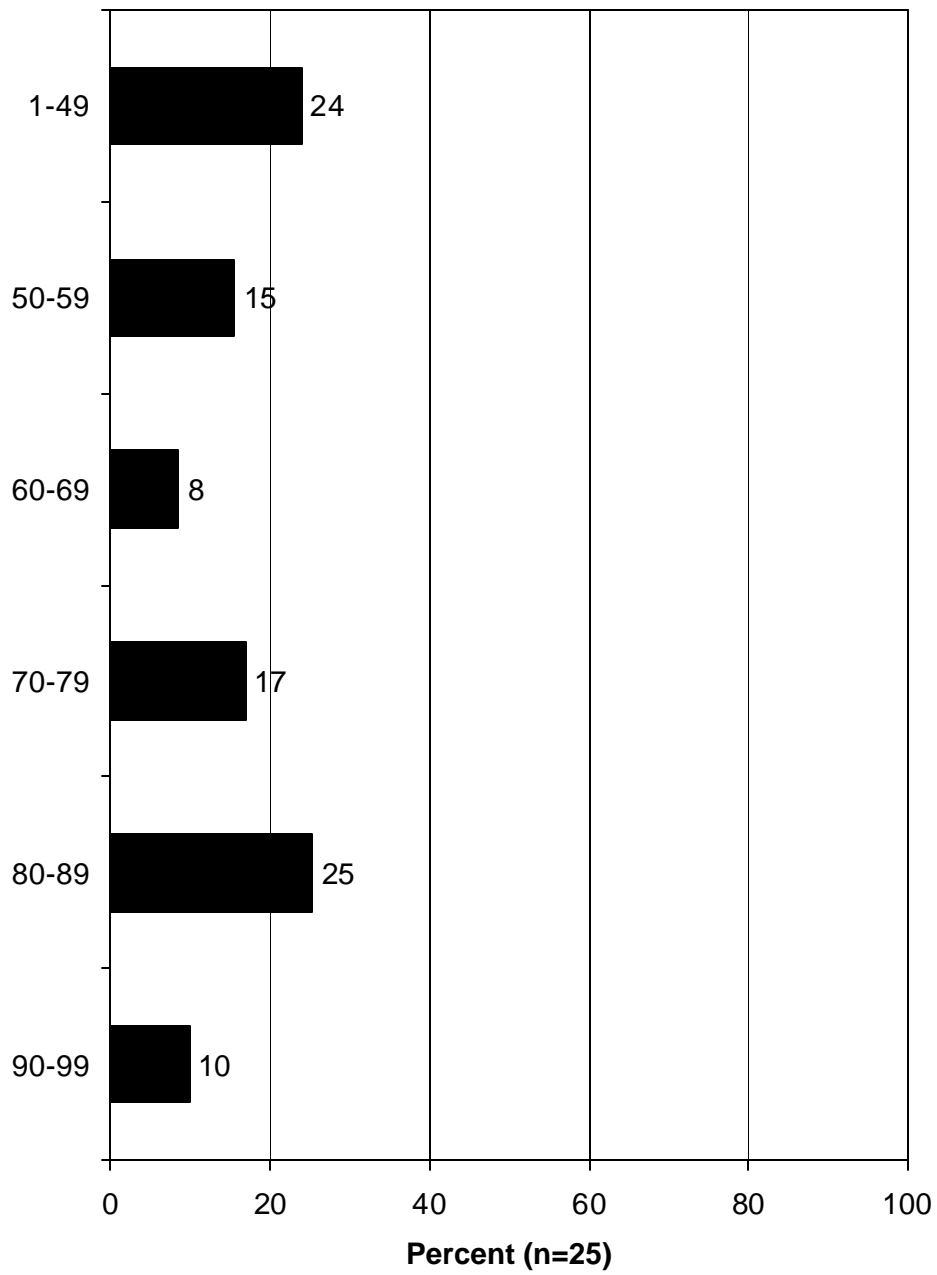
Q85. Prior to this survey, how aware were you of the boat noise restrictions on Lake Tahoe?



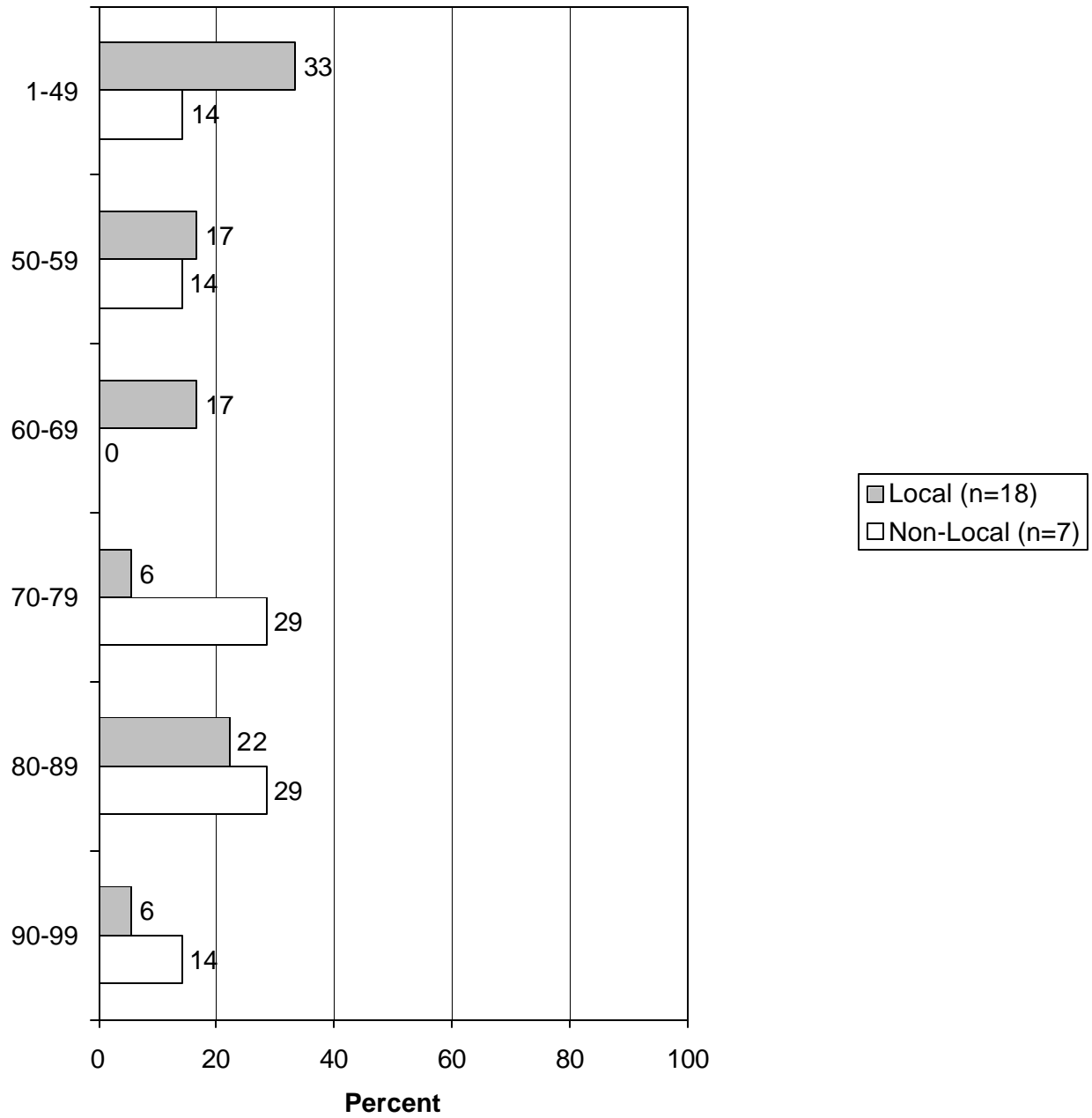
Q85. Prior to this survey, how aware were you of the boat noise restrictions on Lake Tahoe?



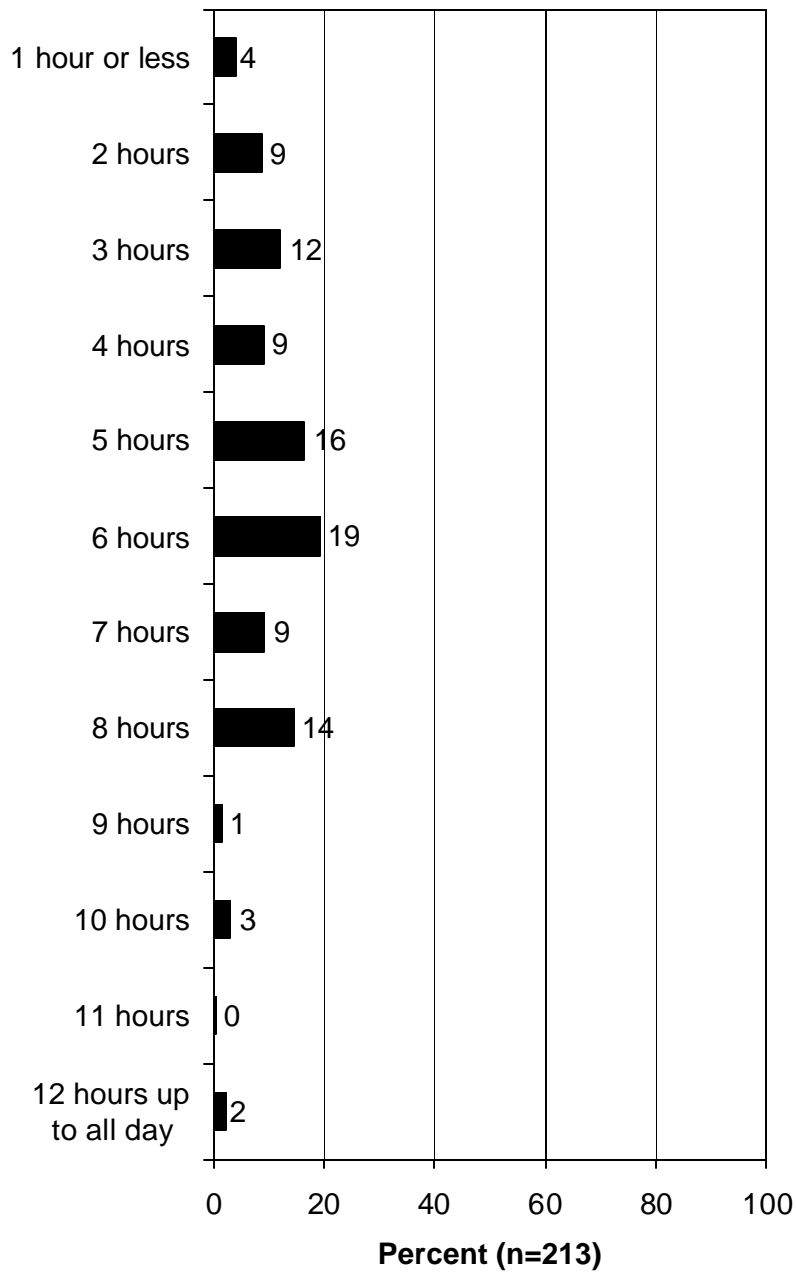
Q87. What is the decibel level of the engine on your [most-used boat]? (Don't know responses not shown.)



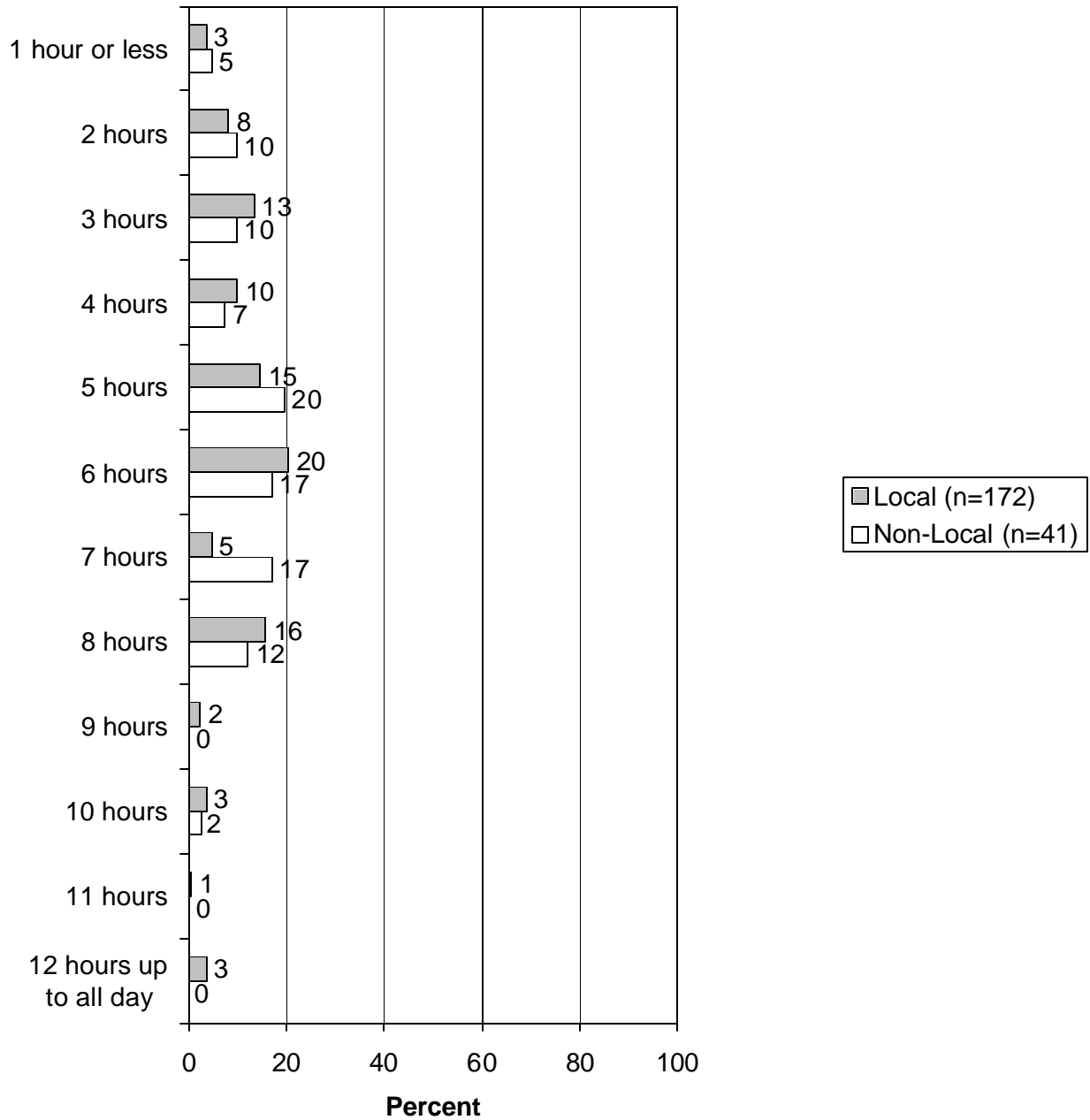
Q87. What is the decibel level of the engine on your [most-used boat]? (Don't know responses no shown.)



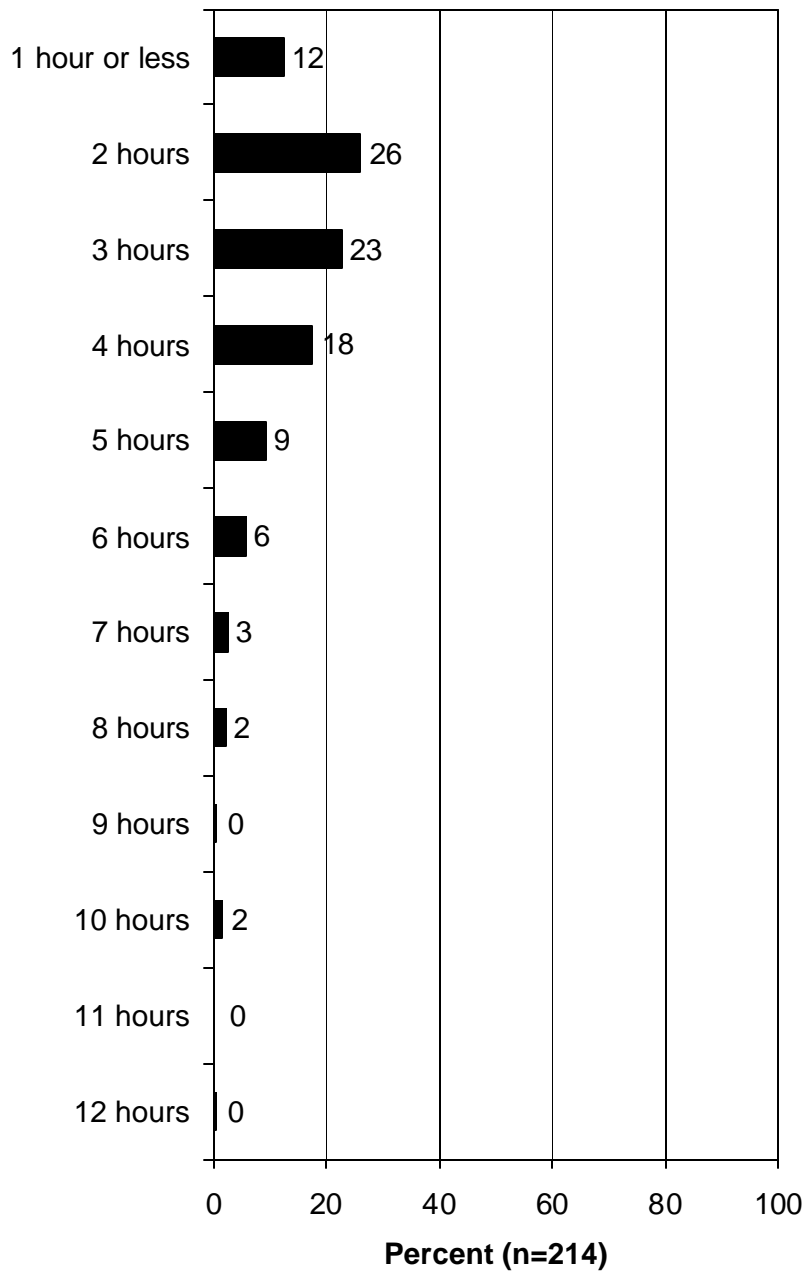
Q90. In a single day, how many hours do you spend on the lake in your [most-used boat], including stoppage time where your engine is not running?



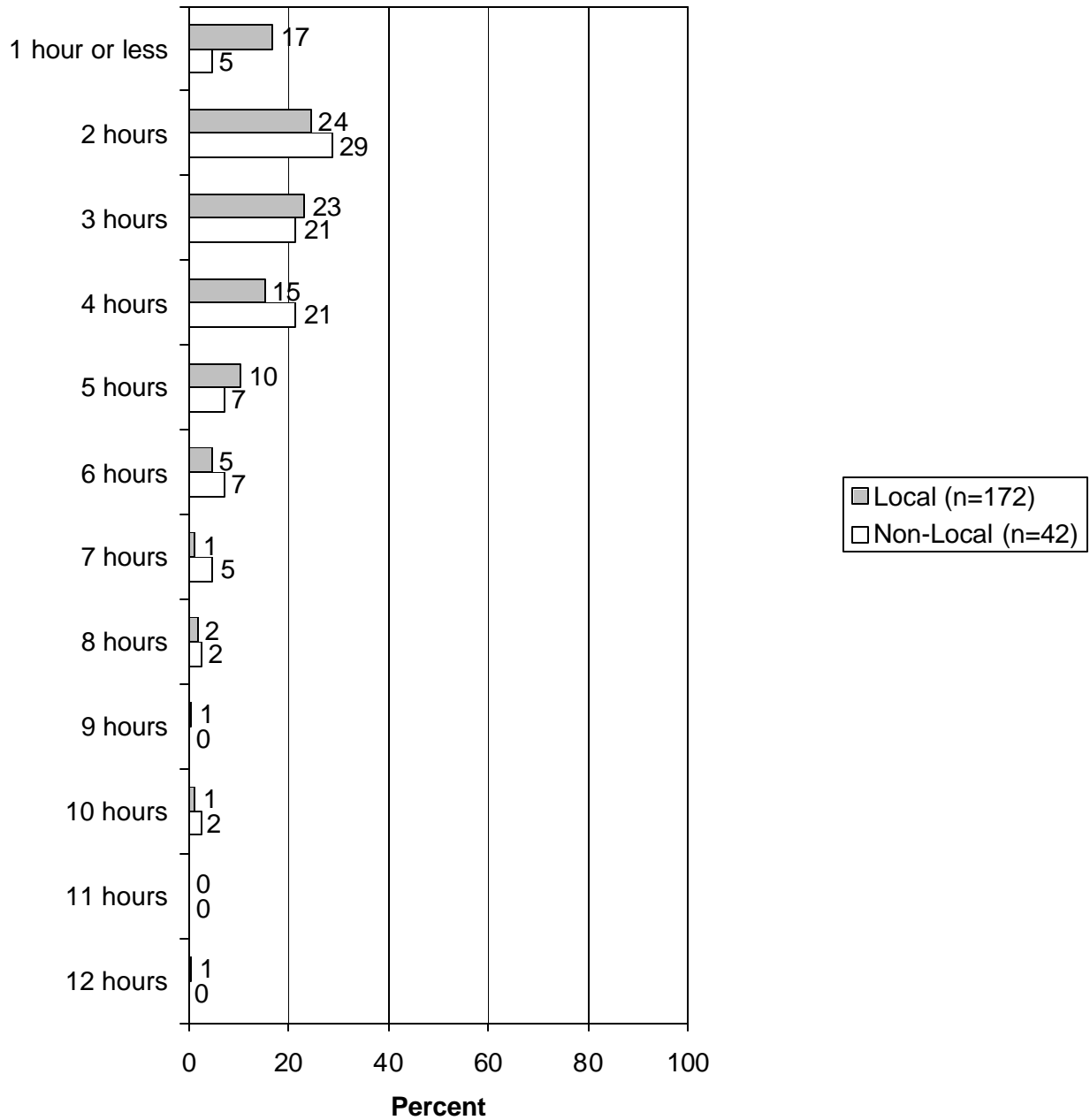
Q90. In a single day, how many hours do you spend on the lake in your [most-used boat], including stoppage time where your engine is not running?



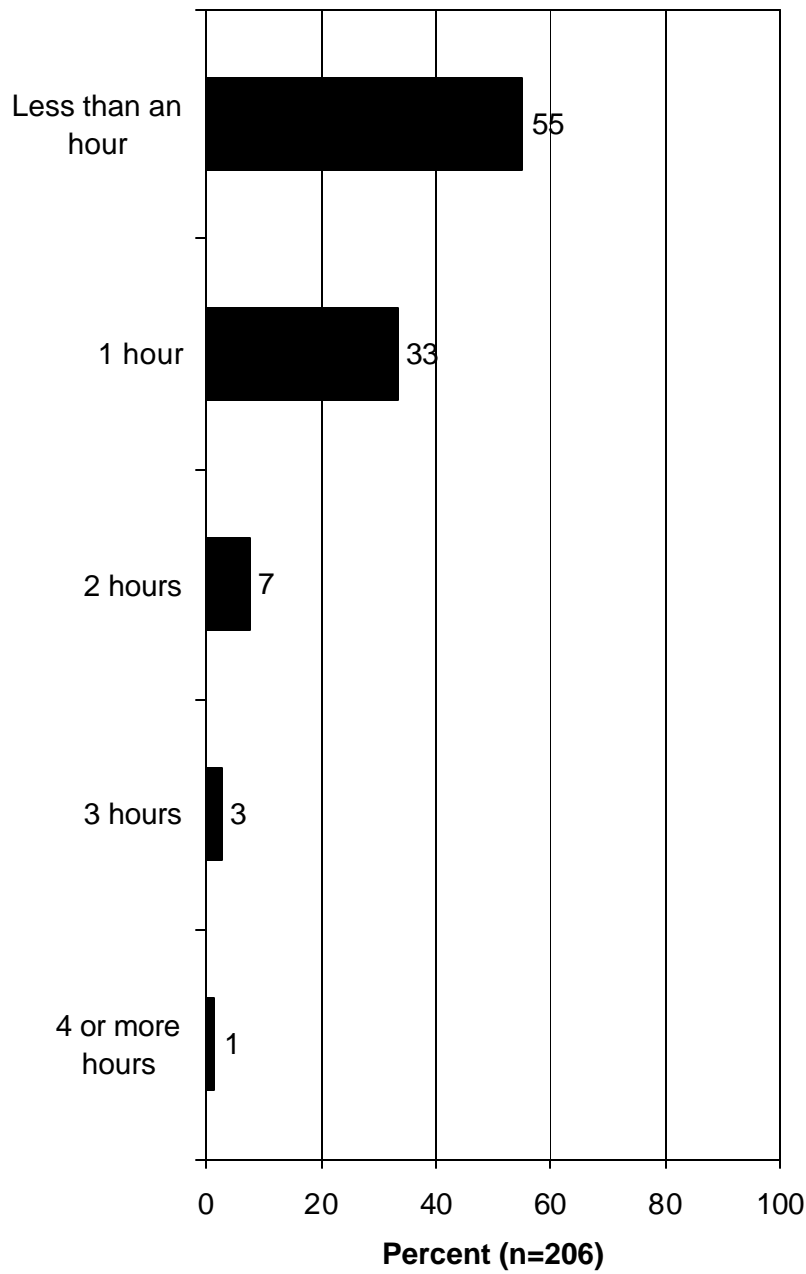
Q92. In a single day, how many total hours do you spend boating on the lake in your [most-used boat] with the engine running?



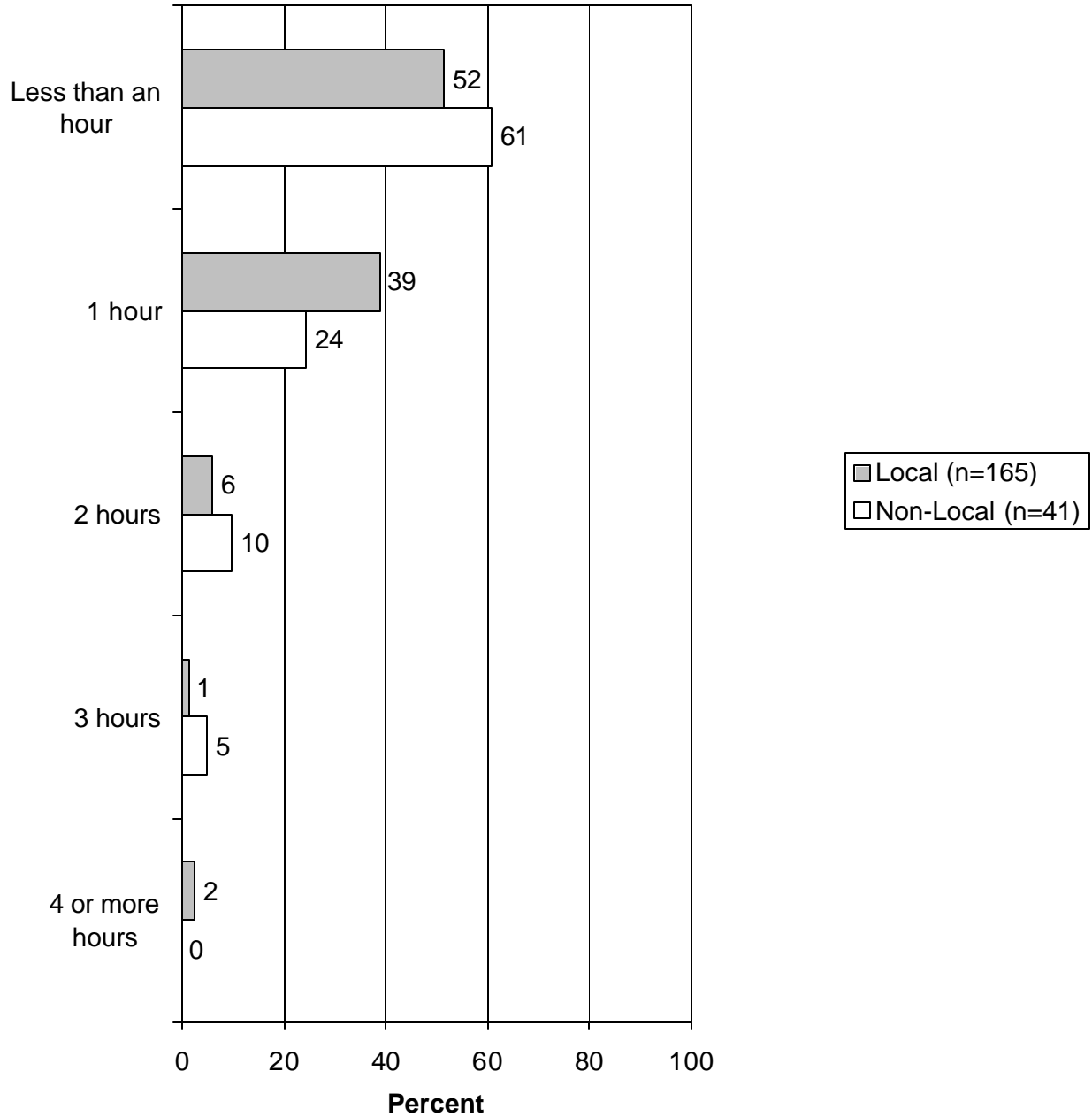
Q92. In a single day, how many total hours do you spend boating on the lake in your [most-used boat] with the engine running?



Q94. In a single day, how much time do you typically spend in your [most-used boat] running the engine at full throttle when on the water on Lake Tahoe?



Q94. In a single day, how much time do you typically spend in your [most-used boat] running the engine at full throttle when on the water on Lake Tahoe?



WATER QUALITY OF LAKE TAHOE

BILGE WATER

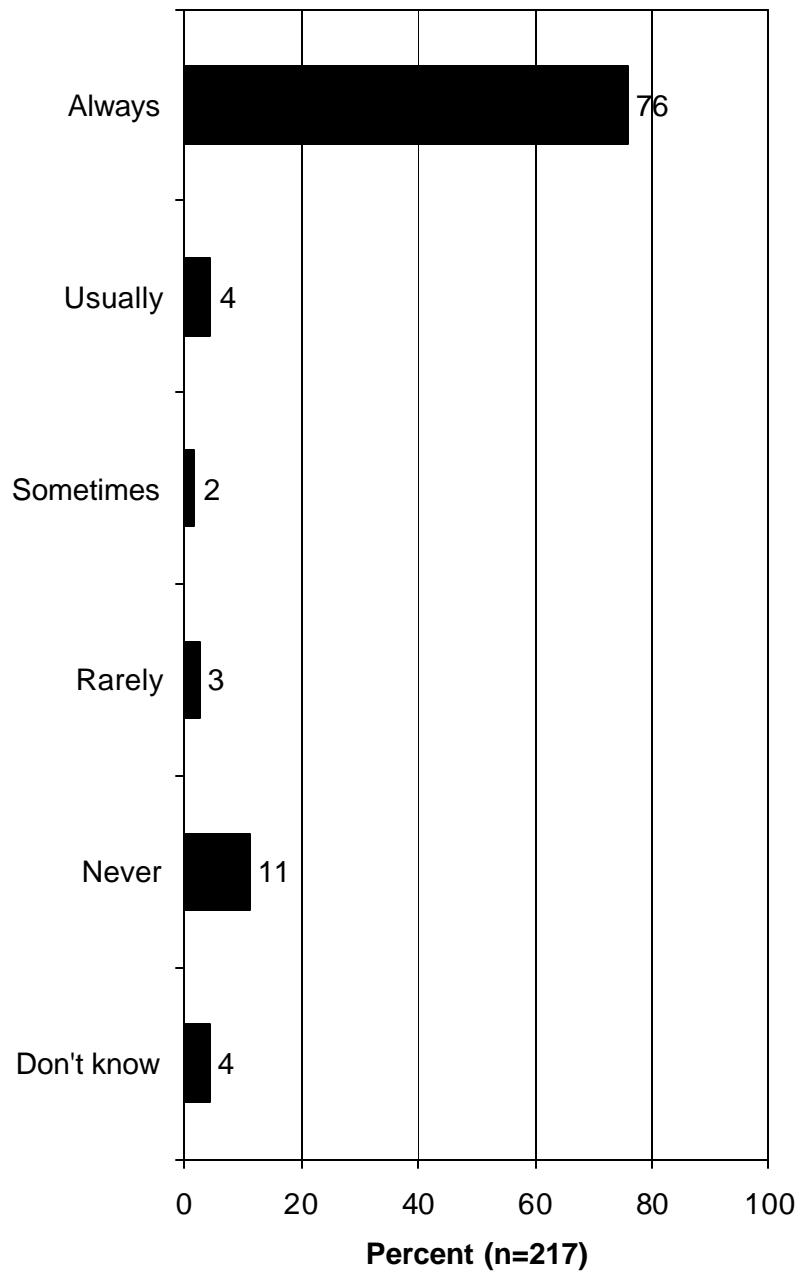
- Boaters, in general, are good about checking the bilge for leaks prior to going out on Lake Tahoe: 80% say that they always (76%) or usually (4%) check the bilge for leaks.
 - Although few boaters say never, non-locals are twice as likely than are locals to say that they never check the bilge prior to going out on Lake Tahoe.

- Boaters are also good about checking the bilge for engine fluid leaks prior to boating on Lake Tahoe: 81% say that they always (77%) or usually (4%) check the bilge for engine fluid leaks.
 - Again, although few say that they never check the bilge for engine fluid leaks, non-locals are more likely than are locals to say that they never check for engine fluid leaks.

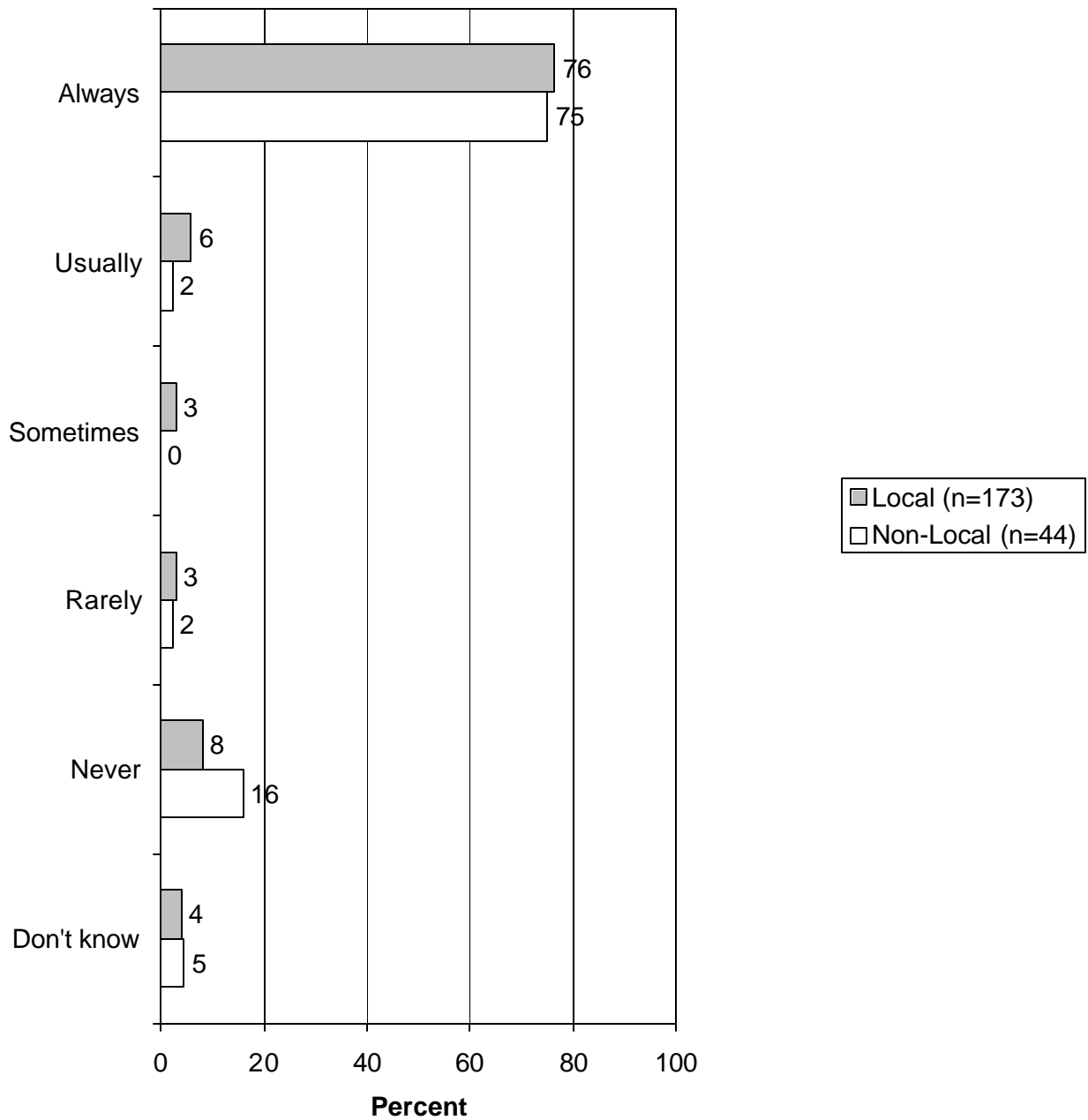
- Boaters are good about checking the bilge for contaminants prior to running the bilge pump: 73% of boaters always (69%) or usually (4%) check the bilge for contaminants prior to running the bilge pump. Additionally, nearly half of boaters take precautions to avoid pumping out contaminants when pumping bilge water overboard, most typically oil absorbent pads in the bilge pump; 30% say that they do *not* take any precautions. Finally, slightly more boaters pump bilge water on to land than pump it directly into Lake Tahoe.
 - Interestingly, non-locals are slightly more likely than are locals to never check for contaminants prior to running the bilge pump, but they are also slightly more likely to always check for contaminants. The two groups are nearly the same regarding precautions taken to avoid pumping out contaminants when pumping bilge water overboard. Non-local boaters are much more likely to say that they do not know regarding where they pump bilge water; a lower percentage of them, relative to locals, say that they pump bilge water directly into Lake Tahoe.

- Regarding bilge pumps, most boaters say that the boat they most often use has an automatic bilge pump (64%).
 - Locals and non-locals are about the same on this question.

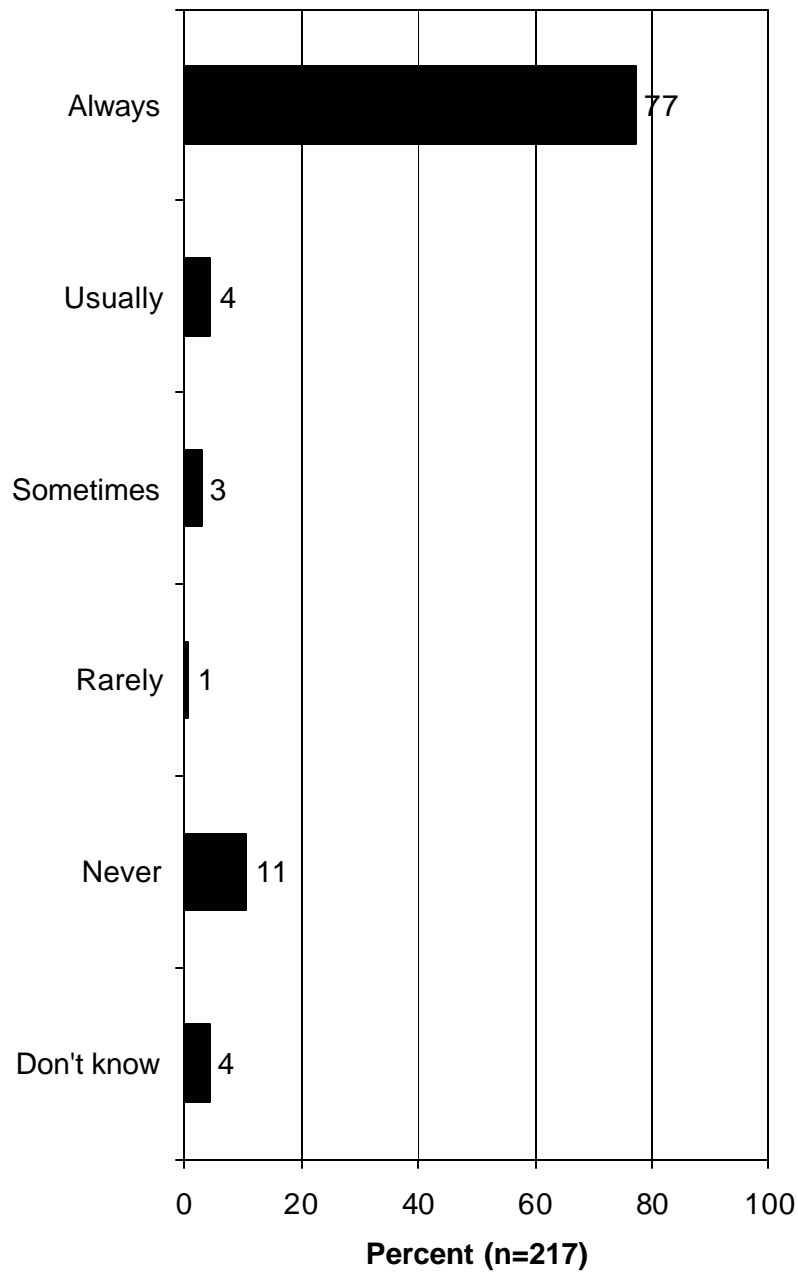
Q96. How often do you check the bilge for water leaks in your [most-used boat] prior to going out on the water on Lake Tahoe?



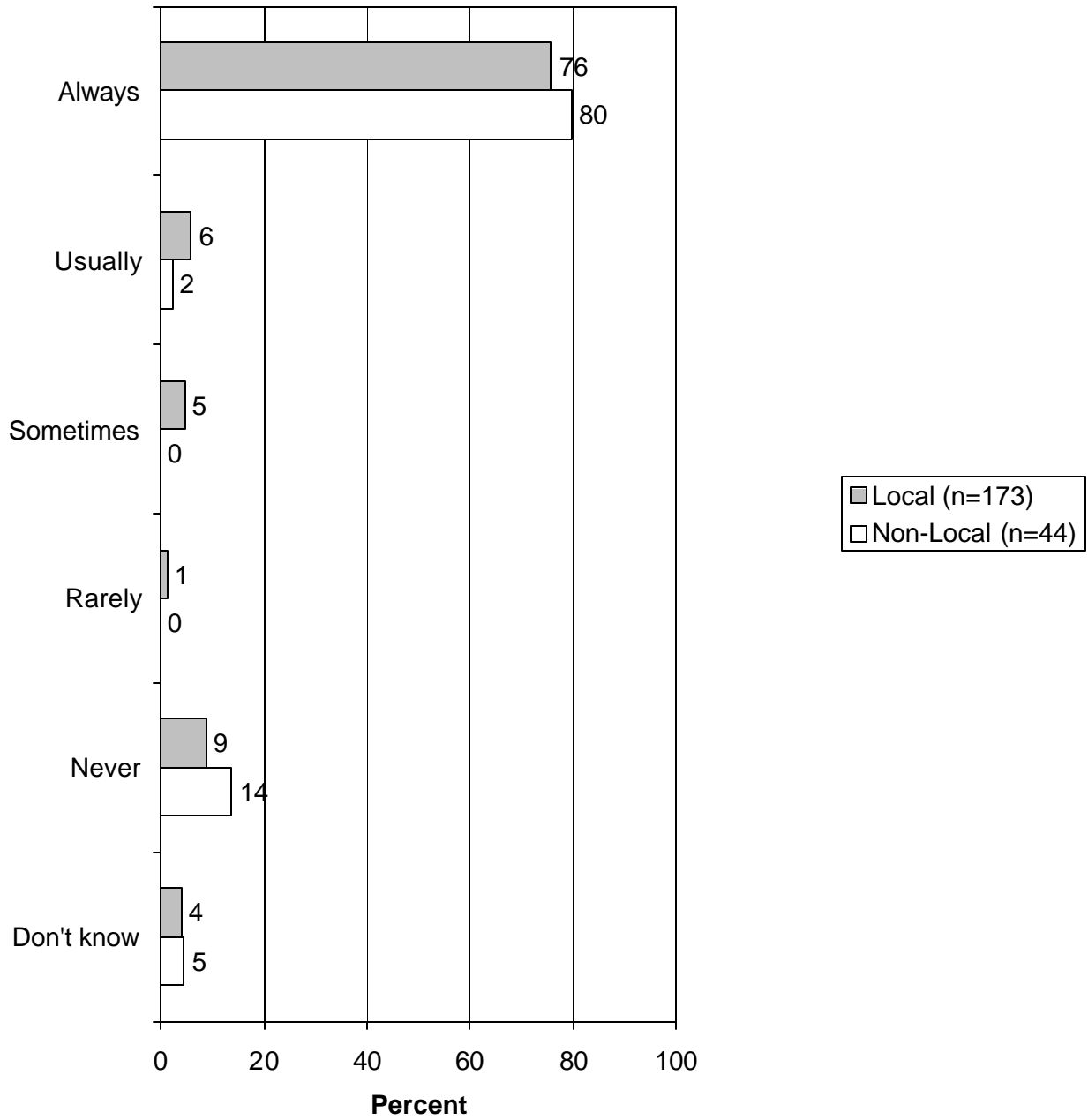
Q96. How often do you check the bilge for water leaks in your [most-used boat] prior to going out on the water on Lake Tahoe?



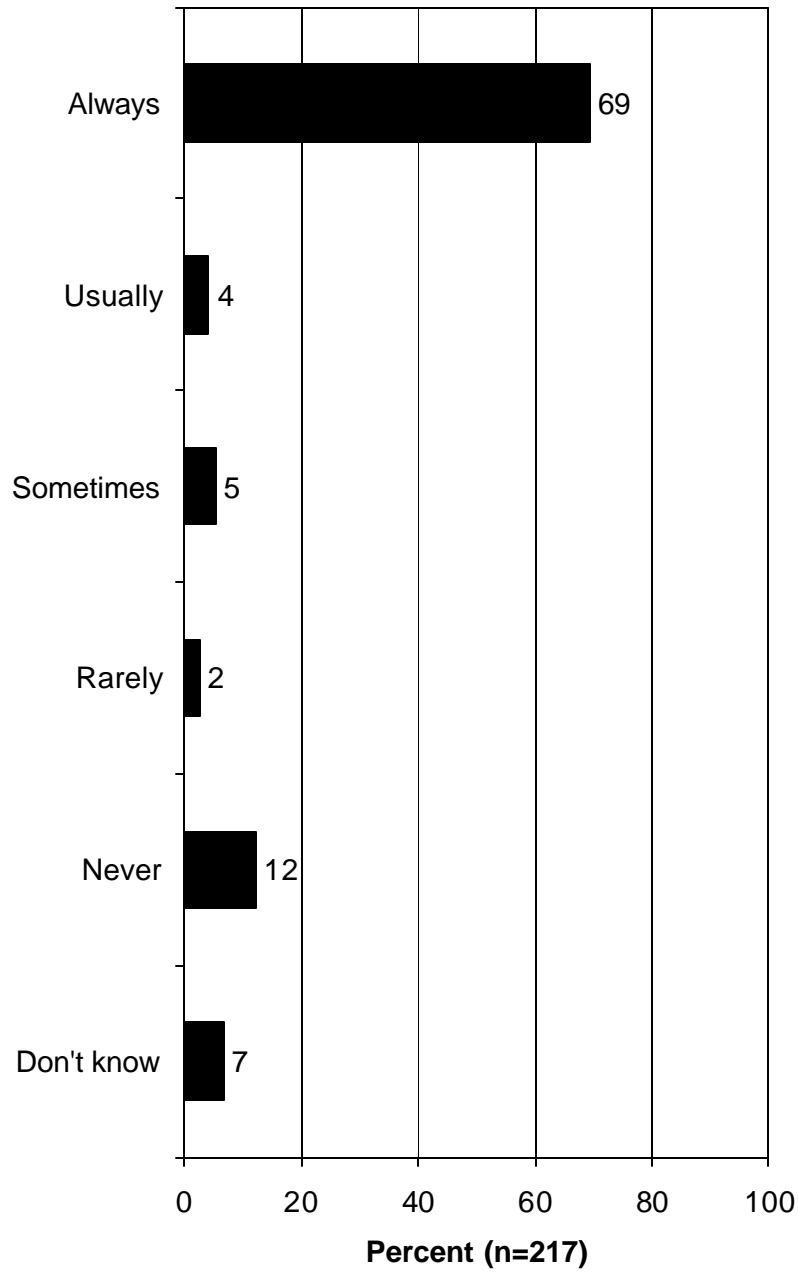
Q97. How often do you check the bilge for engine fluid leaks in your [most-used boat] prior to going out on the water on Lake Tahoe?



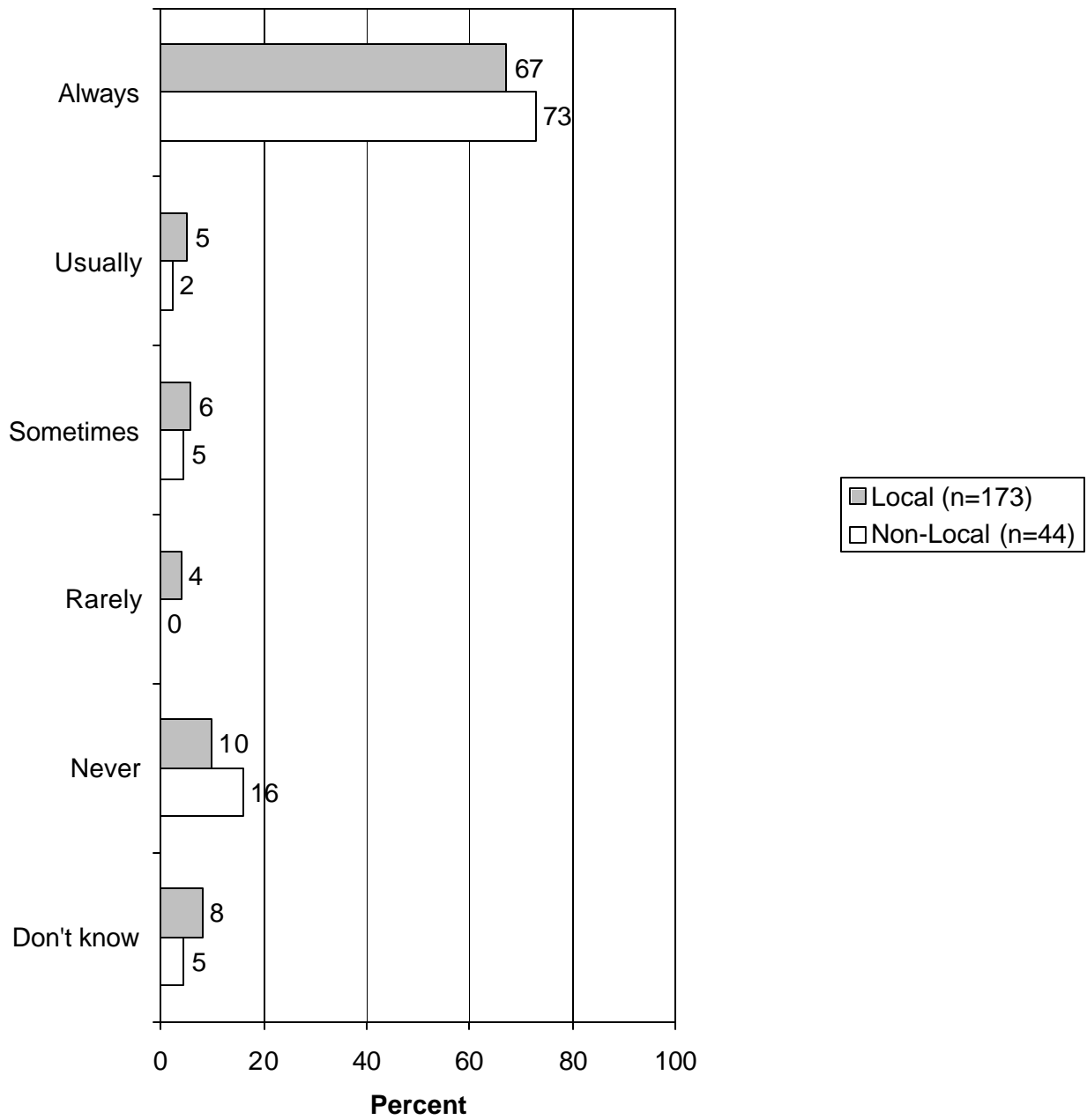
Q97. How often do you check the bilge for engine fluid leaks in your [most-used boat] prior to going out on the water on Lake Tahoe?



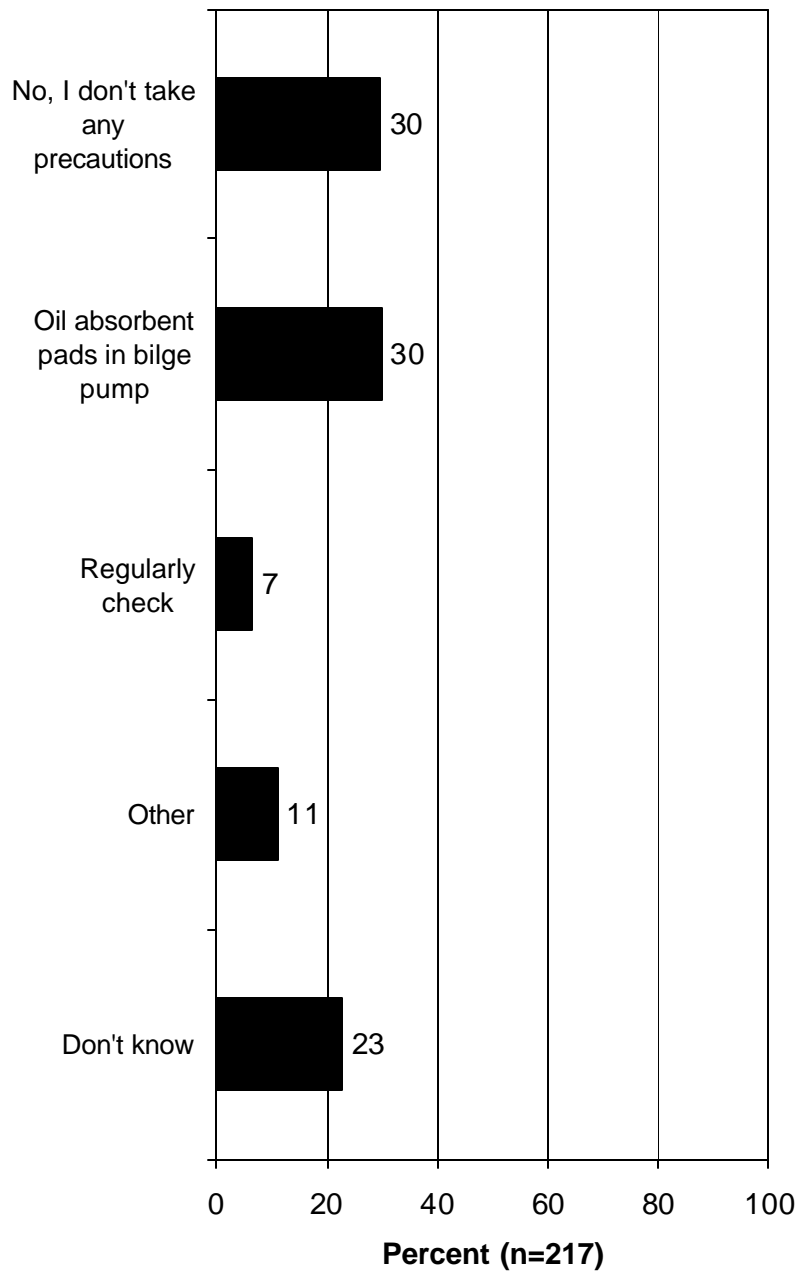
Q98. How often do you check the bilge for contaminants in your [most-used boat] prior to running the bilge pump?



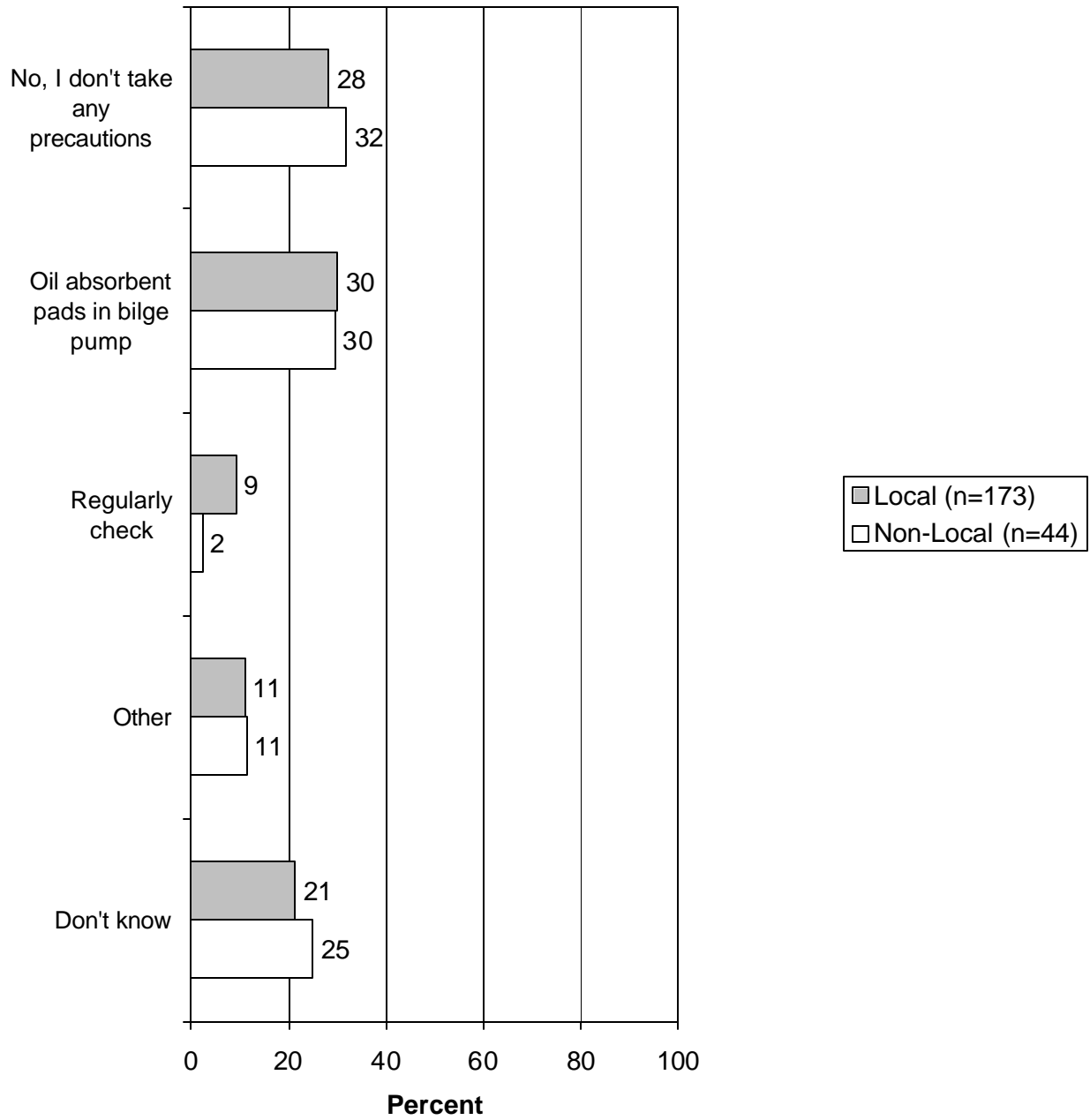
Q98. How often do you check the bilge for contaminants in your [most-used boat] prior to running the bilge pump?



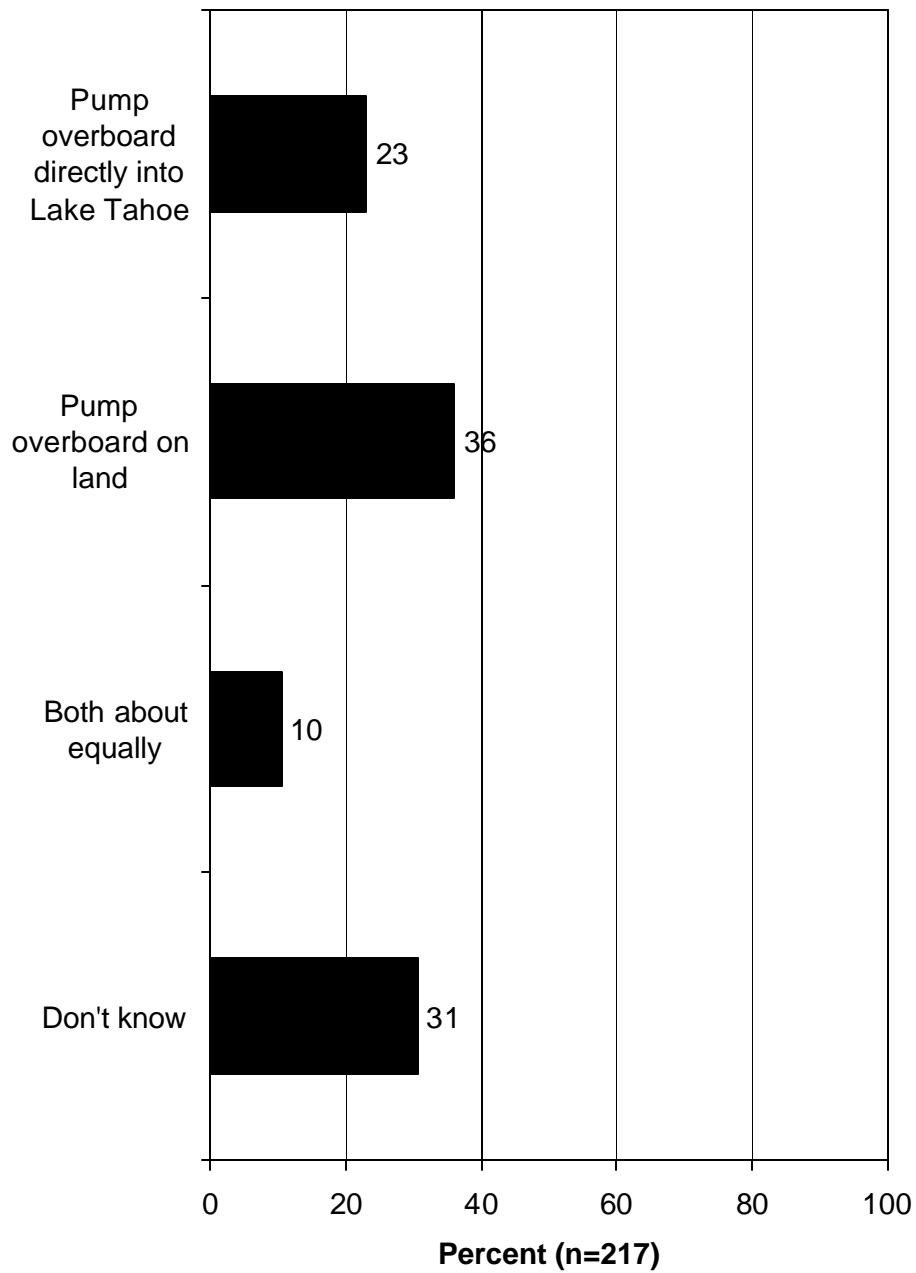
Q100. Do you take any precautions to avoid pumping out contaminants when pumping bilge water overboard in your [most-used boat]?



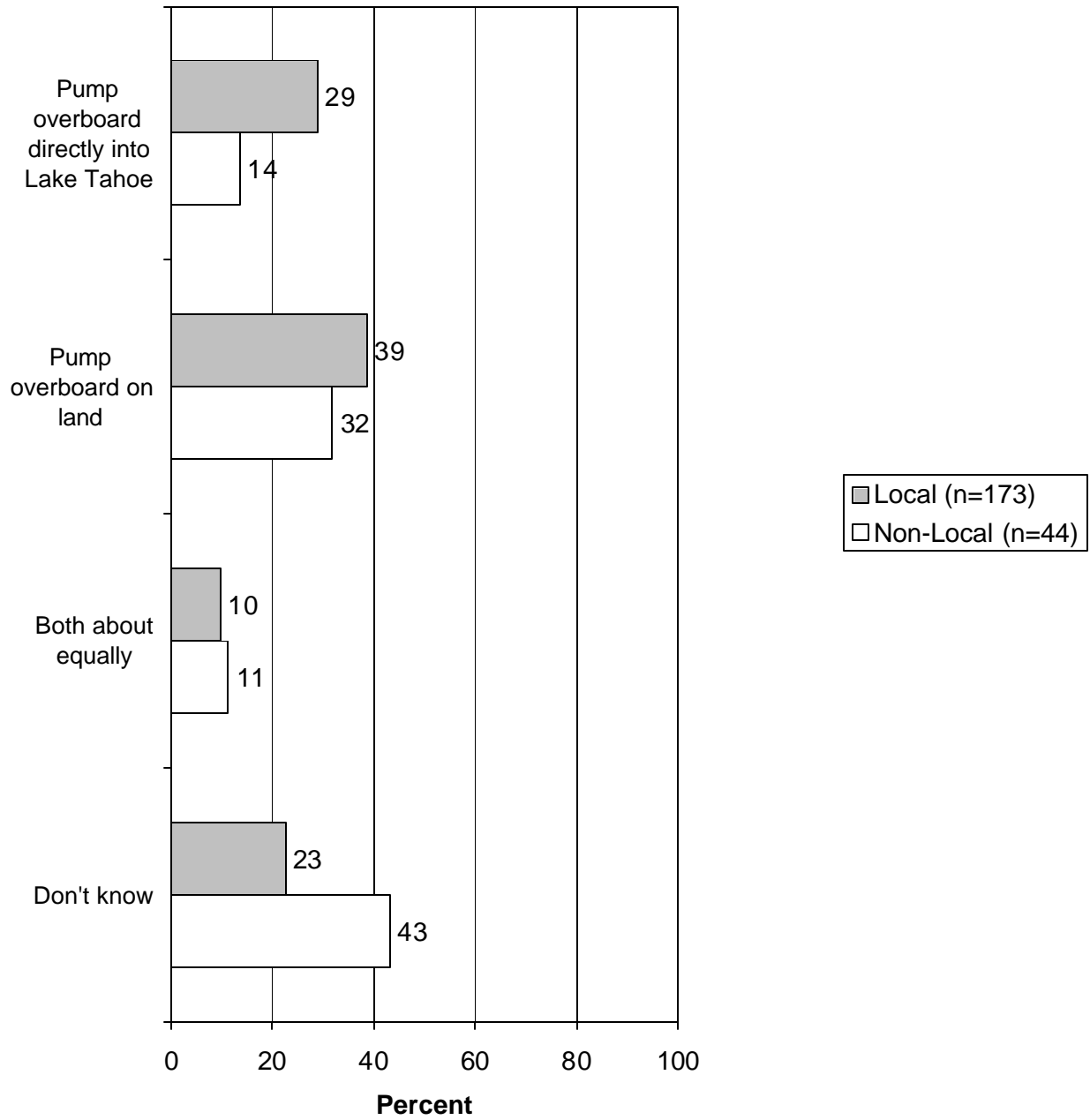
Q100. Do you take any precautions to avoid pumping out contaminants when pumping bilge water overboard in your [most-used boat]?



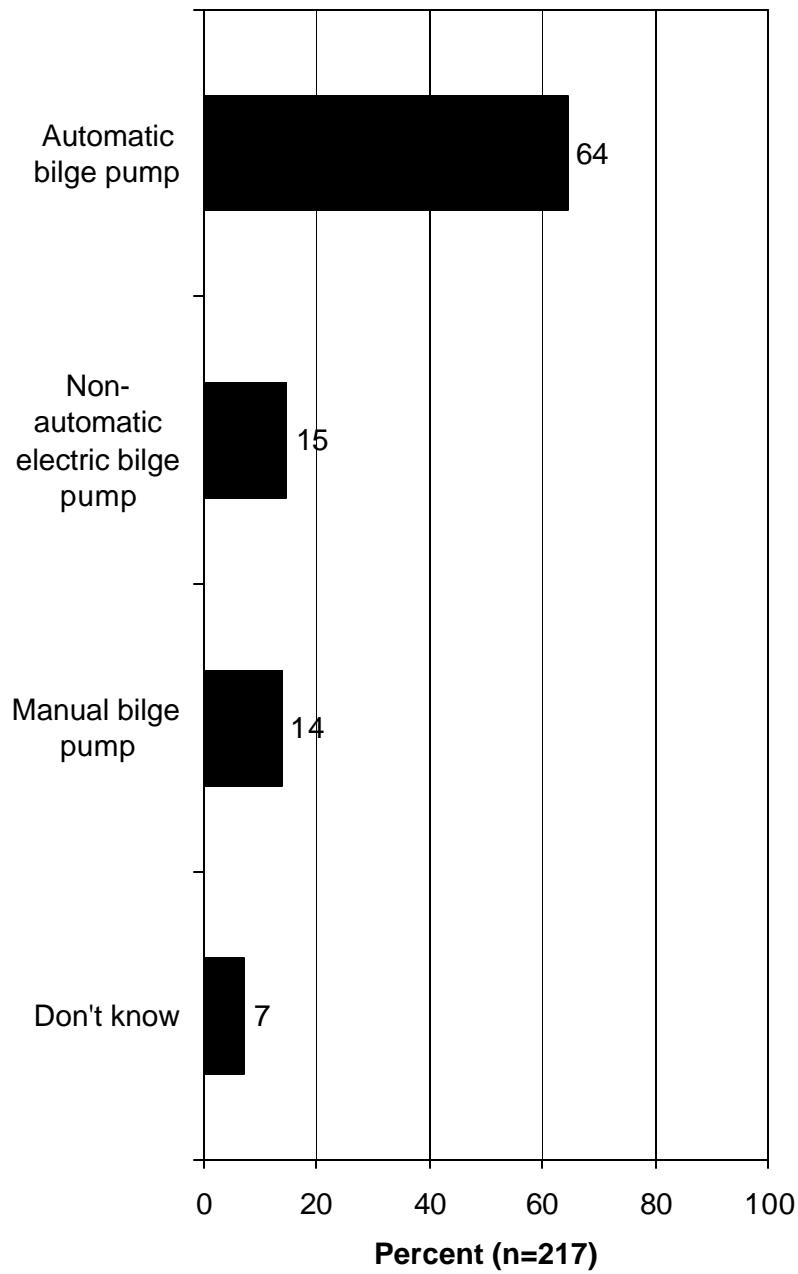
Q102. Do you typically pump bilge water from your [most-used boat] overboard directly into Lake Tahoe or on land?



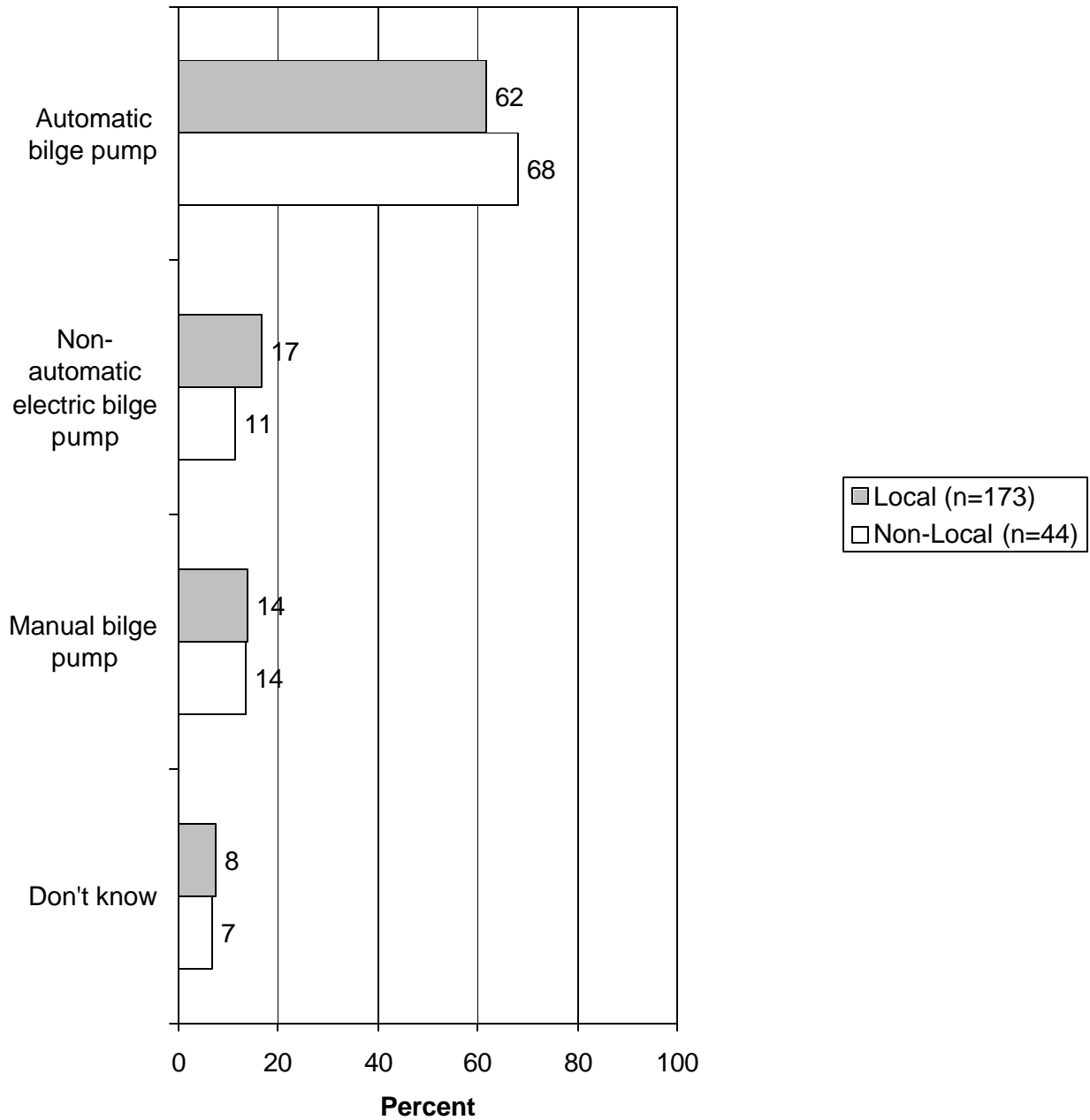
Q102. Do you typically pump bilge water from your [most-used boat] overboard directly into Lake Tahoe or on land?



Q99. Do you have an automatic bilge pump, a non-automatic electric bilge pump, or a manual bilge pump on your [most-used boat]?



Q99. Do you have an automatic bilge pump, a non-automatic electric bilge pump, or a manual bilge pump on your [most-used boat]?



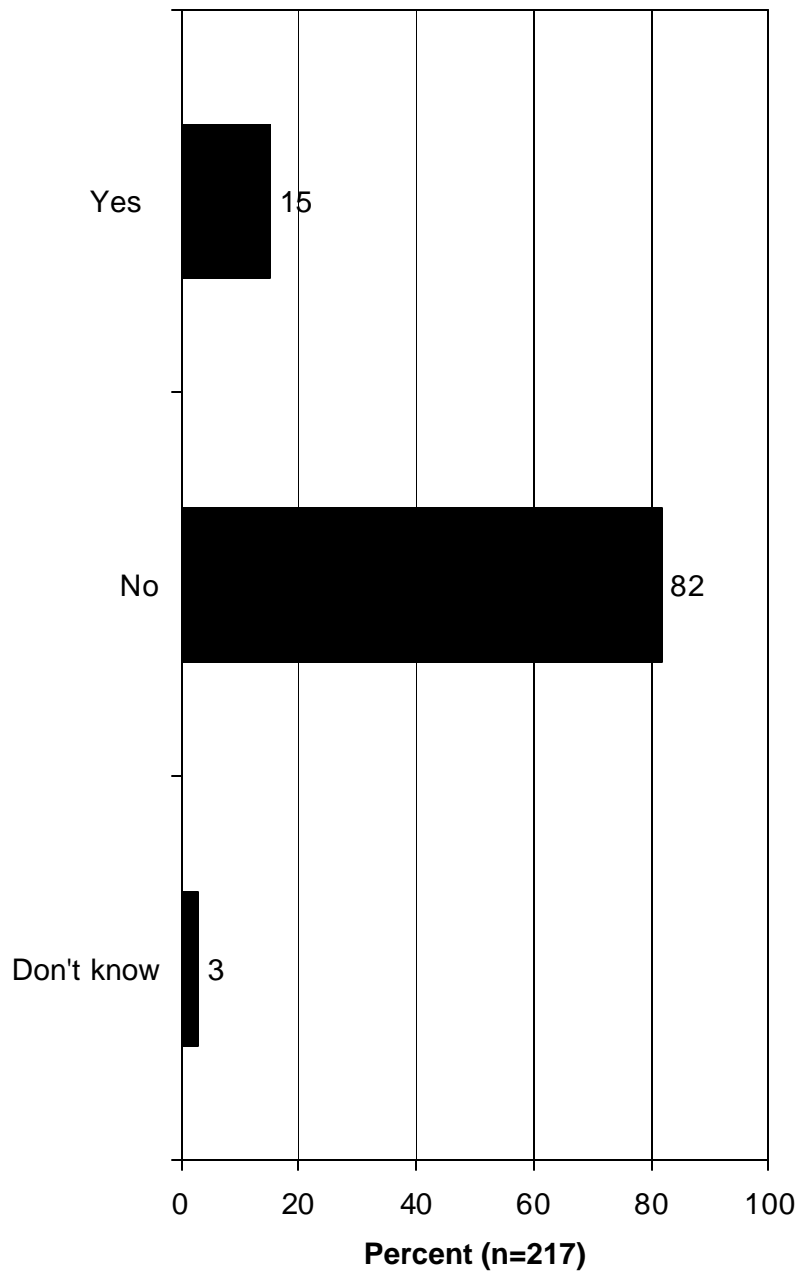
GRAY WATER

- The overwhelming majority of boaters (82%) say that their most-used boat on Lake Tahoe does *not* have a holding tank for gray water.
 - Locals are more likely than are non-locals to say that their most-used boat has a holding tank for gray water (19% of locals, but only 9% of non-locals).

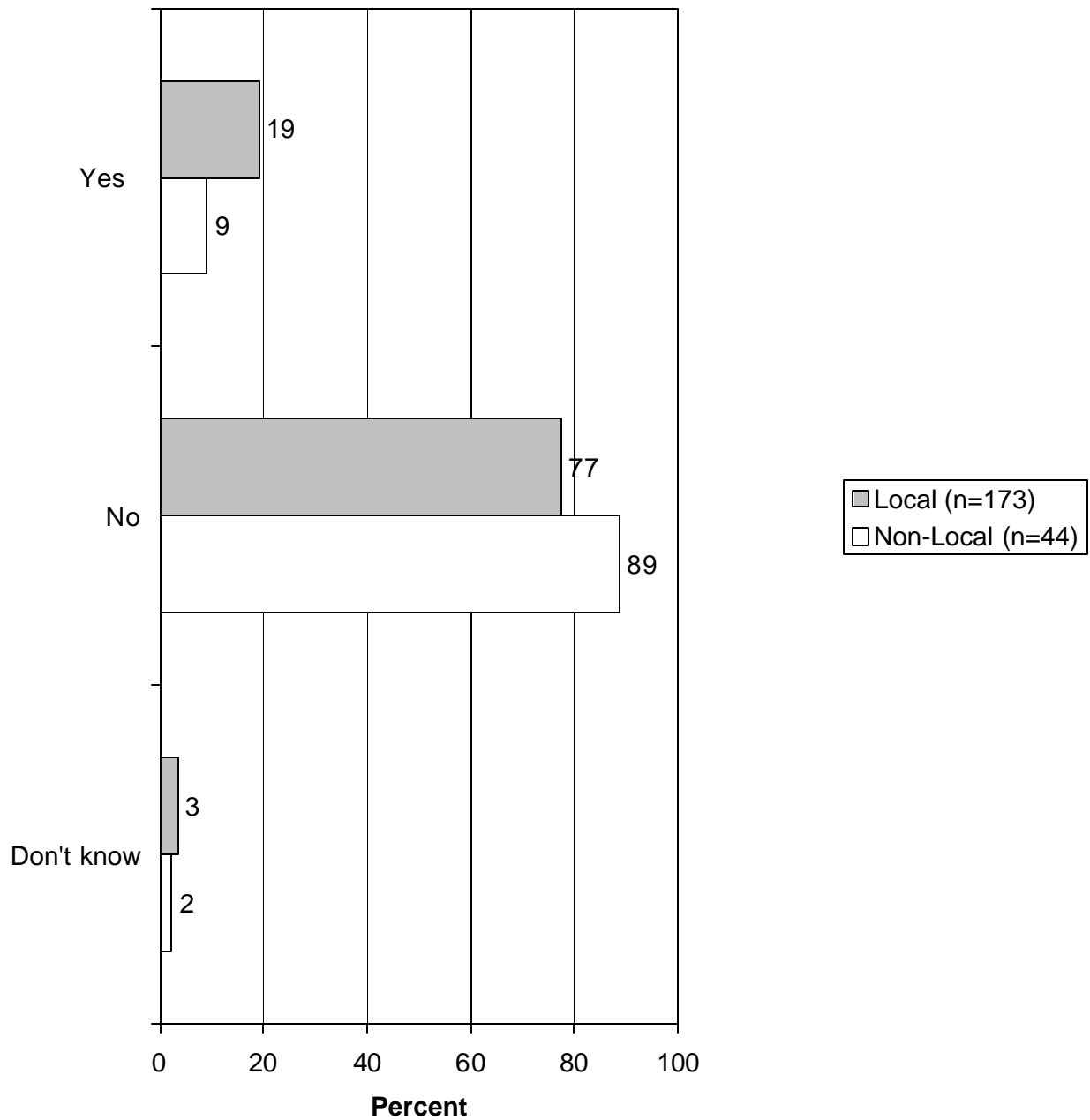
- Most boaters (80%) say that their most-used boat does *not* have an installed or portable toilet with a holding tank onboard.
 - Locals are more likely than are non-locals to have an installed or portable toilet with a holding tank onboard.

- Fortunately, most boaters do not pump their gray water directly into Lake Tahoe: only 2% of boaters do so consistently, and 5% *may* do so sometimes (the answer, “Some combination of these,” which may include, “Pump directly into Lake Tahoe”).
 - None of the non-locals say that they pump gray water directly into Lake Tahoe (although a quarter answered, “Don’t know,” some of whom may do so).

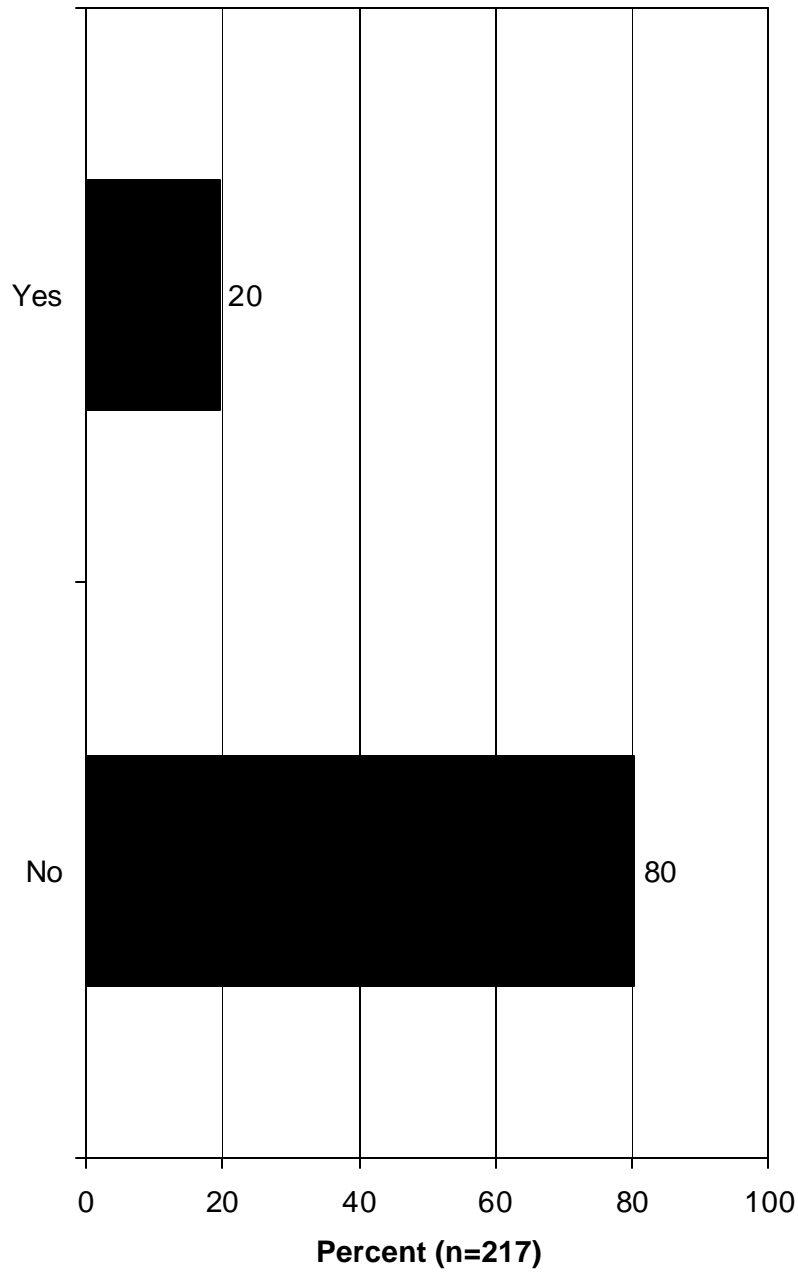
Q103. Does your [most-used boat] have a holding tank for gray water?



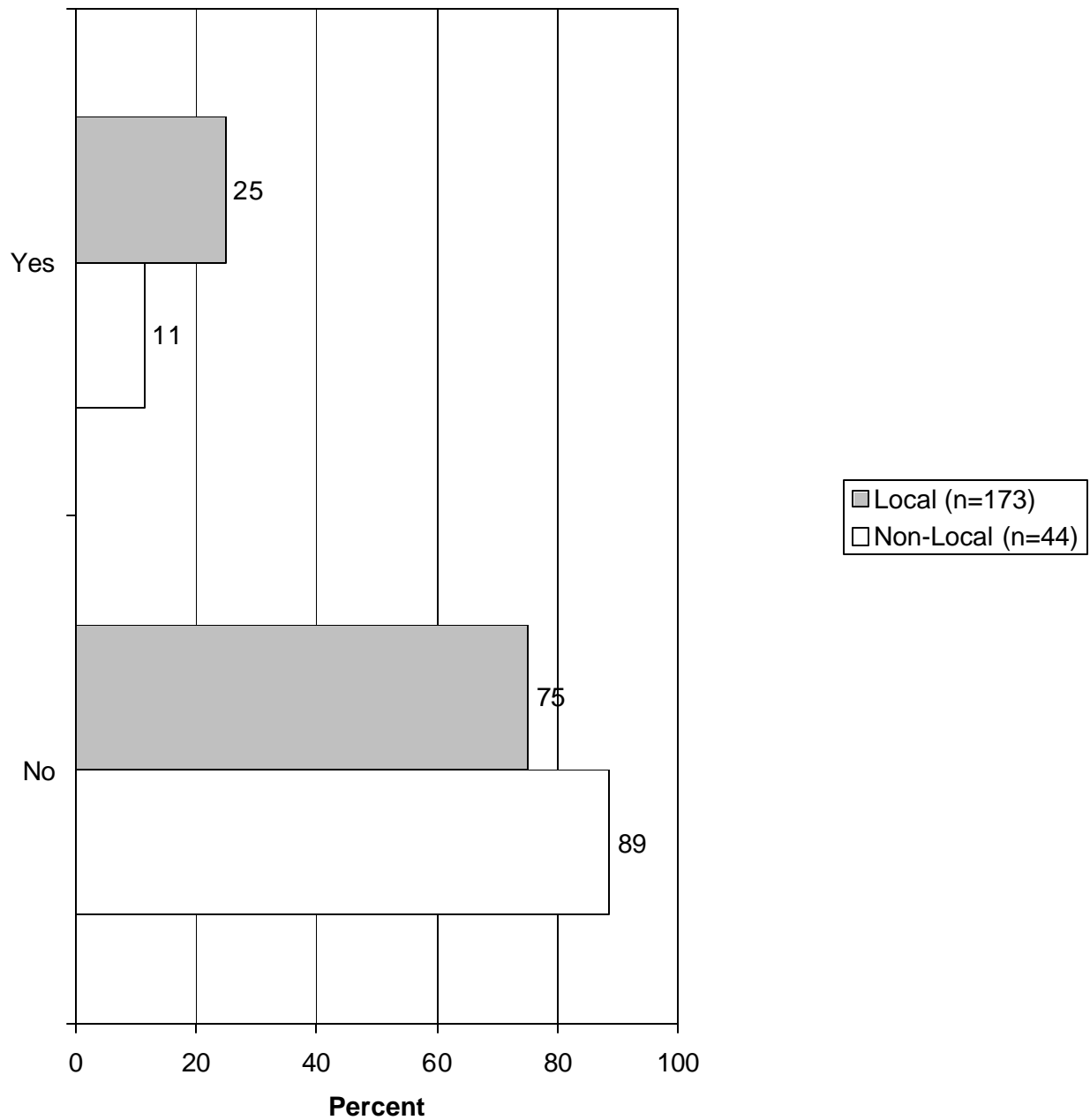
Q103. Does your [most-used boat] have a holding tank for gray water?



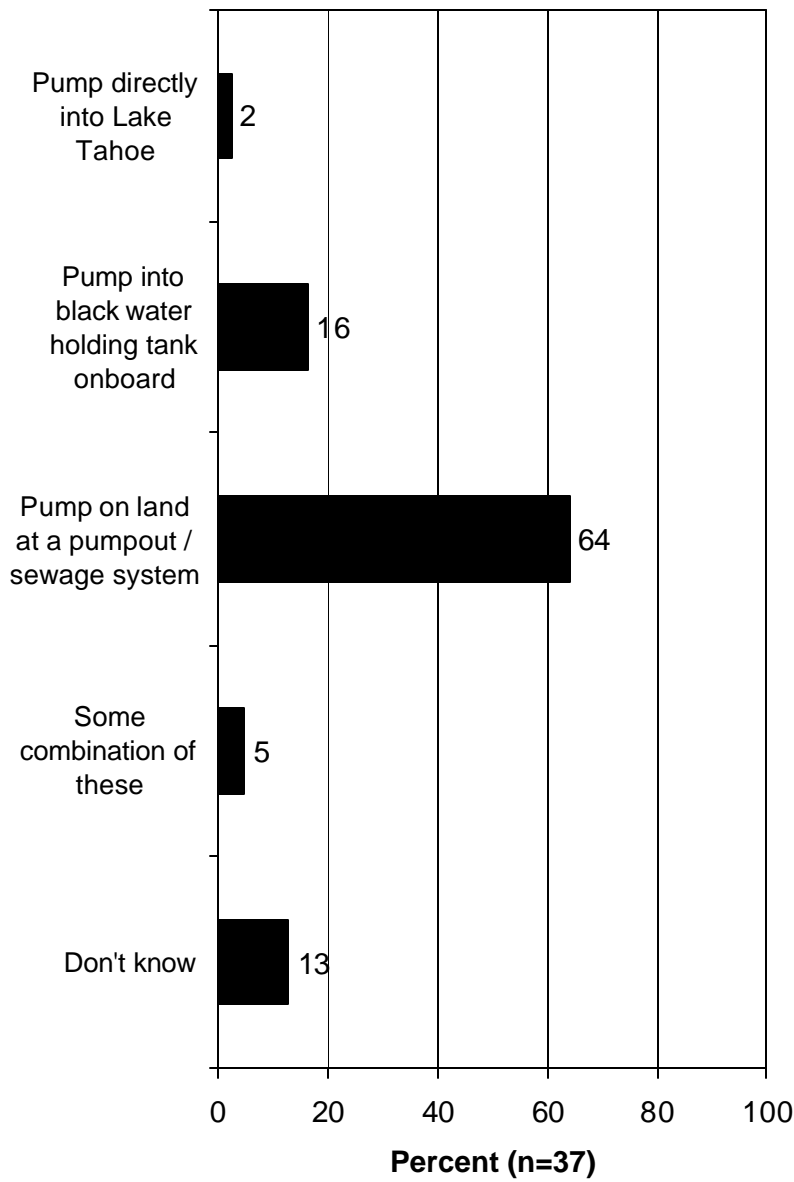
Q105. Do you have an installed or portable toilet with a holding tank onboard your [most-used boat]?



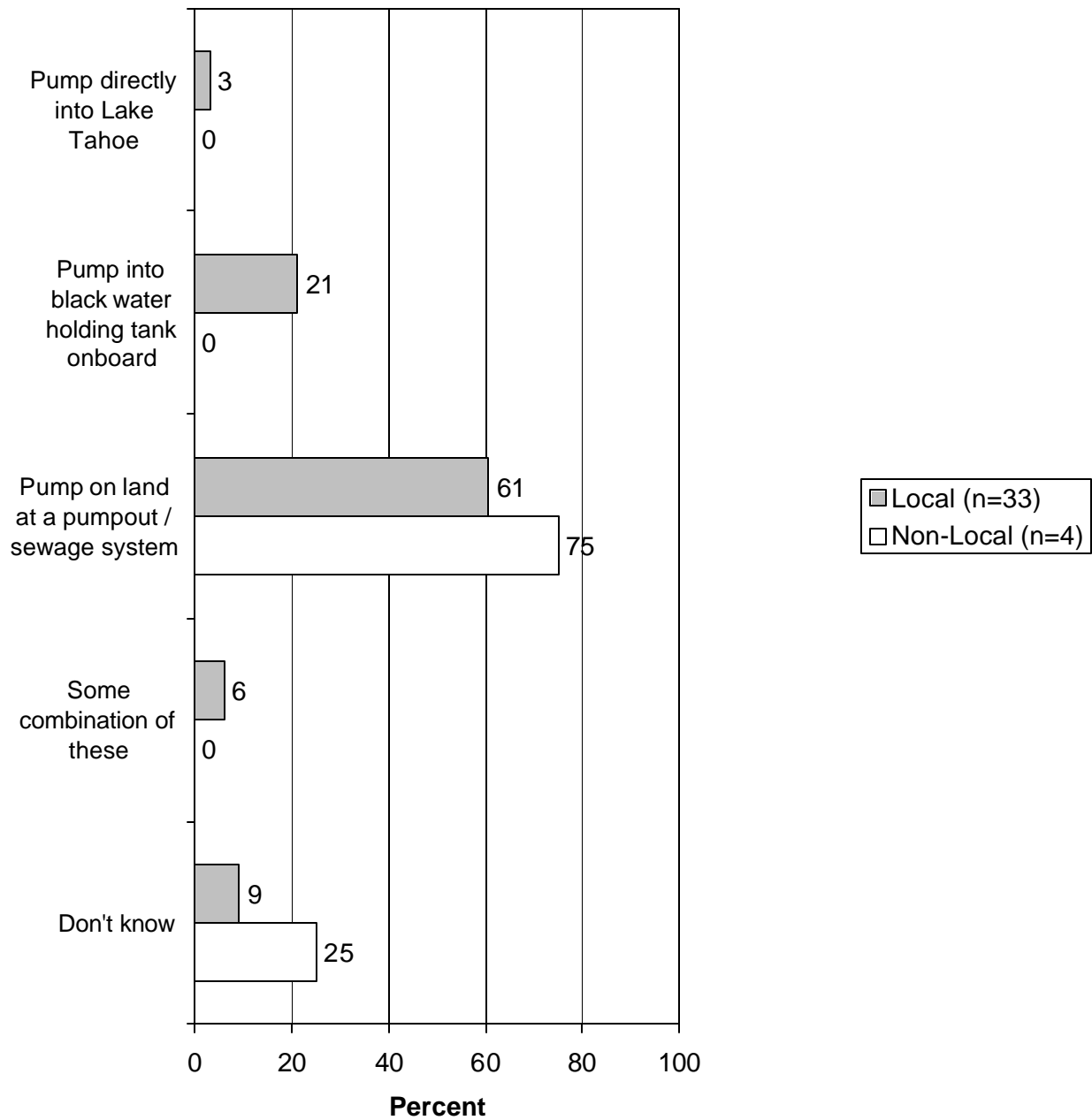
Q105. Do you have an installed or portable toilet with a holding tank onboard your [most-used boat]?



Q104. Do you typically pump gray water from your [most-used boat] directly into Lake Tahoe, into a black water holding tank onboard, or on land at a pumpout / sewage system?



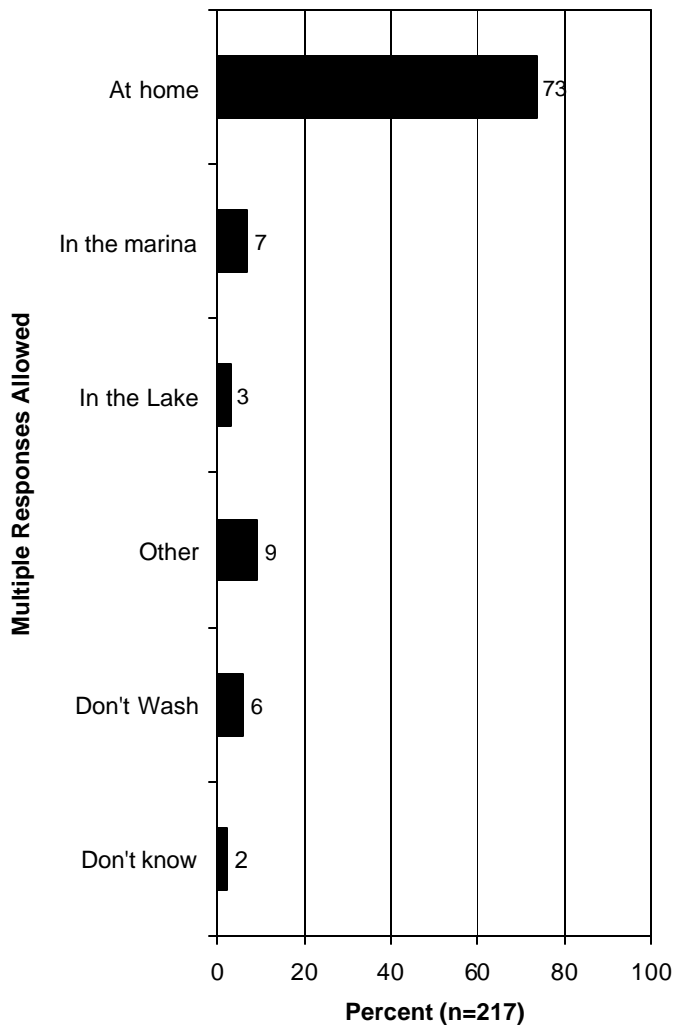
Q104. Do you typically pump gray water from your [most-used boat] directly into Lake Tahoe, into a black water holding tank onboard, or on land at a pumpout / sewage system?



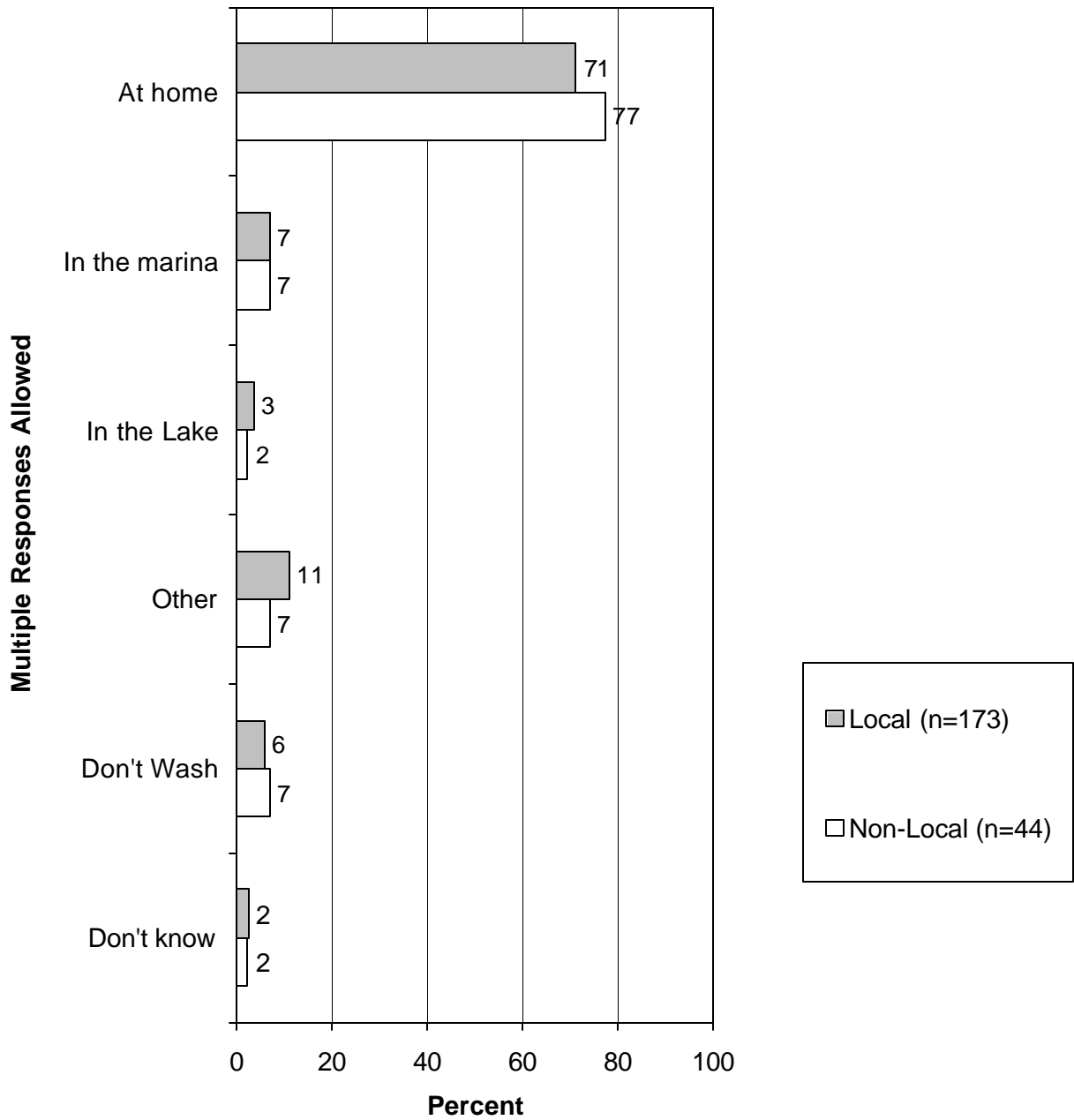
BOAT WASHING

- Home is the most common place that people wash their boat (73%). Otherwise, 7% do so at a marina, and 3% do so in the Lake. Those who wash their boat typically use dish soap (27%), although substantial percentages use car wash solution (18%) or boat wash solution (15%).
- Locals and non-locals are not markedly different on these questions.

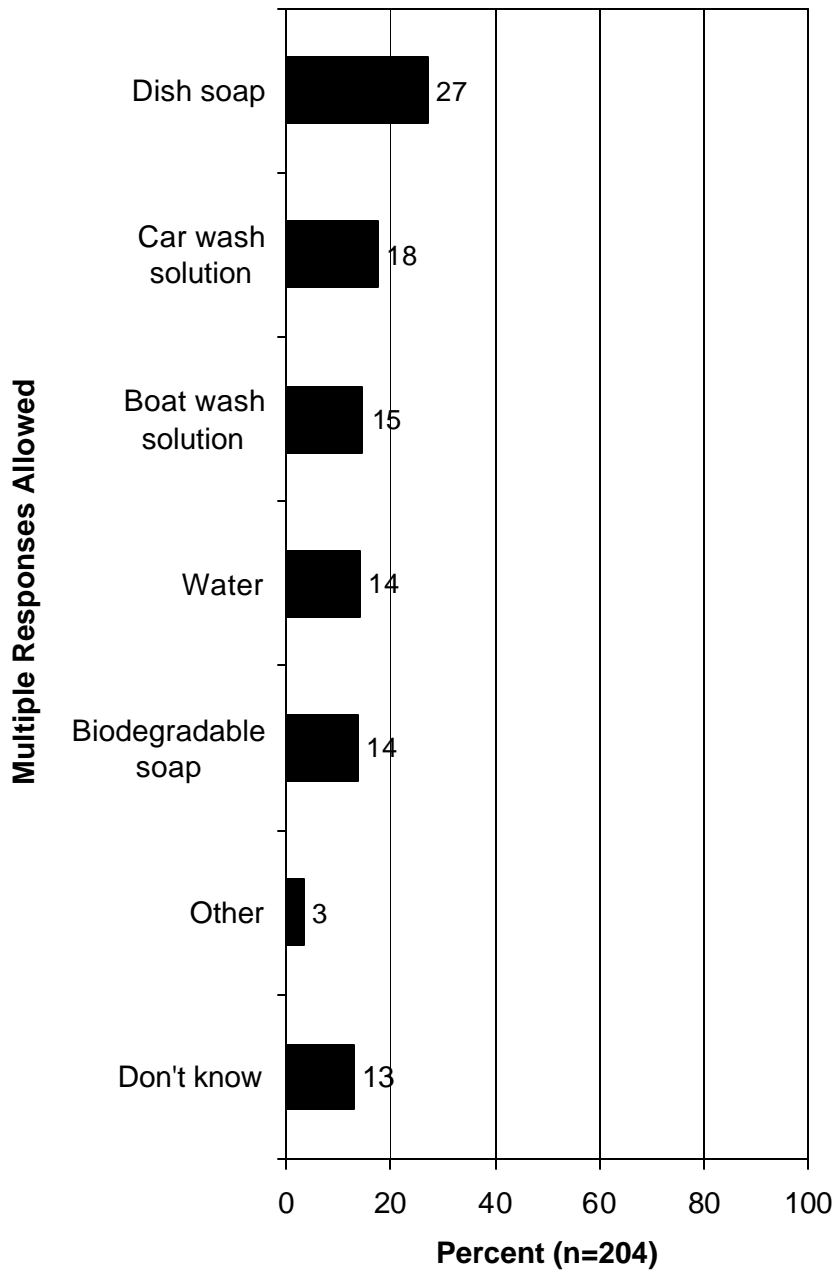
Q108. Where do you wash your [most-used boat]?



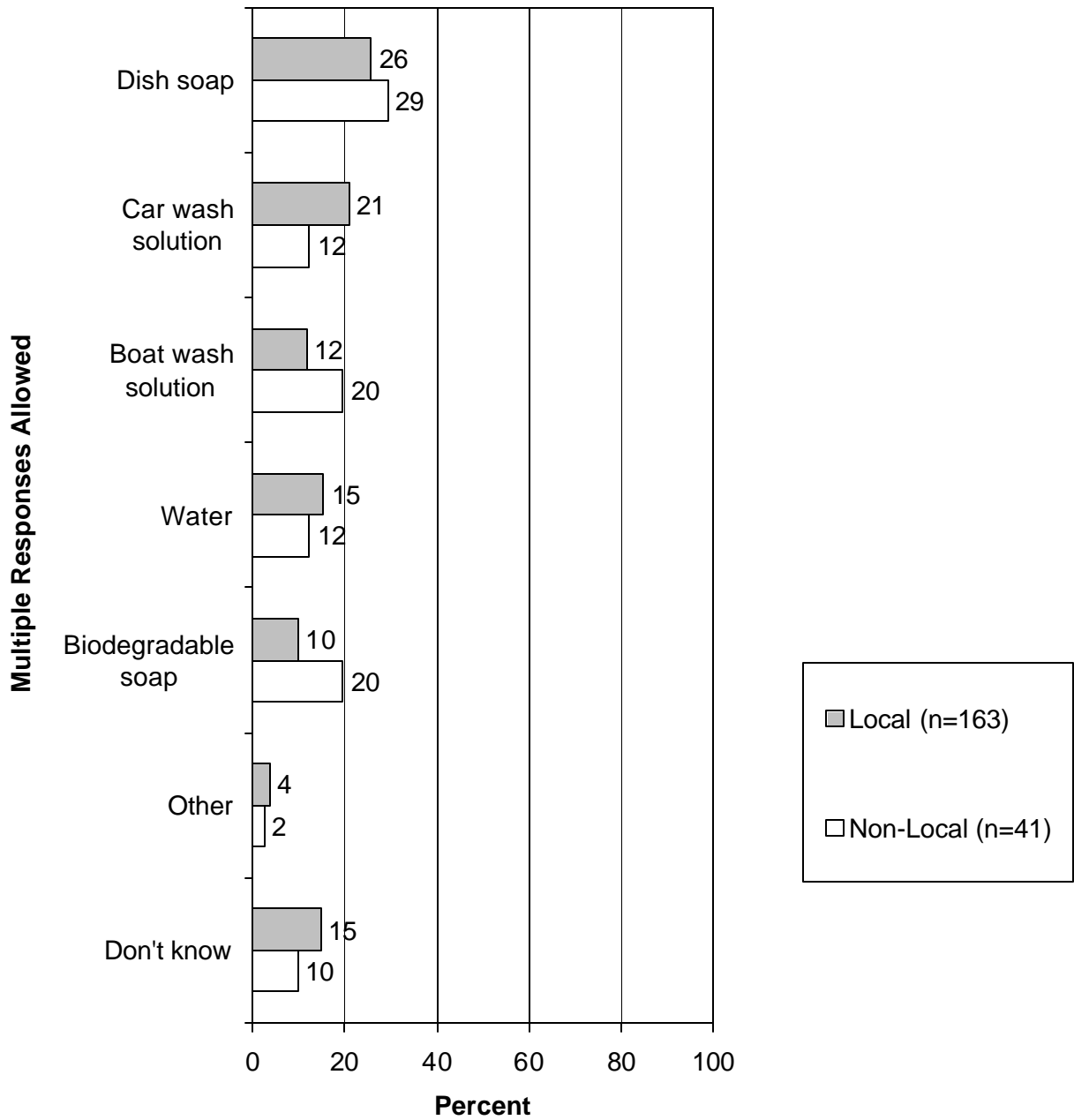
Q108. Where do you wash your [most-used boat]?



Q112. What type of cleaning solution do you use? (Asked of those who wash their boats.)



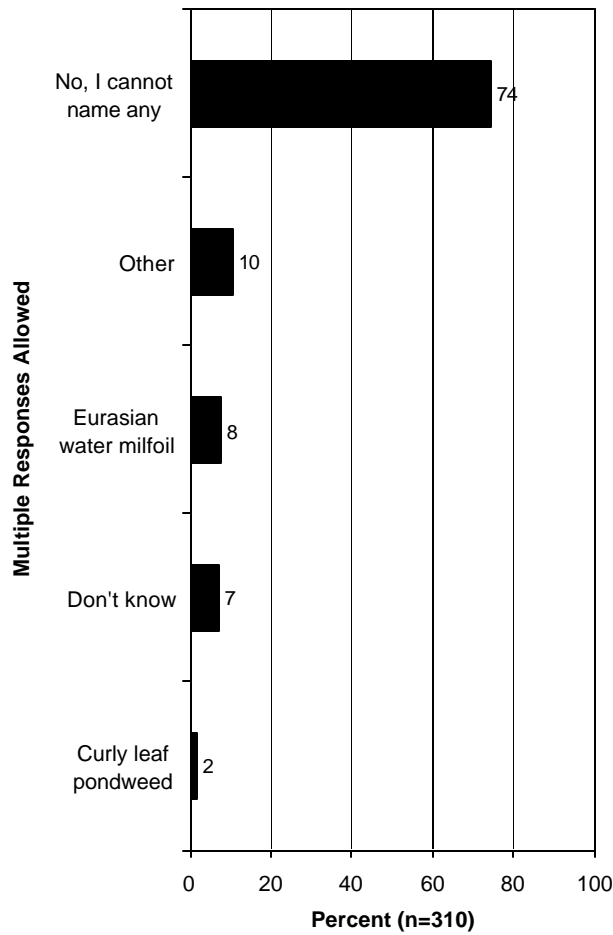
Q112. What type of cleaning solution do you use? (Asked of those who wash their boats.)



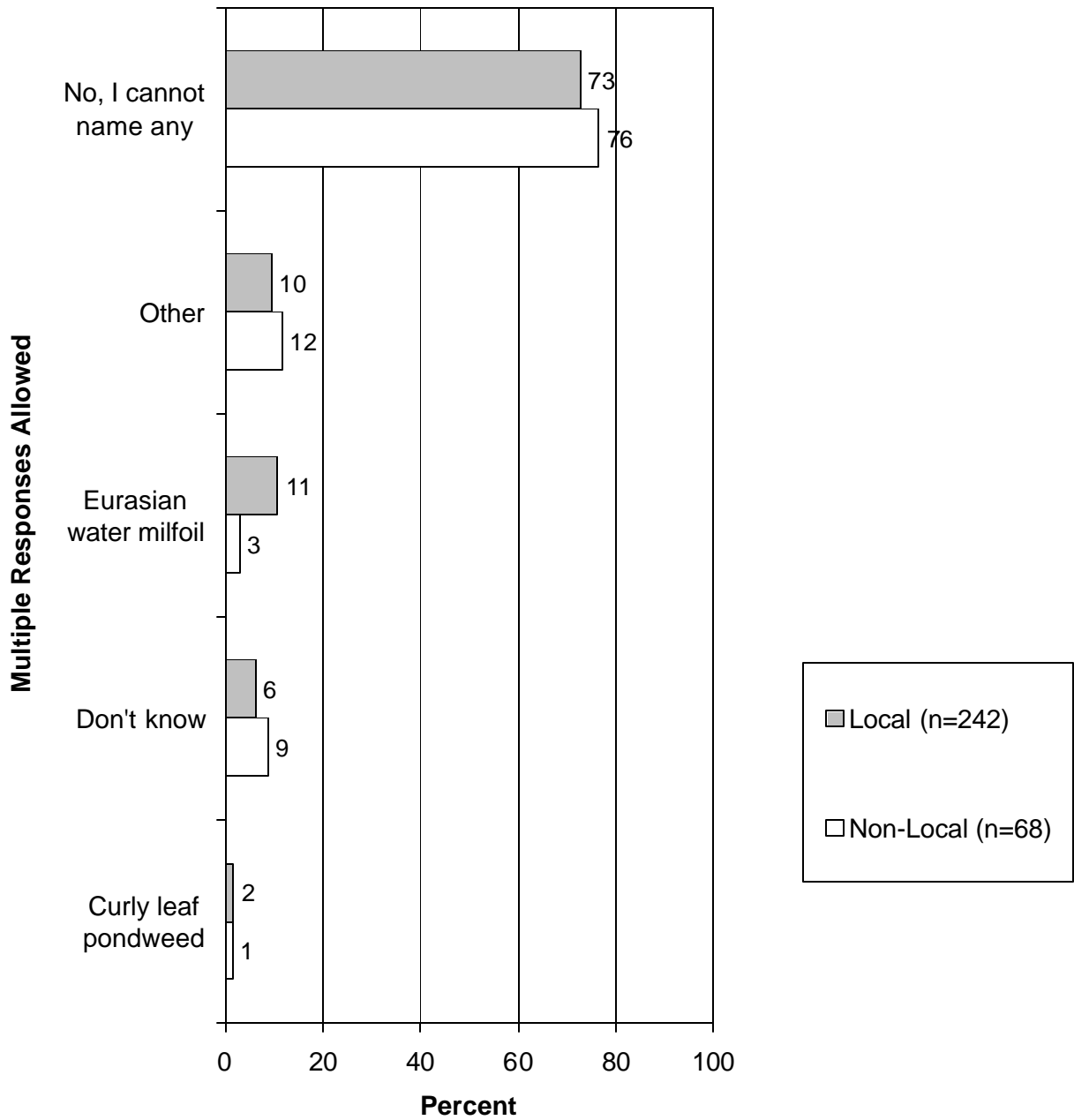
INVASIVE SPECIES IN LAKE TAHOE

- Most Lake Tahoe boaters (74%) cannot name any invasive plant species currently threatening Lake Tahoe; otherwise, 8% named the Eurasian milfoil, and 2% named the curly leaf pondweed. About 1 in 5 boaters have seen (or, to be more exact, know that they have seen) an invasive plant species while boating on Lake Tahoe.
- Locals were more likely than were non-locals to name the Eurasian water milfoil. Locals are slightly more likely to have seen an invasive plant species while boating on Lake Tahoe.

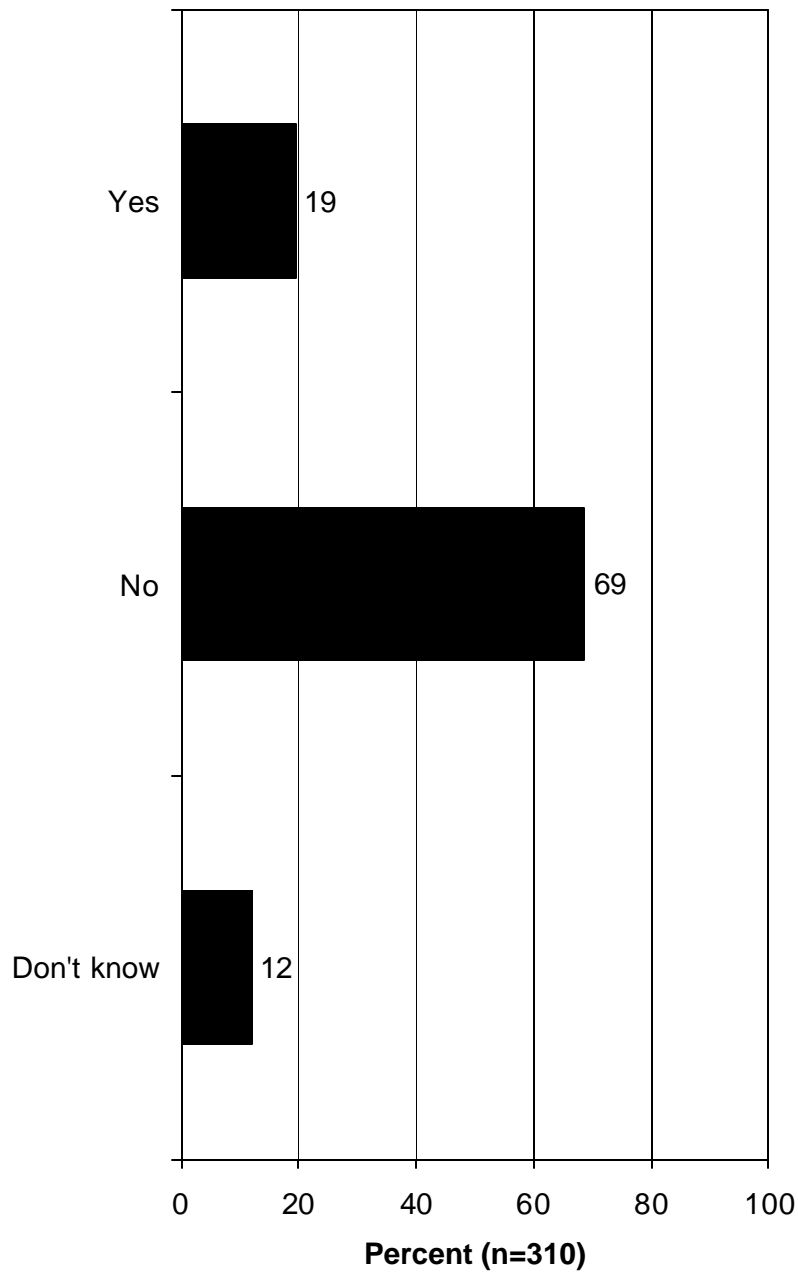
Q124. Can you name any of the invasive plant species that currently threaten Lake Tahoe?



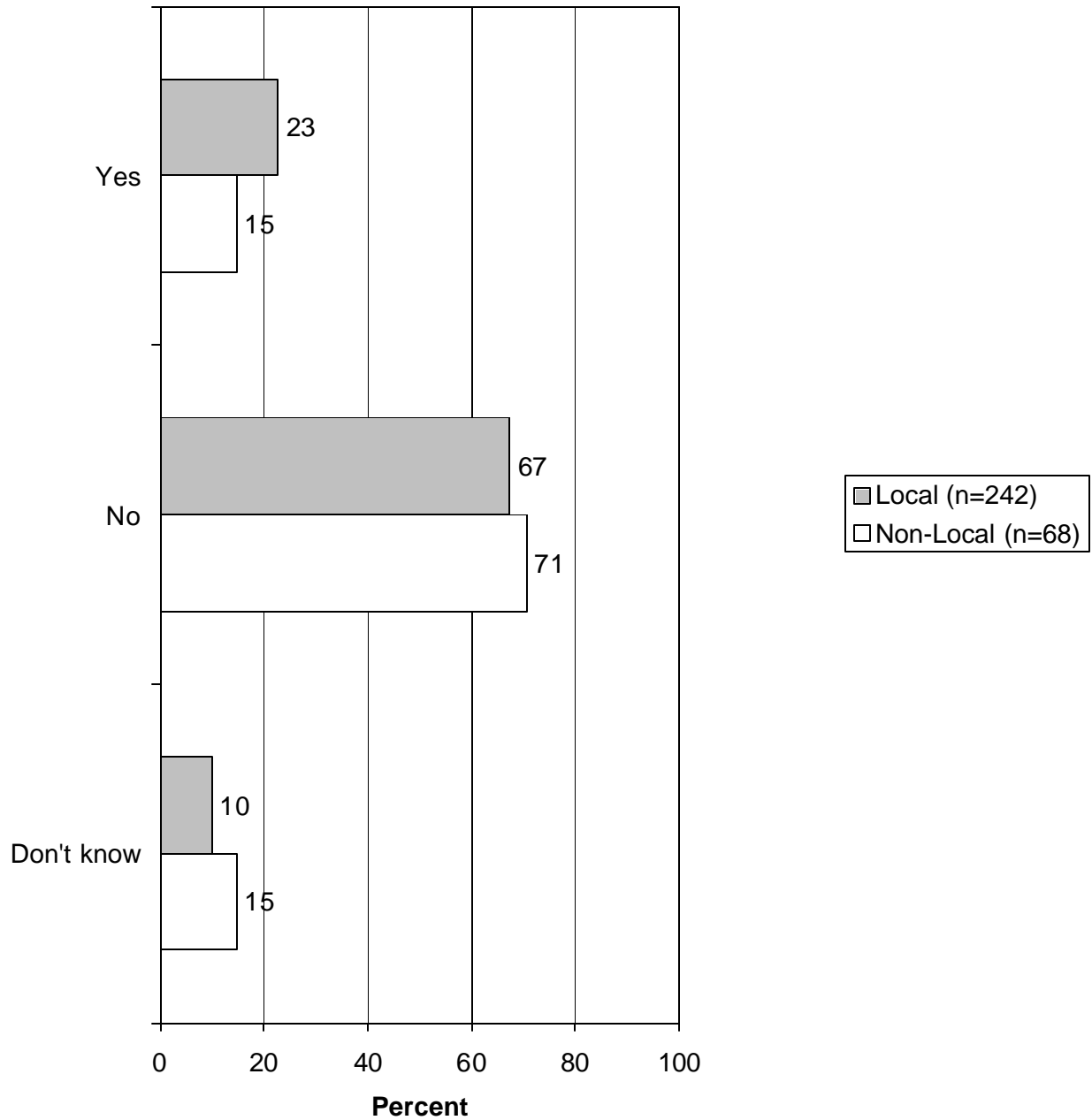
Q124. Can you name any of the invasive plant species that currently threaten Lake Tahoe?



Q126. Have you ever seen an invasive plant species while boating on Lake Tahoe in the past 2 years?



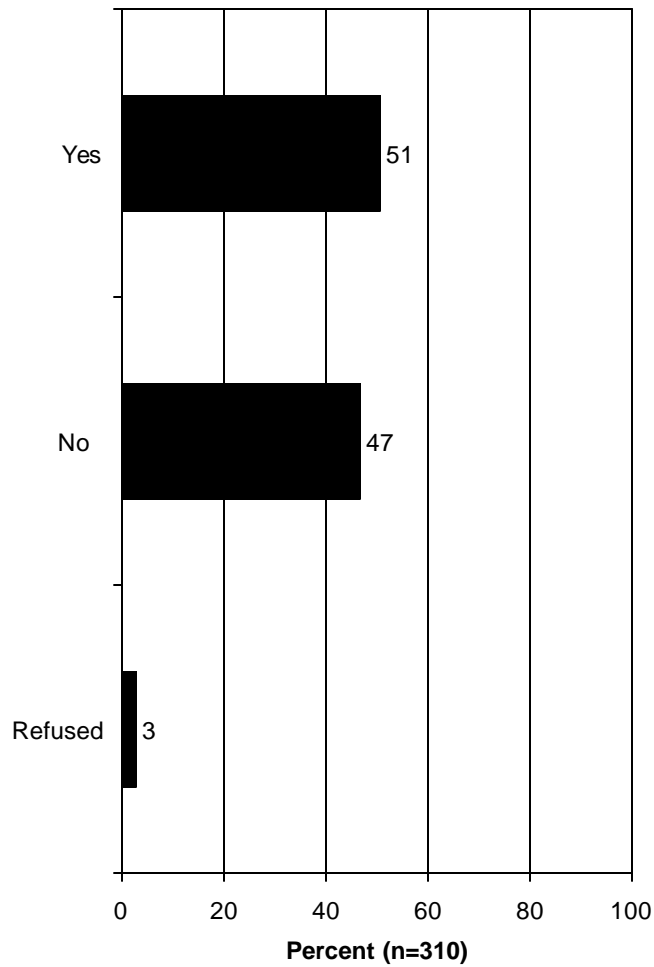
Q126. Have you ever seen an invasive plant species while boating on Lake Tahoe in the past 2 years?



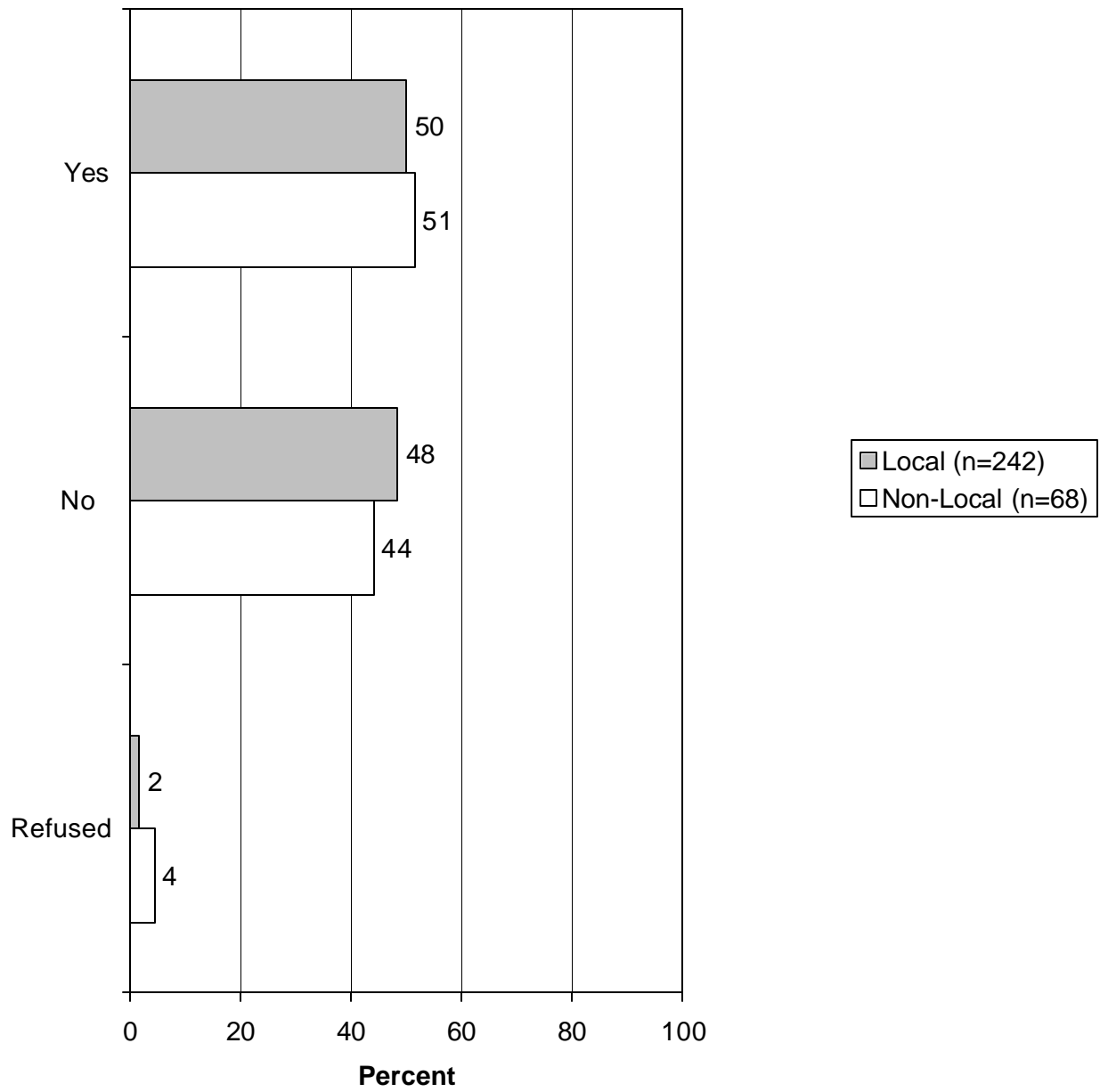
BOATING SAFETY

- Boaters are about evenly split between those who have taken a recognized boating safety class (51%) and those who have not (47%). Common reasons for not taking a class include not feeling the need, not being interested, and time constraints.
 - Locals and non-locals are about the same on these questions.

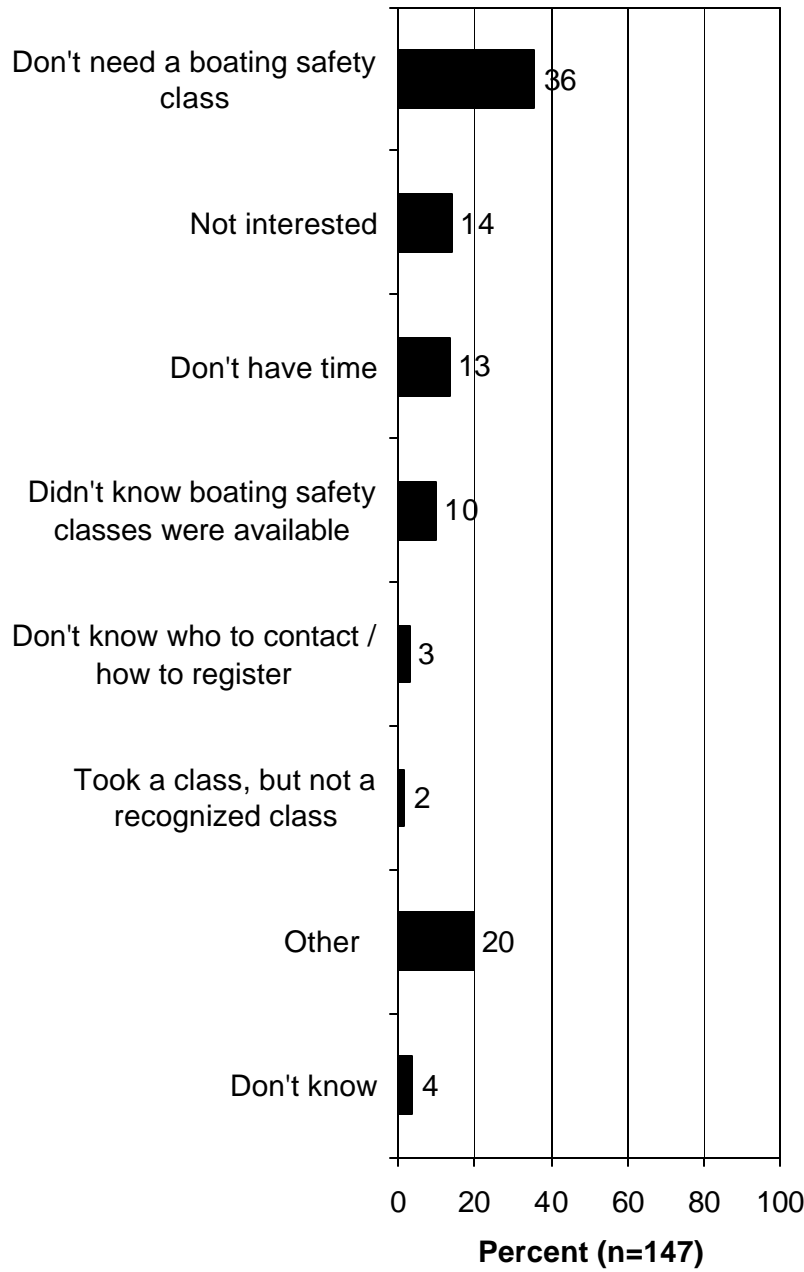
Q132. Have you taken a recognized boating safety class, that is, a class that was at least 8 hours and was provided by a state agency, the U.S. Coast Guard Auxiliary, the U.S. Power Squadrons, a school, or a boating club?



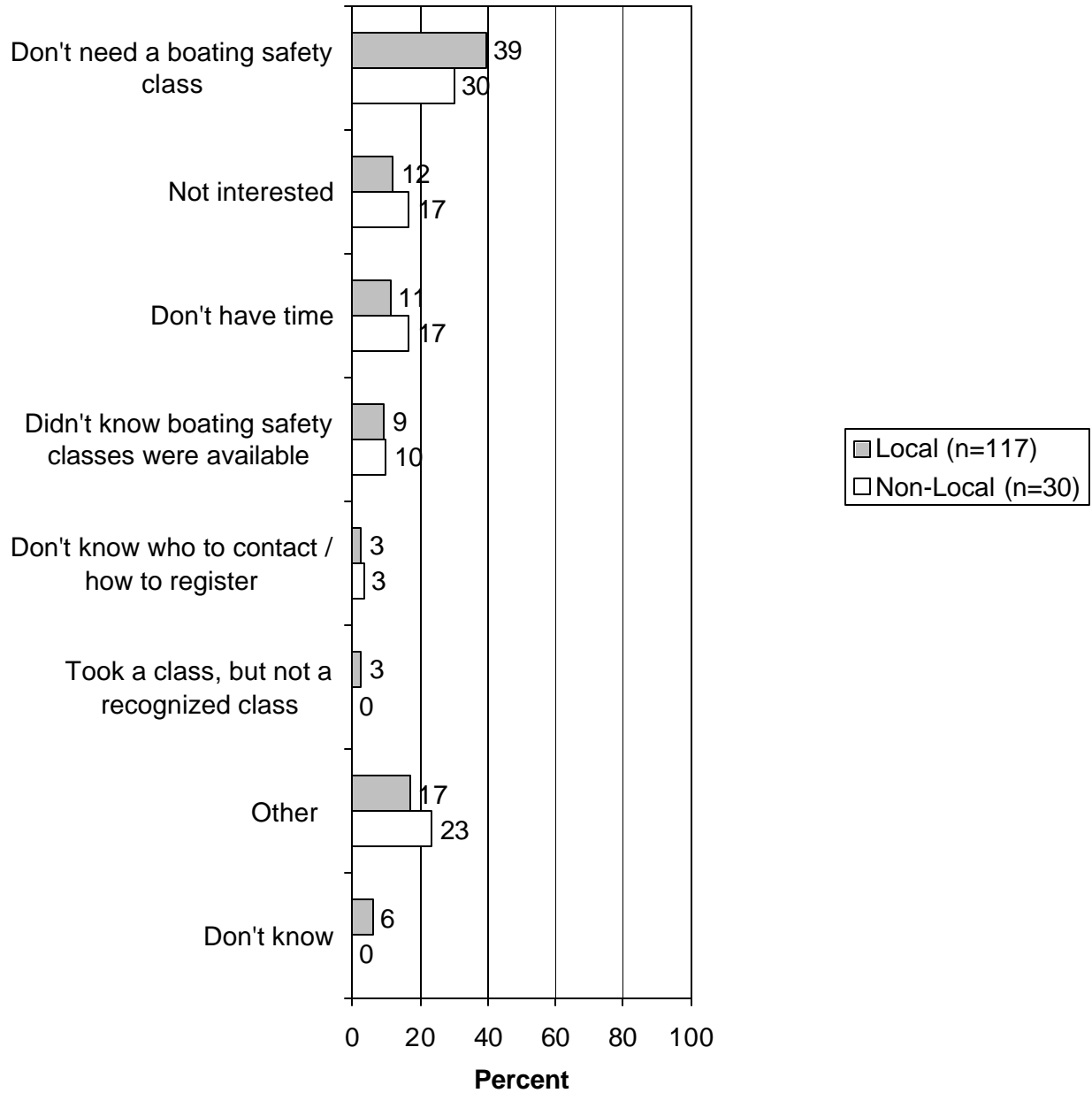
Q132. Have you taken a recognized boating safety class, that is, a class that was at least 8 hours and was provided by a state agency, the U.S. Coast Guard Auxiliary, the U.S. Power Squadrons, a school, or a boating club?



Q133. What is your main reason for not taking a recognized boating safety class? (Asked of those who have not taken a boating safety course.)



Q133. What is your main reason for not taking a recognized boating safety class? (Asked of those who have not taken a boating safety course.)



AWARENESS AND RATING OF THE TAHOE REGIONAL PLANNING AGENCY

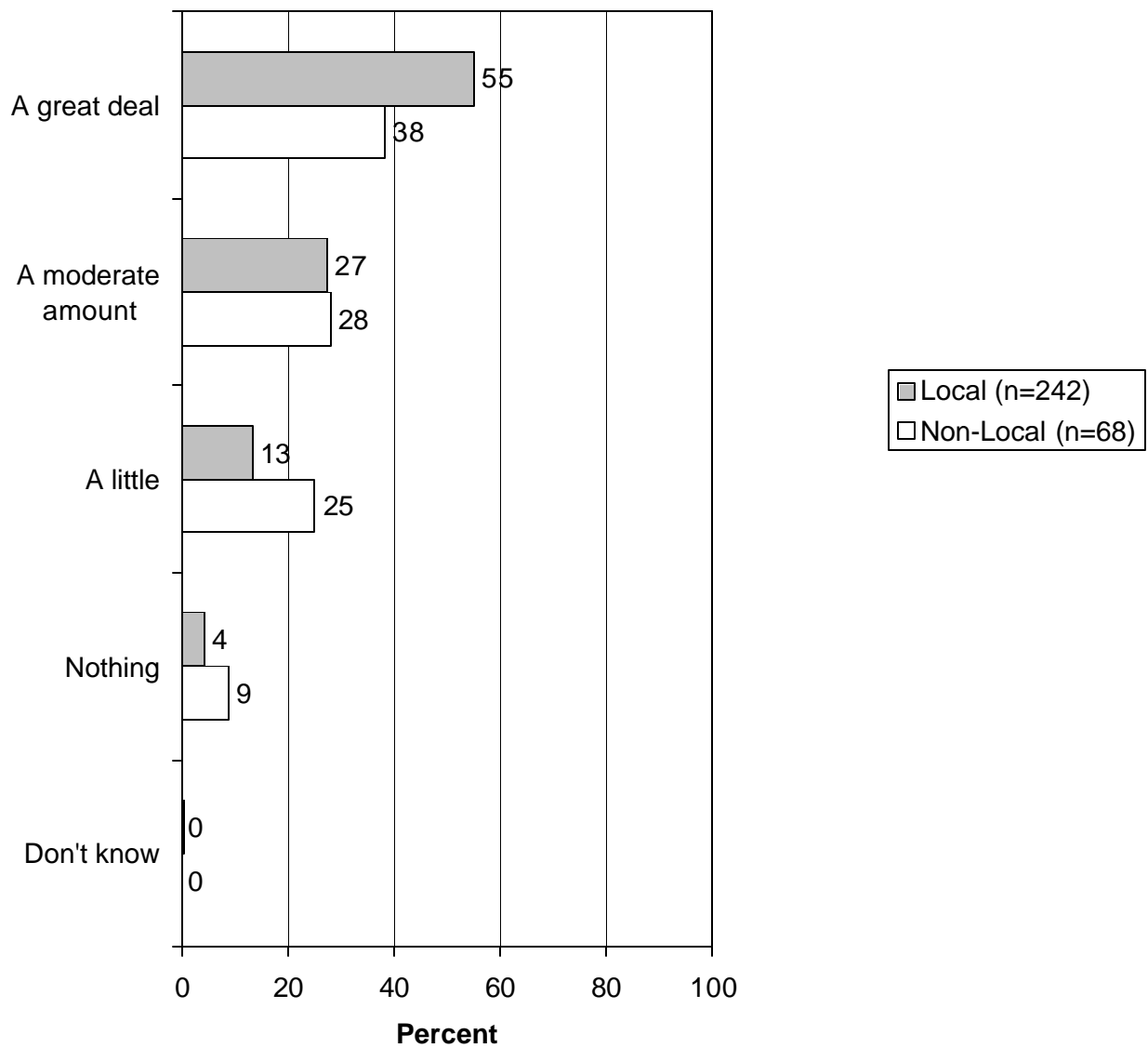
- The majority of boaters (76%) say that they had heard a great deal or a moderate amount about the TRPA (the full name, not the acronym, was used in the survey) prior to the survey; only 6% say that they had heard nothing.
 - Locals were more likely than non-locals to have heard a great deal.

- Ratings of the TRPA's efforts at providing boating access to Lake Tahoe is mixed: while 42% of boaters rate their efforts as excellent or good, 45% rate them as fair or poor.
 - Non-locals are slightly more likely than are locals to rate the efforts as excellent or good.

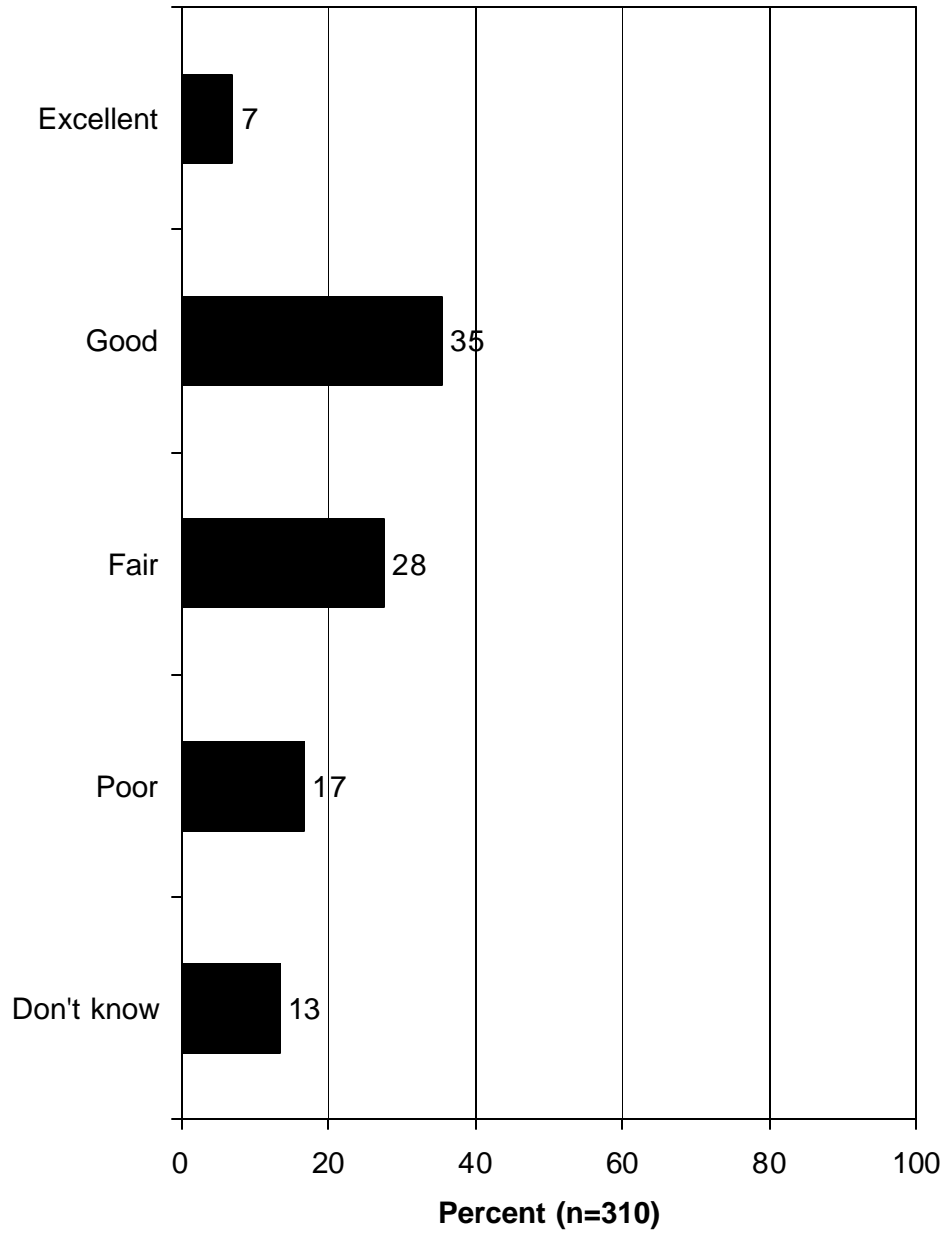
Q127. The Tahoe Regional Planning Agency is responsible for protecting the Lake Tahoe region for the benefit of current and future generations. The goal of the agency is to have a lake and environment that is clean, healthy, and sustainable. Prior to this survey, how much had you heard about the activities of the Tahoe Regional Planning Agency?



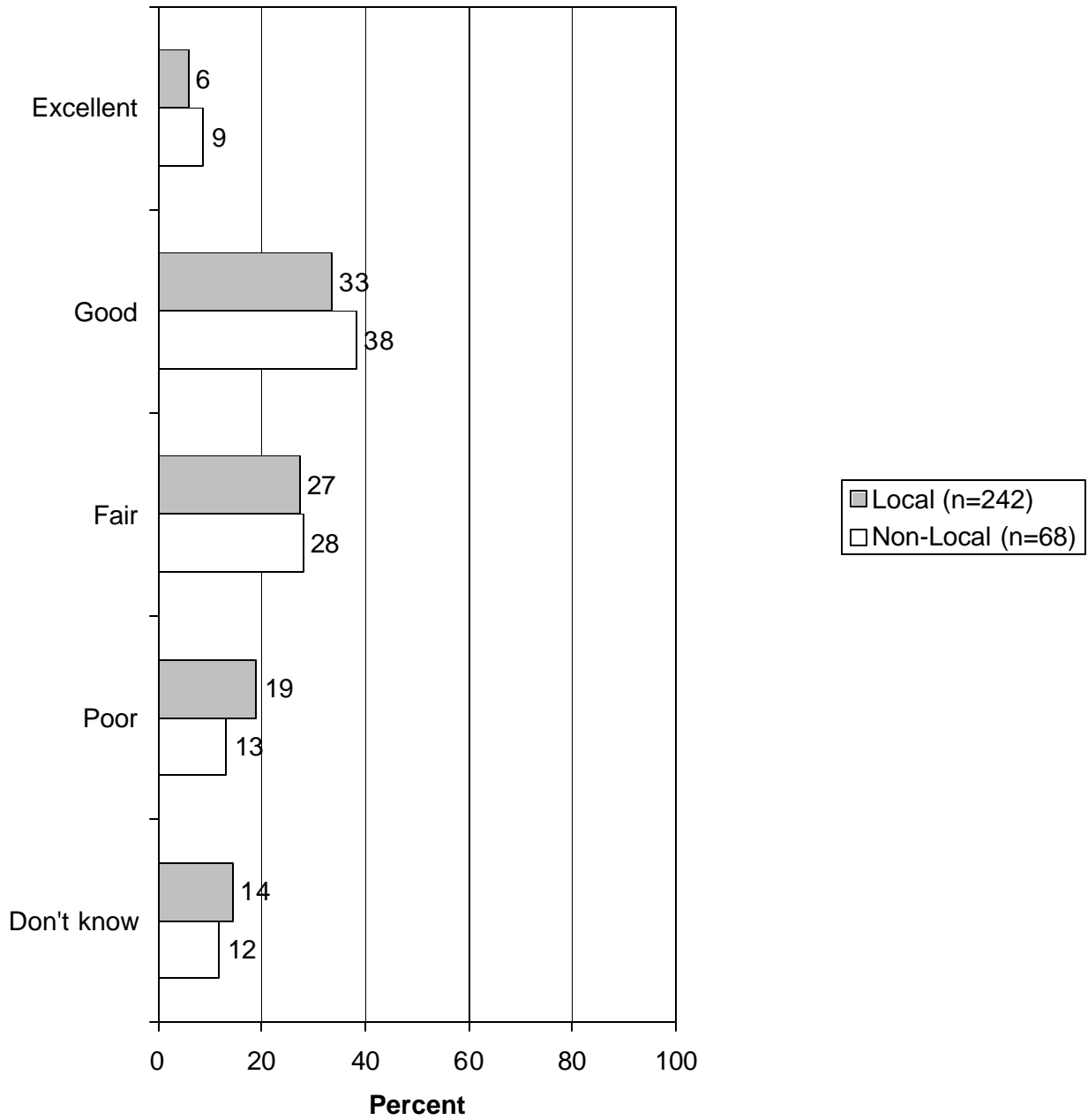
Q127. The Tahoe Regional Planning Agency is the agency responsible for protecting the Lake Tahoe Region for the benefit of current and future generations. The goal of the agency is to have a lake and environment that is clean, healthy, and sustainable. Prior to this survey, how much had you heard about the activities of the Tahoe Regional Planning Agency?



Q128. How would you rate the Tahoe Regional Planning Agency's efforts to provide boating access opportunities on Lake Tahoe?



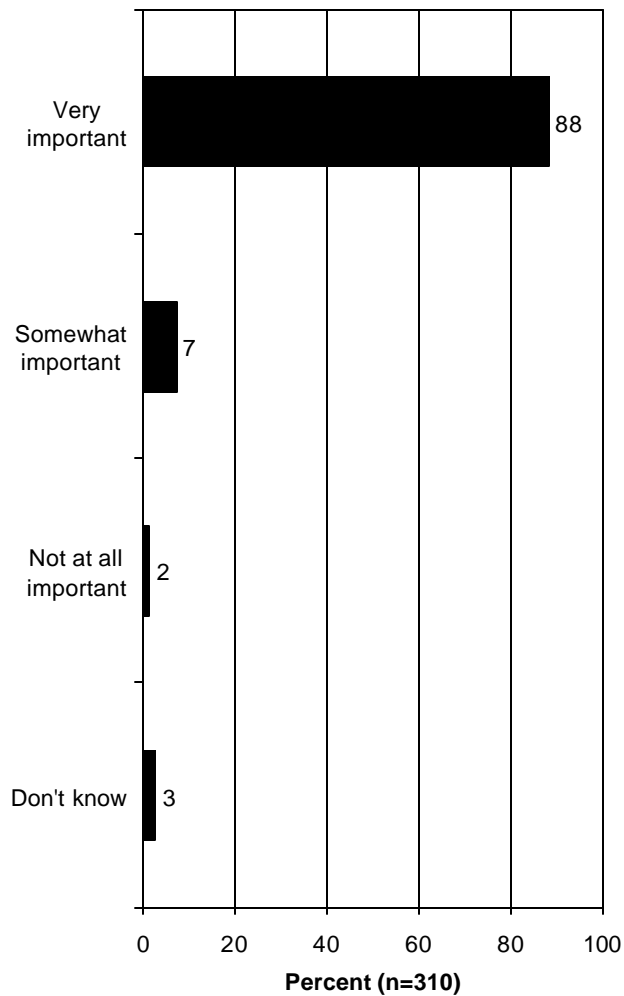
Q128. How would you rate the Tahoe Regional Planning Agency's efforts to provide boating access opportunities on Lake Tahoe?



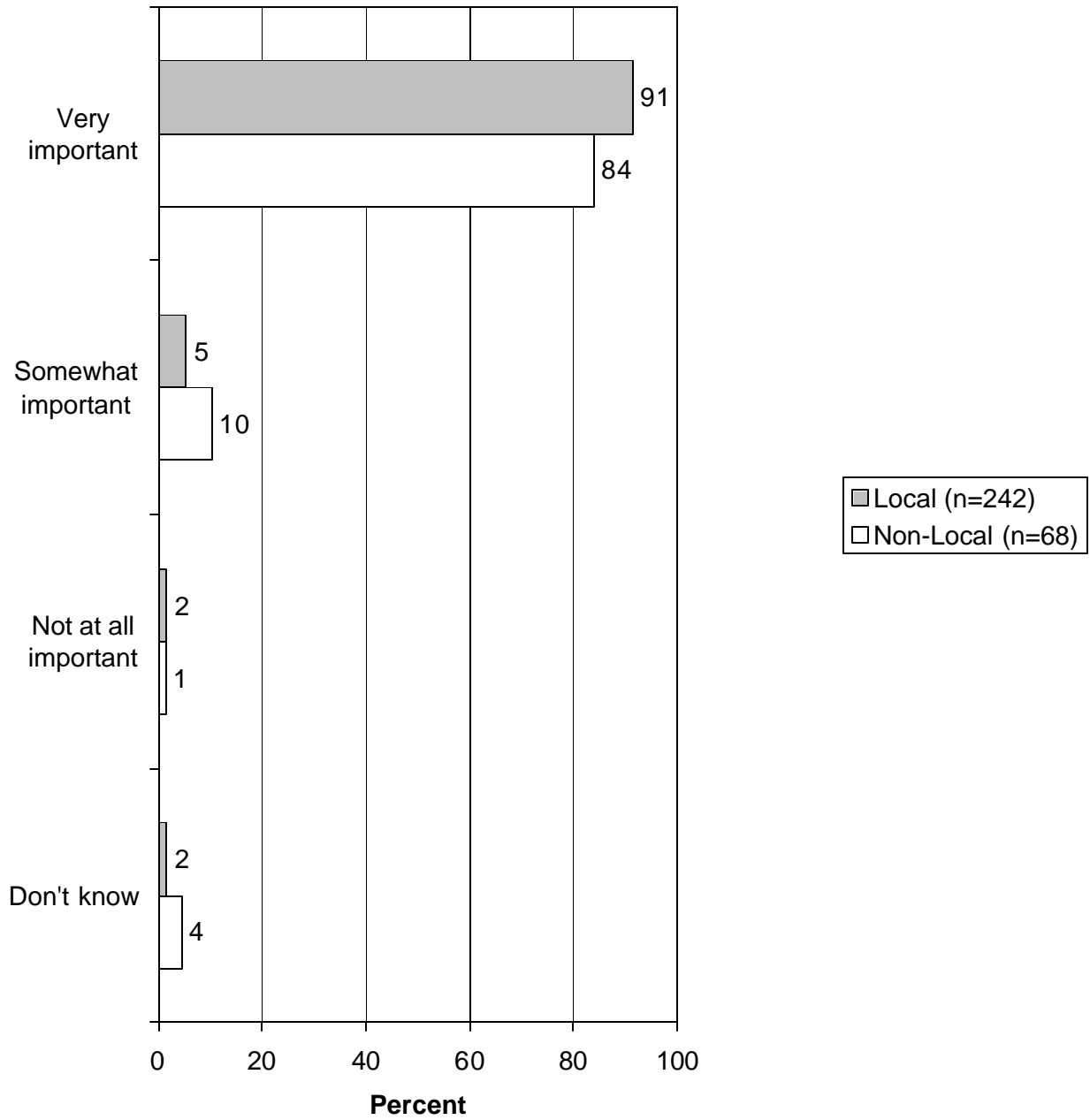
IMPORTANCE OF OUTDOOR RECREATION

- For boaters, outdoor recreation is highly important: only 2% say outdoor recreation is not at all important to them, while 88% say it is *very* important. Additionally, water-related activities are important: 83% say that they are *very* important, and only 2% say that they are not important at all.
- Locals and non-locals are not markedly different on these questions.

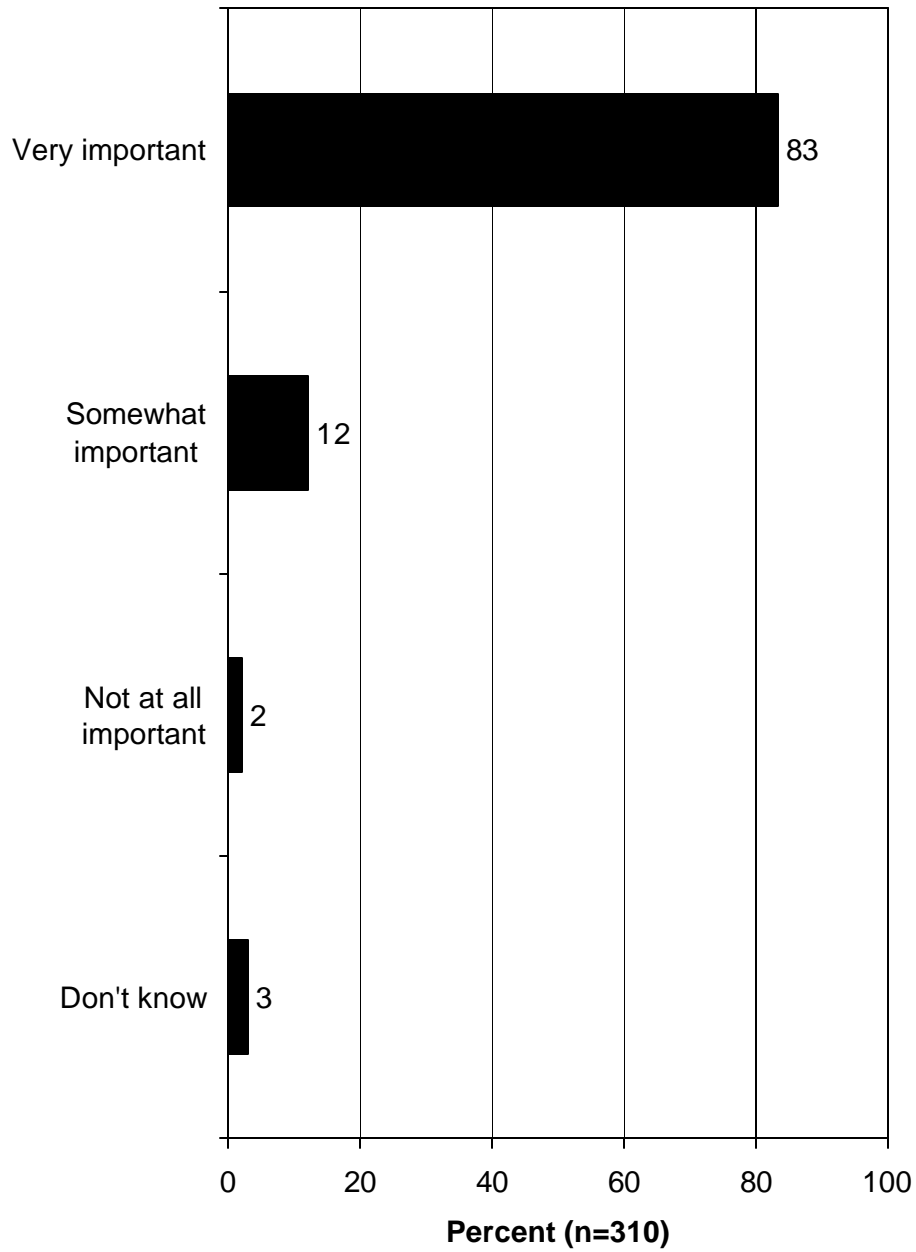
Q130. How important is outdoor recreation to you personally?



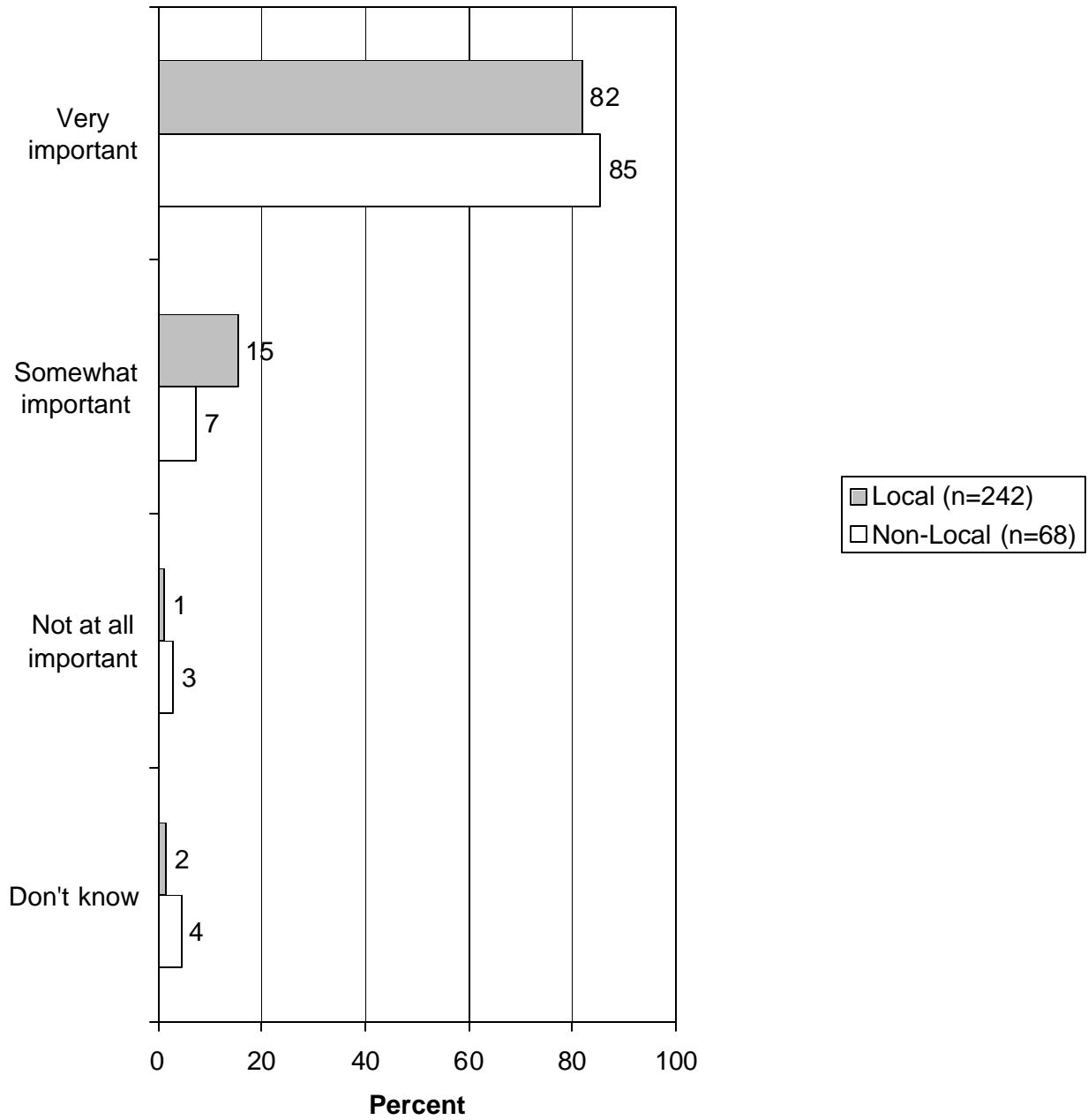
Q130. How important is outdoor recreation to you personally?



Q131. How important are boating and water-related activities to you personally?



Q131. How important are boating and water-related activities to you personally?



DEMOGRAPHIC DATA

- Boaters are mostly male.
 - Locals and non-locals are not markedly different on this question.

- Boaters on Lake Tahoe are overwhelmingly white and of non-Hispanic origin.
 - Locals and non-locals are about the same on these questions.

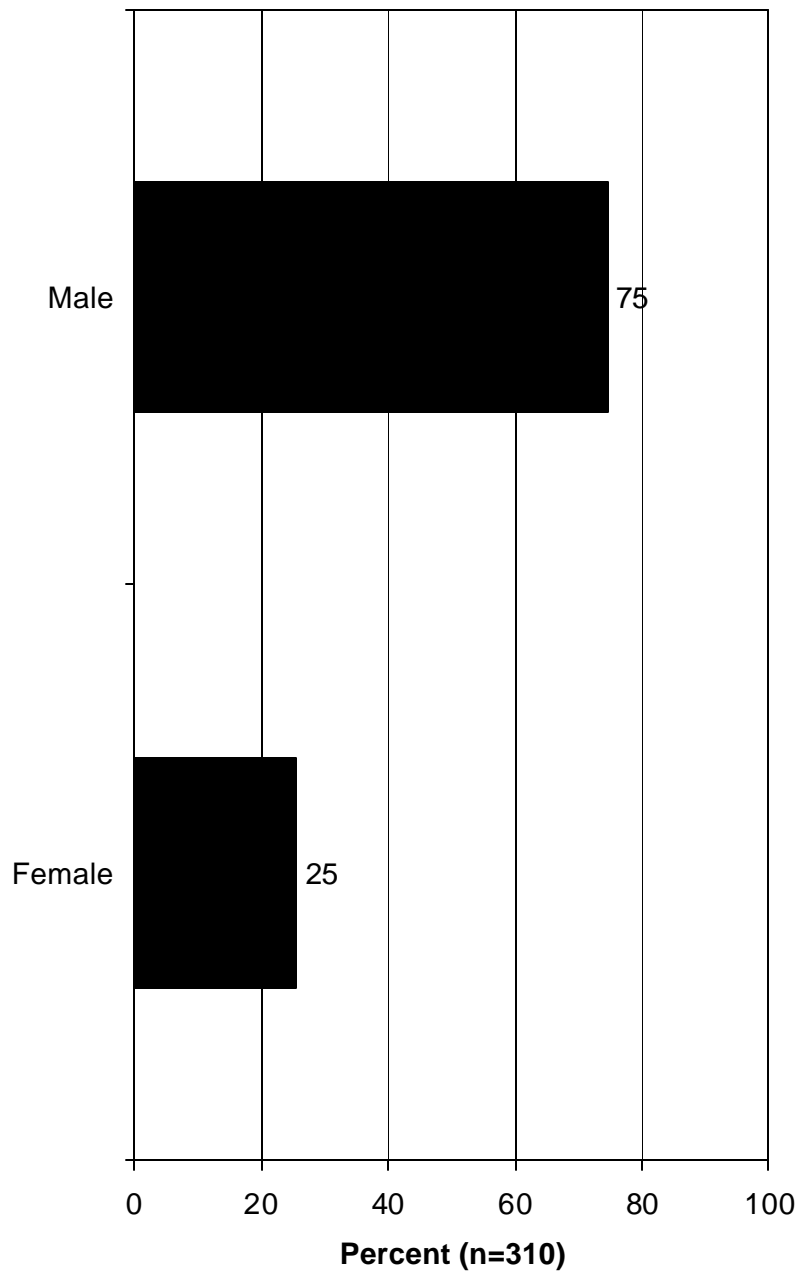
- Ages of boaters are shown; they follow a bell curve with the peak in the 45 to 54 years old category.
 - Non-locals had a slightly higher percentage of those 65 years old and older, relative to locals.

- A slight majority (52%) of boaters have at least a Bachelor's degree.
 - Locals and non-locals are not markedly different on this question.

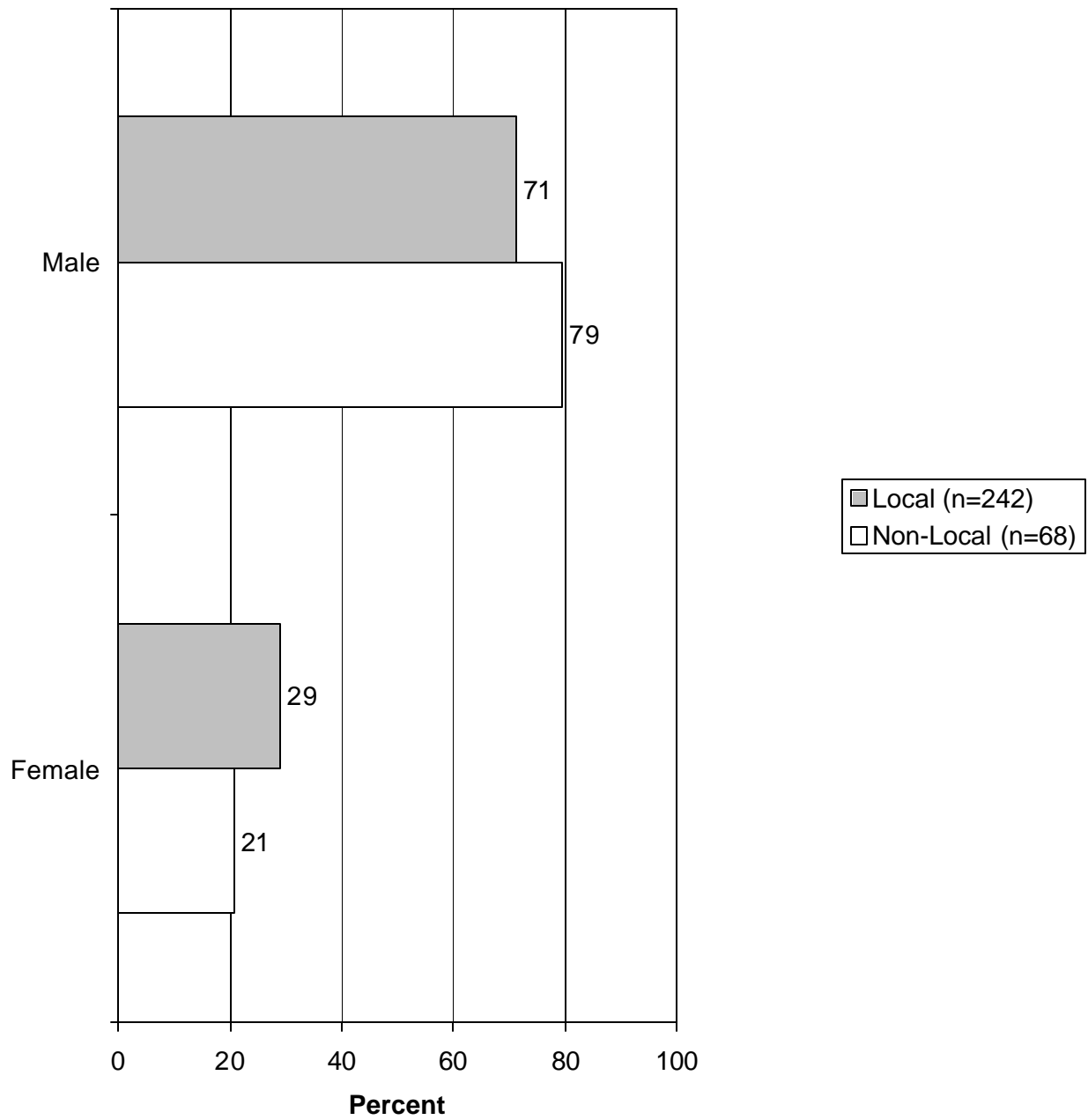
- About a third of boaters (31%) live in a large city or urban area, while an additional 25% live in a suburban area.
 - There are marked differences between local and non-locals regarding their place of residence, as shown in the graph.

- Most boaters are stable regarding their state of residence, as 55% say that they have lived in their state of residence for over 25 years.
 - Non-locals showed slightly more stability than did locals.

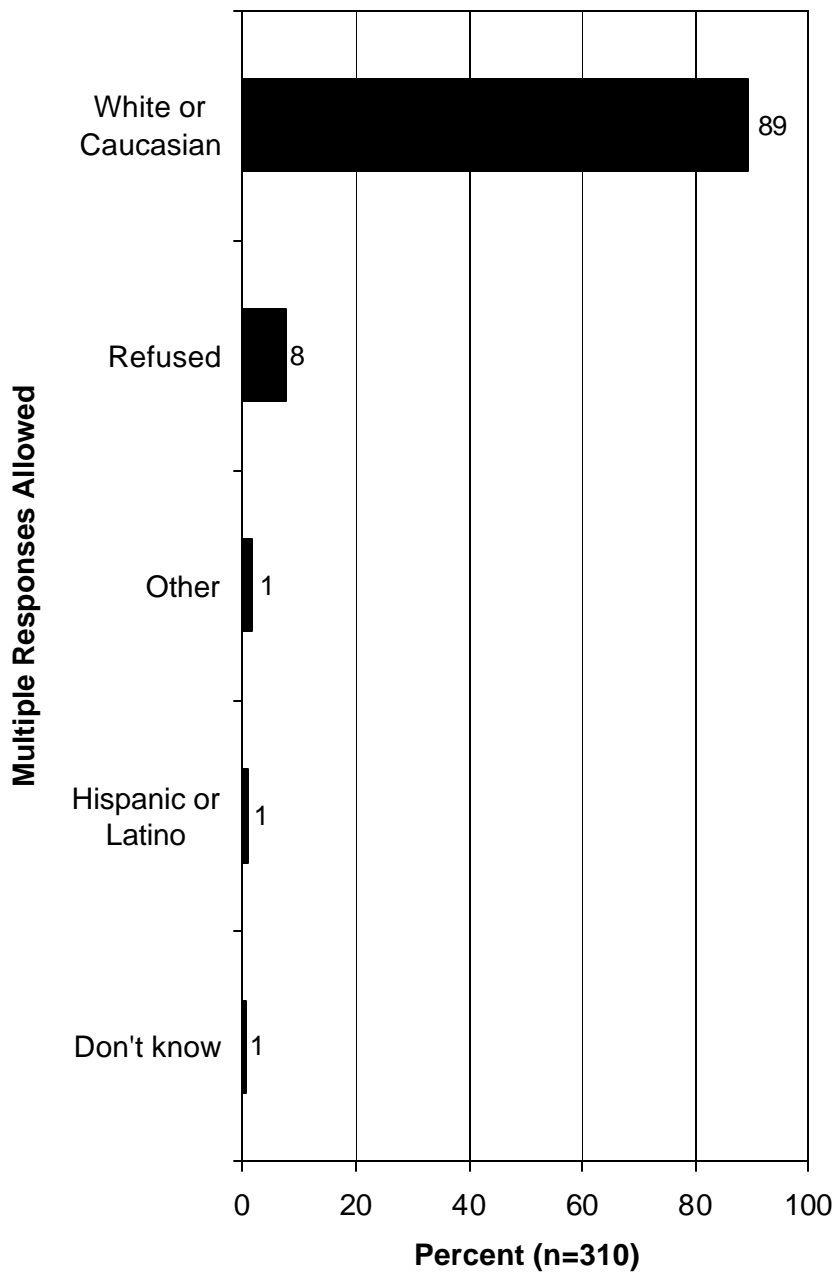
Q153. Respondent's gender (not asked, but observed by interviewer).



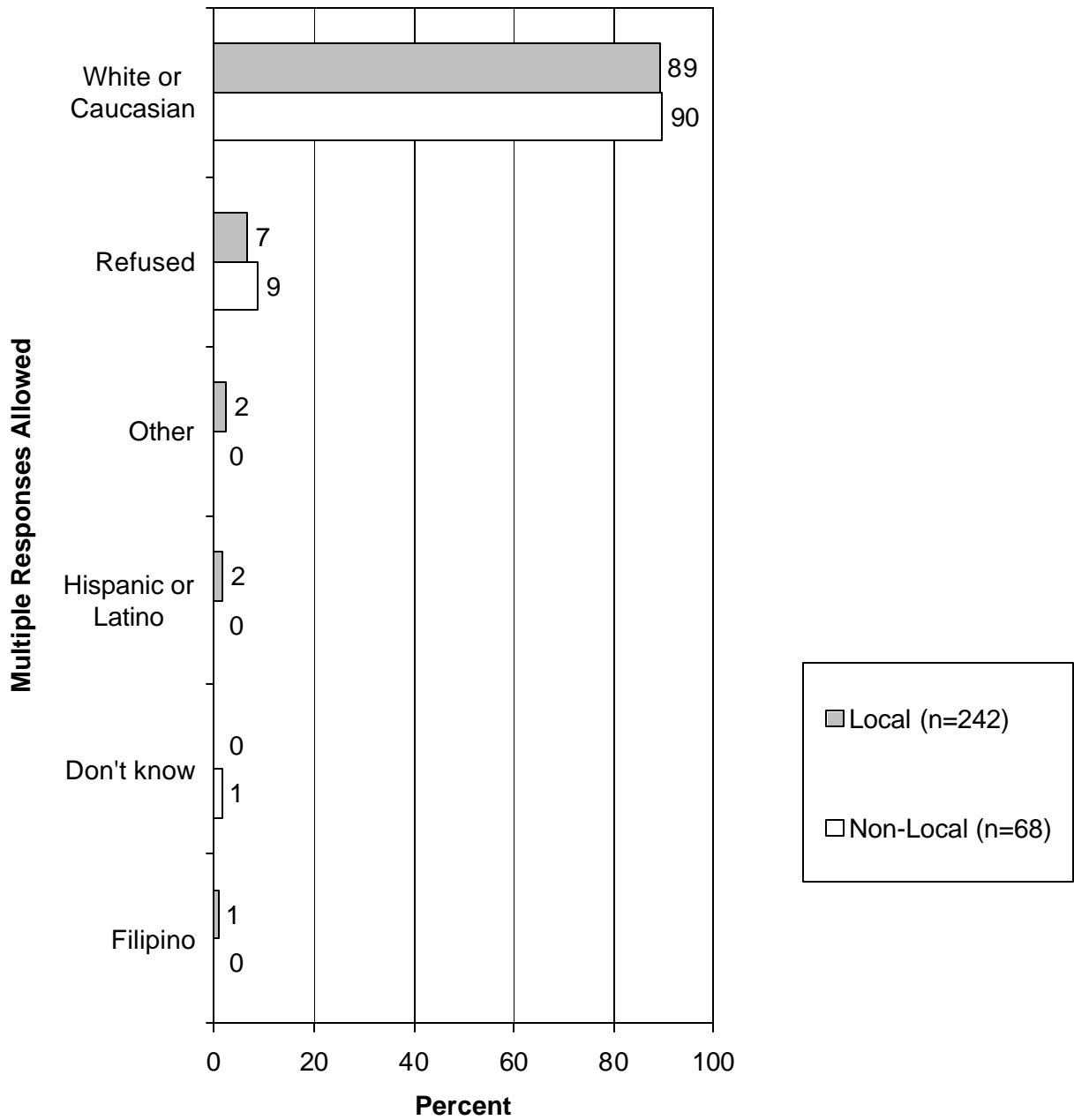
Q153. Respondent's gender (not asked, but observed by interviewer).



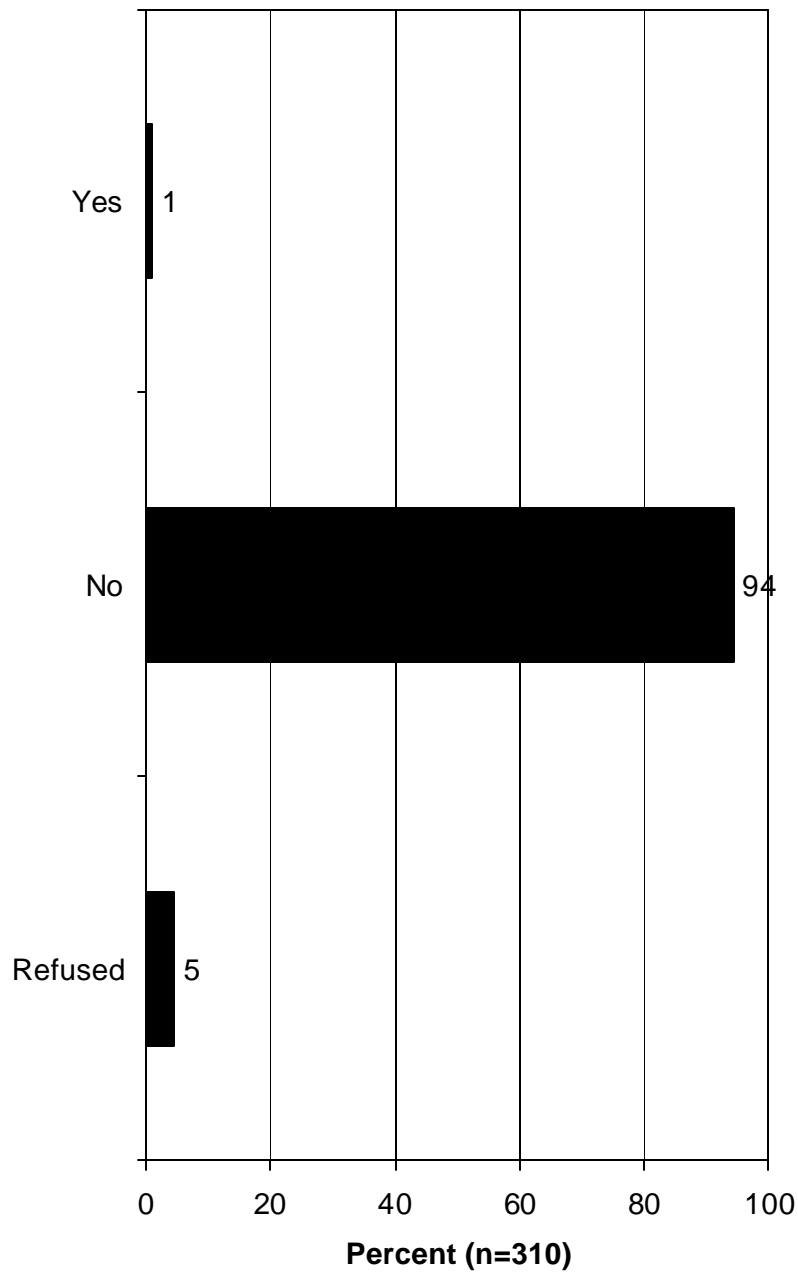
Q145. What races or ethnic backgrounds do you consider yourself? Please name all that you think apply.



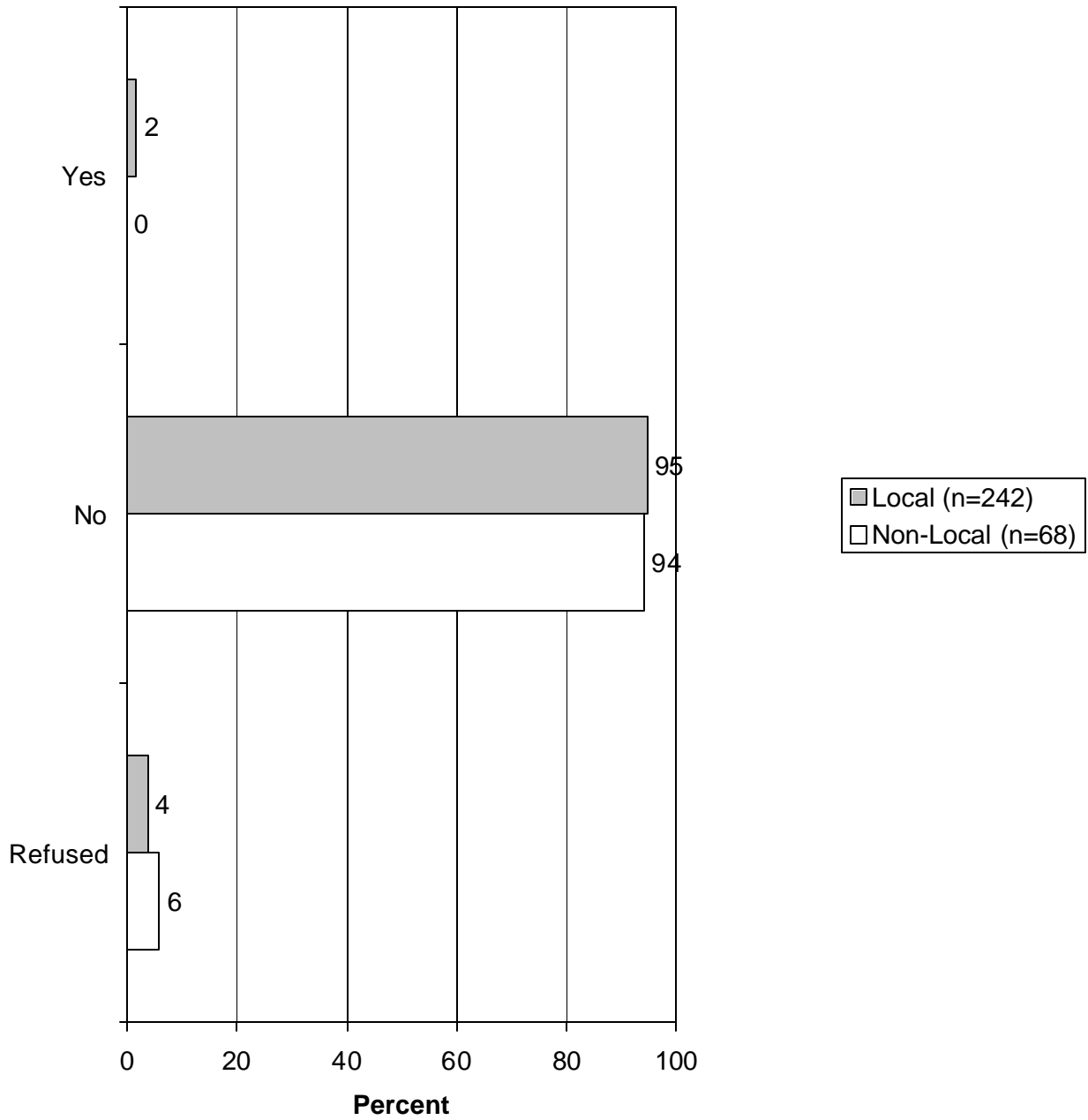
Q145. What races or ethnic backgrounds do you consider yourself? Please name all that you think apply.



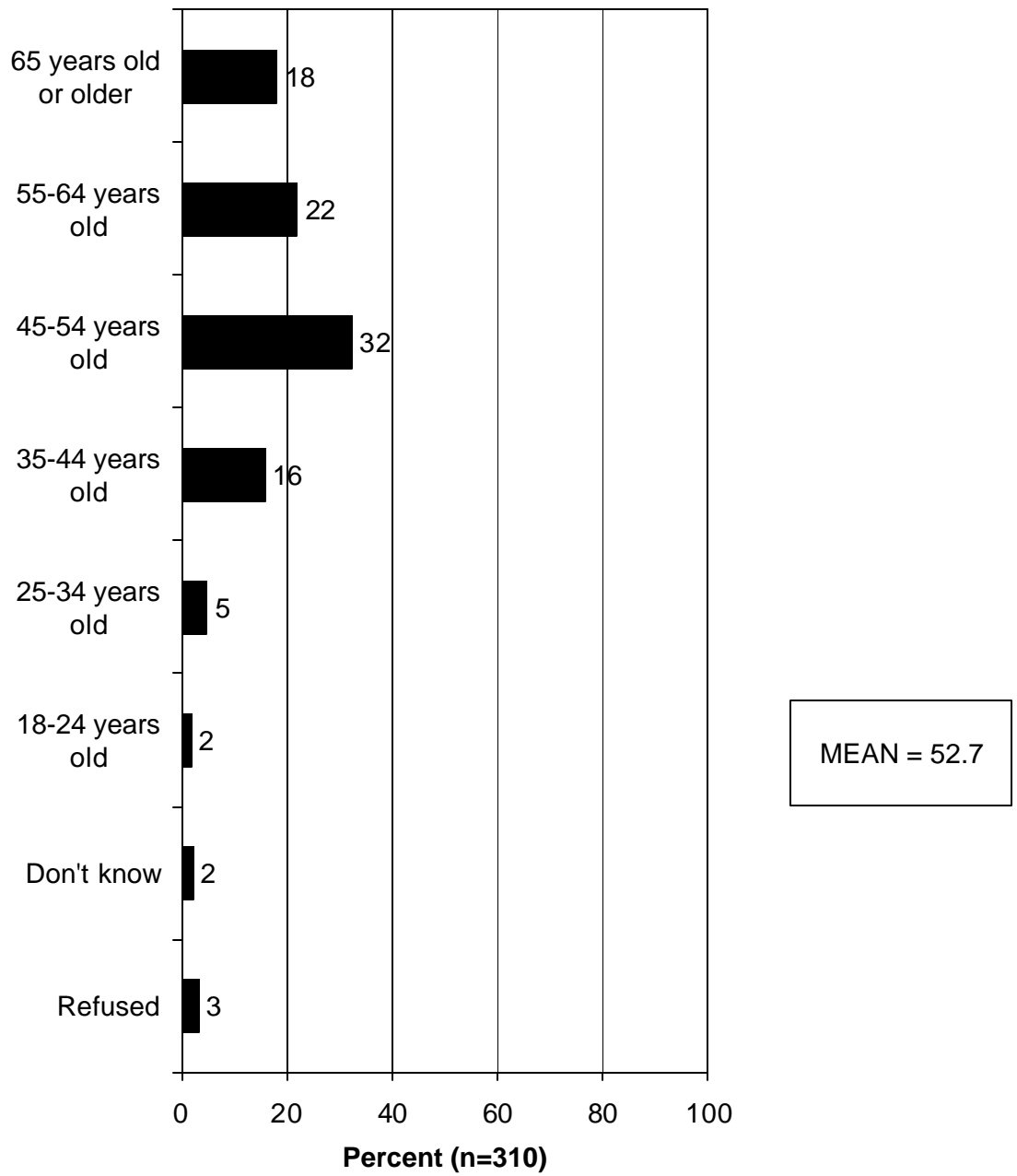
Q142. Do you consider yourself to be of Hispanic or Latino origin?



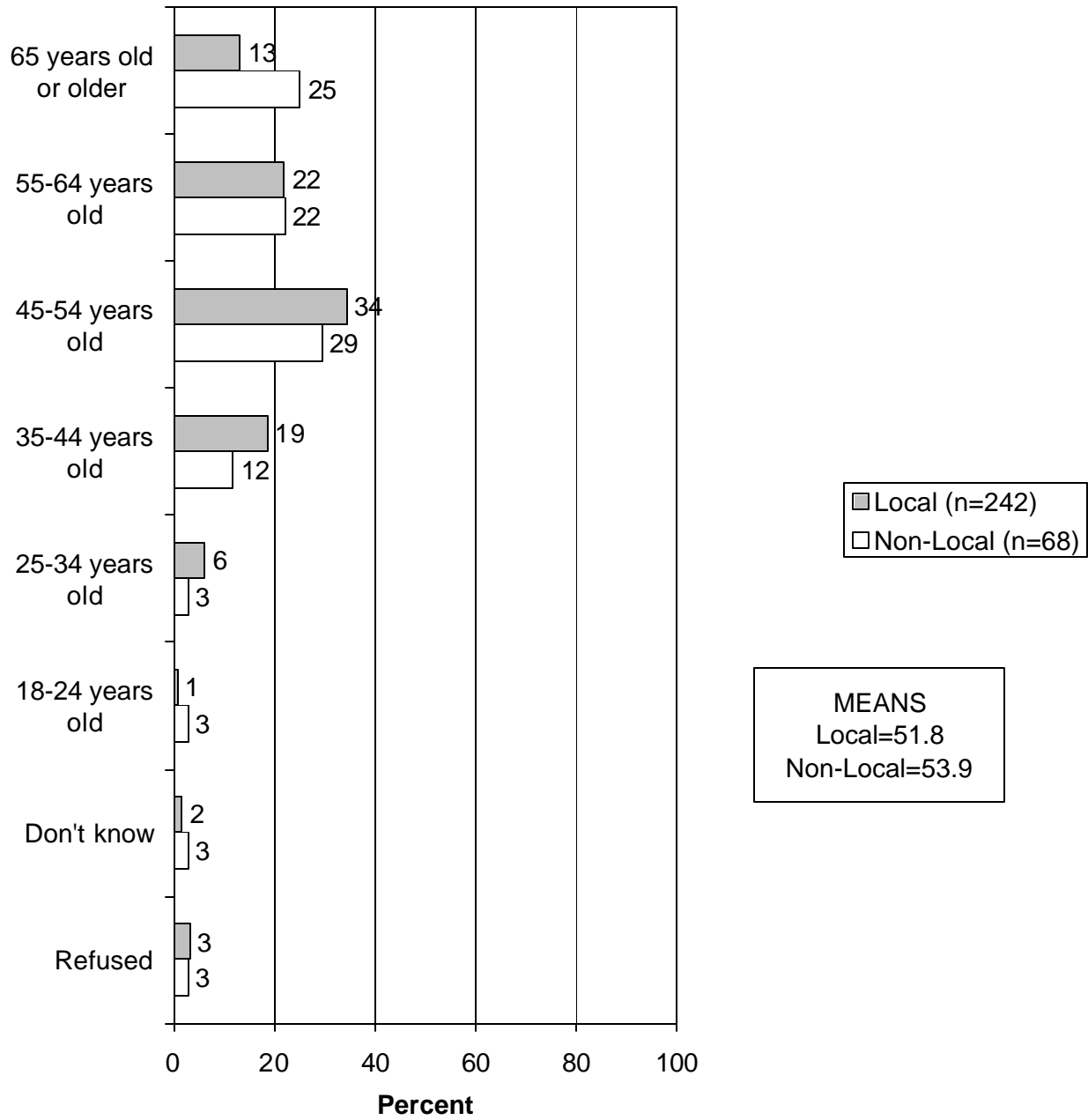
Q142. Do you consider yourself to be of Hispanic or Latino origin?



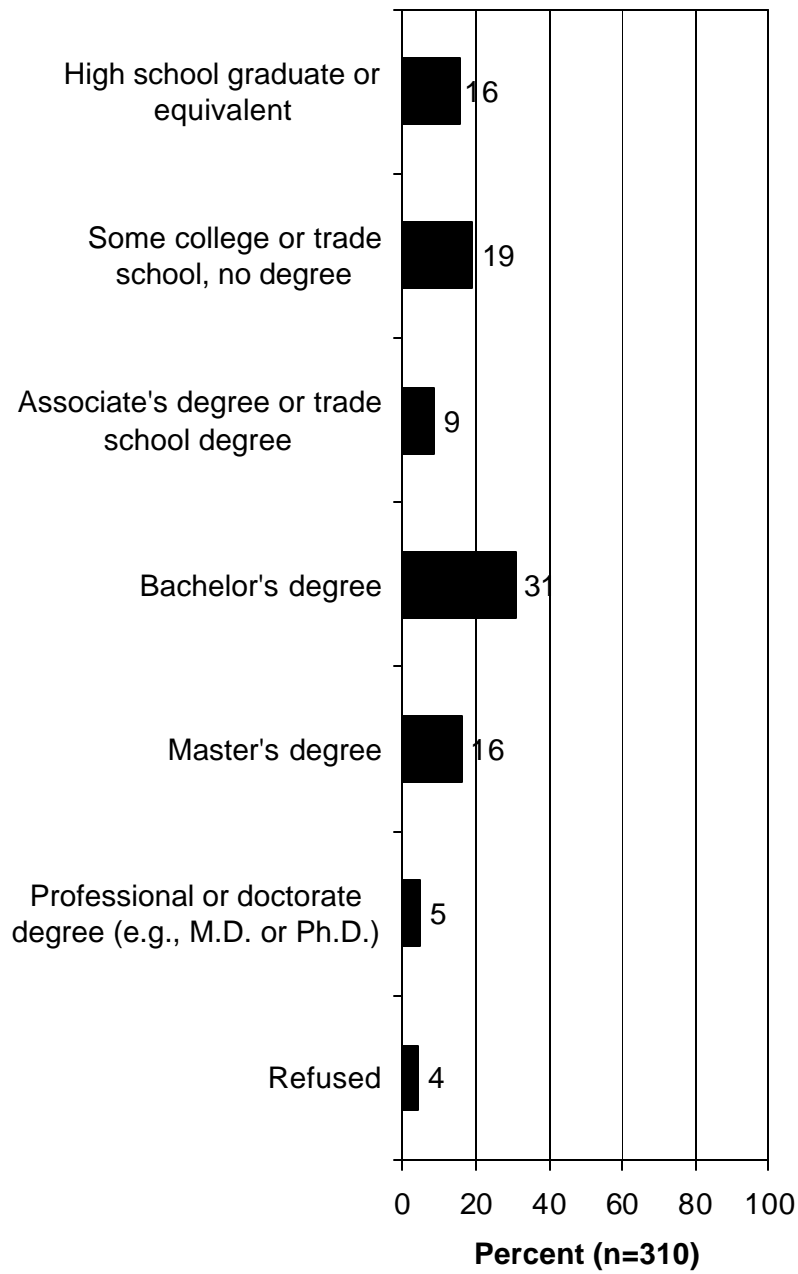
Q147. May I ask your age?



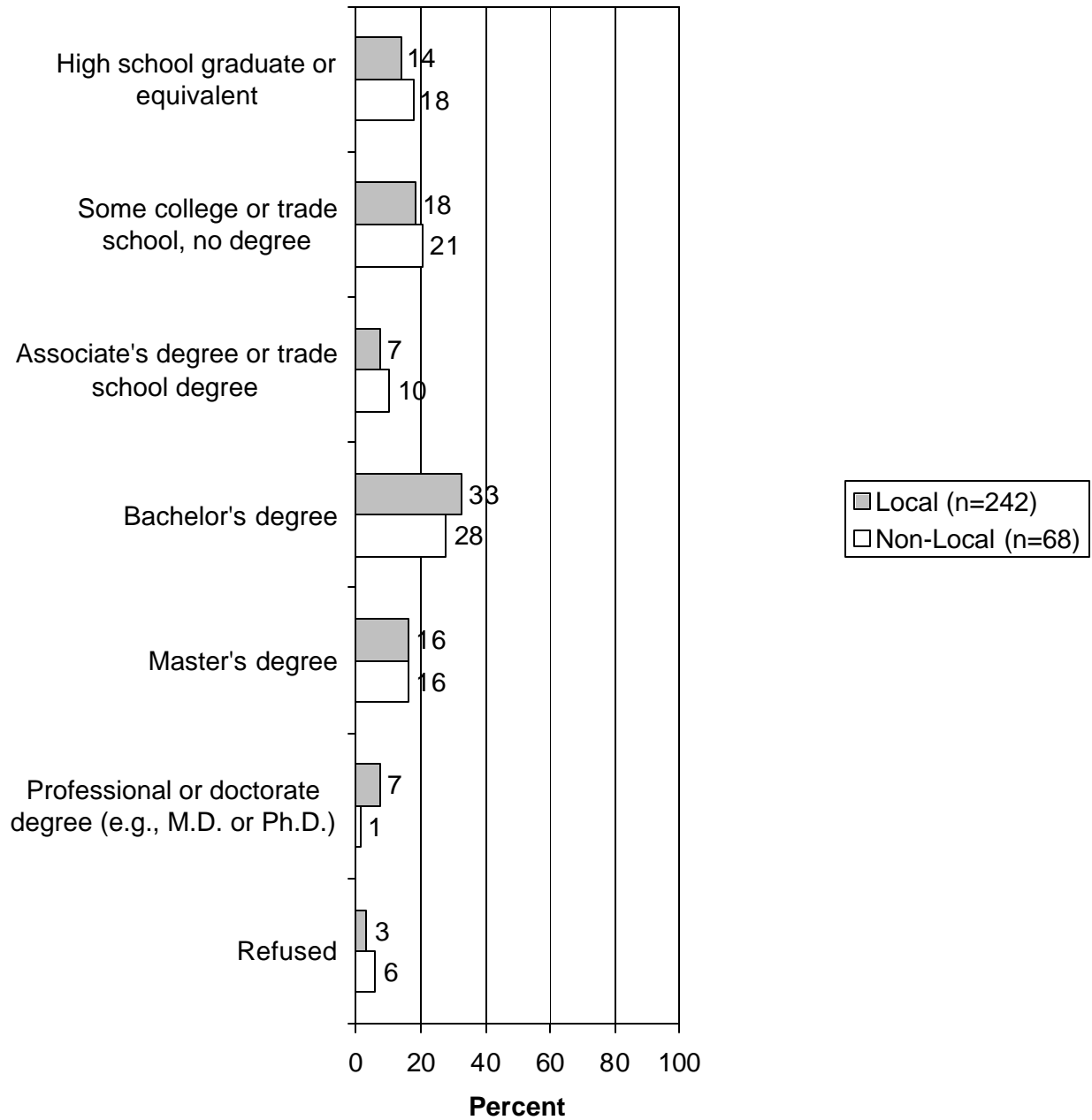
Q147. May I ask your age?



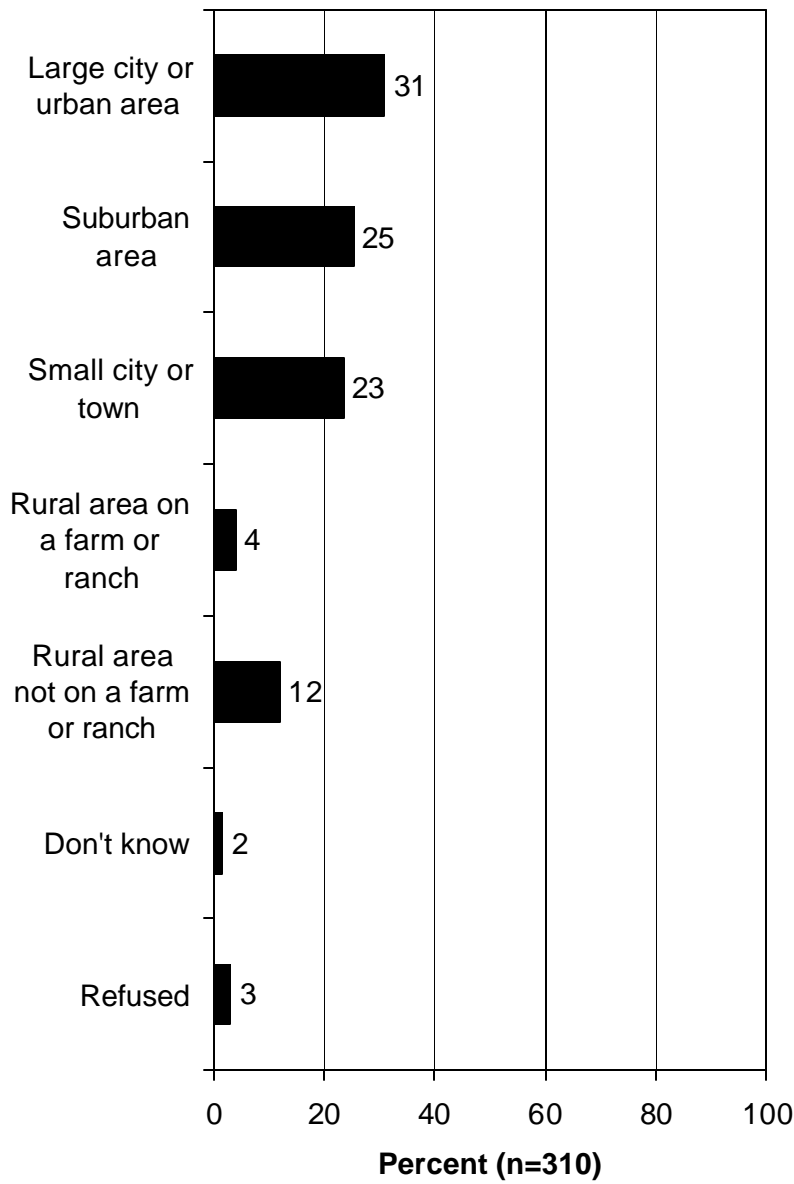
Q141. What is the highest level of education you have completed?



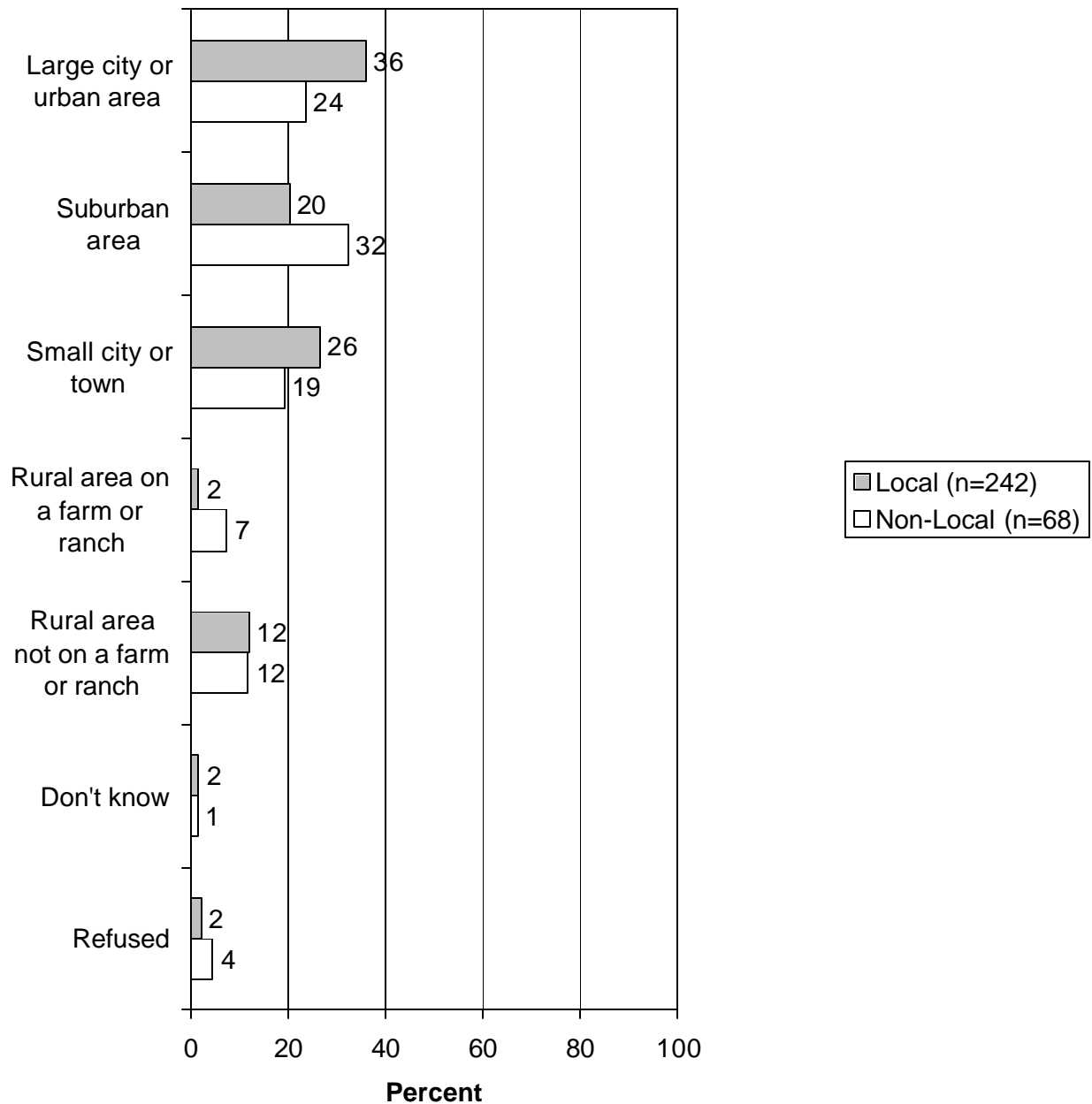
Q141. What is the highest level of education you have completed?



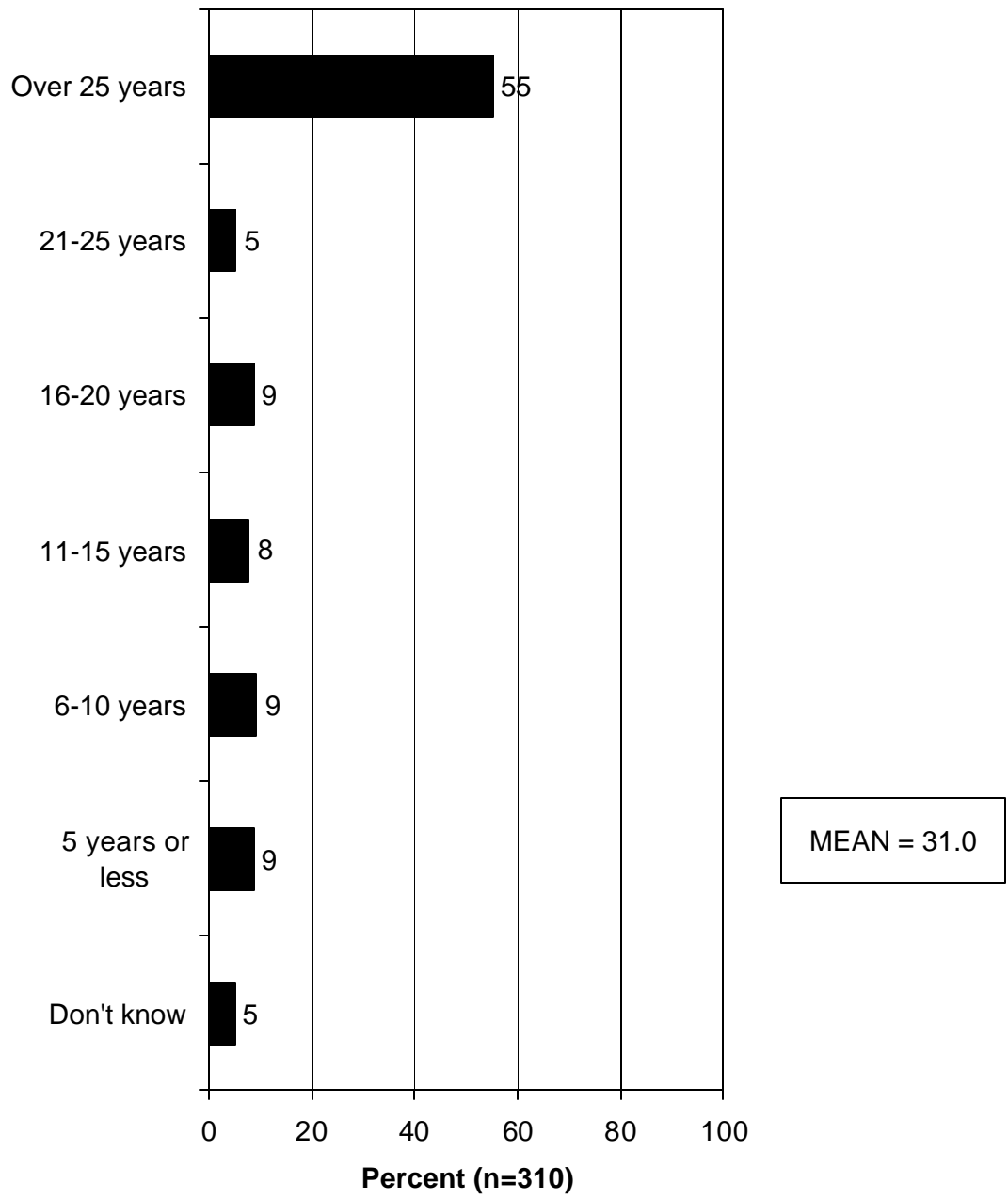
Q140. Do you consider your place of residence to be a large city or urban area, a suburban area, a small city or town, a rural area on a farm or ranch, or a rural area not on a farm or ranch?



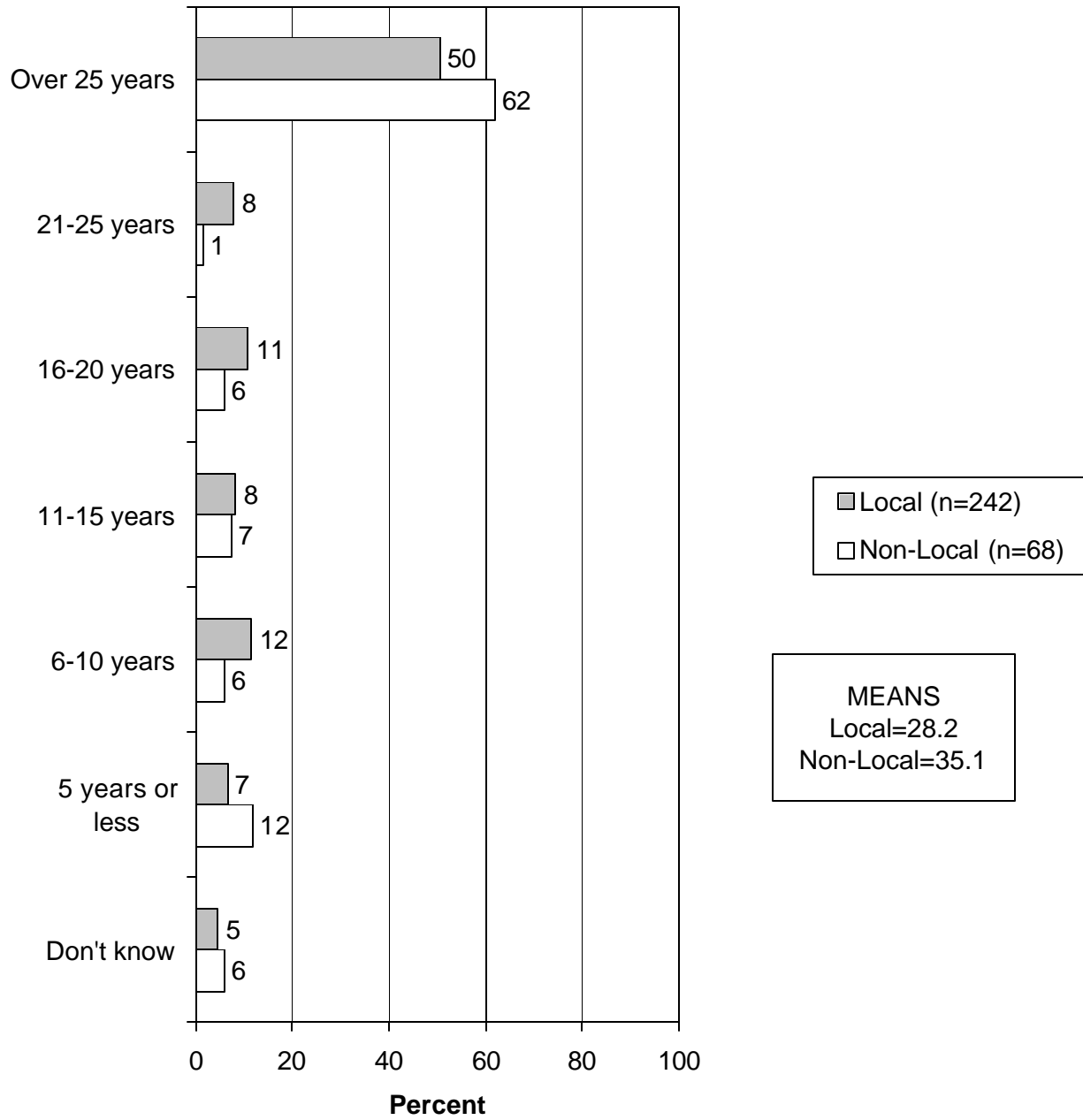
Q140. Do you consider your place of residence to be a large city or urban area, a suburban area, a small city or town, a rural area on a farm or ranch, or a rural area not on a farm or ranch?



Q137. How many years have you lived in [state of residence]?



Q137. How many years have you lived in [state of residence]?



ADDITIONAL COMMENTS

I would really like to receive a copy of the results of this survey if at all possible.
There are not enough boat ramps, not enough warning buoys at hazards (Sand Harbor, west of Kings Beach), not enough parking after launching boats.
I'm pretty satisfied, but I'd be really happy if you could get the price of buoys down.
Launching and parking at Tahoe is difficult, ramps are poor, too small, too few.
They need more ramps.
Keep the government out of the regulations. The less government involvement, the better. Don't listen to environmentalists.
They need better parking in marinas.
If I were buying a piece of property in Tahoe, I would want total control of the property; the Tahoe Regional Planning Agency restricts that, restricts the way of life for residents of Lake Tahoe.
The rules are fine, but it's a moot point because they aren't enforced.
Lake Tahoe Regional Planning Agency is a major pain in the butt—over-regulatory, no compromise.
TRPA has been not as aware of the needs of the residents and users of Lake Tahoe.
I love lake Tahoe! It is pure and clean and quiet and is good. We obey all the rules; I hate seeing those who don't.
The Tahoe Regional Planning Agency should be disbanded.
I don't think these clowns trying to get their piers in the lake should be able to. They already have enough piers. It's not a private lake; it's a public lake. You shouldn't be able to put down piers just because you own property.
I would say the laws are adequate enough, and if the law enforcement agencies would enforce the laws, then people would have a better time. Why should we create more laws if they won't enforce what they have now?
They should have more lanes for the pre-existing launches; they don't need any more launches, just better access to them.
The speed limit in Emerald should be 5 mph or full speed; don't put noise restrictions on wooden boats.
I don't agree with the 600-foot no-wake zone; we don't need more restrictions.
They need more noise regulations; remove illegal buoys; motorboaters should take tests before being allowed to boat.
The noise: the real problem is cigarette boats—un-muffled speed boats with straight pipes. There has been a dramatic increase in cigarette-racer boats. Their speed is dangerous.
Unsafe behavior of other boaters is a problem when I am fishing. They speed when I am sitting in the water.
I don't like the fact they talk about closing Emerald Bay. My comments about the TRPA: they are not user-friendly. Bilge is not a problem on my boat.
I don't agree with what TRPA represents; whoever has money gets their way. Piers disturb the lake bottom.
When people launch boats, people should receive a flyer with the boat regulations as a reminder.

The water-bikes are loud; they have no respect for other boaters. They get too close to other boaters. They get too close, and they can't keep away from the shore.
Restrictions are too strict; mostly towards land owners cutting trees. It's extremely expensive to place mooring buoys.
Use your head on the water and there will be no problems.
TRPA needs to be held accountable for what they say and what they do. Sometimes they aren't.
I personally think the TRPA should be abolished. All of their rules seem to have been set way back when, and some of them aren't even relevant today. It seems that if you have money, they listen, if not, then oh well.
TRPA needs to be re-regulated or disbanded and done away with; other agencies can take over and do a much better job with less funding and fewer personal services.
They need more sheriffs out there; regulations are not enforced enough; there are a lot of idiots out there—they cannot handle a car, much less a boat.
TRPA has gone overboard with land regulations, but boating on the lake is still wonderful. There are a few problems with PWC cowboys.
Make wake zones more apparent and enforce regulations more strictly, especially in Emerald Bay.
They need more areas to accommodate large trailer vehicles for towing, parking, and more public access to docks, marinas, piers, and launching facilities.
Rules are inconsistent and inconsistently enforced. These people are crazy and so are their rules. TRPA should be eliminated.
I think the TRPA regulates Tahoe too much.
Boaters are over-regulated on Lake Tahoe.
Cave Rock Boat Ramp is way too costly. Where does this money go? I don't see any return. They need signs for launching your boat, as well.
I wish they would let us fish at night, at least 1 hour earlier and 1 hour later.
Noise restrictions are too stringent.
They have the right idea, for future generations, but they need to reevaluate how to preserve Lake Tahoe.
I think the Tahoe Regional Planning Agency is doing this survey because so many people want to use the lake, and I support their efforts.
I think the regulations too restricted; they should hand out regulations to people, not just on a big board. The TRPA overreacted to the clarity of the water.
People should have to park in a parking lot and take mass transit to Lake Tahoe. They should remove private buoys. It shouldn't be permissible to have boats moored in the lake. And the traffic is bad. The TRPA only cares about money.
I think that if we cut down on the motoring, that would help the lake.
We need more public boat ramps, especially during low water times.
The rules are legit; however, they are not enforced, especially speed and noise.
TRPA should put in ramps that are inexpensive to use.
Cut down on noise.
There is no way to enforce some of the restrictions; there are not enough personnel nor money.
It would be nice to have the people motoring on Lake Tahoe be more aware of safe boating regulations. Some sort of patrol would be helpful.

The decibel levels on my boats are medium to low; I check the bilge frequently while on the lake as well. I am in the business; otherwise, I would not know about the 2-stroke engine.
I'm pretty aware and careful about rules, but you've mentioned some I don't know about. Maybe you need to publicize these more prominently? For water quality, TRPA may need to be more aggressive about new housing and lakeside motor vehicle traffic.
I'll probably never go back to Tahoe.
Stop whining and let people have fun.
TRPA is a bunch of [expletive deleted].
I'm a retired game warden out of California.
Get rid of TRPA.
I would be happy to answer more questions; TRPA is off-base but well intentioned. Tahoe is much better than Lake of the Ozarks. Regarding launch facilities: that would take a lot of discussion. Are the regulations printed anywhere? Geese pollution: what can be done?
Too many boaters are on Lake Tahoe—very crowded on weekends. There isn't enough parking, because when you get to a launch site after 11 a.m. on weekends, you might have to park on the highway.
I want to see the lake clean and clear.
Make boat docks better.
There is no public parking for boating people; all of it is packed.
They need more restrictions for large boats.
The TRPA should stay where they are supposed to be, protecting the land and area; they should not encroach upon the waterways. The U.S. Forest Service and Coast Guard should be the ones responsible for everything on the water.
More parking; enforce speed restrictions; more lake supervision; jet skiers shouldn't follow wakes.
I think the cigarette boats should have a limit on the decibel levels.
Because of the issues, I am pretty upset about the whole thing.
TRPA think boaters are causing pollution in the lake when people live off the site.
PWCs need to be at least 100 yards from shore.
There are too many big, fast boats.
TRPA should be banned.
The cost of slips and buoys is so expensive that I am not going to put our boat in next year.
I think the TRPA over-regulates. We don't need new rules. Noise abatement is not possible with the size of the boats on Tahoe.

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, needs 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's *Crossfire*, ESPN, *The Washington Post*, *The Washington Times*, *The New York Times*, *Newsweek*, *The Wall Street Journal*, and on the front page of *USA Today*.

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