

# Responsive Management™



## **LICENSED ANGLERS' PARTICIPATION IN FISHING ON THE McKENZIE RIVER AND OPINIONS ON VARIOUS ASPECTS OF FISHING REGULATIONS PERTAINING TO THE McKENZIE RIVER**

**Conducted for the Oregon Department of Fish and Wildlife**

**by Responsive Management**

**2011**

**LICENSED ANGLERS' PARTICIPATION IN FISHING  
ON THE McKENZIE RIVER AND OPINIONS ON  
VARIOUS ASPECTS OF FISHING REGULATIONS  
PERTAINING TO THE McKENZIE RIVER**

**2011**

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## **Acknowledgments**

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## **EXECUTIVE SUMMARY**

### **INTRODUCTION AND METHODOLOGY**

This study was conducted for the Oregon Department of Fish and Wildlife (the Department) to determine participation in fishing on the McKenzie River and opinions on various aspects of fishing and fishing regulations pertaining to the McKenzie River. The study entailed a telephone survey of Oregon licensed anglers who live within 20 miles of the McKenzie River.

For the survey, telephones were selected as the preferred sampling medium because of the almost universal ownership of telephones among Oregon anglers (both landlines and cell phones were called). Additionally, telephone surveys, relative to mail or Internet surveys, allow for more scientific sampling and data collection, provide higher quality data, obtain higher response rates, are more timely, and are more cost-effective. Telephone surveys also have fewer negative effects on the environment than do mail surveys because of reduced use of paper and reduced energy consumption for delivering and returning the questionnaires.

The telephone survey questionnaire was developed cooperatively by Responsive Management and the Department, based on the research team's familiarity with fishing and natural resources. Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey. The sample of Oregon licensed anglers was obtained from the Department but was limited to the area within 20 miles of the McKenzie River.

Telephone surveying times are Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time. The survey was conducted in February and March 2011. The software used for data collection was Questionnaire Programming Language. Responsive Management obtained a total of 1,004 completed interviews. The analysis of data was performed using Statistical Package for the Social Sciences as well as proprietary software developed by Responsive Management.

### **PARTICIPATION IN FRESHWATER FISHING AND DAYS FISHED**

- The overwhelming majority of Oregon fishing license holders in the McKenzie River area (92%) had freshwater fished in Oregon within the past 5 years. Furthermore, 82% had fished

for trout in Oregon in the past 5 years. (Among those who had freshwater fished, 89% had fished for trout.)

- Regarding the typical number of days of fishing for trout annually among trout anglers, 33% of trout anglers typically fish for no more than 5 days; the mean is 16.31 days, and the median is 10 days.
- Among all licensed anglers in the McKenzie River area, 41% had fished for trout on the McKenzie River within the past 5 years. Among trout anglers, half (50%) had fished on the McKenzie River within the past 5 years.
- Regarding the typical number of days of fishing for trout annually *on the McKenzie River* among those trout anglers who fish there, a majority (58%) fish for no more than 5 days. The mean is 9.50 days, and the median is 5 days.

### **FISHING LOCATIONS, FISHING METHODS, AND SPECIES FISHED**

- Freshwater anglers in the McKenzie River area can be categorized into approximate thirds: 35% fish in rivers most of the time, 29% fish in lakes/reservoirs most of the time, and 34% fish the two types of waters about equally.
- As was done above, freshwater anglers in the McKenzie River area can again be categorized into thirds according to boat use: 37% usually use a boat for fishing, 32% usually fish from the bank, and 30% do both methods about equally.
- The questions about river or lake/reservoir fishing and boat or bank fishing were crosstabulated. Those who usually fish from the bank most often fish in rivers, while those who usually fish from a boat most often fish in lakes or reservoirs.
- Licensed anglers in the McKenzie River area were asked what they primarily consider themselves. A little more than half (55%) consider themselves to be trout anglers, 22% consider themselves to be salmon and/or steelhead anglers, and 6% consider themselves to be warmwater fish anglers (the remainder cannot say).

- A question specifically of trout anglers asked them about their preferences vis-à-vis bait, flies, or lures. The large majority do not use one type exclusively: 58% of trout anglers say that they use some combination of gear types. Otherwise, 21% use bait only, 11% use flies only, and 10% use lures only.
  - Another question was asked specifically about any use of bait. About three-fourths of trout anglers (74%) use bait when trout fishing *always* or *sometimes*.
- A question for trout anglers only asked about catch-and-release of trout. While trout anglers most commonly say that they *equally keep and release* (37%), nearly as high a percentage *mostly release* (34%). Meanwhile, 28% *mostly keep* the trout they catch.
- A final question in this section asked about preferences vis-à-vis hatchery or wild trout. The majority of trout anglers in the McKenzie River area say that it does not matter which they fish for (58%). Otherwise, wild trout (31%) are preferred over hatchery trout (11%).

## **RATINGS OF FISHING**

- Trout anglers in the McKenzie River area were asked to rate the quality of fishing opportunities on the McKenzie River for hatchery trout and wild trout. Ratings are better for hatchery trout than for wild trout (70% of trout anglers in the McKenzie River area say that fishing for hatchery trout on the McKenzie River is *excellent* or *good*, compared to 46% who say that fishing for wild trout is *excellent* or *good*). In fact, the latter group is almost equally split: 46% say the quality of opportunities to fish for wild trout on the McKenzie River is *excellent* or *good*, while 44% say it is *fair* or *poor*.

## **FACTORS AFFECTING THE AMOUNT OF FISHING**

- Two series of questions were asked that explored factors affecting trout fishing participation on the McKenzie River. The first asked those who had *not* fished for trout on the McKenzie River to rate a series of factors as *strongly* influencing them, *moderately* influencing them, or *not* influencing them to *not* fish for trout on the McKenzie River. The second asked those who *had* fished for trout on the McKenzie River to rate the same factors as *increasing* or

*decreasing* their amount of fishing for trout on the McKenzie River. The four factors rated are listed below:

- Large numbers of stocked hatchery trout on the McKenzie River
  - Not enough stocked hatchery trout on the McKenzie River
  - Not enough wild trout on the McKenzie River
  - Regulations restricting the use of bait on the McKenzie River
- In the first series, none of the factors was a major influence on the lack of trout fishing participation on the McKenzie River: no more than 24% of those who had *not* fished for trout on the McKenzie River indicated that any one of the factors was a *strong* or *moderate* influence on their lack of fishing participation. The factor at the top, in a ranking by the percentage saying it *strongly* or *moderately* influenced them to *not* fish for trout on the McKenzie River, is the regulatory restriction on the use of bait on the McKenzie River (24% say it was a *strong* or *moderate* influence). The other three factors are about even: not enough wild trout in the McKenzie River (13%), large numbers of stocked hatchery trout in the McKenzie River (12%), and (the opposite of the latter factor) not enough stocked hatchery trout in the McKenzie River (11%).
- The second series asked anglers who had fished for trout on the McKenzie River if the same four factors had influenced them to increase or decrease participation, or if the factor had not influenced them at all. For each factor, a majority indicated that the factor had no influence on their amount of trout fishing on the McKenzie River. The factor that was the largest *attraction* was the large number of stocked hatchery trout in the McKenzie River (34% say this influenced them to *increase* participation *a lot* or *a little*). The largest *detraction* was the regulatory restriction on the use of bait on the McKenzie River (27% say this influenced them to *decrease* participation *a lot* or *a little*).

## **OPINIONS ON FISHING REGULATIONS**

- Just over half of trout anglers in the McKenzie River area (51%) say that releasing trout has no effect on enjoyment of trout fishing. Otherwise, more trout anglers say that releasing trout makes fishing *more* enjoyable (34%) than say it makes fishing *less* enjoyable (11%).
  - A related question asked trout anglers in the McKenzie River area if catch-and-release regulations prompt them to fish for trout more often or less often, or if the regulations have no effect. The majority of trout anglers in the McKenzie River area (68%) say the regulations have no effect on their participation. Otherwise, the regulations are more of a detraction than an attraction: 22% say the catch-and-release regulations prompt them to fish for trout *less often*, while only 8% say the regulations prompt them to fish *more often*.
  
- The regulations concerning bait on the McKenzie River were explained to respondents, which are as follows: “Currently, during trout seasons, bait is allowed where hatchery trout harvest is allowed on the mainstem McKenzie River between Hayden Bridge and Forest Glen Boat Landing near Blue River, including Leaburg Lake. Anglers may only use artificial flies and lures in areas where hatchery trout harvest is not allowed on the mainstem McKenzie River between its mouth and Hayden Bridge and between Forest Glen Boat Landing and Trail Bridge Reservoir.” Then, licensed anglers in the McKenzie River area were asked if they would support or oppose limiting the use of bait in additional areas on the McKenzie River (note that all licensed anglers in the sample were asked, not just McKenzie River anglers). Opposition far exceeds support. In total, 31% support, while 51% oppose. In fact, the percentage who *strongly* oppose (34%) exceeds the total percentage who *strongly* or *moderately* support (31%).

## **OPINIONS ON STOCKING AND ON HATCHERY TROUT**

- In a basic question, support for stocking the McKenzie River with hatchery trout exceeds opposition. Overall, 78% of licensed anglers in the McKenzie River area support, compared to only 8% who oppose (the remainder are neutral).

- All licensed anglers in the McKenzie River area were asked about their support for or opposition to five stocked hatchery trout management approaches on the McKenzie River. Two of the five approaches have a majority of anglers saying that they *strongly* or *moderately* support each approach: 65% *strongly* or *moderately* support continuing the current hatchery trout stocking program without any changes (the top-ranked item in a ranking by the percentage in support), and 60% *strongly* or *moderately* support stocking the McKenzie River with fewer but larger hatchery trout. The three remaining approaches, all of which call for reduced stocking, have little support, no more than 30%.
  
- Most commonly, anglers in the McKenzie River area do not know the portion of the McKenzie River that should be stocked and the portion that should be managed for wild trout only. Otherwise, responses are well distributed, although the most common percentage named is “50 percent.”
  
- Respondents were then provided with some information about stocking on the McKenzie River. They were informed of the following: “The mainstem McKenzie River is approximately 78 miles long. Currently, the Oregon Department of Fish and Wildlife manages upper and lower sections of the river totaling about 44 miles, or 56%, for wild trout only. The Department releases approximately 131,000 hatchery trout annually into the remaining middle 34-mile section, or 44%, of the river. Harvest of wild trout is not allowed on the mainstem McKenzie River. All wild trout fishing on the McKenzie River is catch and release fishing only.” Respondents were then asked again about their preferences regarding the portion of the river stocked and the portion managed for wild trout. Again, they most commonly cannot say, and otherwise the responses are widely distributed.
  
- The stocking of hatchery trout in the McKenzie River has a positive overall effect on trout anglers’ enjoyment of trout fishing on the McKenzie River: 53% of licensed trout anglers in the McKenzie River area say that stocked hatchery trout makes fishing *more enjoyable*, while only 8% say stocked hatchery trout make fishing *less enjoyable* (the remainder are neutral).

- Of the four factors that were previously discussed as possible constraints or encouragements to fishing participation on the McKenzie River, two of them pertained to stocked hatchery trout. These factors were the “large numbers of stocked hatchery trout on the McKenzie River” and “not enough stocked hatchery trout on the McKenzie River.” These are discussed individually below:
  - Asked of those who did *not* fish for trout on the McKenzie River:
    - The overwhelming majority of those who did *not* fish for trout on the McKenzie River (86%) said that the large numbers of stocked hatchery trout did *not* influence their lack of fishing; conversely, 11% indicated that this *strongly* or *moderately* influenced them to *not* fish for trout on the McKenzie River.
    - The next question had almost identical percentages: 86% said that not enough stocked hatchery trout on the McKenzie River did *not* influence their lack of fishing participation, while 11% indicated that it *strongly* or *moderately* influenced their lack of trout fishing participation on the McKenzie River.
  - The next two questions were asked of those who had fished for trout on the McKenzie River:
    - The majority of McKenzie River trout anglers (58%) said the large numbers of stocked trout had no influence on their amount of fishing participation. Otherwise, more anglers said the large numbers of stocked hatchery trout influenced them to increase participation (34%) than influenced them to decrease participation (7%).
    - Likewise, the large majority of McKenzie River trout anglers (69%) said that not enough stocked hatchery trout had no influence on their amount of fishing participation. Meanwhile, 6% said this factor influenced them to increase participation, and 21% said this factor influenced them to decrease participation.
- Regarding the length of fish necessary to be considered a “quality” hatchery trout caught in Oregon, the mean response is 10.67 inches, and the median is 10 inches.
- Regarding the minimum number of hatchery trout that respondents say that they would be satisfied catching on a daily fishing trip (including trout that they release, if any), the mean is 7.09 hatchery trout, and the median is 5 trout.

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## **INTRODUCTION AND METHODOLOGY**

This study was conducted for the Oregon Department of Fish and Wildlife (the Department) to determine participation in fishing on the McKenzie River and opinions on various aspects of fishing and fishing regulations pertaining to the McKenzie River. The study entailed a telephone survey of Oregon licensed anglers who live within 20 miles of the McKenzie River. Specific aspects of the research methodology are discussed below.

### **USE OF TELEPHONES FOR THE SURVEY**

For the survey, telephones were selected as the preferred sampling medium because of the almost universal ownership of telephones among Oregon anglers (both landlines and cell phones were called). Additionally, telephone surveys, relative to mail or Internet surveys, allow for more scientific sampling and data collection, provide higher quality data, obtain higher response rates, are more timely, and are more cost-effective. Telephone surveys also have fewer negative effects on the environment than do mail surveys because of reduced use of paper and reduced energy consumption for delivering and returning the questionnaires.

### **QUESTIONNAIRE DESIGN**

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

### **SURVEY SAMPLE**

The sample of Oregon licensed anglers was obtained from the Department but was limited to the area within 20 miles of the McKenzie River. It is essential that readers remember that the sample is only of licensed anglers *within 20 miles of the McKenzie River*.

### **TELEPHONE INTERVIEWING FACILITIES**

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 outdoor recreation and natural resources.

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 a project briefing 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 questionnaire, reading of the survey questions, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey questionnaire.

### **INTERVIEWING DATES AND TIMES**

Telephone surveying times are Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time. A five-callback design was used to maintain the representativeness of the sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all to participate. When a respondent could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day. The survey was conducted in February and March 2011.

### **TELEPHONE SURVEY DATA COLLECTION AND QUALITY CONTROL**

The software used for data collection was Questionnaire Programming Language (QPL). The survey data were entered into the computer as each interview was being conducted, eliminating manual data entry after the completion of the survey and the concomitant data entry errors that may occur with manual data entry. The survey questionnaire 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 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. The survey questionnaire itself contains error checkers and computation statements to ensure quality and consistent data. After the surveys were obtained by the interviewers, the Survey Center Managers and/or statisticians checked each completed survey to ensure clarity and completeness.

Responsive Management obtained a total of 1,004 completed interviews. The total sample size on some questions is less than 1,004 because the survey asked some questions only of specific respondents in the survey. In particular, this was done when a follow-up question did not apply to some respondents. For instance, only those who fished for trout were asked some of the follow-up questions about trout fishing.

## **DATA ANALYSIS**

The analysis of data was performed using Statistical Package for the Social Sciences as well as proprietary software developed by Responsive Management.

On questions that asked respondents to provide a number (e.g., number of days of fishing participation), the graph shows ranges of numbers rather than the precise numbers. Nonetheless, in the survey each respondent provided a precise number, and the dataset includes this precise number, even if the graph only shows ranges of numbers. Note that the calculation of means and medians used the precise numbers that the respondents provided.

## **SAMPLING ERROR**

It is estimated that 55,279 licensed anglers reside within 20 miles of the McKenzie River from the mouth to Trail Bridge Dam. With a sample size of 1,004 and a population size of 55,279, the estimated sampling error is plus or minus 3.06 percentage points.

**NOTES ON READING THE REPORT**

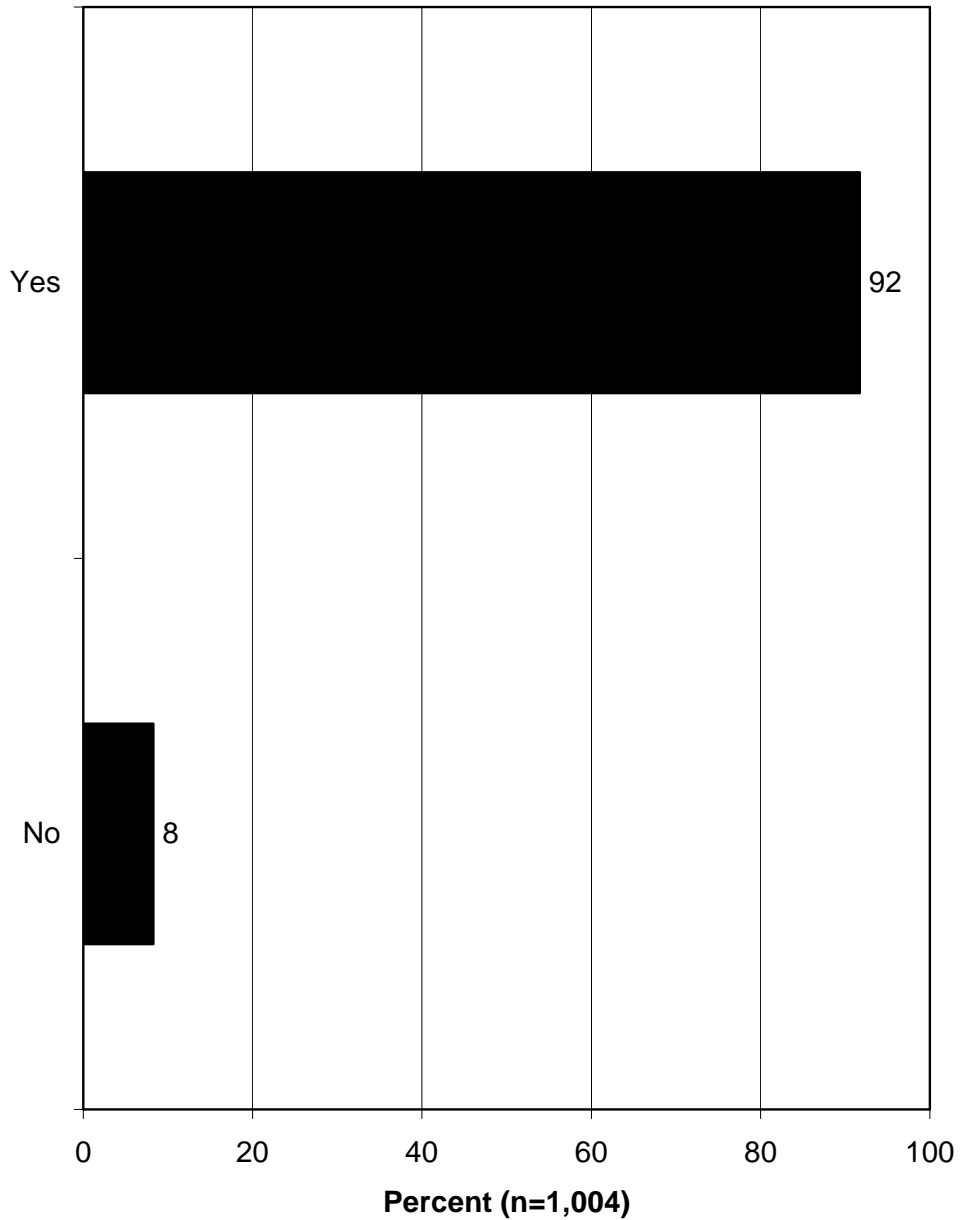
Some graphs show the mean and the median. The mean is simply the sum of all numbers divided by the number of respondents. Because outliers (extremely high or low numbers relative to most of the other responses) may skew the mean, the median may be shown. The median is the number at which half the sample is above and the other half is below. In other words, a median of 150 means that half the sample gave an answer of more than 150 and the other half gave an answer of less than 150.

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

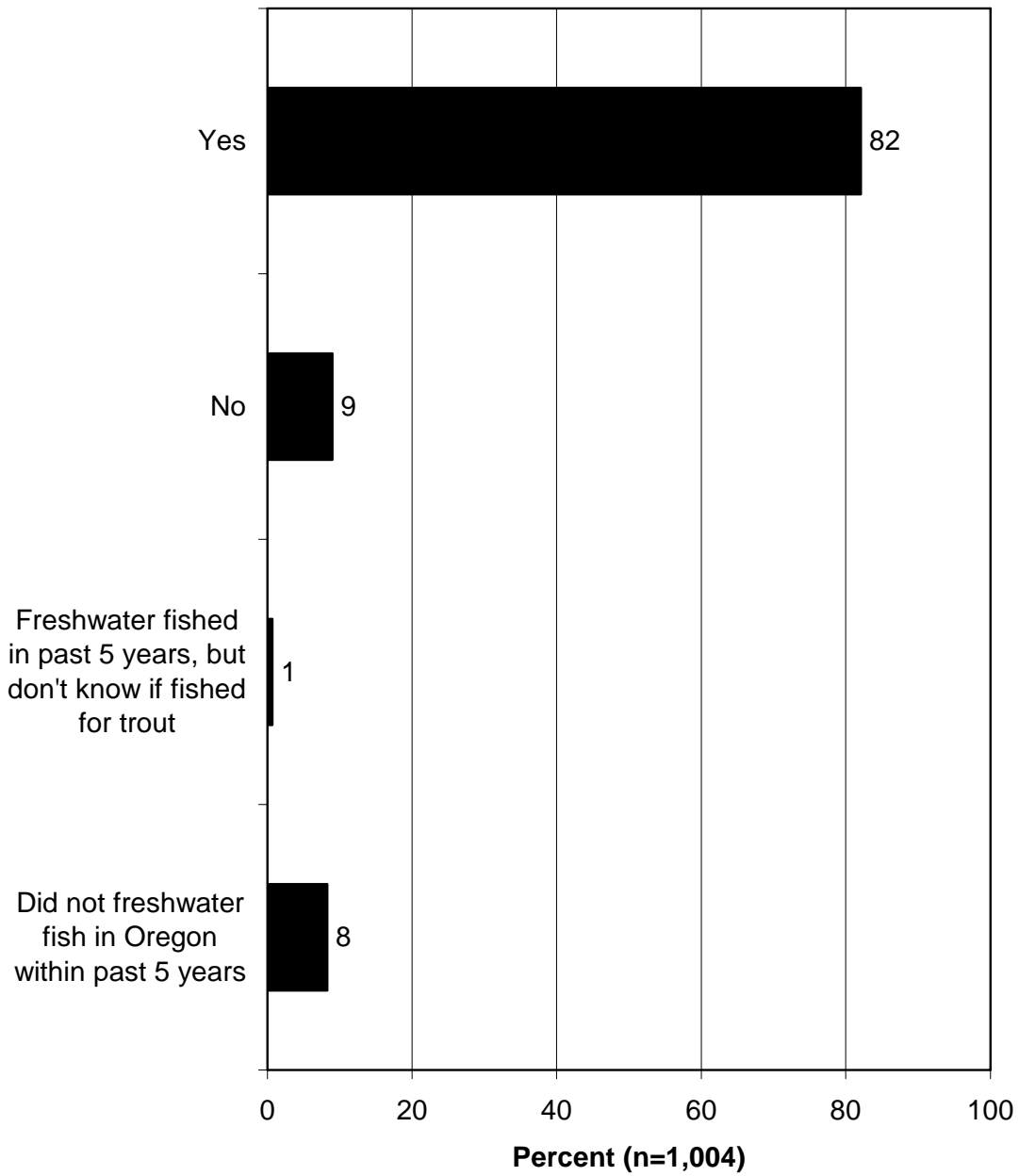
## **PARTICIPATION IN FRESHWATER FISHING AND DAYS FISHED**

- The overwhelming majority of Oregon fishing license holders in the McKenzie River area (92%) had freshwater fished in Oregon within the past 5 years. Furthermore, 82% had fished *for trout* in Oregon in the past 5 years. (Among those who had freshwater fished, 89% had fished for trout; this graph is also shown.)
  - The typical number of days of fishing for trout among trout anglers is shown. One third of trout anglers (33%) typically fish for no more than 5 days; the mean is 16.31 days, and the median is 10 days.
  
- Among all licensed anglers in the McKenzie River area, 41% had fished for trout on the McKenzie River within the past 5 years. Another graph shows the results among trout anglers only: half of trout anglers (50%) had fished on the McKenzie River within the past 5 years.
  - A graph shows the typical number of days of fishing for trout *on the McKenzie River* among those trout anglers who fish there. A majority (58%) fish for no more than 5 days. The mean is 9.50 days, and the median is 5 days.

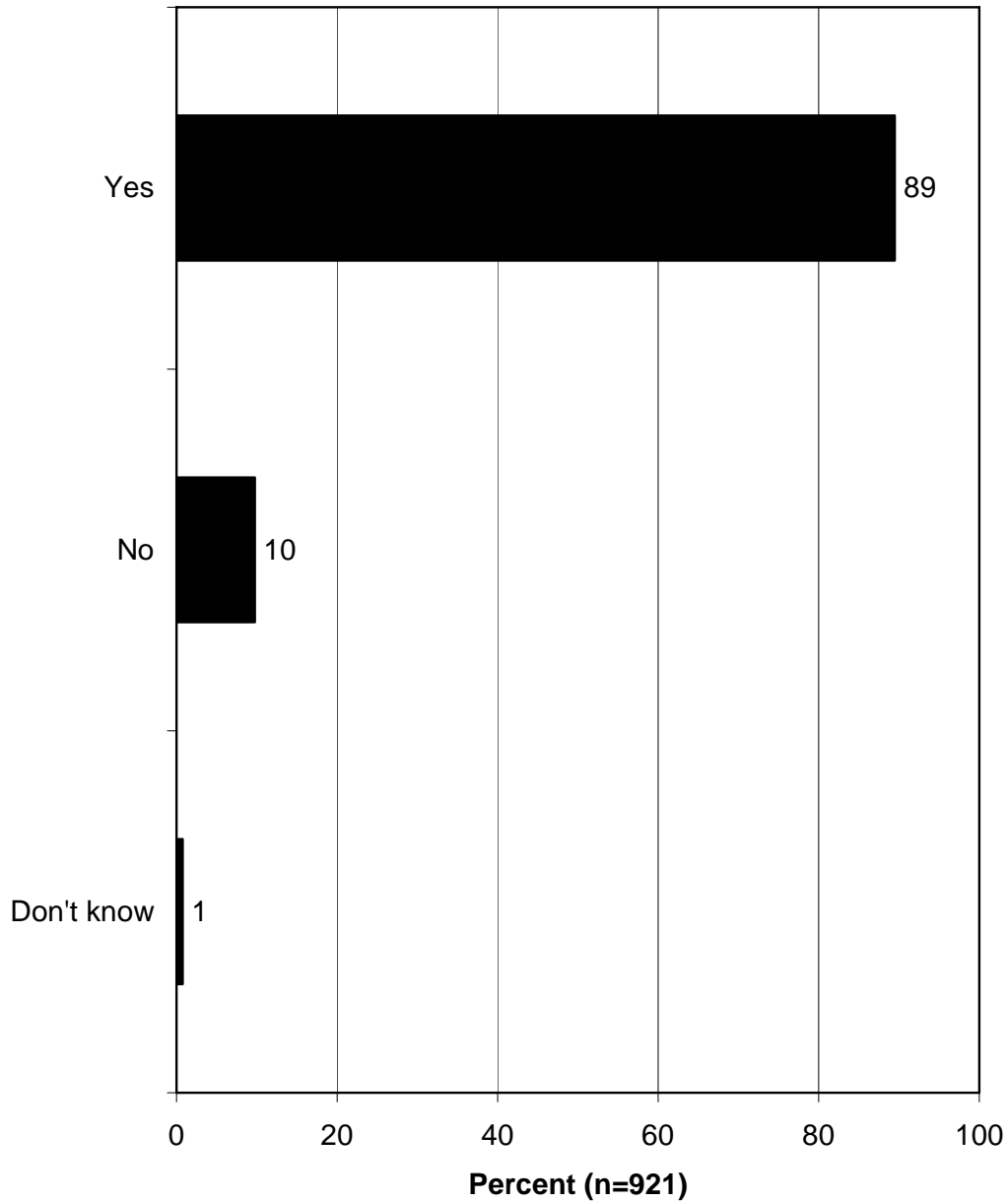
**Q10. Have you been freshwater fishing in Oregon in the past 5 years?**



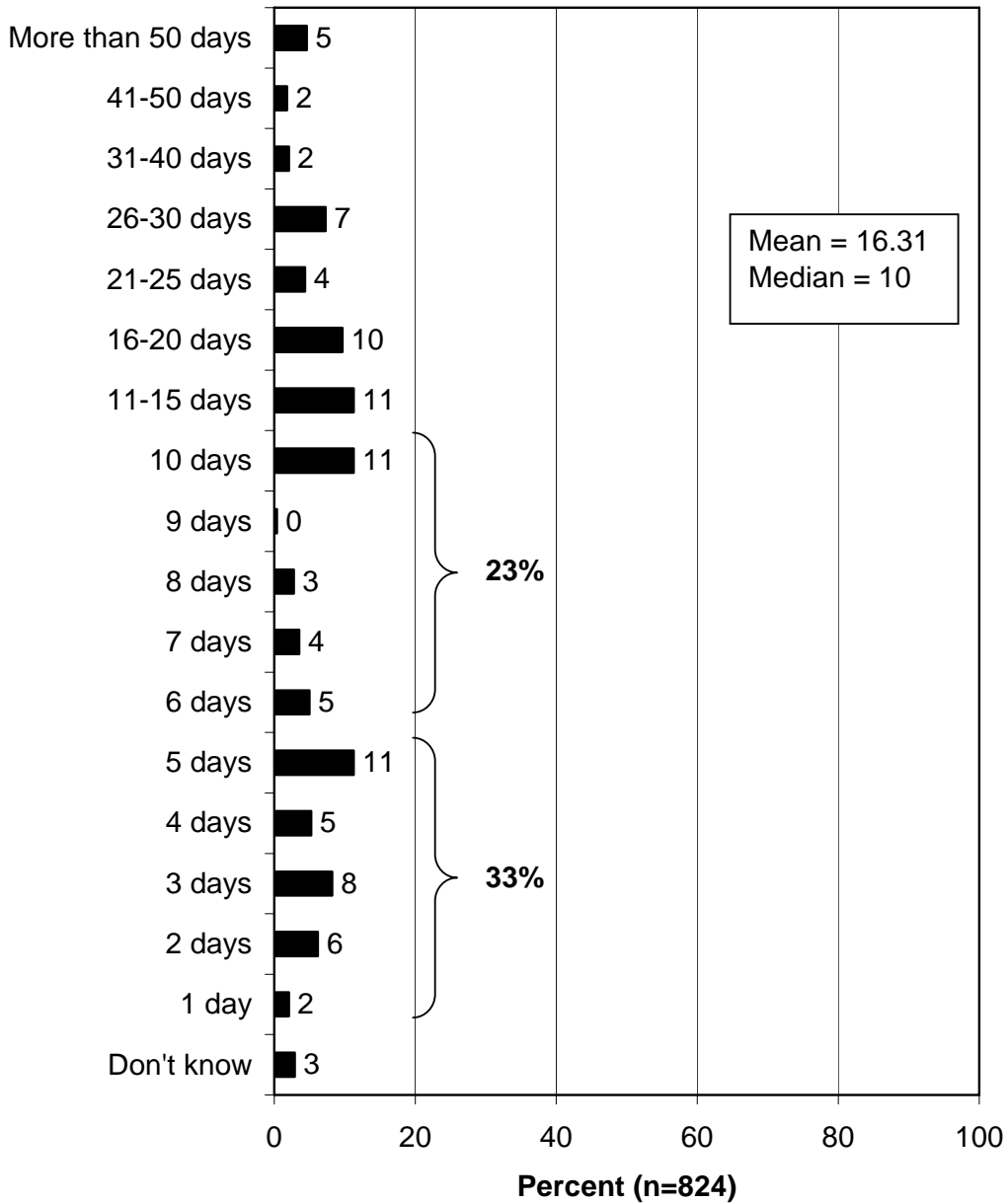
**Q17. Did you fish for trout in Oregon in the past 5 years?**



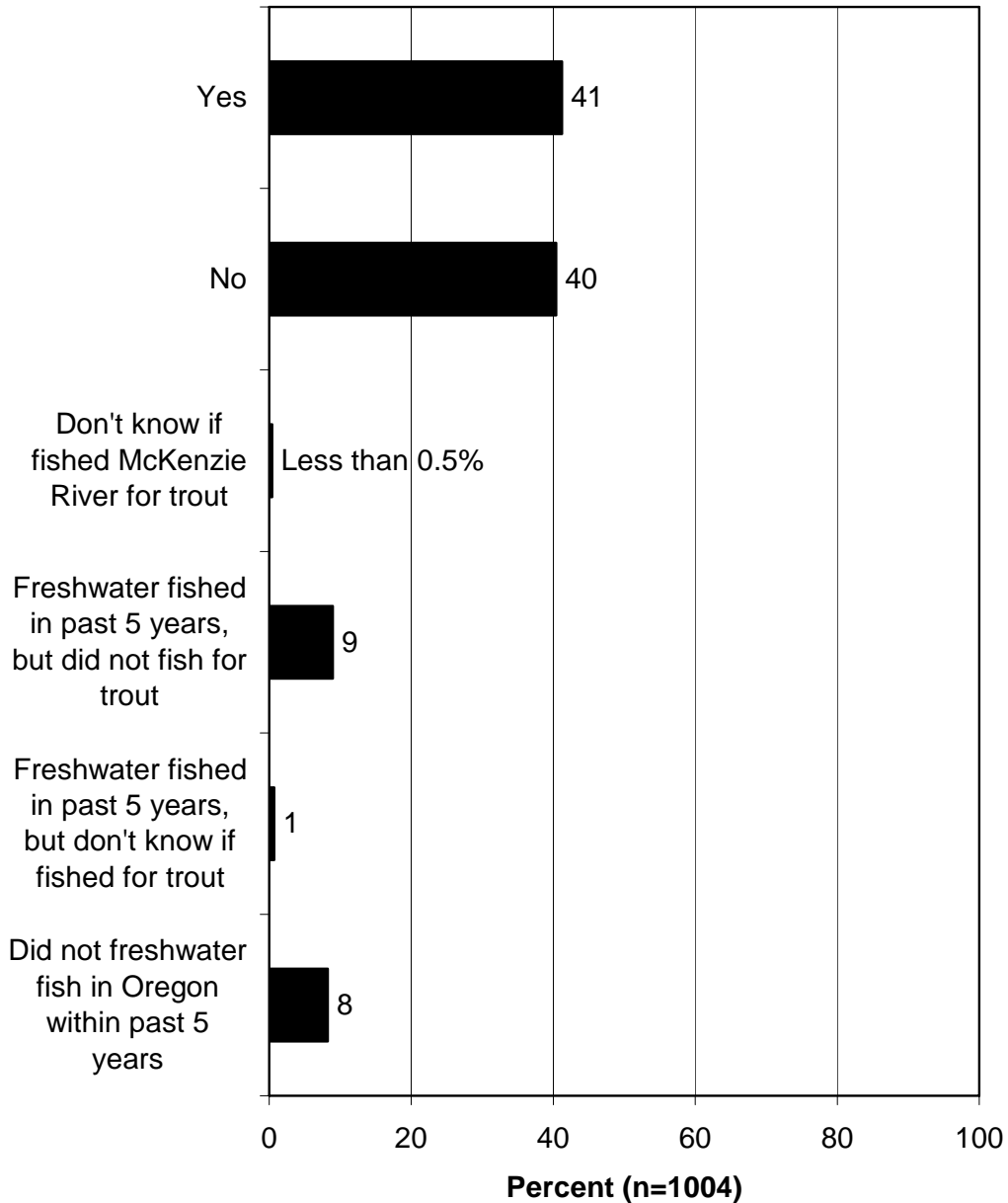
**Q17. Did you fish for trout in Oregon in the past 5 years? (Asked of those who have been freshwater fishing in Oregon in the past 5 years.)**



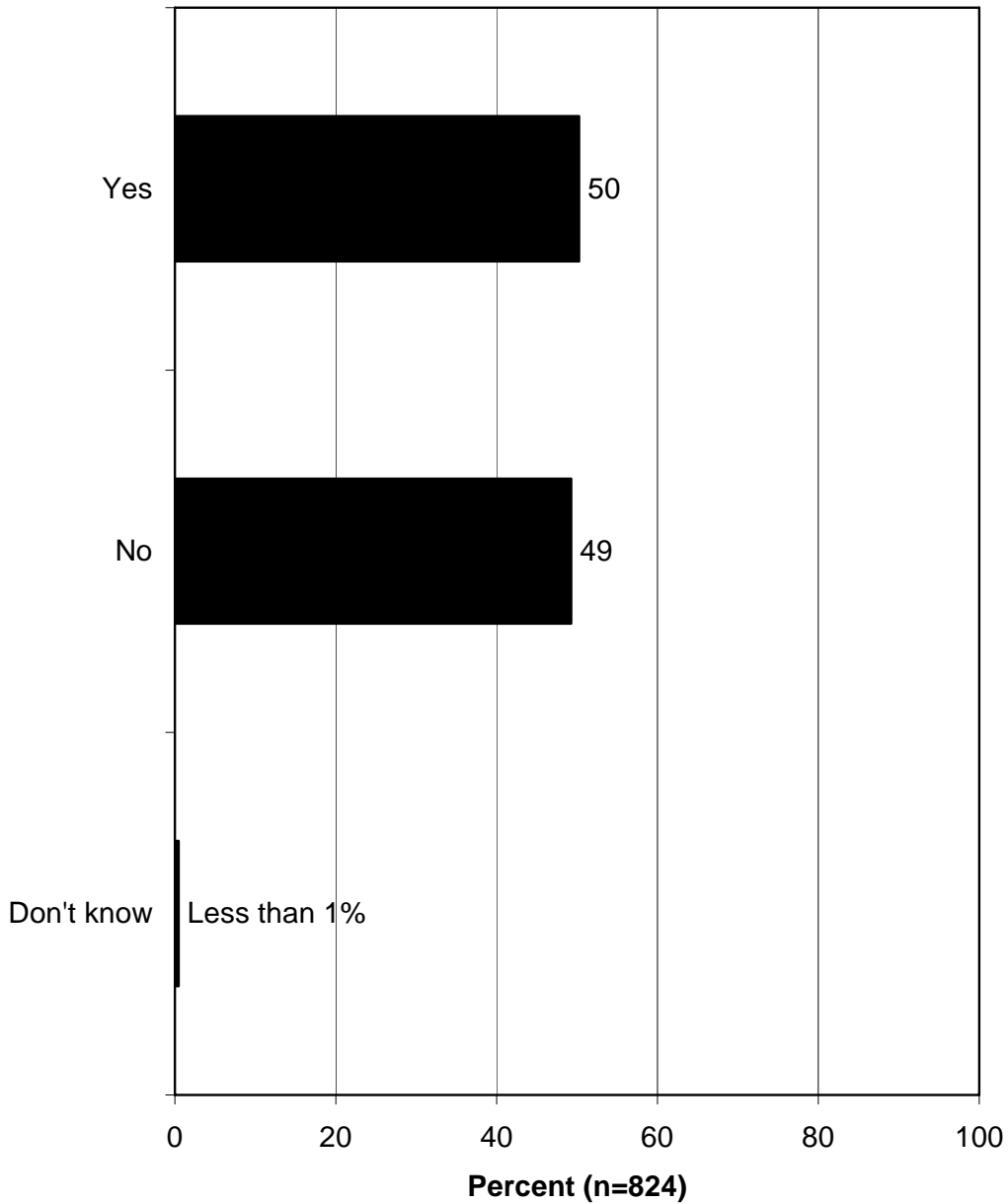
**Q18. About how many days do you usually fish for trout in Oregon each year? (Asked of those who have fished for trout in Oregon in the past 5 years.)**



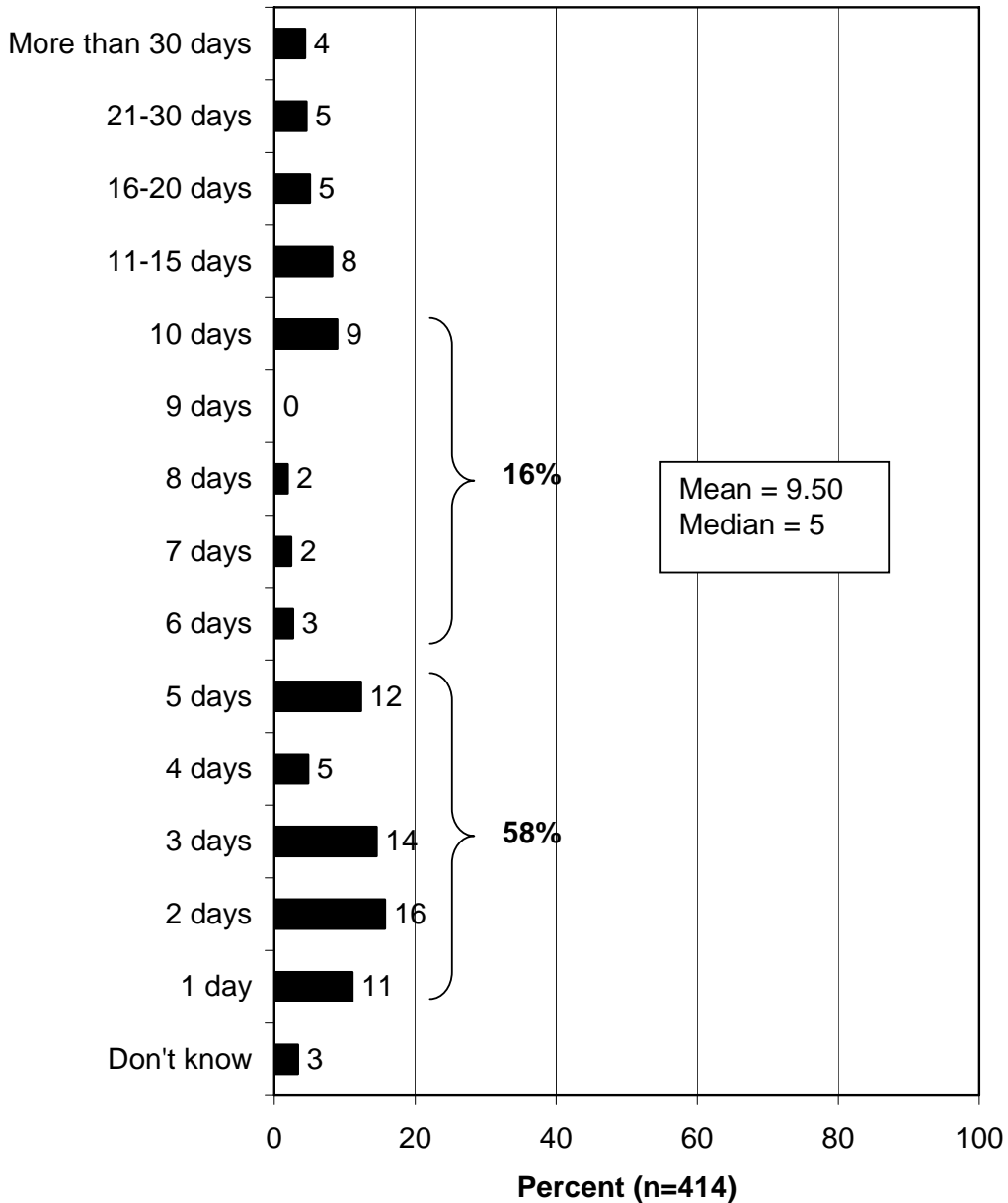
### Q37. Did you fish for trout on the McKenzie River in the past 5 years?



**Q37. Did you fish for trout on the McKenzie River in the past 5 years? (Asked of those who have fished for trout in Oregon in the past 5 years.)**



**Q38. About how many days do you usually fish for trout on the McKenzie River each year? (Asked of those who have fished for trout on the McKenzie River in the past 5 years.)**

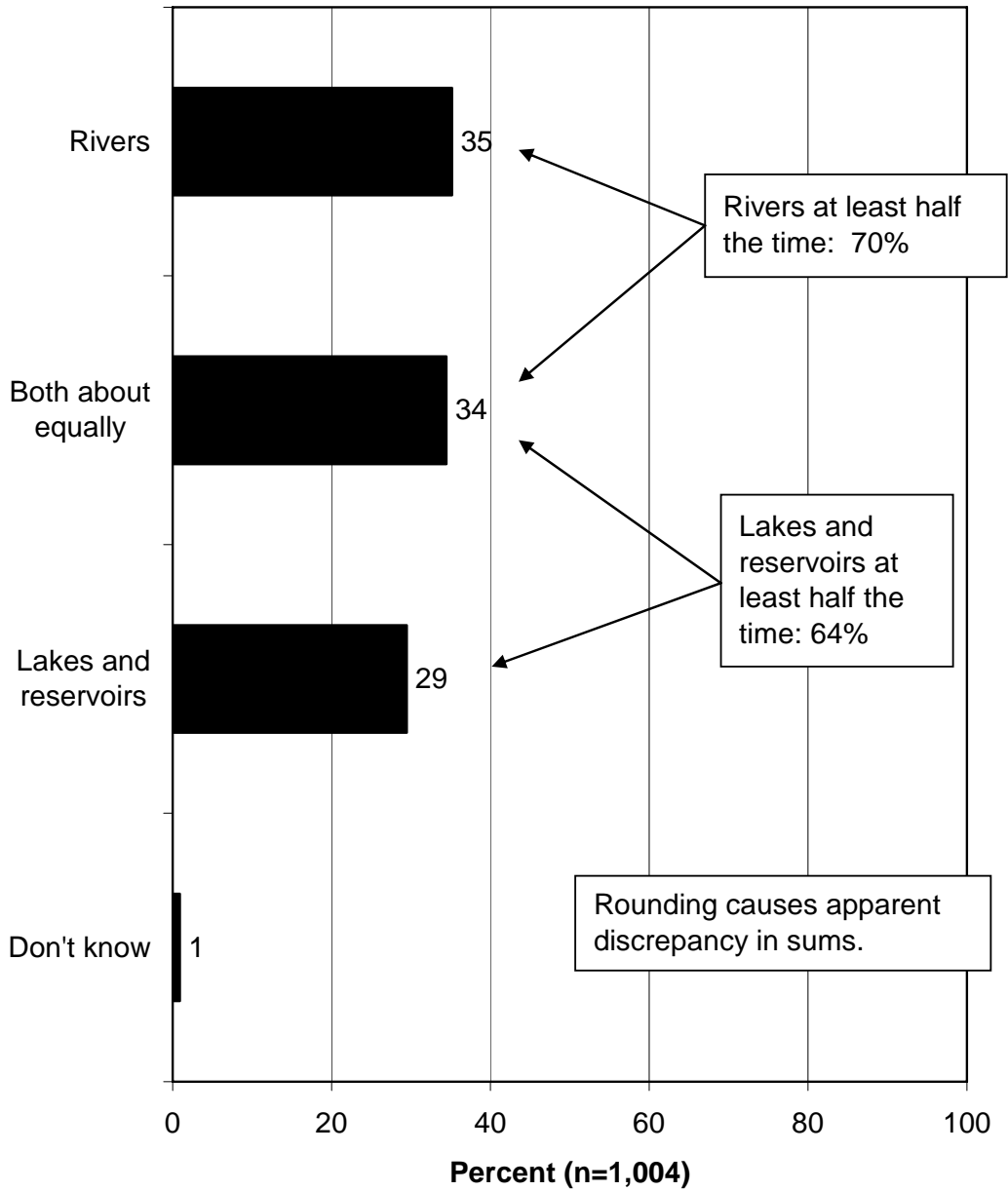


## **FISHING LOCATIONS, FISHING METHODS, AND SPECIES FISHED**

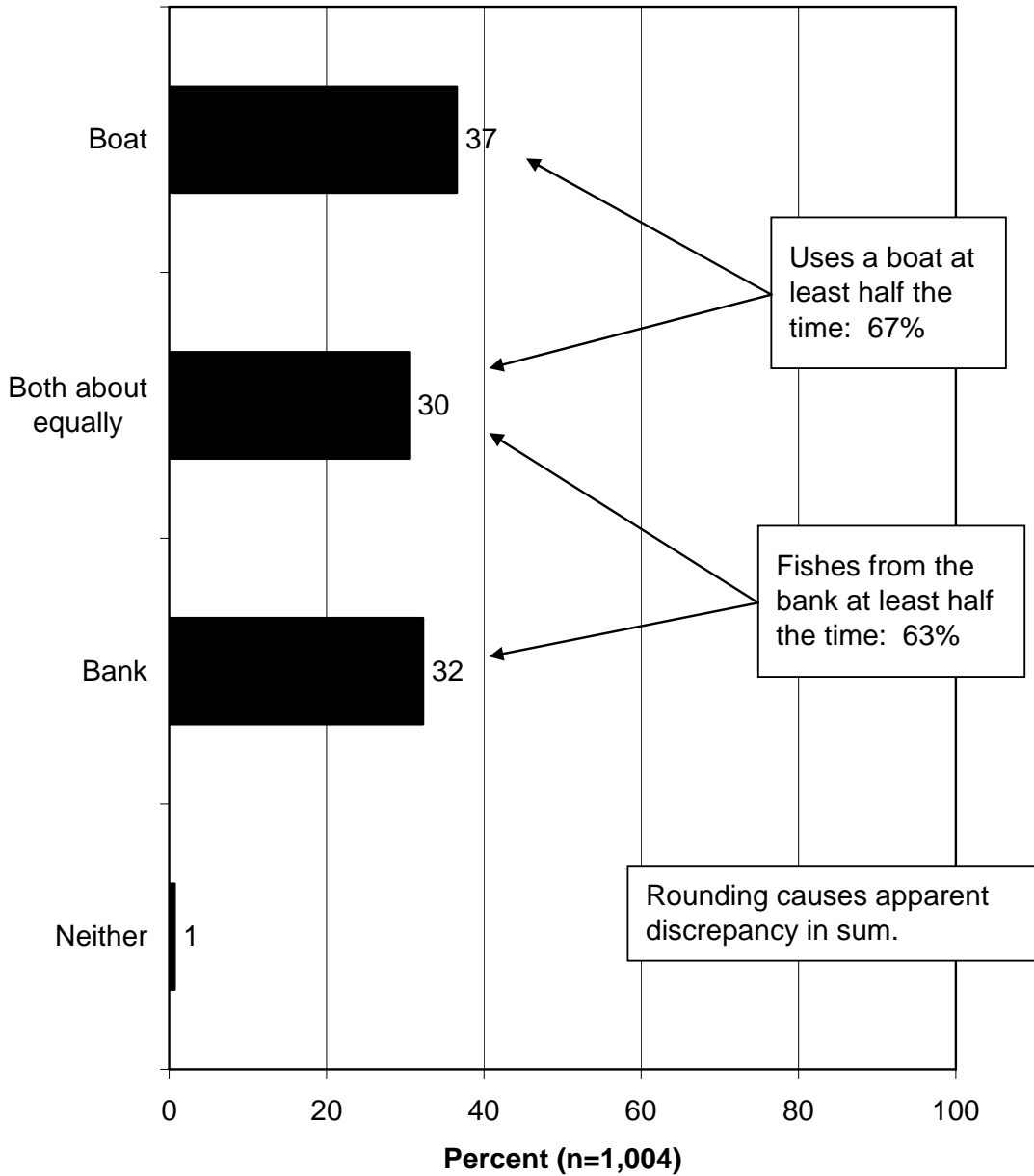
- Freshwater anglers in the McKenzie River area can be categorized into approximate thirds: 35% fish in rivers most of the time, 29% fish in lakes/reservoirs most of the time, and 34% fish the two types of waters about equally.
  
- As was done above, freshwater anglers in the McKenzie River area can again be categorized into thirds according to boat use: 37% usually use a boat for fishing, 32% usually fish from the bank, and 30% do both methods about equally.
  
- The questions about river or lake/reservoir fishing and boat or bank fishing were crosstabulated. Those who usually fish from the bank most often fish in rivers, while those who usually fish from a boat most often fish in lakes or reservoirs.
  
- Licensed anglers in the McKenzie River area were asked what they primarily consider themselves. A little more than half (55%) consider themselves to be trout anglers, 22% consider themselves to be salmon and/or steelhead anglers, and 6% consider themselves to be warmwater fish anglers (the remainder cannot say).
  - The results of this question were used in two crosstabulations. The first of these analyses crosstabulates type of angler they consider themselves by fishing from the bank or a boat. This crosstabulation found that salmon/steelhead anglers more commonly fish from a boat than from the bank; trout anglers more commonly fish from the bank than they do from a boat, but that difference is very slight. Warmwater anglers more commonly fish from the bank than from a boat.
  - The second of these crosstabulation analyses looked at the type of angler they consider themselves crosstabulated by fishing in rivers or in lakes/reservoirs. This crosstabulation found that salmon/steelhead anglers most commonly fish in rivers. Trout anglers more commonly fish in lakes/reservoirs than they do in rivers, but the difference is slight. Warmwater anglers more commonly fish in lakes/reservoirs than they do in rivers.

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- A question specifically of trout anglers asked them about their preferences vis-à-vis bait, flies, or lures. The large majority do not use one type exclusively: 58% of trout anglers say that they use some combination of gear types. Otherwise, 21% use bait only, 11% use flies only, and 10% use lures only.
    - Another question was asked specifically about any use of bait. About three-fourths of trout anglers (74%) use bait when trout fishing *always* or *sometimes*.
  
  - A question for trout anglers only asked about catch-and-release of trout. While trout anglers most commonly say that they *equally keep and release* (37%), nearly as high a percentage *mostly release* (34%). Meanwhile, 28% *mostly keep* the trout they catch. Based on these percentages, it appears\* that catch-and-release is more often practiced than is keeping the fish.
    - \*The statement is qualified by “appears” because the survey did not determine if more fish are kept or released. The survey did not ask about *specific numbers* of fish kept and released; rather, it asked about the method that is primarily used *in general*. Based on this, 71% of anglers release trout at least half the time that they fish, while 65% keep the trout they catch at least half the time that they fish.
  
  - A final question in this section asked about preferences vis-à-vis hatchery or wild trout. The majority of trout anglers in the McKenzie River area say that it does not matter which they fish for (58%). Otherwise, wild trout (31%) are preferred over hatchery trout (11%).

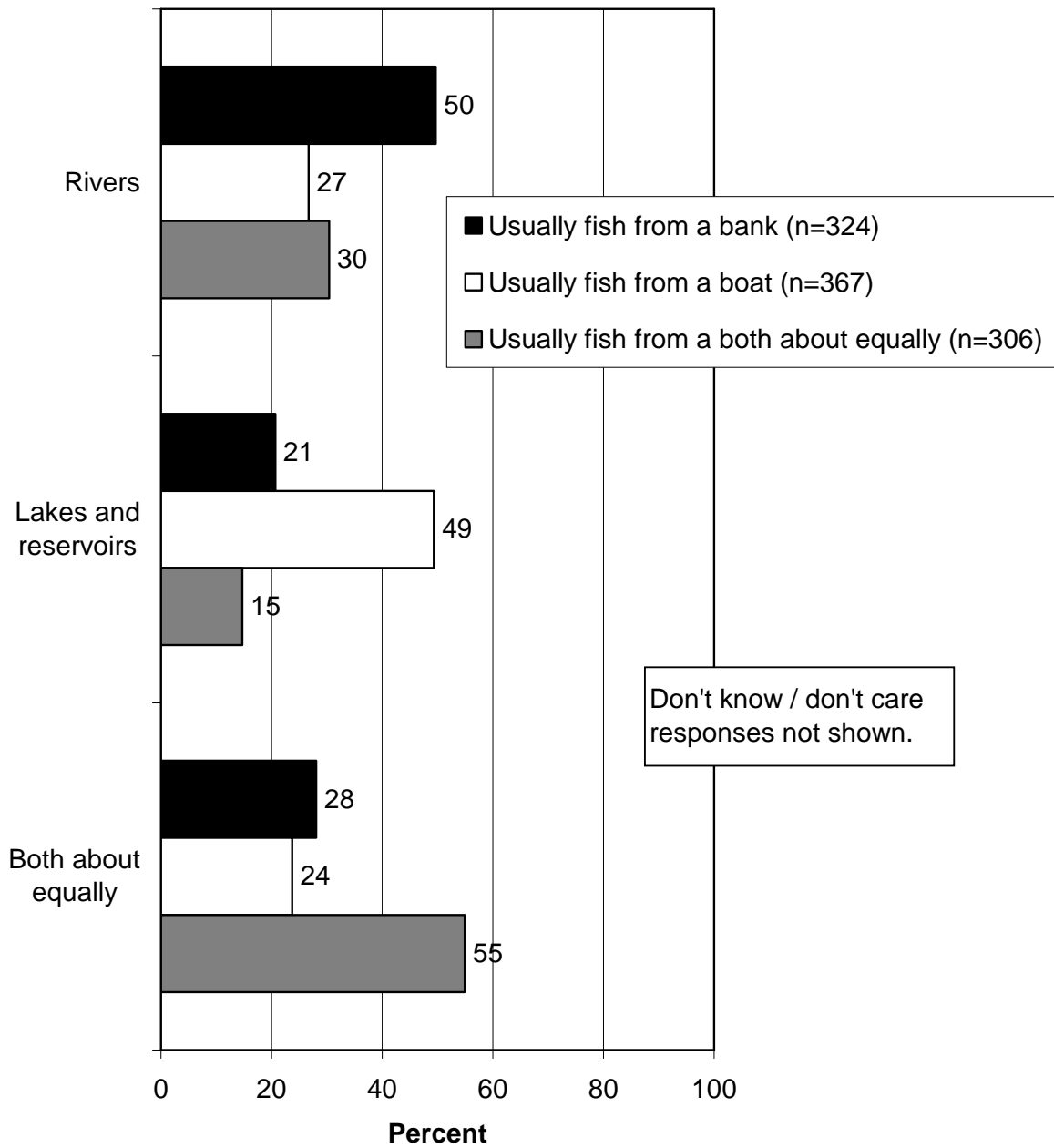
**Q13. When freshwater fishing in Oregon, [do / did] you usually fish in rivers or in lakes and reservoirs?**



**Q14. [Do / Did] you usually freshwater fish in Oregon from the bank or from a boat?**



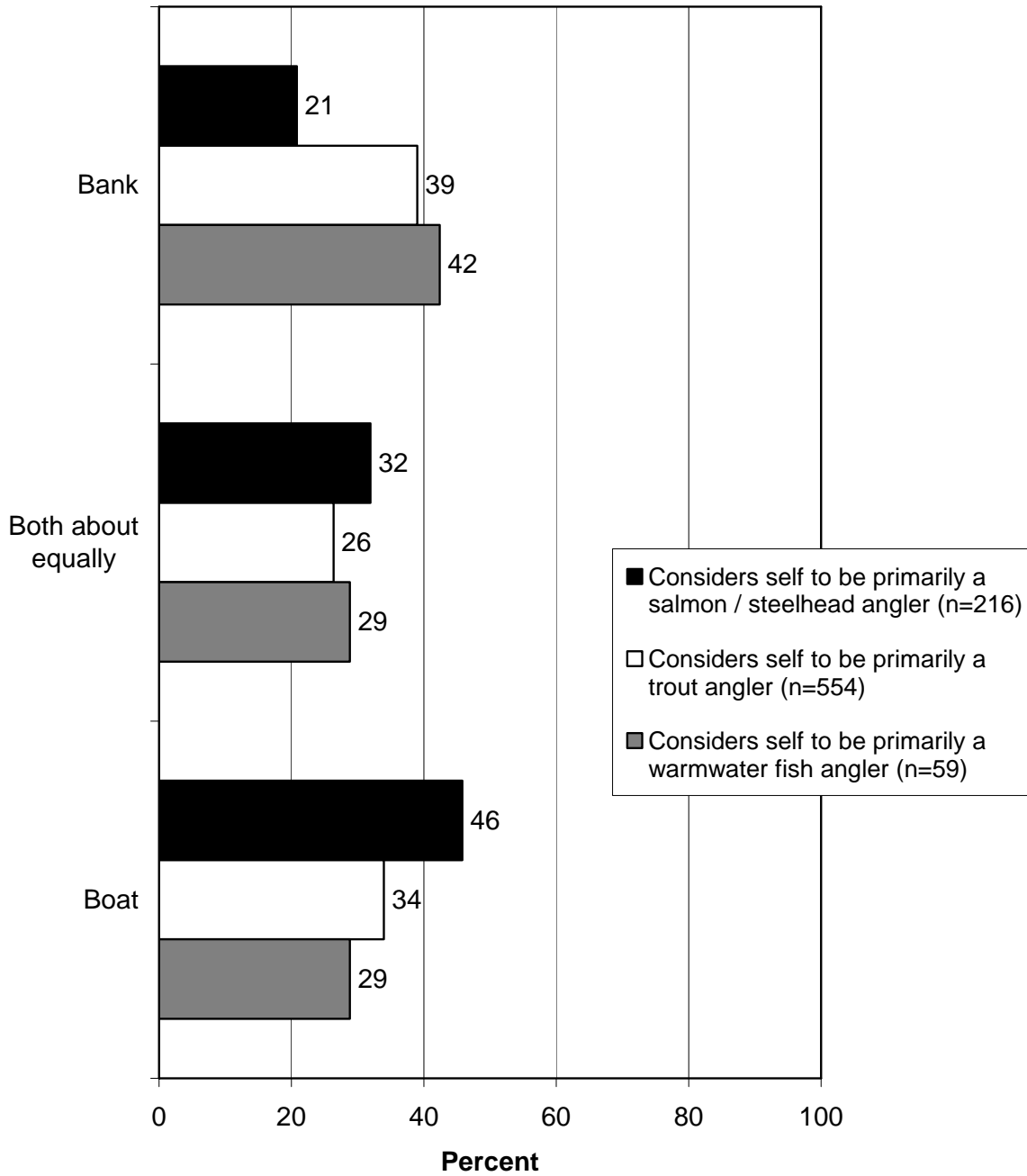
**Q13. When freshwater fishing in Oregon, [do / did] you usually fish in rivers or in lakes and reservoirs?**



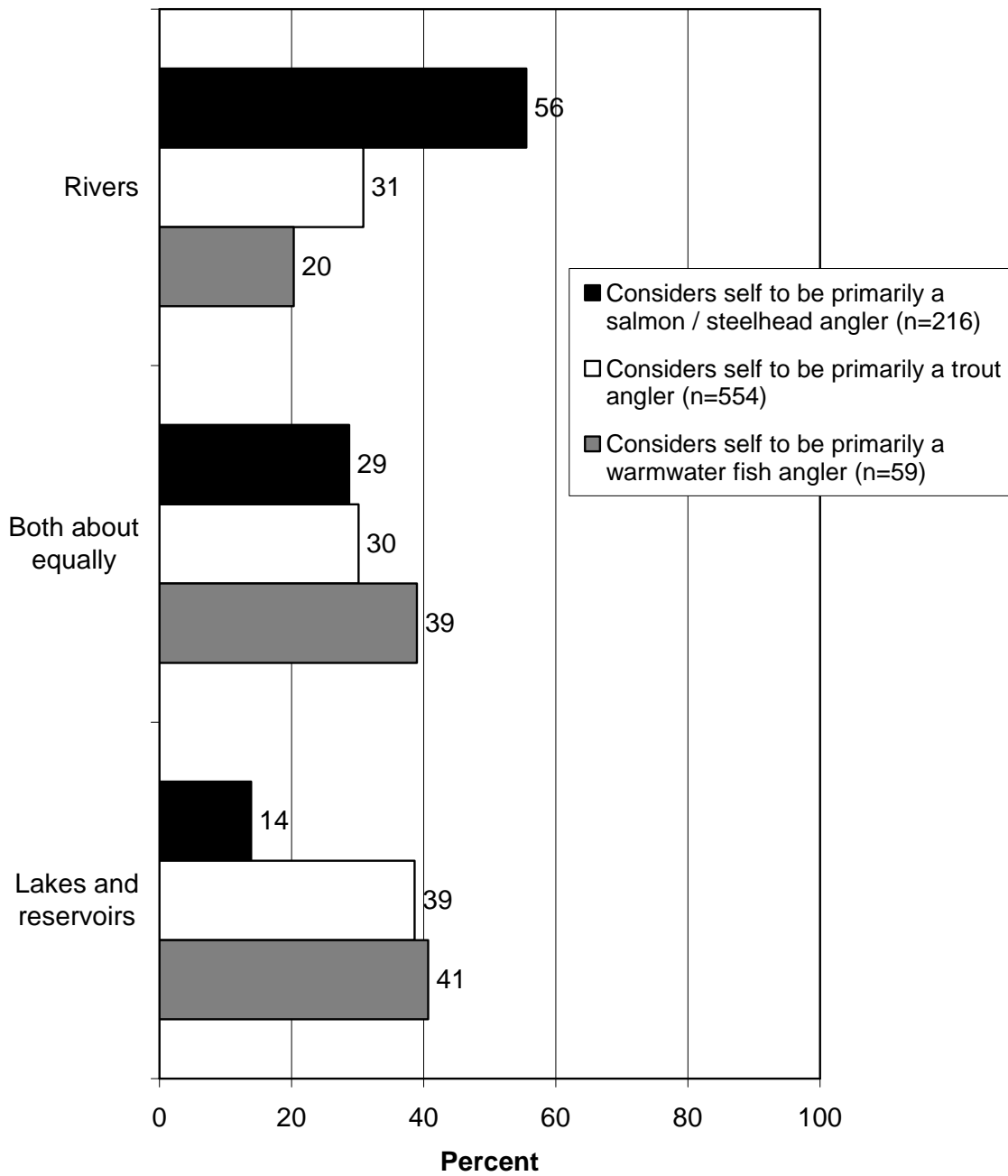
**Q15. In general, [do / did] you consider yourself to be primarily a salmon and steelhead angler, a trout angler, or a warmwater fish angler?**



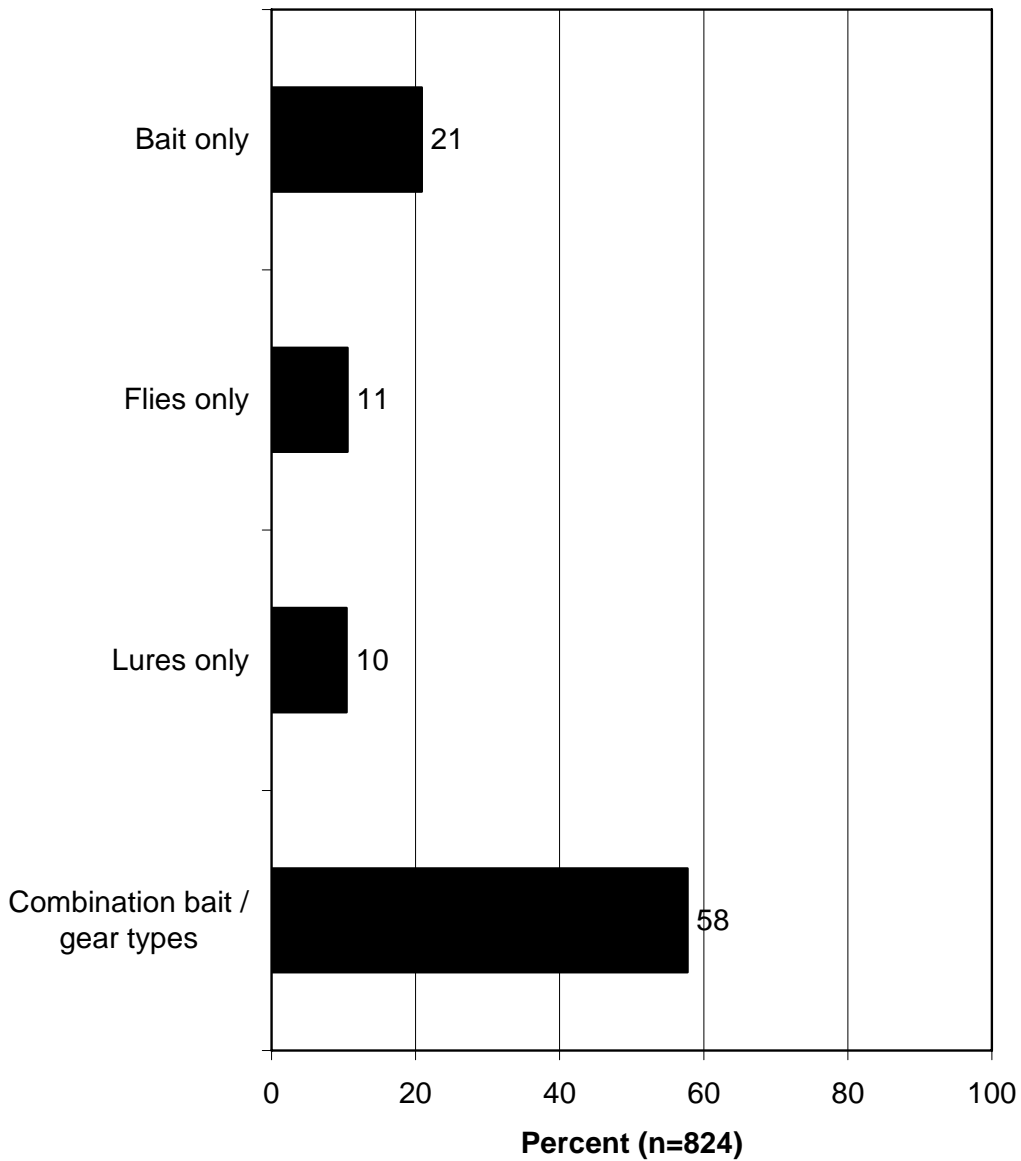
**Q14. [Do / Did] you usually freshwater fish in Oregon from the bank or from a boat?**



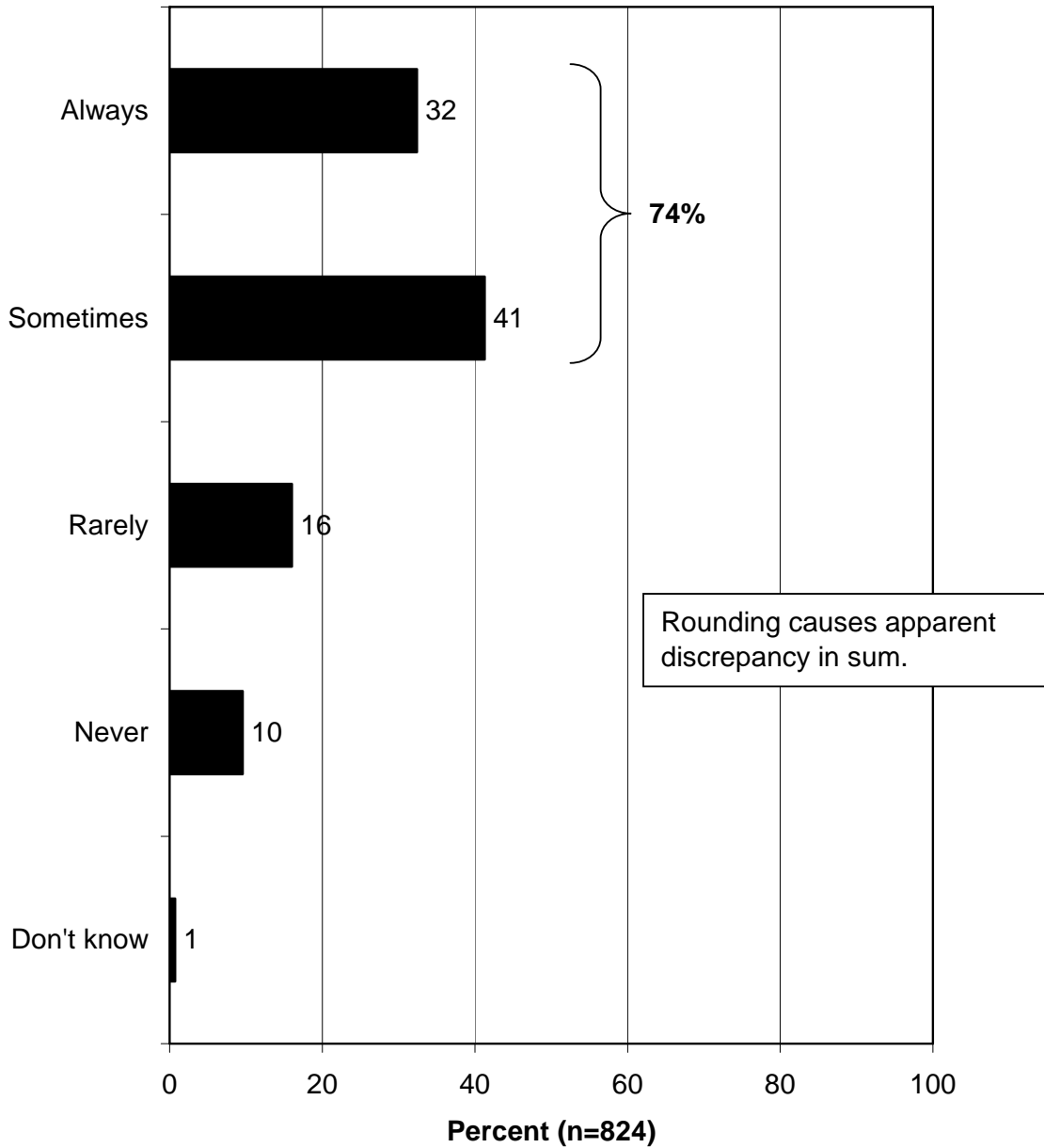
**Q13. When freshwater fishing in Oregon, [do / did] you usually fish in rivers or in lakes and reservoirs?**



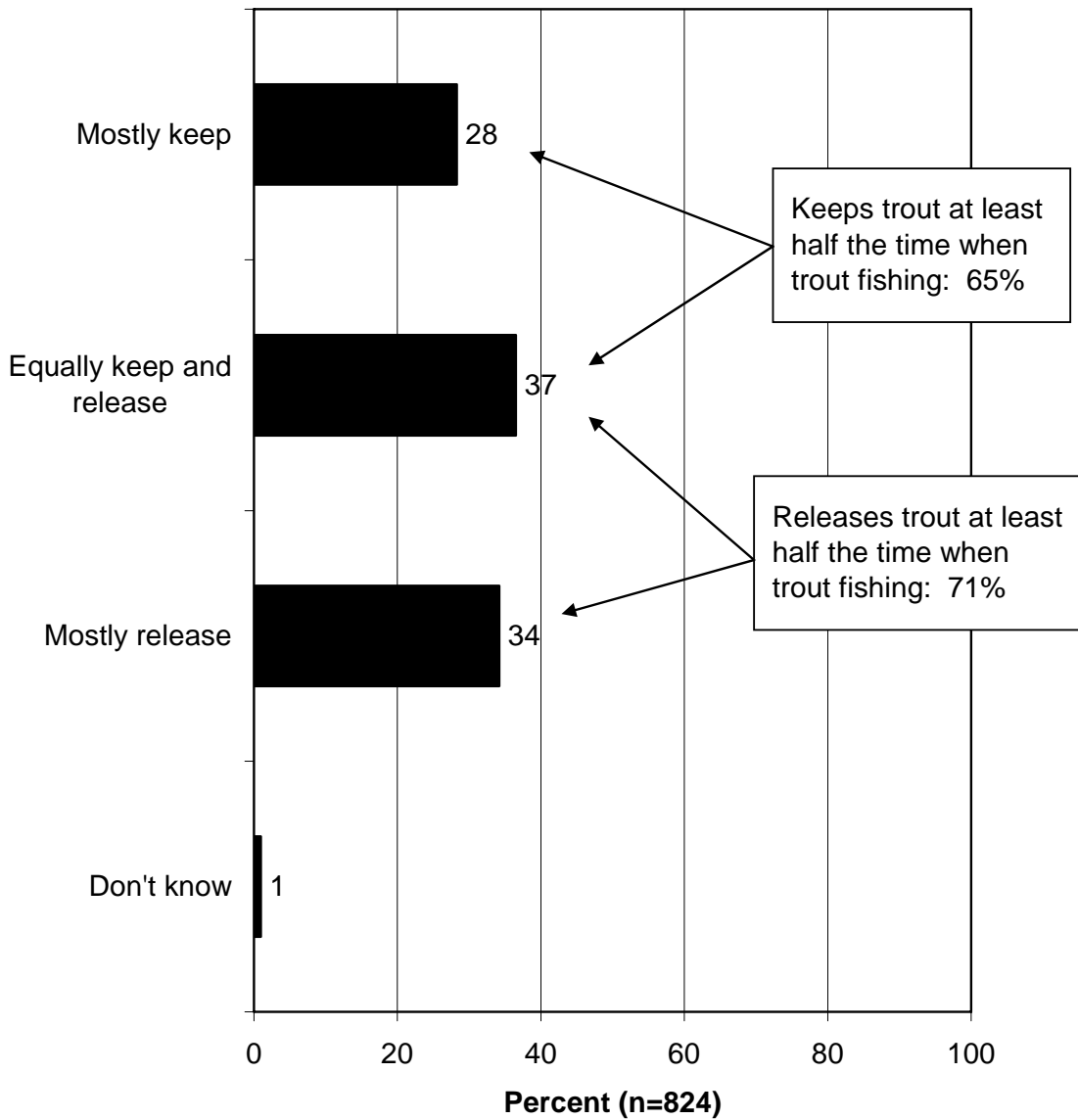
**Q21. When fishing for trout in Oregon, do you prefer to fish with flies only, lures only, bait only, or combination bait / gear types? (Asked of those who have fished for trout in Oregon in the past 5 years.)**



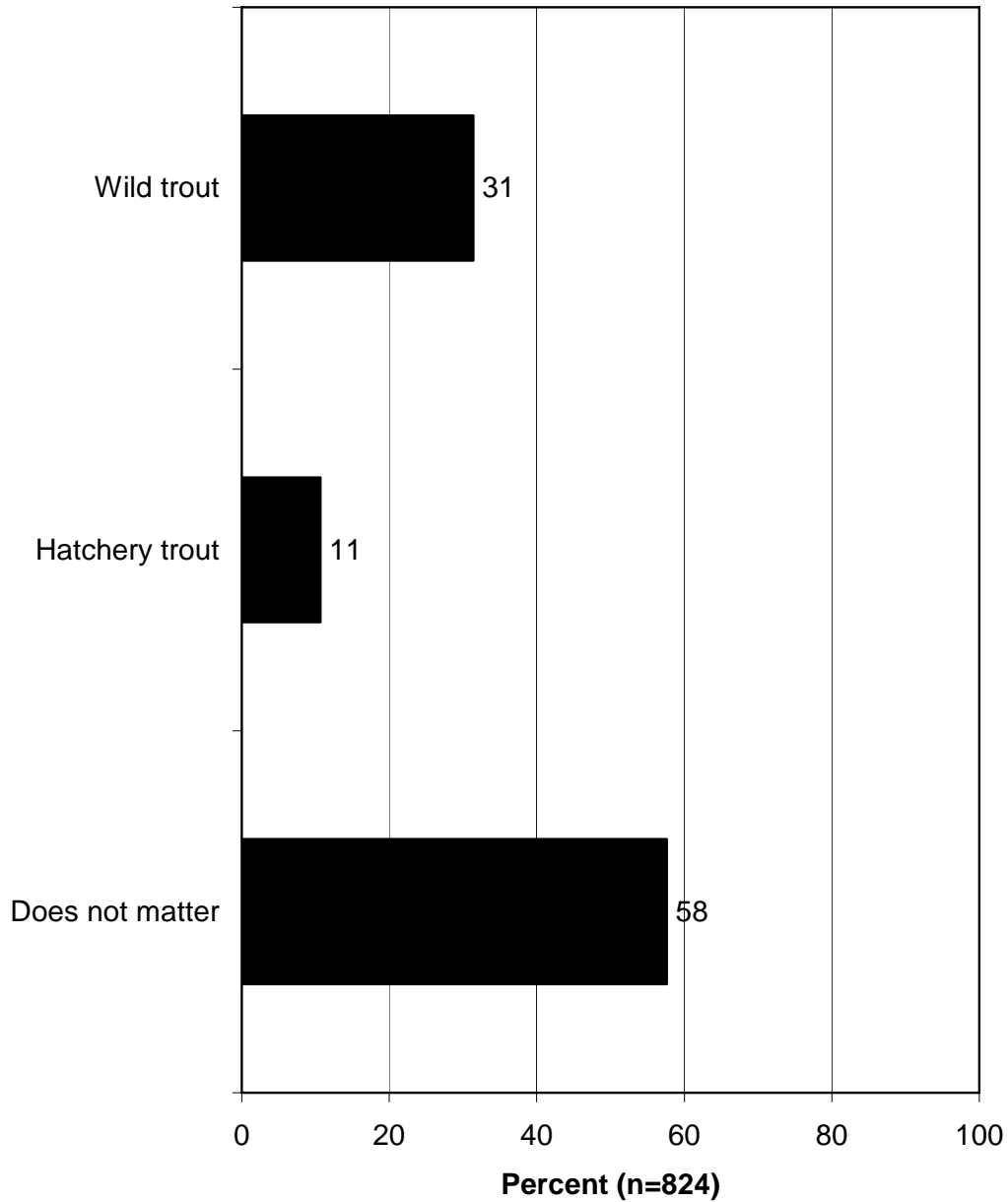
**Q23. How often do you fish for trout with bait in Oregon? (Asked of those who have fished for trout in Oregon in the past 5 years.)**



**Q24. When fishing for trout in Oregon, would you say that you mostly keep the trout you catch, mostly release the trout you catch, or do you do both about equally? (Asked of those who have fished for trout in Oregon in the past 5 years.)**



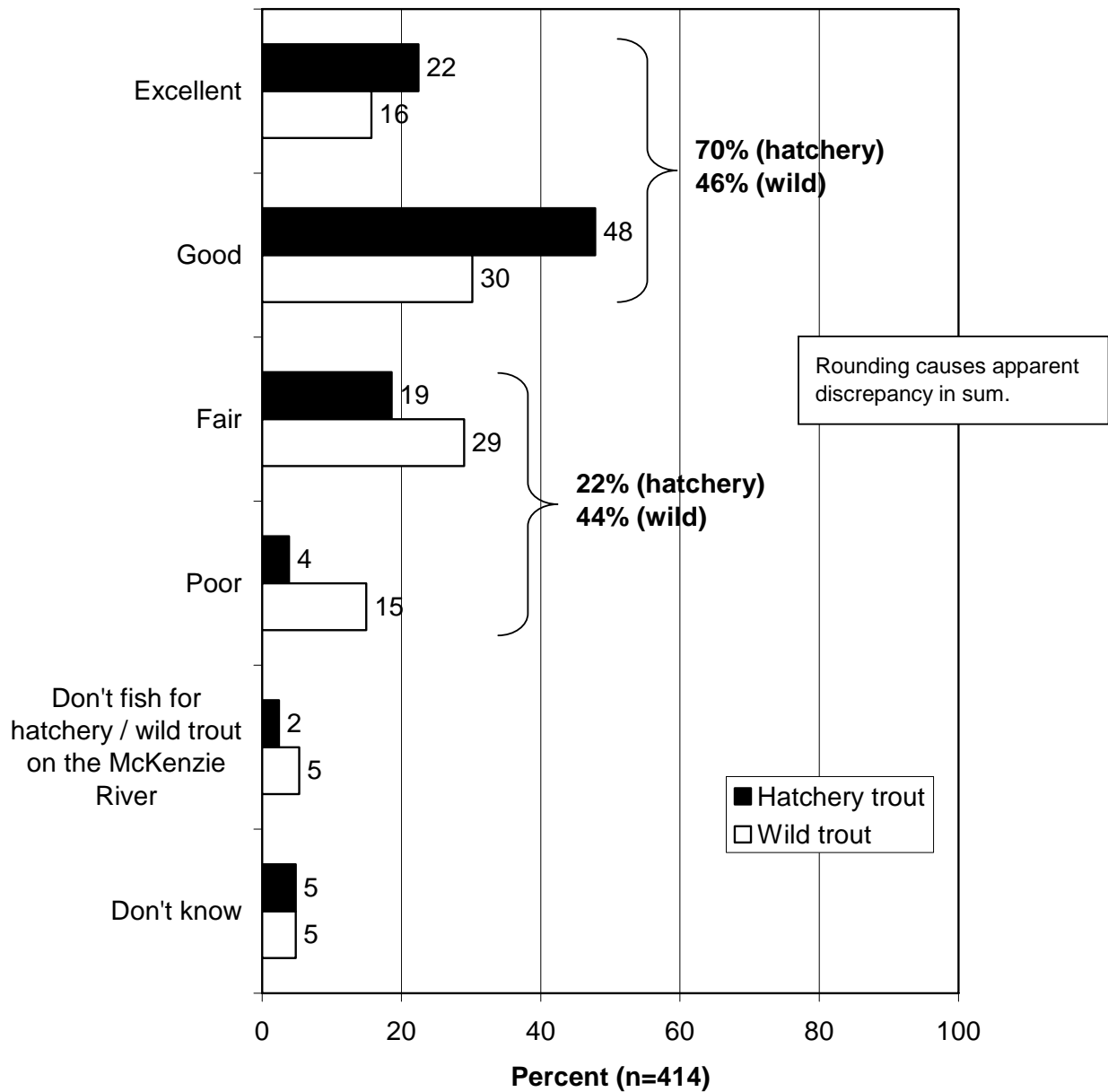
**Q27. When you fish for trout in Oregon, do you prefer to fish for hatchery trout or wild trout or does it not matter? (Asked of those who have fished for trout in Oregon in the past 5 years.)**



## **RATINGS OF FISHING**

- Trout anglers in the McKenzie River area were asked to rate the quality of fishing opportunities on the McKenzie River for hatchery trout and wild trout. Ratings are better for hatchery trout than for wild trout (70% of trout anglers in the McKenzie River area say that fishing for hatchery trout on the McKenzie River is *excellent* or *good*, compared to 46% who say that fishing for wild trout is *excellent* or *good*). In fact, the latter group is almost equally split: 46% say the quality of opportunities to fish for wild trout on the McKenzie River is *excellent* or *good*, while 44% say it is *fair* or *poor*.

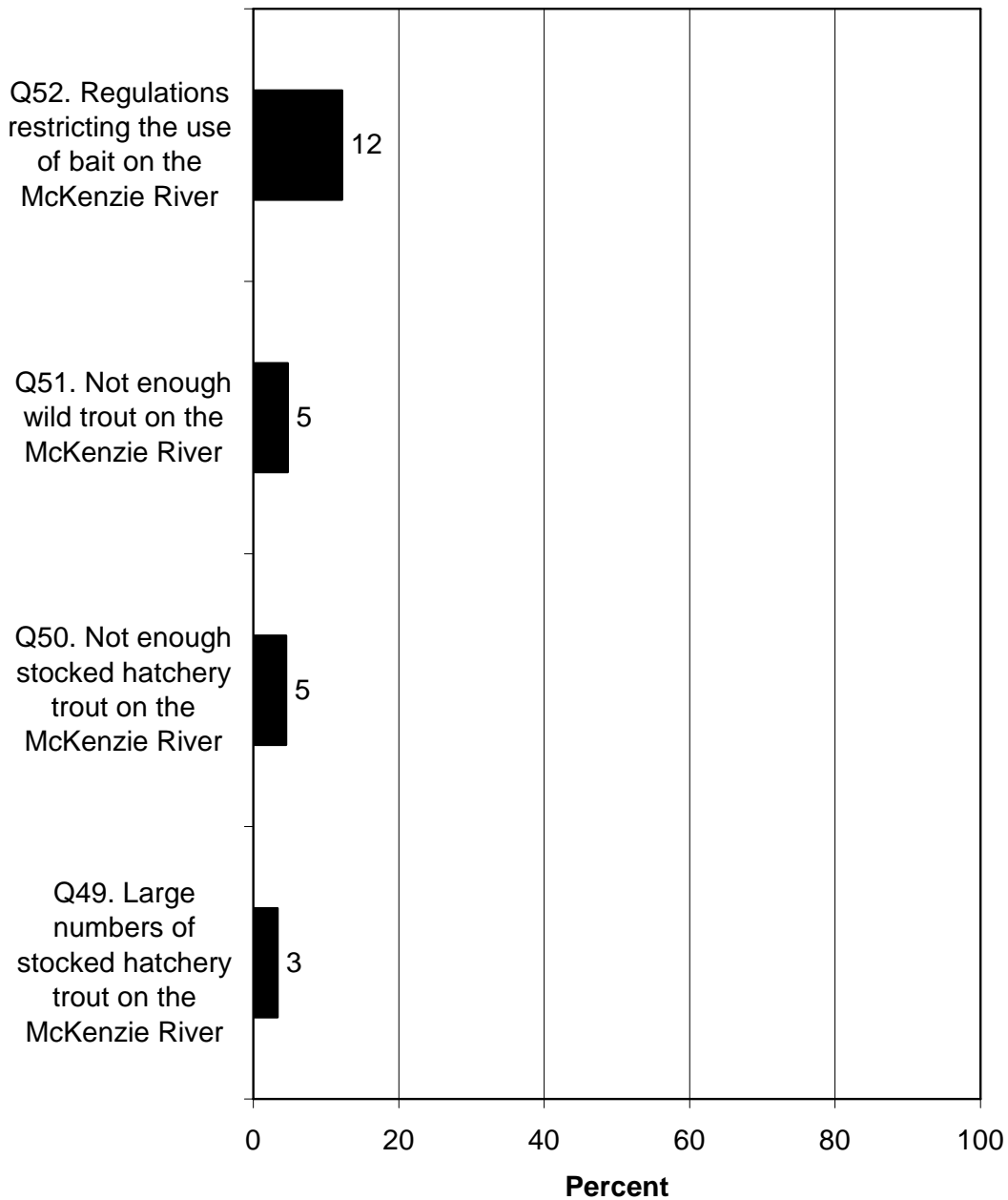
**Q42/Q43. How would you rate the quality of fishing opportunities for (hatchery / wild) trout on the McKenzie River?**  
**(Asked of those who have fished for trout on the McKenzie River in the past 5 years.)**



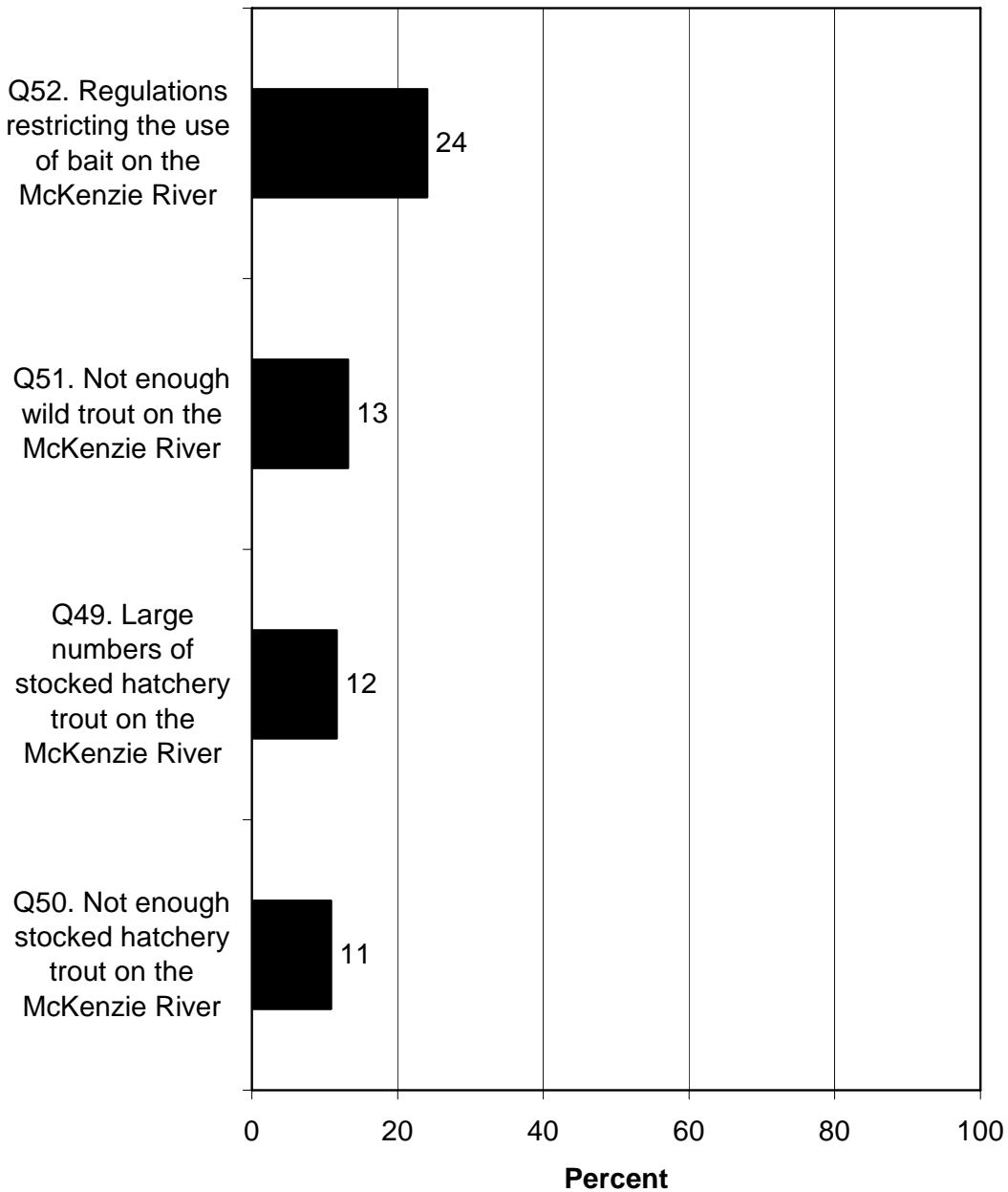
## **FACTORS AFFECTING THE AMOUNT OF FISHING**

- Two series of questions were asked that explored factors affecting trout fishing participation on the McKenzie River. The first asked those who had *not* fished for trout on the McKenzie River to rate a series of factors as *strongly* influencing them, *moderately* influencing them, or *not* influencing them to *not* fish for trout on the McKenzie River. The second asked those who *had* fished for trout on the McKenzie River to rate the same factors as *increasing* or *decreasing* their amount of fishing for trout on the McKenzie River. The four factors rated are listed below:
- Large numbers of stocked hatchery trout on the McKenzie River
  - Not enough stocked hatchery trout on the McKenzie River
  - Not enough wild trout on the McKenzie River
  - Regulations restricting the use of bait on the McKenzie River
- In the first series, none of the factors was a major influence on the lack of trout fishing participation on the McKenzie River: no more than 24% of those who had *not* fished for trout on the McKenzie River indicated that any one of the factors was a *strong* or *moderate* influence on their lack of fishing participation. The factor at the top, in a ranking by the percentage saying it *strongly* or *moderately* influenced them to *not* fish for trout on the McKenzie River, is the regulatory restriction on the use of bait on the McKenzie River (24% say it was a *strong* or *moderate* influence). The other three factors are about even: not enough wild trout in the McKenzie River (13%), large numbers of stocked hatchery trout in the McKenzie River (12%), and (the opposite of the latter factor) not enough stocked hatchery trout in the McKenzie River (11%).
- The second series asked anglers who had fished for trout on the McKenzie River if the same four factors had influenced them to increase or decrease participation, or if the factor had not influenced them at all. For each factor, a majority indicated that the factor had no influence on their amount of trout fishing on the McKenzie River. The factor that was the largest *attraction* was the large number of stocked hatchery trout in the McKenzie River (34% say this influenced them to *increase* participation *a lot* or *a little*). The largest *detraction* was the regulatory restriction on the use of bait on the McKenzie River (27% say this influenced them to *decrease* participation *a lot* or *a little*).

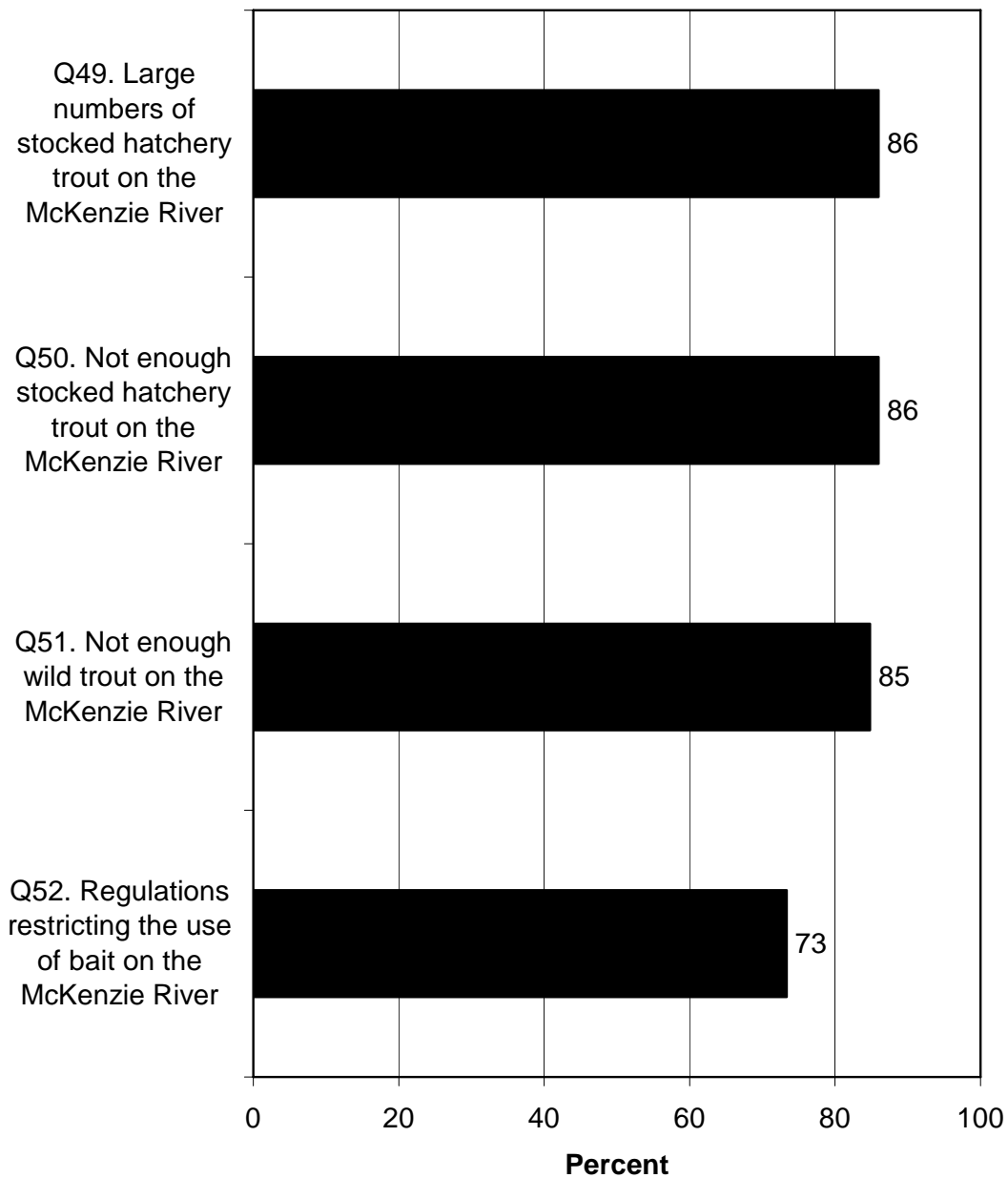
**Percent who indicated that the following strongly influenced their decision not to fish for trout on the McKenzie River in the past 5 years. (Asked of those who did not fish for trout on the McKenzie River.)**



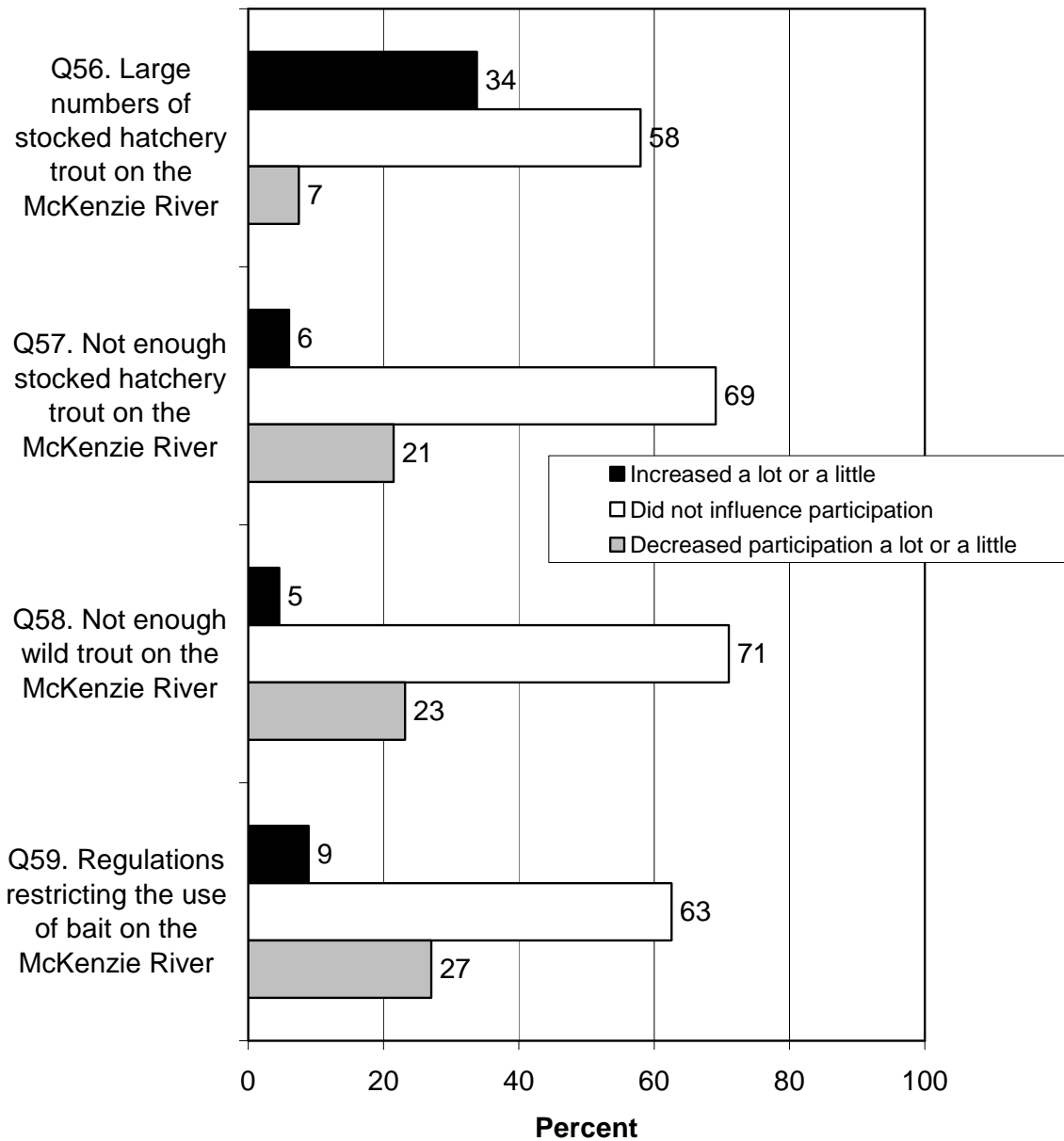
**Percent who indicated that the following strongly or moderately influenced their decision not to fish for trout on the McKenzie River in the past 5 years. (Asked of those who did not fish for trout on the McKenzie River.)**



**Percent who indicated that the following did not influence their decision not to fish for trout on the McKenzie River in the past 5 years. (Asked of those who did not fish for trout on the McKenzie River.)**



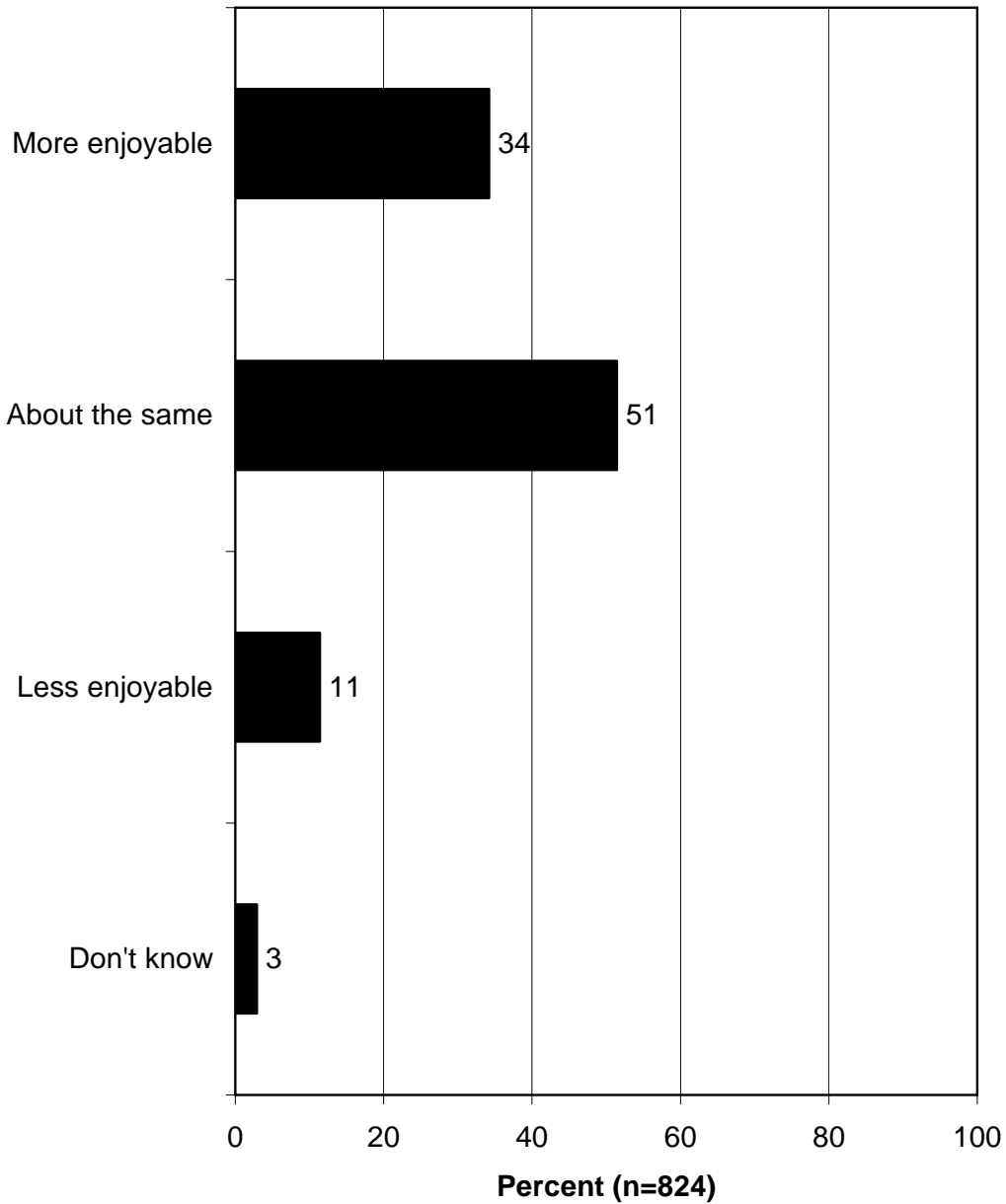
**Percent who indicated that the following influenced them to increase or decrease their amount of participation in trout fishing on the McKenzie River in the past 5 years. (Asked of those who fished for trout on the McKenzie River.)**



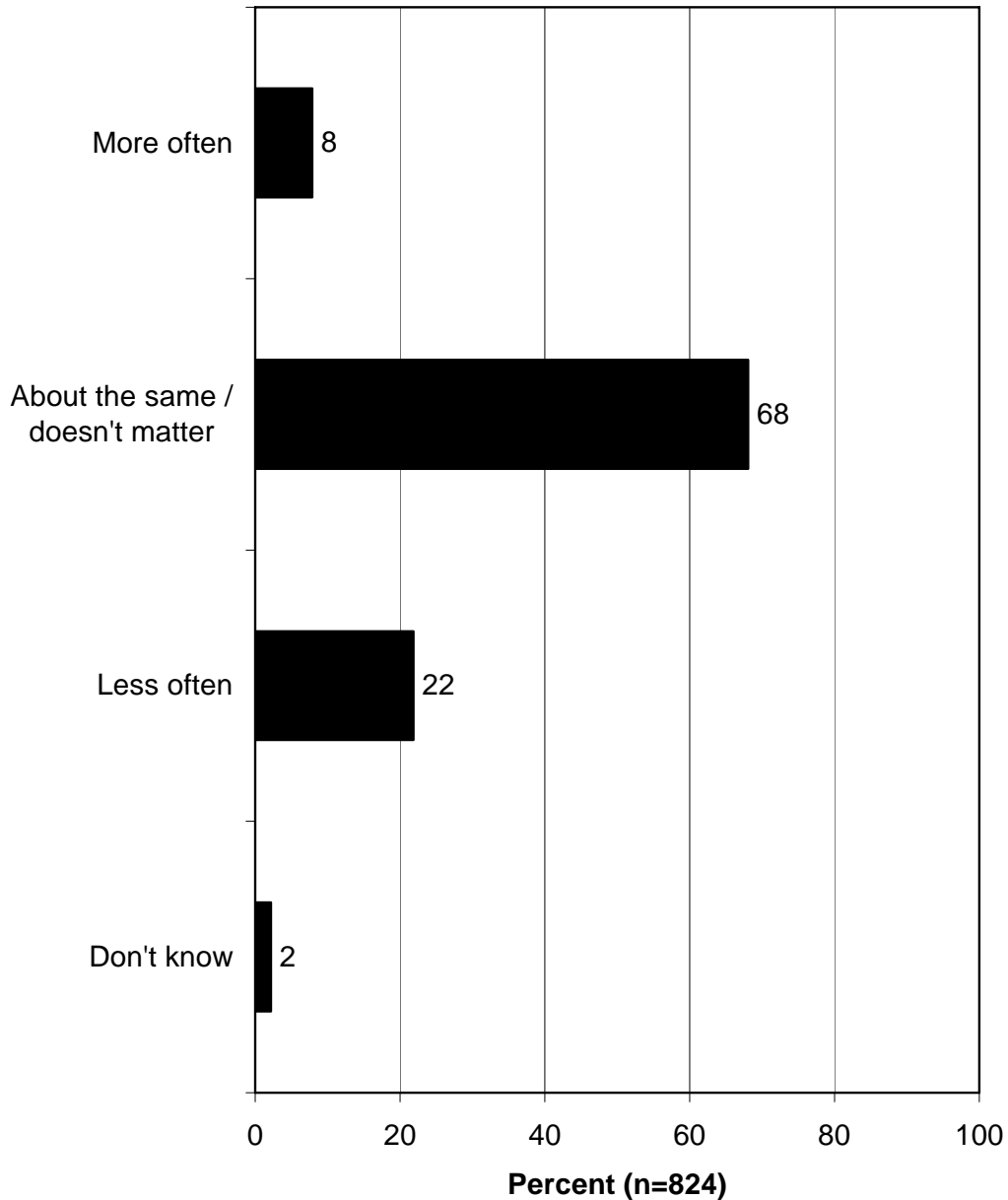
## OPINIONS ON FISHING REGULATIONS

- Just over half of trout anglers in the McKenzie River area (51%) say that releasing trout has no effect on enjoyment of trout fishing. Otherwise, more trout anglers say that releasing trout makes fishing *more* enjoyable (34%) than say it makes fishing *less* enjoyable (11%).
  - A related question asked trout anglers in the McKenzie River area if catch-and-release regulations prompt them to fish for trout more often or less often, or if the regulations have no effect. The majority of trout anglers in the McKenzie River area (68%) say the regulations have no effect on their participation. Otherwise, the regulations are more of a detraction than an attraction: 22% say the catch-and-release regulations prompt them to fish for trout *less often*, while only 8% say the regulations prompt them to fish *more often*.
  
- The regulations concerning bait on the McKenzie River were explained to respondents, which are as follows: “Currently, during trout seasons, bait is allowed where hatchery trout harvest is allowed on the mainstem McKenzie River between Hayden Bridge and Forest Glen Boat Landing near Blue River, including Leaburg Lake. Anglers may only use artificial flies and lures in areas where hatchery trout harvest is not allowed on the mainstem McKenzie River between its mouth and Hayden Bridge and between Forest Glen Boat Landing and Trail Bridge Reservoir.” Then, licensed anglers in the McKenzie River area were asked if they would support or oppose limiting the use of bait in additional areas on the McKenzie River (note that all licensed anglers in the sample were asked, not just McKenzie River anglers). Opposition far exceeds support. In total, 31% support, while 51% oppose. In fact, the percentage who *strongly* oppose (34%) exceeds the total percentage who *strongly* or *moderately* support (31%).

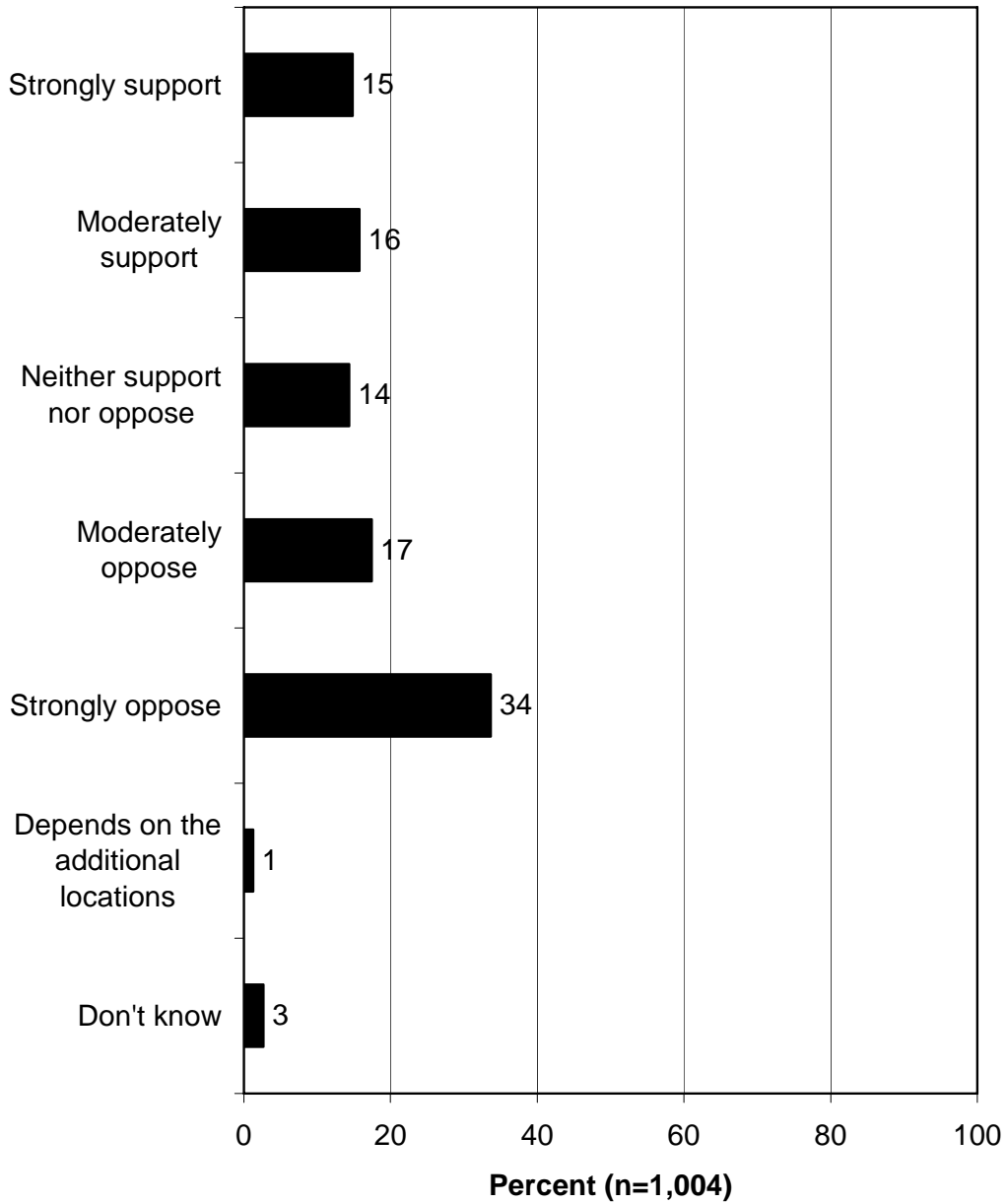
**Q25. Would you say that releasing trout makes fishing for trout more enjoyable, about the same, or less enjoyable? (Asked of those who have fished for trout in Oregon in the past 5 years.)**



**Q26. Would you say catch-and-release regulations cause you to fish for trout more or less often in Oregon? (Asked of those who have fished for trout in Oregon in the past 5 years.)**



**Q83. Would you support or oppose limiting the use of bait in additional areas on the McKenzie River?**



## OPINIONS ON STOCKING AND ON HATCHERY TROUT

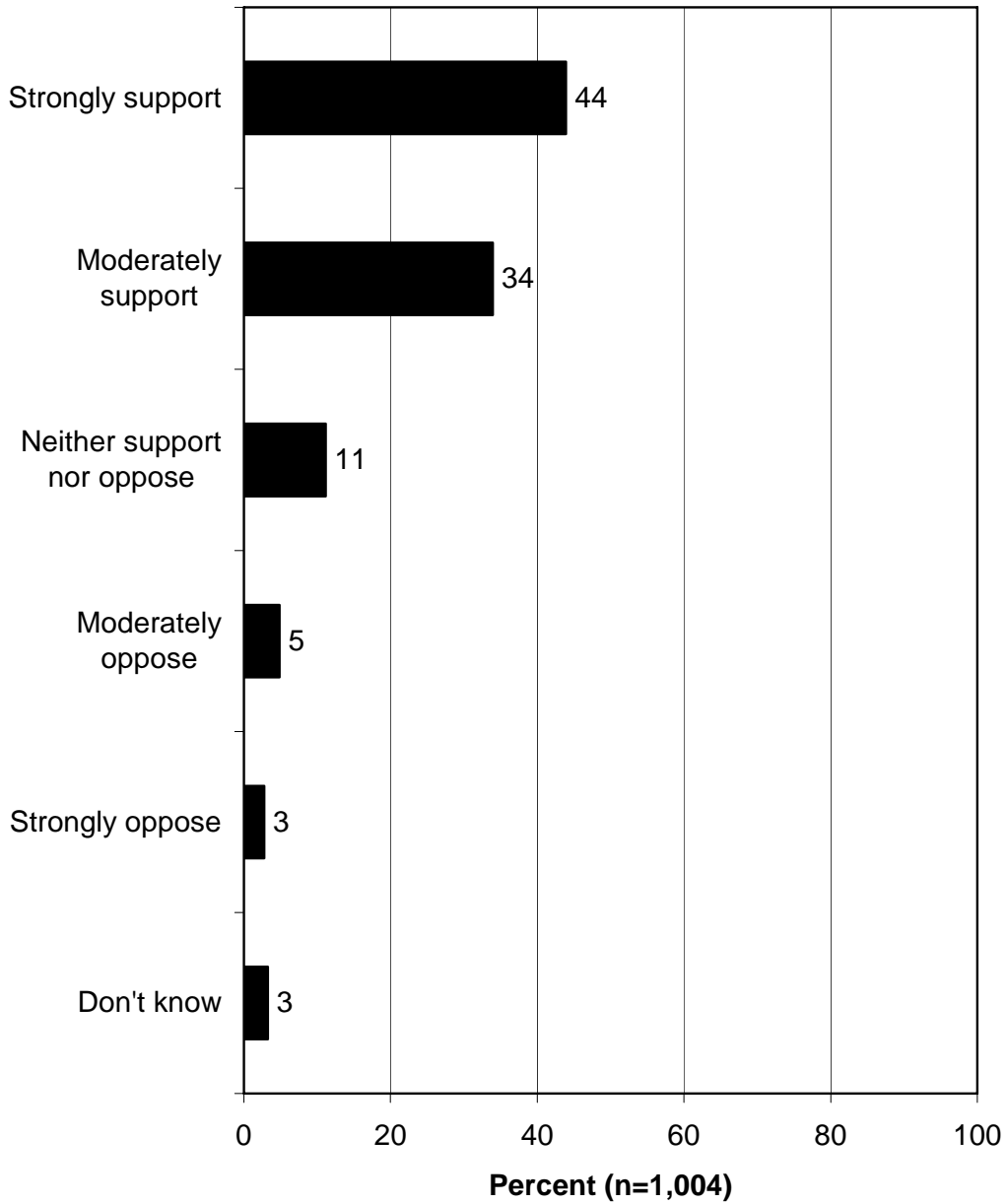
- In a basic question, support for stocking the McKenzie River with hatchery trout exceeds opposition. Overall, 78% of licensed anglers in the McKenzie River area support, compared to only 8% who oppose (the remainder are neutral).
  
- All licensed anglers in the McKenzie River area were asked about their support for or opposition to five stocked hatchery trout management approaches on the McKenzie River. Two of the five approaches have a majority of anglers saying that they *strongly* or *moderately* support each approach: 65% *strongly* or *moderately* support continuing the current hatchery trout stocking program without any changes (the top-ranked item in a ranking by the percentage in support), and 60% *strongly* or *moderately* support stocking the McKenzie River with fewer but larger hatchery trout. The three remaining approaches, all of which call for reduced stocking, have little support, no more than 30%.
  
- Most commonly, anglers in the McKenzie River area do not know the portion of the McKenzie River that should be stocked and the portion that should be managed for wild trout only. Otherwise, responses are well distributed, although the most common percentage named is “50 percent.”
  
- Respondents were then provided with some information about stocking on the McKenzie River. They were informed of the following: “The mainstem McKenzie River is approximately 78 miles long. Currently, the Oregon Department of Fish and Wildlife manages upper and lower sections of the river totaling about 44 miles, or 56%, for wild trout only. The Department releases approximately 131,000 hatchery trout annually into the remaining middle 34-mile section, or 44%, of the river. Harvest of wild trout is not allowed on the mainstem McKenzie River. All wild trout fishing on the McKenzie River is catch and release fishing only.” Respondents were then asked again about their preferences regarding the portion of the river stocked and the portion managed for wild trout. Again, they most commonly cannot say, and otherwise the responses are widely distributed.

- As previously reported, ratings of the quality of fishing opportunities for hatchery trout on the McKenzie River are positive: 70% rate the quality *excellent* or *good*, while 22% rate the quality *fair* or *poor* (with only 4% rating the quality *poor*).
  
- The stocking of hatchery trout in the McKenzie River has a positive overall effect on trout anglers' enjoyment of trout fishing on the McKenzie River: 53% of licensed trout anglers in the McKenzie River area say that stocked hatchery trout makes fishing *more enjoyable*, while only 8% say stocked hatchery trout make fishing *less enjoyable* (the remainder are neutral).
  
- Of the four factors that were previously discussed as possible constraints or encouragements to fishing participation on the McKenzie River, two of them pertained to stocked hatchery trout. These factors were the "large numbers of stocked hatchery trout on the McKenzie River" and "not enough stocked hatchery trout on the McKenzie River." These are discussed individually below:
  - Asked of those who did *not* fish for trout on the McKenzie River:
    - The overwhelming majority of those who did *not* fish for trout on the McKenzie River (86%) said that the large numbers of stocked hatchery trout did *not* influence their lack of fishing; conversely, 11% indicated that this *strongly* or *moderately* influenced them to *not* fish for trout on the McKenzie River.
    - The next question had almost identical percentages: 86% said that not enough stocked hatchery trout on the McKenzie River did *not* influence their lack of fishing participation, while 11% indicated that it *strongly* or *moderately* influenced their lack of trout fishing participation on the McKenzie River.
  - The next two questions were asked of those who had fished for trout on the McKenzie River:
    - The majority of McKenzie River trout anglers (58%) said the large numbers of stocked trout had no influence on their amount of fishing participation. Otherwise, more anglers said the large numbers of stocked hatchery trout influenced them to increase participation (34%) than influenced them to decrease participation (7%).
    - Likewise, the large majority of McKenzie River trout anglers (69%) said that not enough stocked hatchery trout had no influence on their amount of fishing

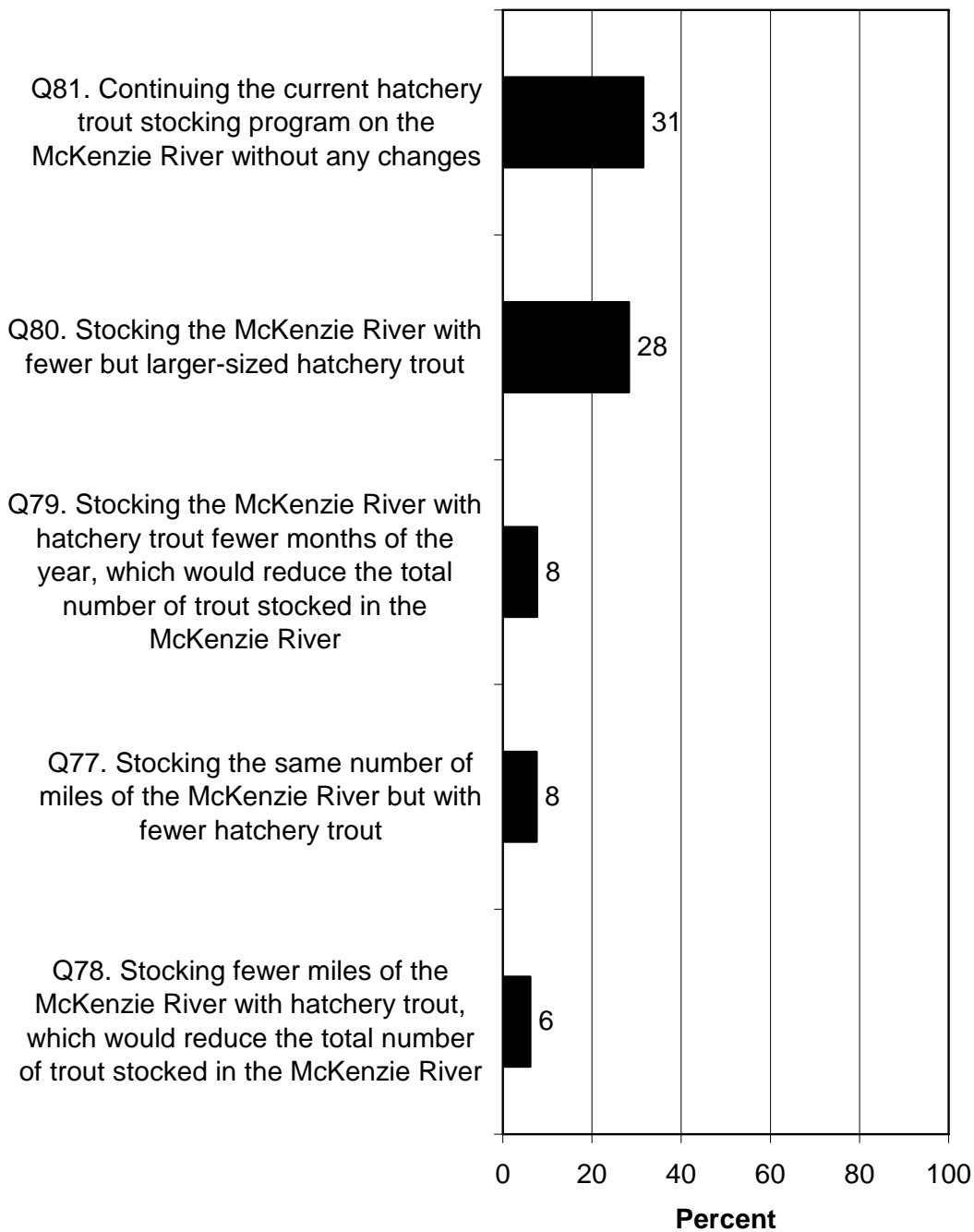
participation. Meanwhile, 6% said this factor influenced them to increase participation, and 21% said this factor influenced them to decrease participation.

- A graph shows the responses regarding the length of fish necessary to be considered a “quality” hatchery trout caught in Oregon. The mean is 10.67 inches, and the median is 10 inches. The most common responses are either 10 inches (27% gave this response) or 12 inches (24% gave this response).
  
- A graph shows the responses regarding the minimum number of hatchery trout that respondents say that they would be satisfied catching on a daily fishing trip (including trout that they release, if any). The mean is 7.09 hatchery trout, and the median is 5 trout. In fact, 5 trout is the most common response.

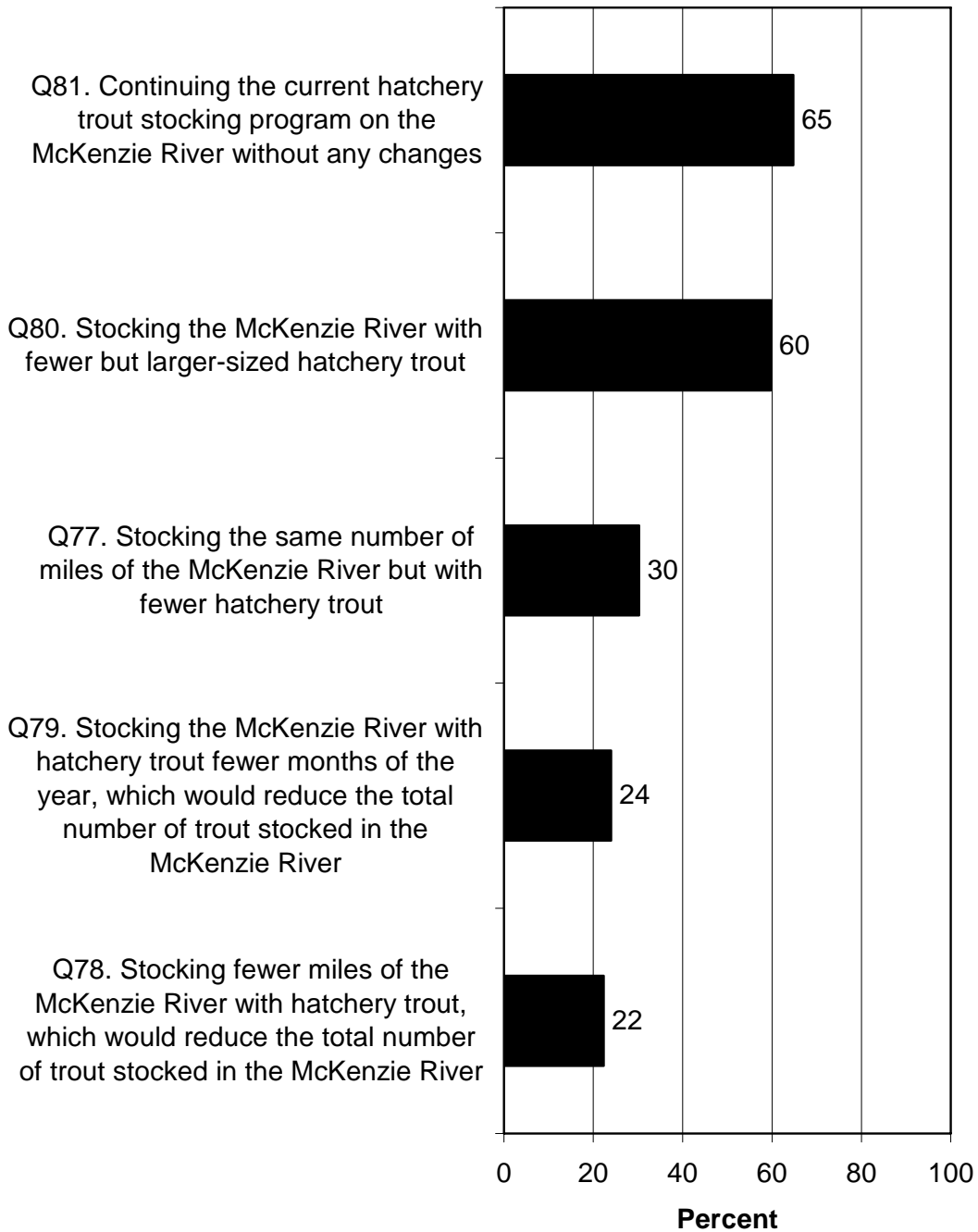
**Q74. In general, do you support or oppose stocking hatchery trout into the McKenzie River?**



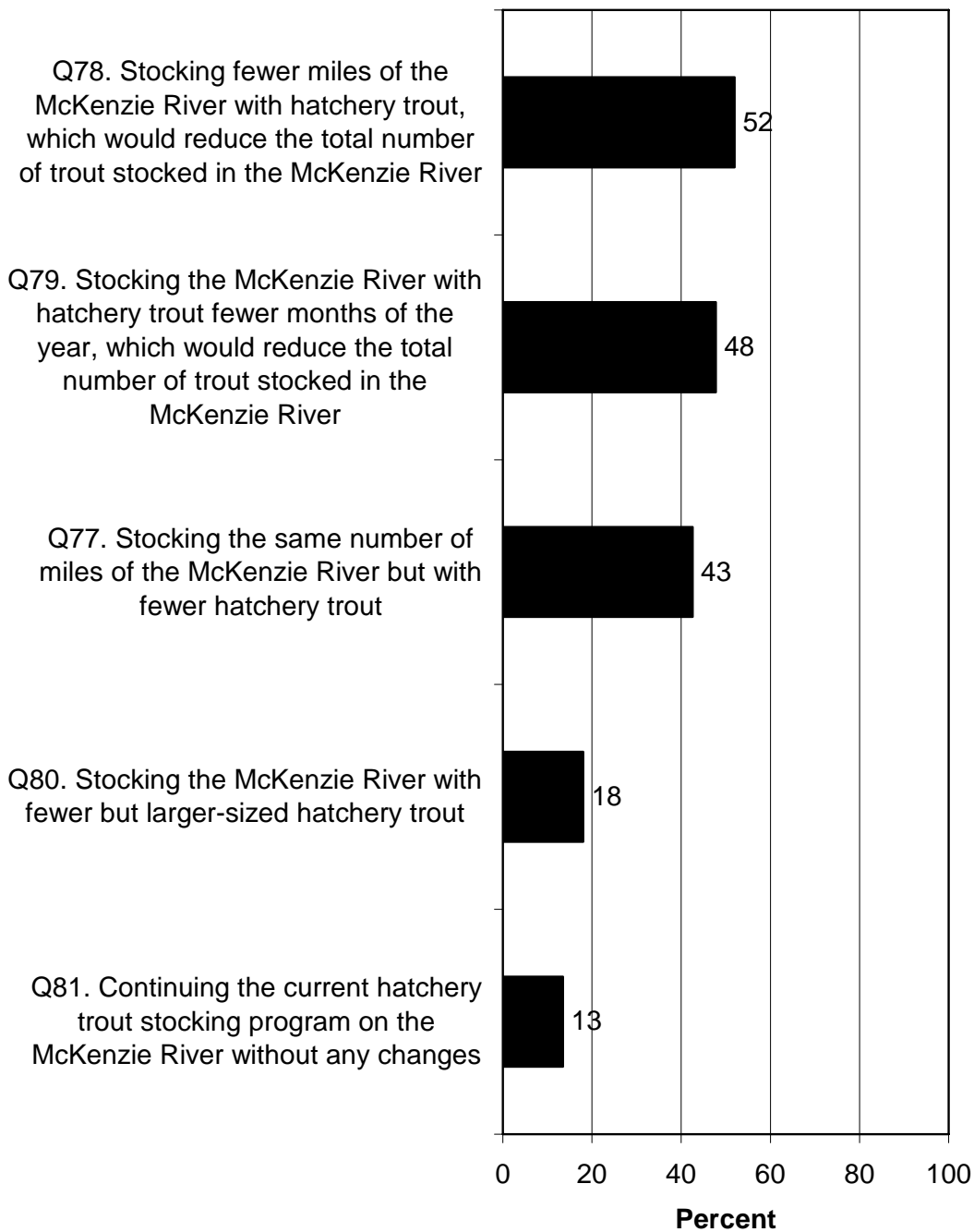
**Percent who strongly support the following stocked hatchery trout management approaches on the McKenzie River.**



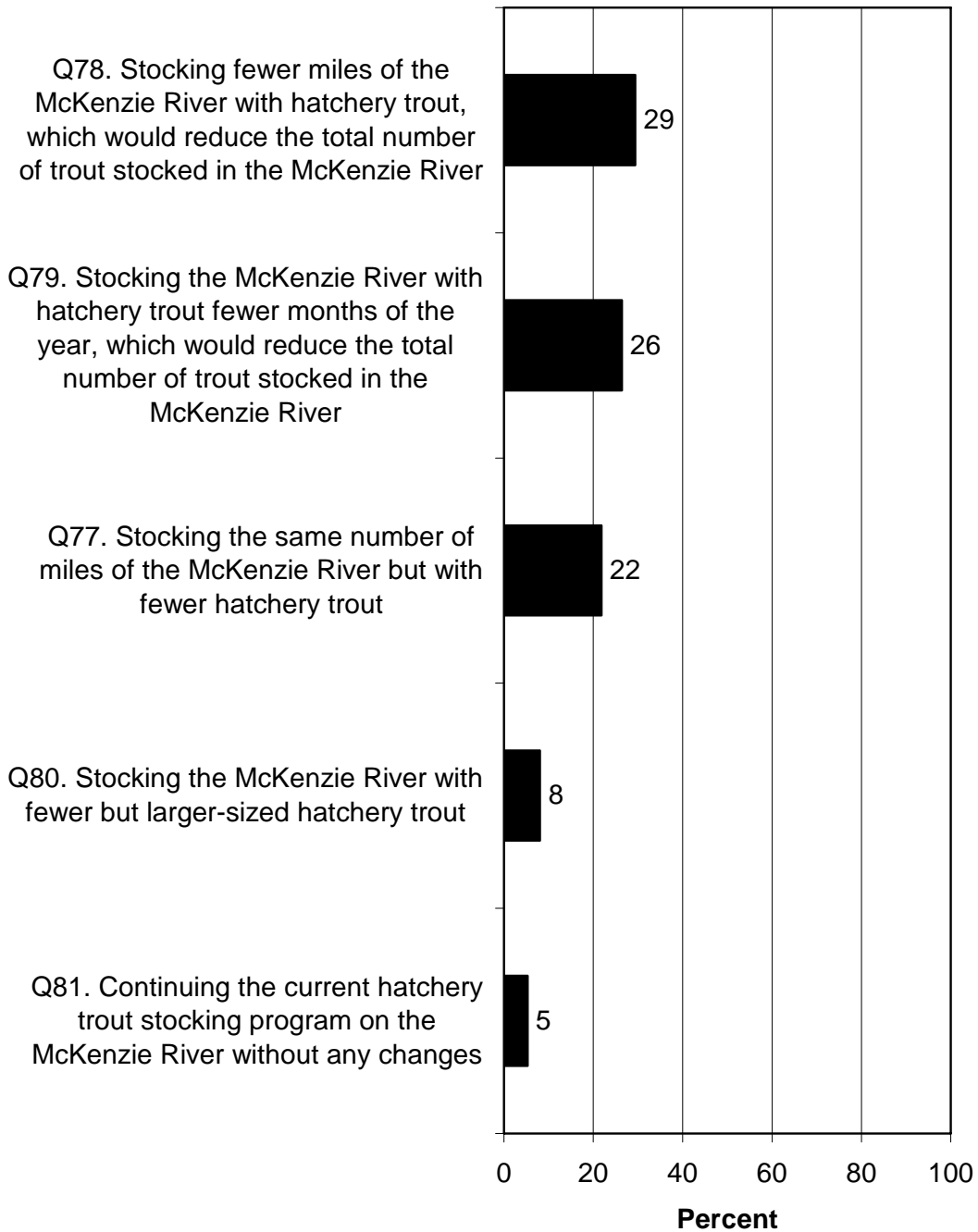
**Percent who strongly or moderately support the following stocked hatchery trout management approaches on the McKenzie River.**



**Percent who moderately or strongly oppose the following stocked hatchery trout management approaches on the McKenzie River.**

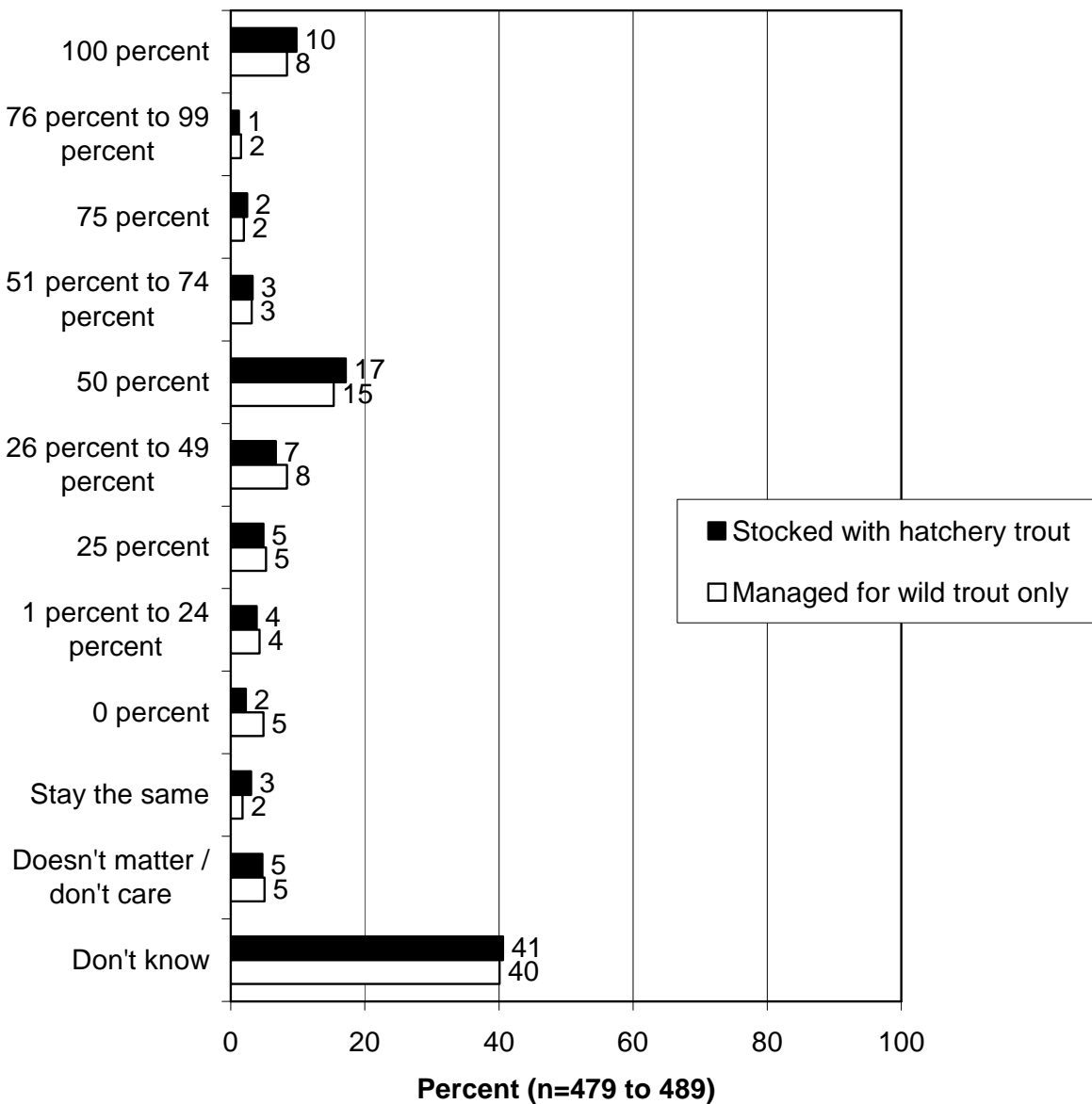


**Percent who strongly oppose the following stocked hatchery trout management approaches on the McKenzie River.**



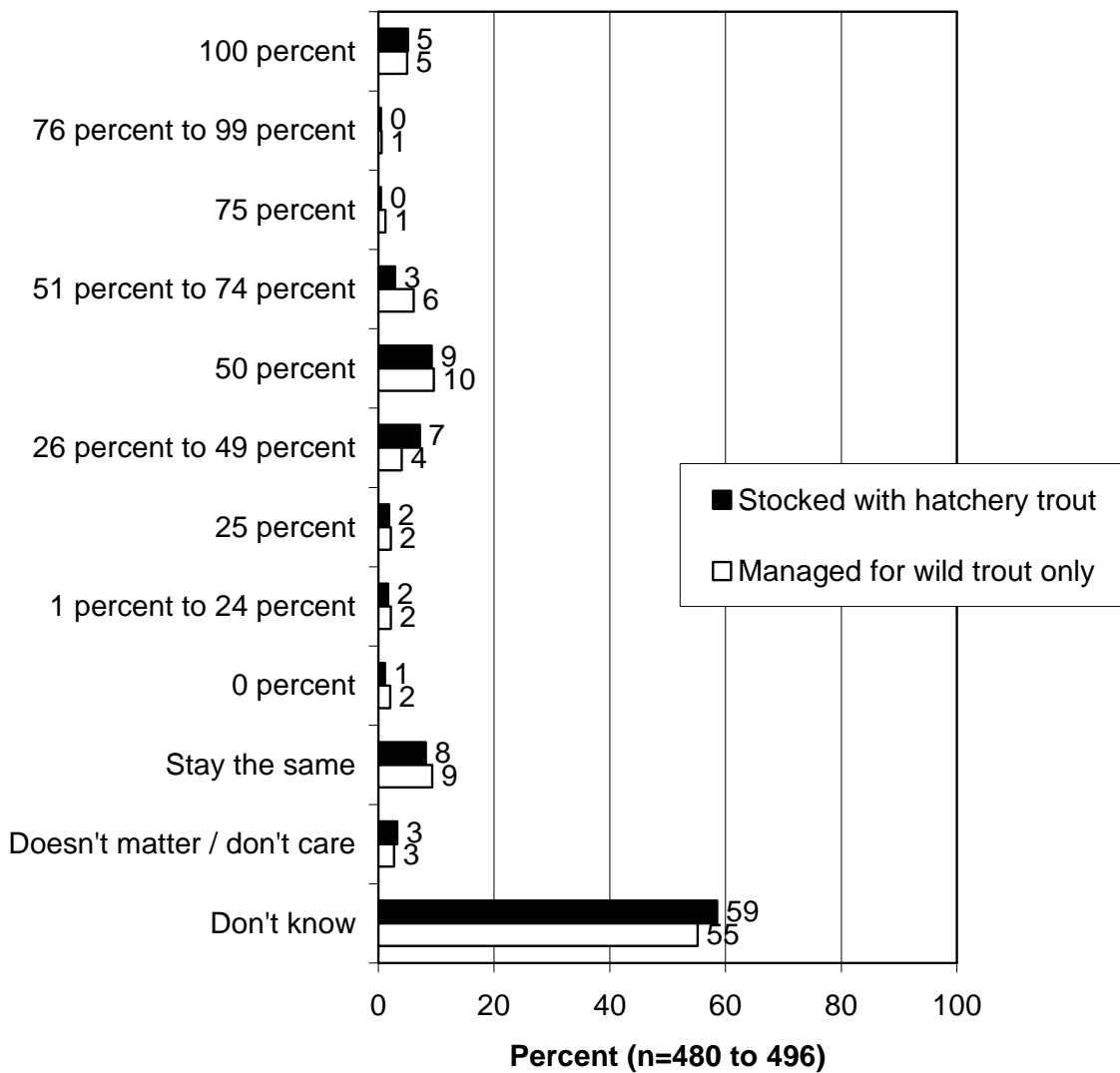
**Q61. What percentage of the McKenzie River do you think should be stocked with hatchery trout?**

**Q64. What percentage of the McKenzie River do you think should be managed for wild trout only?**

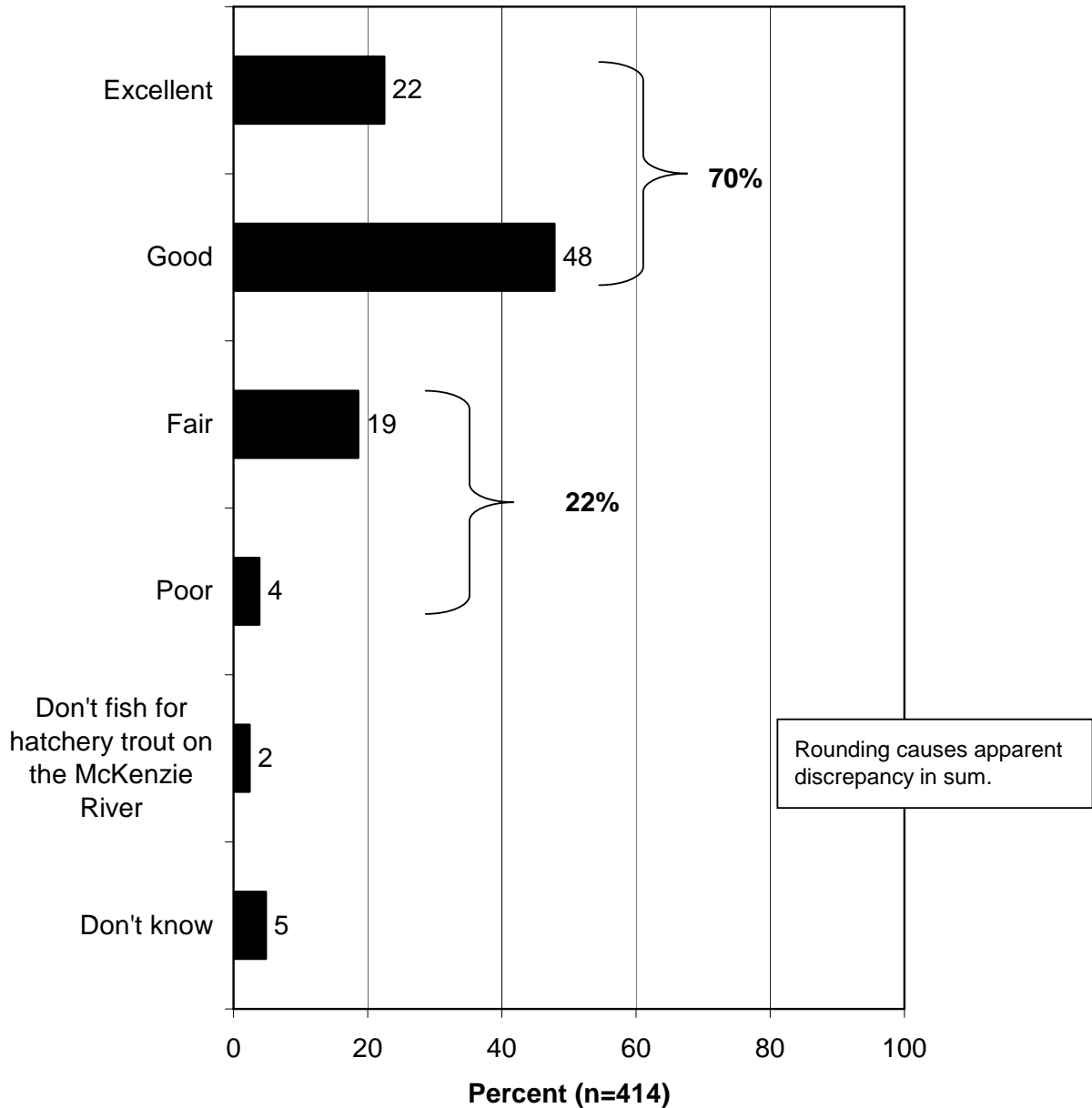


**Q68. Knowing this, what percentage of the McKenzie River do you think should be stocked with hatchery trout?**

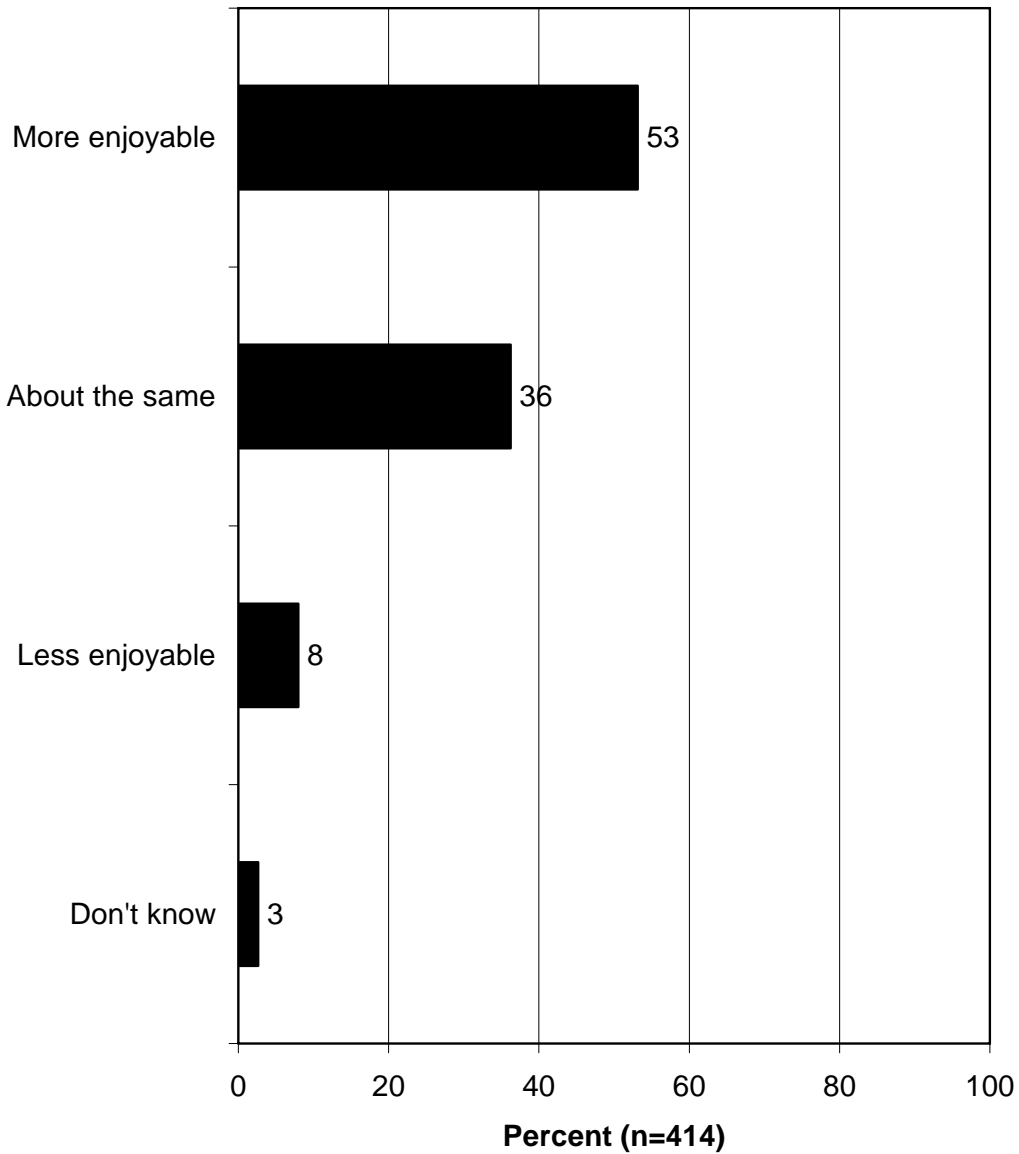
**Q71. Knowing this, what percentage of the McKenzie River do you think should be managed for wild trout only?**



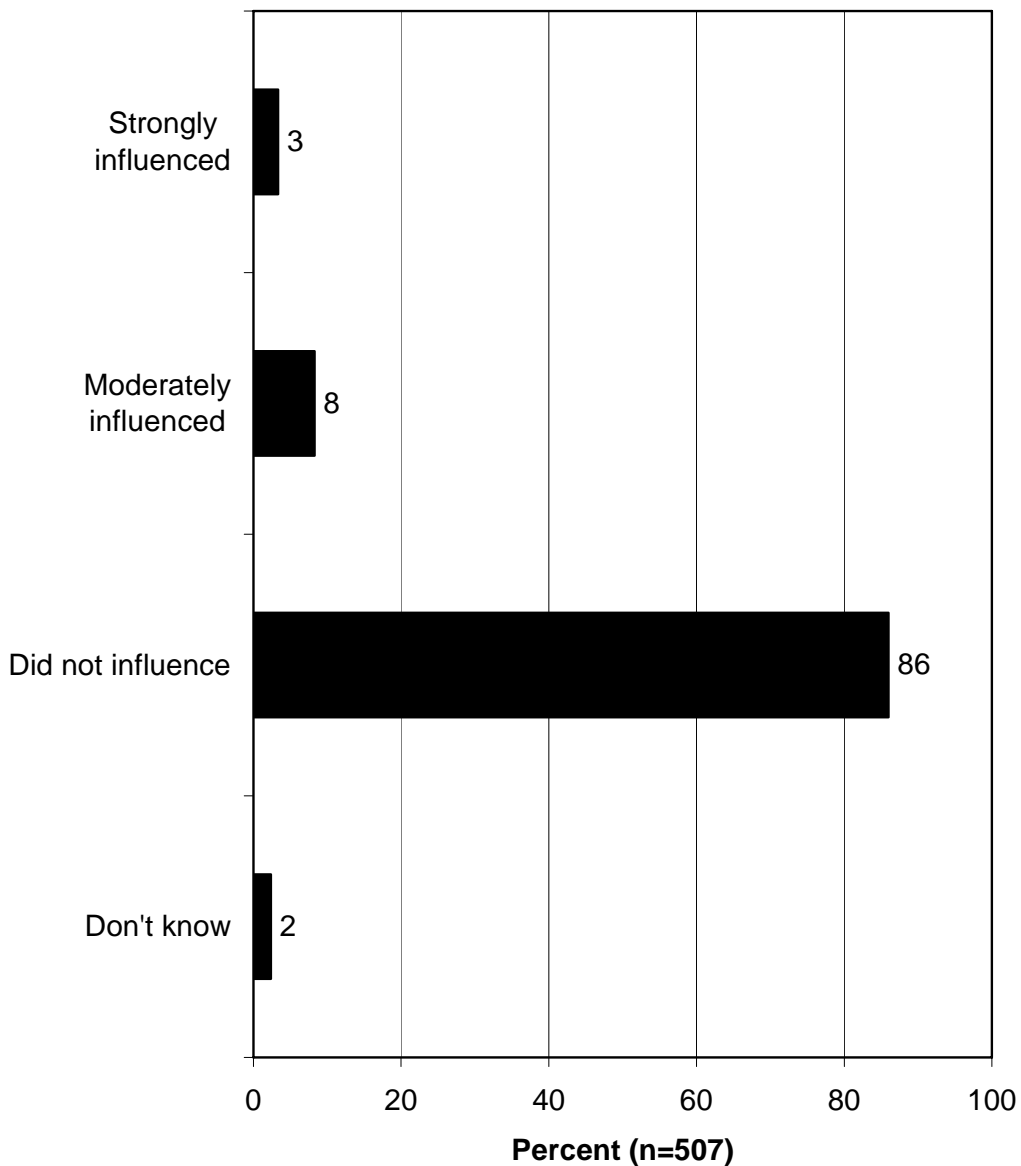
**Q42. How would you rate the quality of fishing opportunities for hatchery trout on the McKenzie River? (Asked of those who have fished for trout on the McKenzie River in the past 5 years.)**



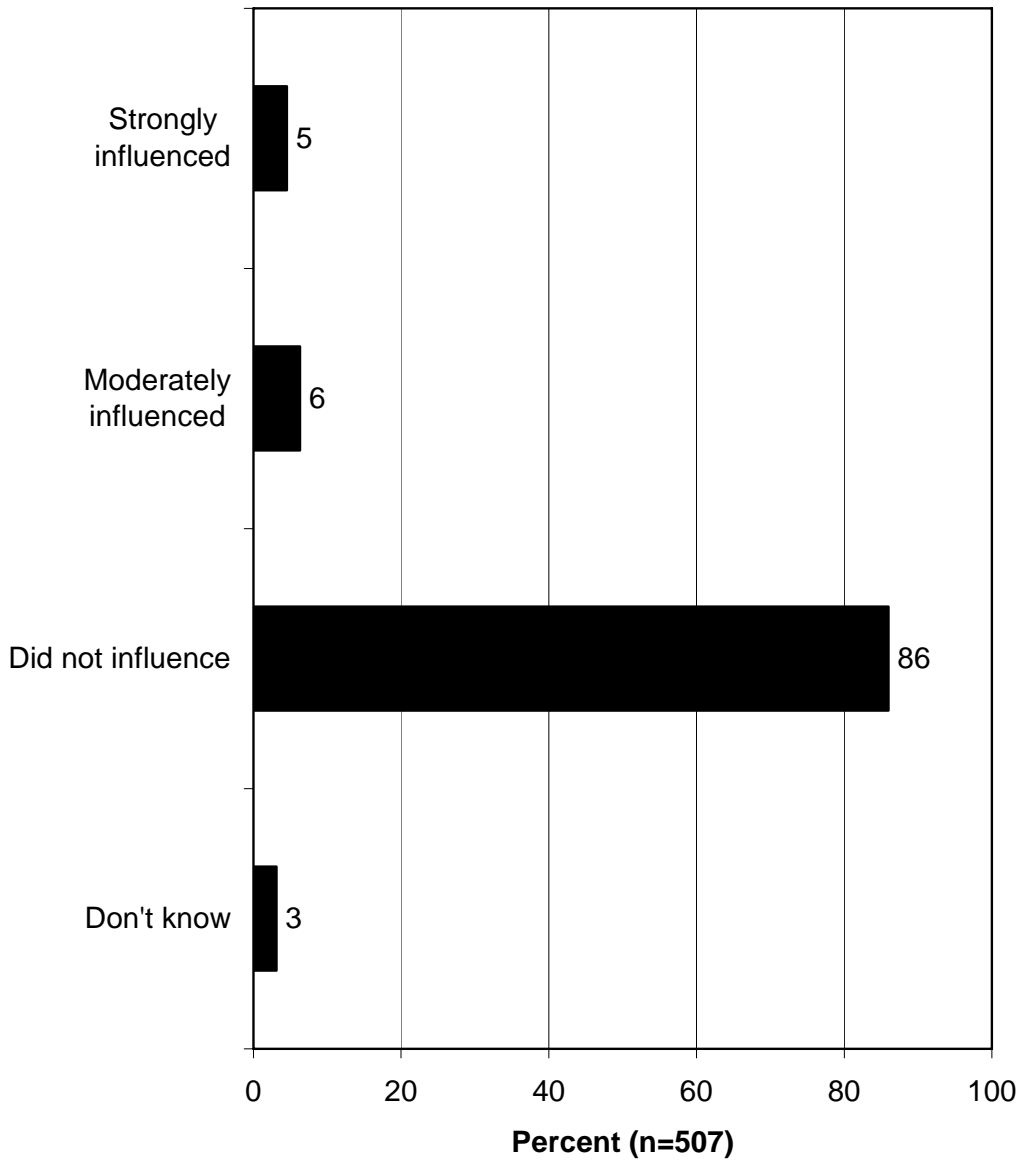
**Q44. Would you say that stocked hatchery trout makes fishing for trout on the McKenzie River more enjoyable, about the same, or less enjoyable? (Asked of those who have fished for trout on the McKenzie River in the past 5 years.)**



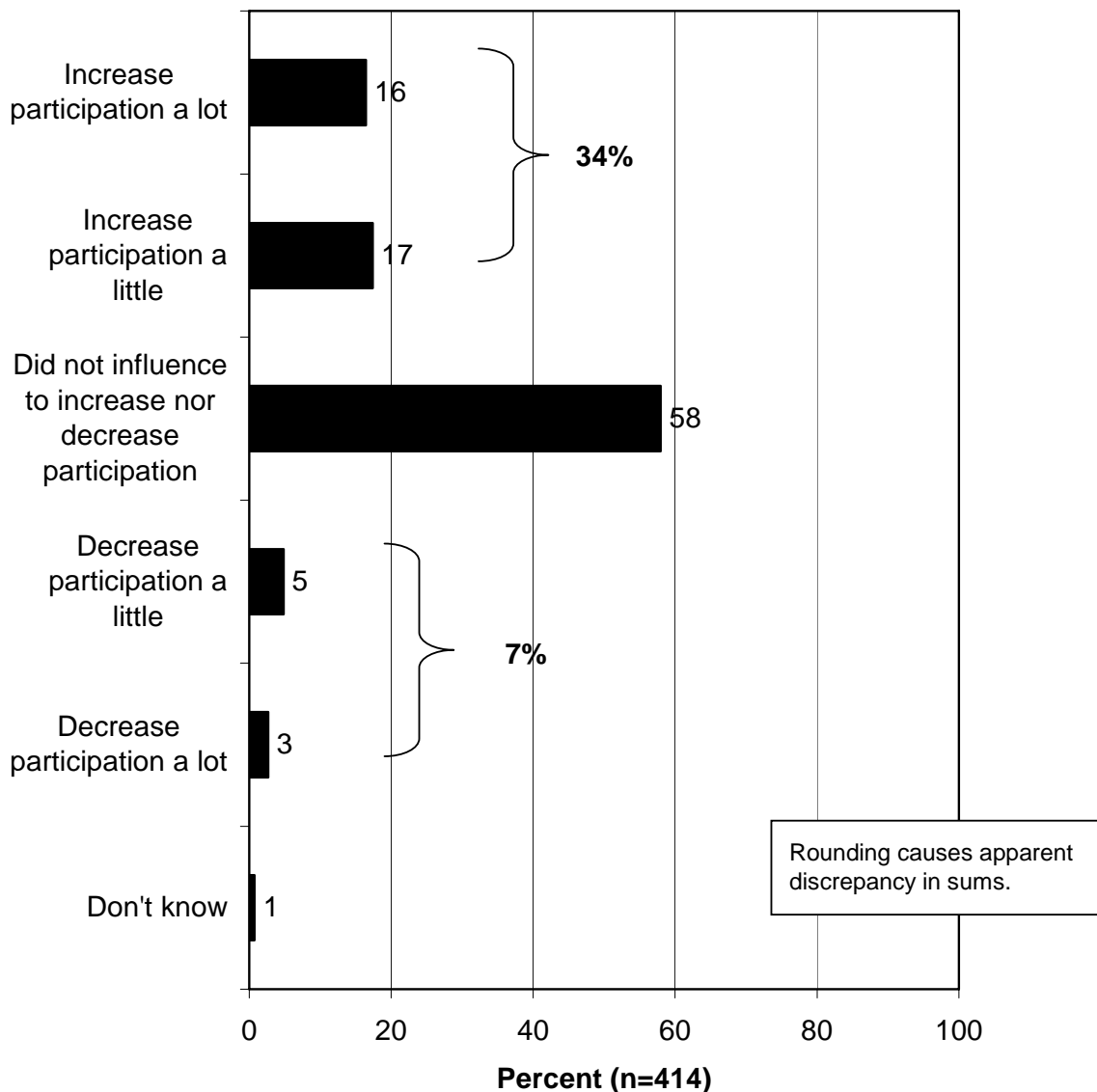
**Q49. What about large numbers of stocked hatchery trout on the McKenzie River? (Did this strongly, moderately, or not influence your decision not to fish for trout on the McKenzie River?) (Asked of those who have not fished for trout on the McKenzie River in the past 5 years.)**



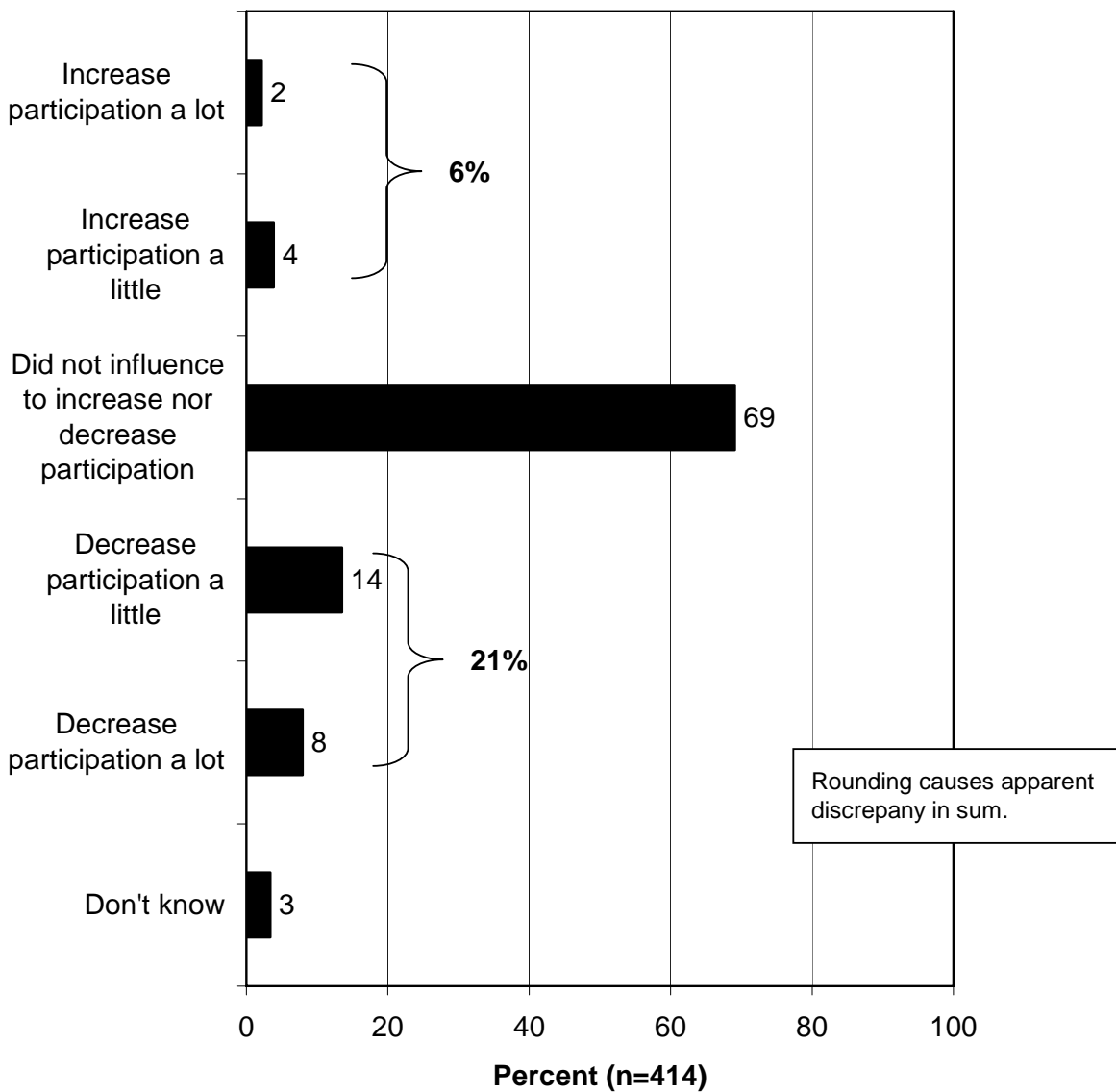
**Q50. What about not enough stocked hatchery trout on the McKenzie River? (Did this strongly, moderately, or not influence your decision not to fish for trout on the McKenzie River?) (Asked of those who have not fished for trout on the McKenzie River in the past 5 years.)**



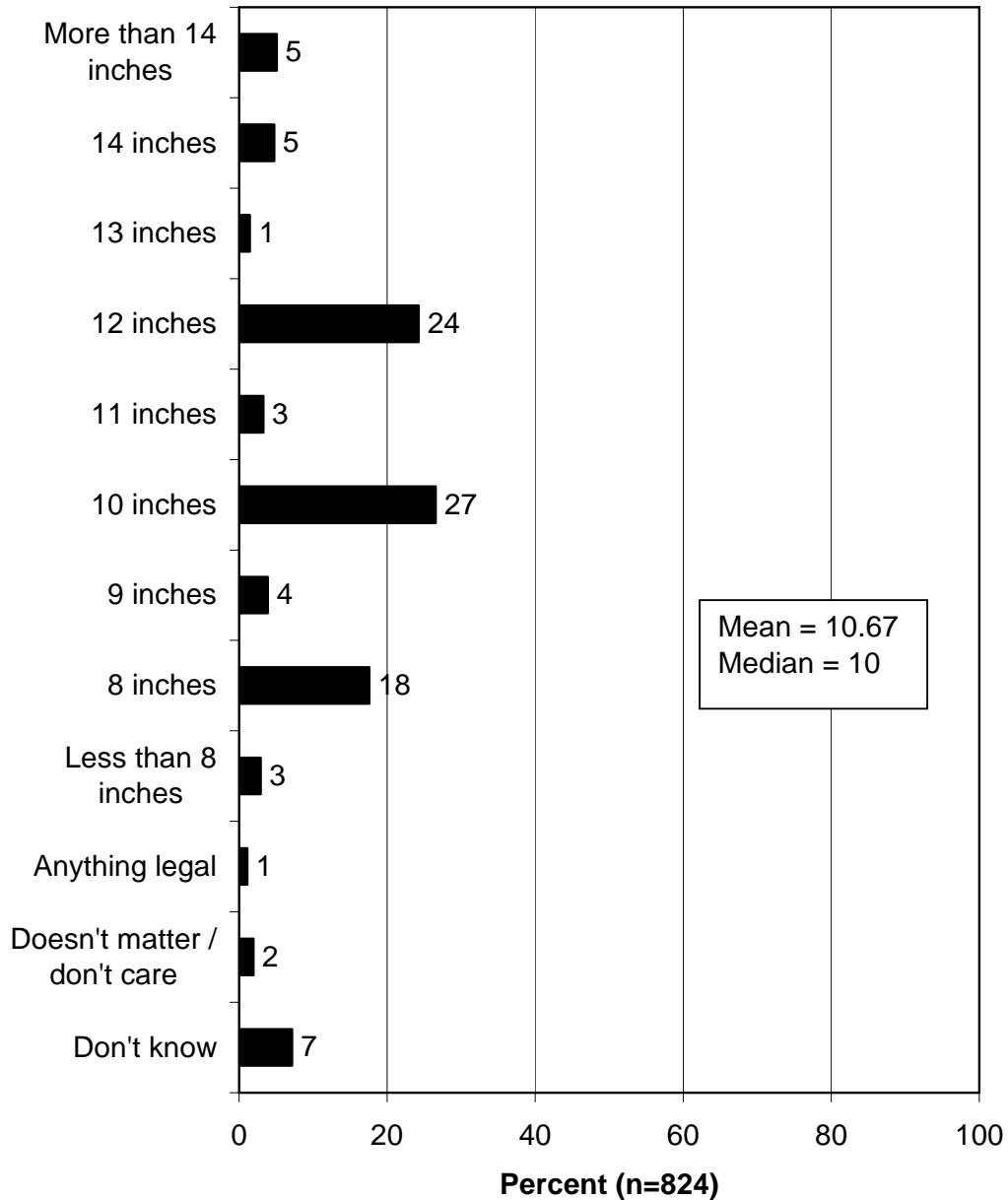
**Q56. What about large numbers of stocked hatchery trout on the McKenzie River? (Did this influence you to increase or decrease your amount of participation in trout fishing on the McKenzie River or did it not influence your participation?) (Asked of those who have fished for trout on the McKenzie River in the past 5 years.)**



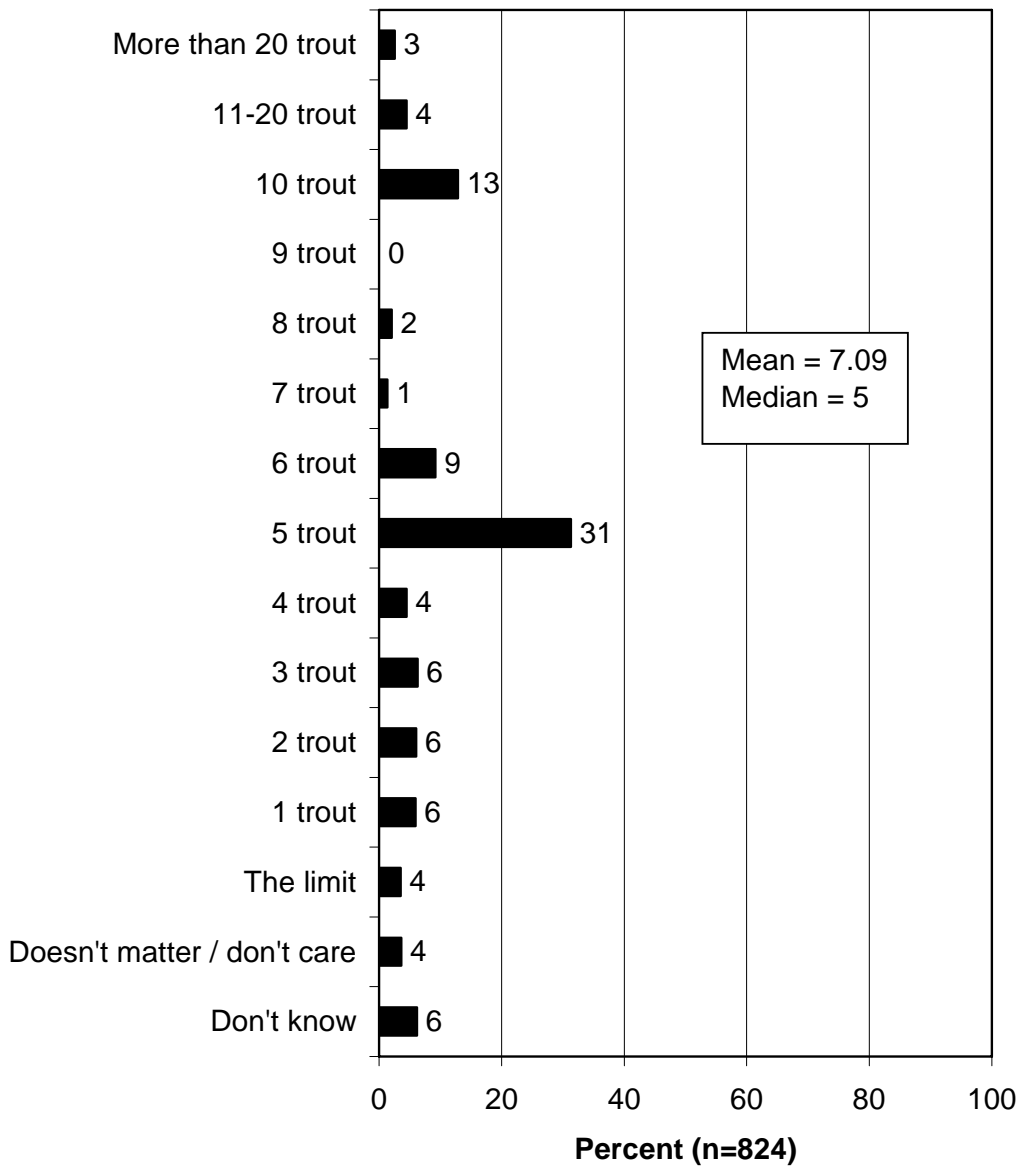
**Q57. What about not enough stocked hatchery trout on the McKenzie River? (Did this influence you to increase or decrease your amount of participation in trout fishing on the McKenzie River or did it not influence your participation?) (Asked of those who have fished for trout on the McKenzie River in the past 5 years.)**



**Q29. In inches, what is the minimum length you consider to be a quality hatchery trout caught in Oregon? (Asked of those who have fished for trout in Oregon in the past 5 years.)**



**Q32. What is the minimum number of hatchery trout that you would be satisfied to catch on a daily fishing trip, including hatchery trout you would release? (Asked of those who have fished for trout in Oregon in the past 5 years.)**

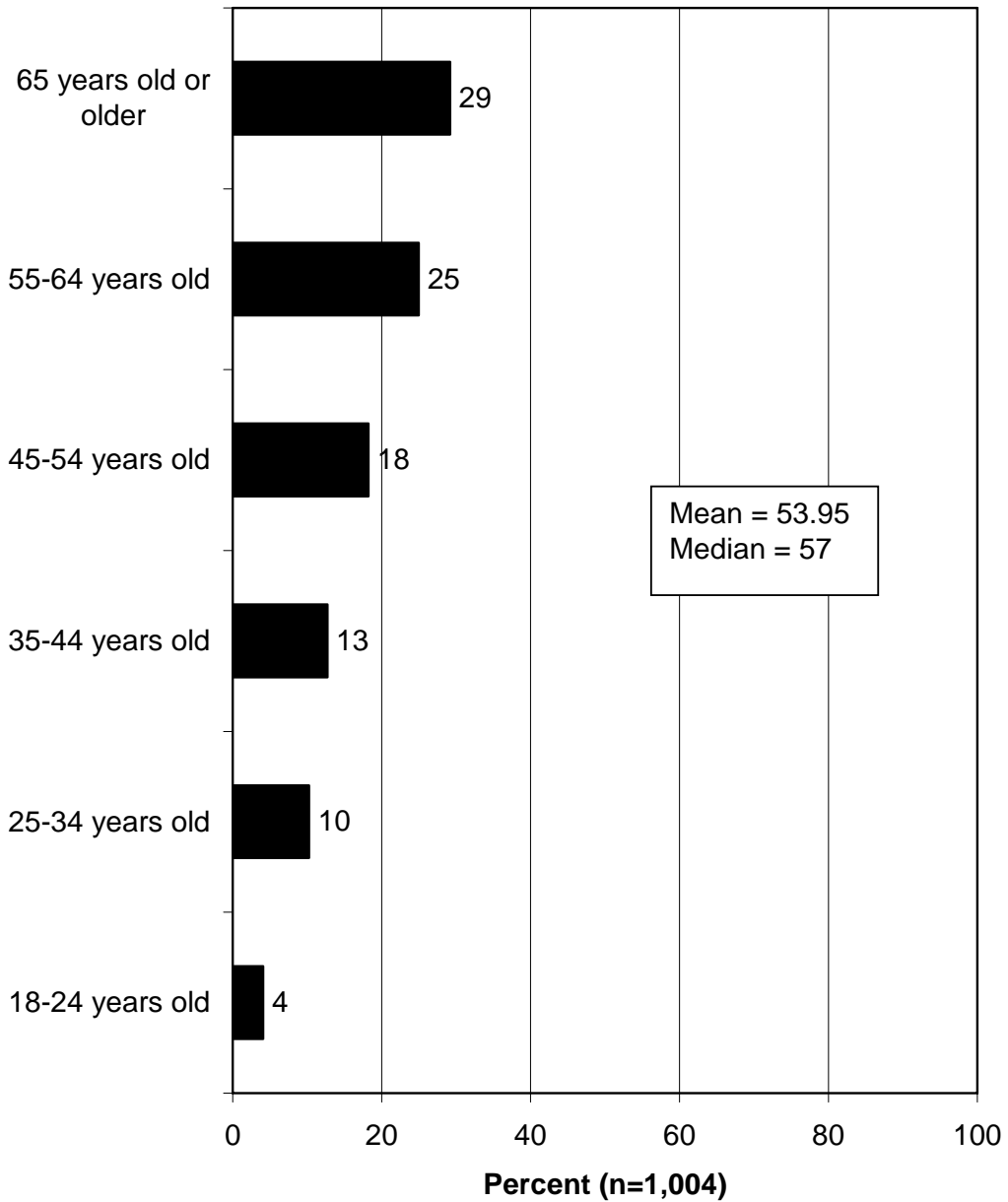


## **DEMOGRAPHIC DATA**

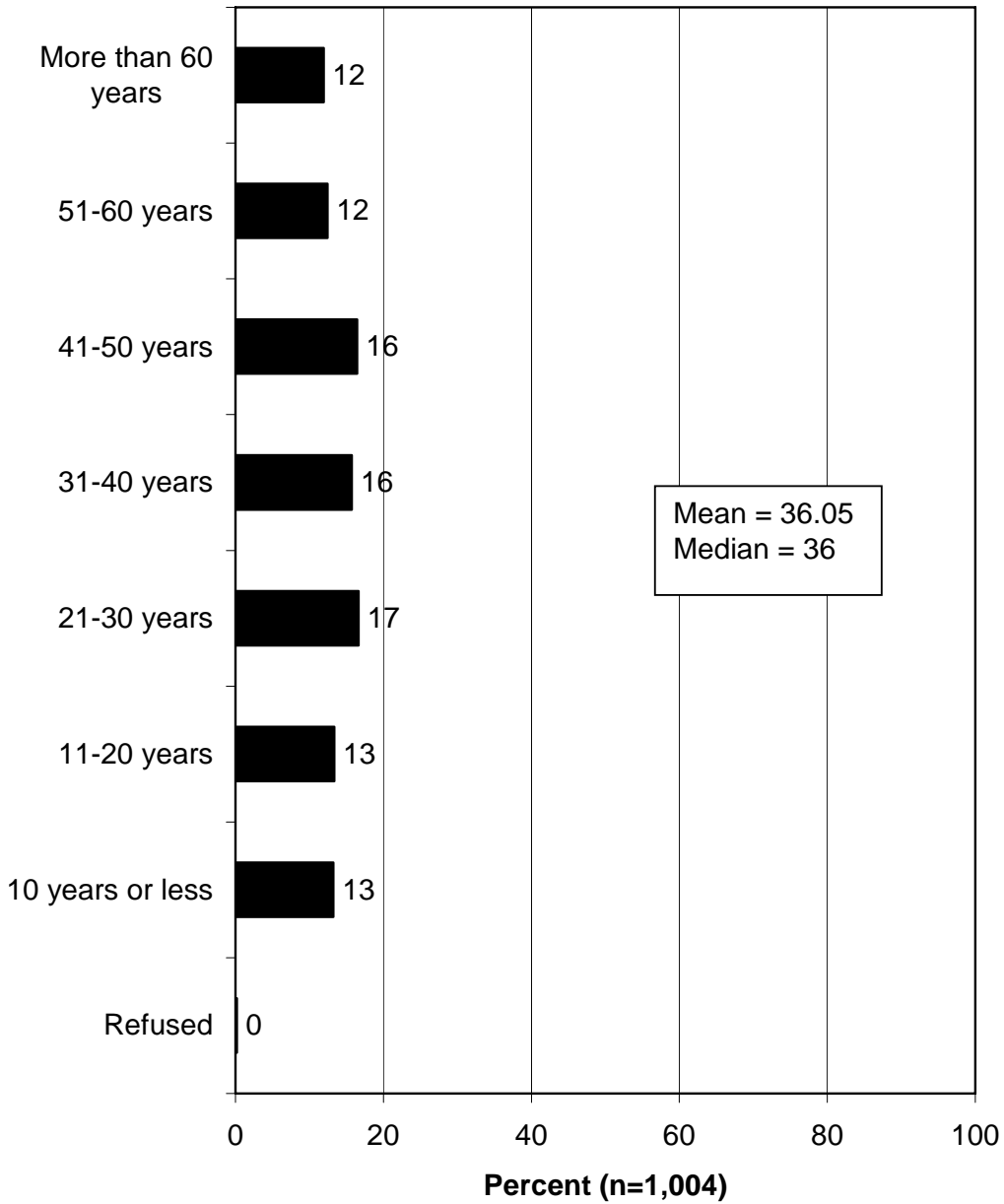
- Demographic data for the sample of licensed anglers within 20 miles of the McKenzie River are shown.
  - Most of the licensed anglers within 20 miles of the McKenzie River are male (83%).
  - Ages of respondents are shown. The mean age is 53.95 years; the median age is 57 years.
  - Length of residency within 20 miles of the McKenzie River is shown. The mean number of years is 36.05 years, and the median is 36 years. Otherwise, responses are fairly evenly distributed among ranges of years.
  - The characteristic of the residential area in which people live is shown, with the sample fairly evenly distributed into thirds: 30% live in a large city/urban area, 36% live in a small city or town, and 33% live in a rural area.

**Q96. Respondent's gender (observed, not asked, by interviewer).**

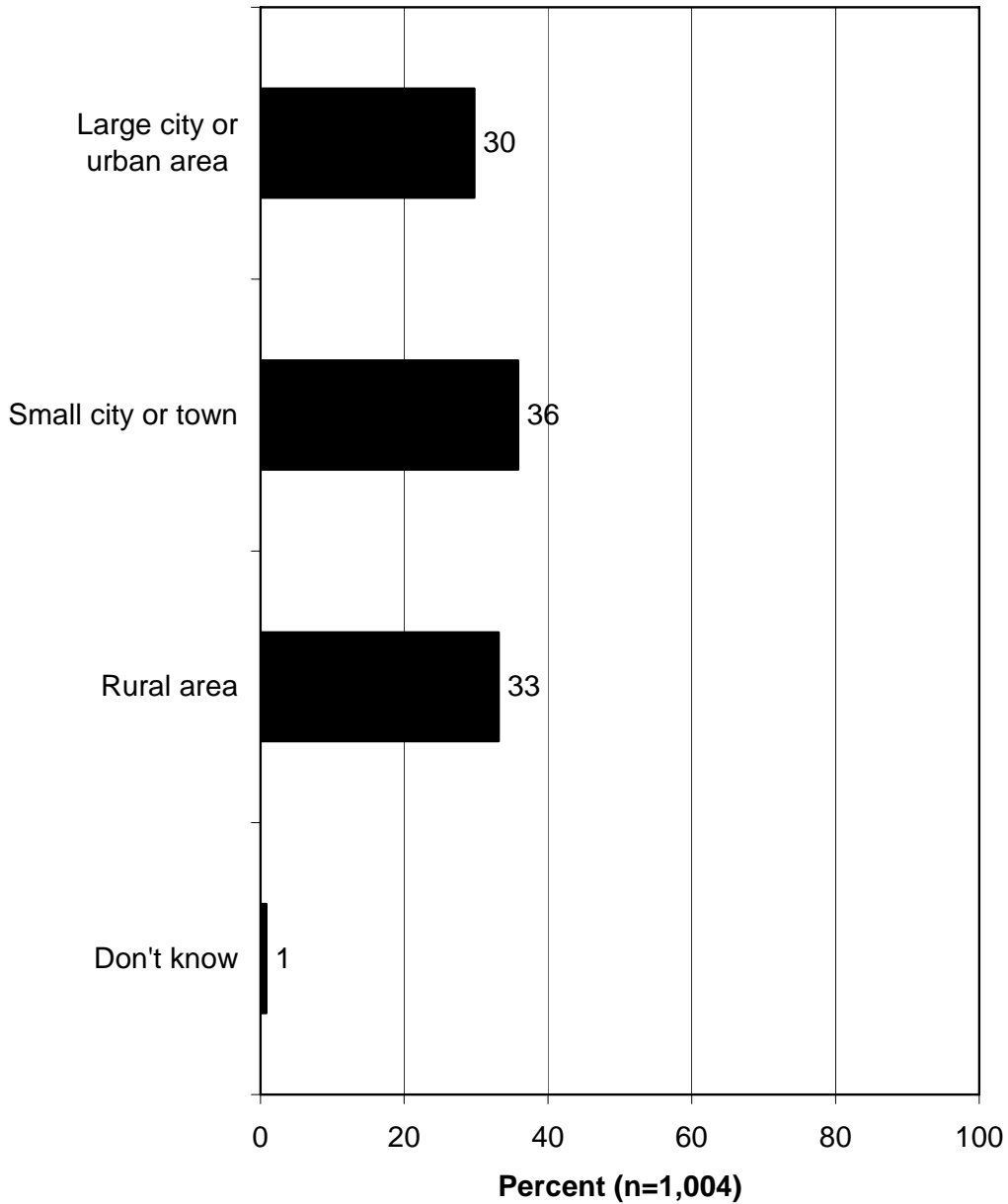


**Q89. Respondent's age.**

**Q85. How many years have you lived within 50 miles of the McKenzie River?**



**Q88. Do you consider your place of residence to be a large city or urban area, a small city or town, or a rural area?**



## **ABOUT RESPONSIVE MANAGEMENT**

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

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

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

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

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

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

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

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