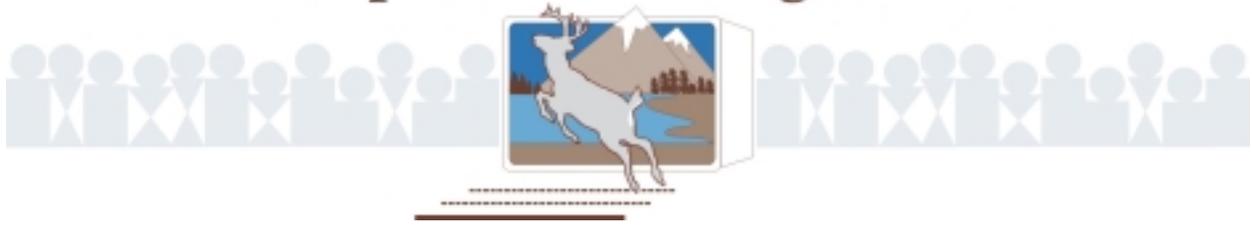


Responsive Management



OREGON RESIDENTS' AND STATE FOREST STAKEHOLDERS' KNOWLEDGE OF, VALUES REGARDING, AND ATTITUDES TOWARD NATURAL RESOURCE MANAGEMENT IN OREGON STATE FORESTS

**FINAL REPORT ENCOMPASSING MAJOR FINDINGS OF LITERATURE
REVIEW, FOCUS GROUPS, AND TELEPHONE SURVEY, AND
INCLUDING RECOMMENDATIONS**

Conducted for the Oregon Department of Forestry

by Responsive Management

2006

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Although numerous people assisted with this project, any errors, omissions, or typographical mistakes in the report are the sole responsibility of Responsive Management. Additionally, the implications and recommendations in this report are the work of Responsive Management, and the views contained in this report do not necessarily represent the views of the Oregon Department of Forestry.

EXECUTIVE SUMMARY

INTRODUCTION

Responsive Management conducted this study for the Oregon Department of Forestry (ODF) to determine the general population's and stakeholders' knowledge of, values regarding, and attitudes toward natural resource management in Oregon State Forests. Specifically, the research examined Oregonians' knowledge of the ODF, their opinions on the importance of forests, their expectations of forest management, and their understanding of management strategies, including structure-based management and adaptive management. The study entailed a literature review, focus groups of State Forest stakeholders and Oregon residents, and a telephone survey of Oregon residents.

The study was undertaken to address very specific informational needs of the ODF, and the report is organized around these informational needs. The ODF wished to assess:

- the importance of forests to Oregonians,
- the public's knowledge of the ODF,
- Oregonians' expectations of forest management, and
- Oregonians' understanding of forest management strategies, including structure-based management and adaptive management.

MAJOR FINDINGS

Knowledge of and Opinions on the Oregon Department of Forestry

Knowledge levels among Oregonians about the ODF and about forest management have room to be raised, as most Oregonians do not believe themselves to be very knowledgeable about forest management and, by implication, cannot be expected to be very knowledgeable about the ODF itself. Also, some Oregonians confuse the ODF with federal agencies, and some Oregonians confuse State Forests with National Forests (note that the telephone survey made great efforts to clarify to respondents that the survey concerned *State* Forests to counteract this confusion among some respondents when they were being surveyed).

Despite the relatively low levels of knowledge about the ODF and forest management that exist in Oregon, the ODF itself is highly regarded, with Oregonians, in general, agreeing that the ODF does a good job managing Oregon's State Forests, that the ODF is credible, that the ODF is trustworthy, and that Oregon is a world leader in wise and sustainable forestry management.

Although many Oregonians agree that the ODF keeps them well informed about the state's forest management practices, nearly an equal percentage do not, and being informed is important to Oregonians, as is knowing that the public as a whole is well informed. Furthermore, it does not appear that Oregonians are getting their information about forest management from the ODF.

Oregonians are split on how well Oregon's forests are managed and on whether forest management is weighted too heavily in favor of some interests over others. While there are positive signs (for instance, more Oregonians say that forest management is well balanced than

say it is out of balance and a majority agree that Oregon does a good job of enforcing forest protection laws), there is room for improvement, as more Oregonians say that forest management on state-owned lands has gotten worse than say it has gotten better in recent years, and substantial percentages of residents do not agree that the State Forest Management Plans actually follow the guiding principles that they *should* follow.

Oregon Residents' Opinions on the Importance of Forests

Although forest management is not the top issue of concern relative to all the various issues facing Oregon, it is still quite important to Oregonians, particularly in light of the economic importance forests play in Oregon: an overwhelming majority of Oregonians express concern about forest management. Furthermore, they are nearly unanimous in agreement that State Forest Management Plans should secure the greatest permanent value to the citizens of Oregon.

Statistics show that the wood products industry is important to Oregon (accounting for \$343.4 million in wood products exports in 2005 and directly employing at least 32,500 people), as do survey results (22% say that they work or a family member works in the wood products or related industry). Furthermore, Oregonians support the state's wood products industry.

Oregon forests, in addition to being important for the wood products industry, are important to Oregonians for recreation. A majority of Oregonians agree that forest-based recreation is economically important to Oregon, and a great many have recreated in an Oregon State Forest in the past 2 years. Furthermore, Oregonians, as a whole, are as active (in fishing and hunting, for example) or more active (in hiking, particularly) in outdoor recreation than are residents of other states in the U.S.

Oregon Residents' Expectations of and Opinions on Forest Management

Although the wood products industry and recreation both have been shown to be important to residents, Oregonians also want their forests to provide naturalistic or ecological benefits, as well. Indeed, ecological values are deemed more important than economic and recreational values by large numbers of Oregonians. Nonetheless, each resource (naturalistic, economic, and recreational) that forests can provide is deemed important to Oregonians (with the exception of the forests' provision of places to drive off-highway—an activity that has detractors all across the country).

Water quality is a highly important issue to Oregonians (as it is all across the country). Other concerns of high importance are habitat protection (including loss of forests), clear-cutting, and severe wildfires.

As previously discussed, the ODF is highly regarded. Its management of forests in Oregon is not as highly regarded, although the numbers are more positive than negative. Relative to management of federal and private forests, management of State Forests is seen as positive.

Oregonians want balance in the development of State Forest Management Plans, particularly in the environmental versus economic realm. Overall, Oregonians are divided in the environment

versus economic debate, and it would be impossible to completely please both camps; nonetheless, the best scenario would be to strike a balance between the two and show that strategies to address the environment and the economy need not be mutually exclusive. Another desire of Oregonians is for local interests to be balanced with statewide interests. Overall, though, the key word in developing State Forest Management Plans is “balance.”

The guiding principles used in the development of State Forest Management Plans are strongly supported by Oregonians overall. However, there is some opposition to the guiding principles related to timbering. (Some of this opposition may simply be related to lack of awareness among Oregonians about the relationship of timber harvest and the Trust Counties.) Nonetheless, despite the support for the guiding principles, there is less agreement that the State Forest Management Plans actually follow the guiding principles, particularly that the State Forest Management Plans acknowledge the interests of the counties from which most of the Board of Forestry lands were originally acquired. Additionally, there was skepticism in the focus groups that the revenue from timber sales on Board of Forestry lands actually goes to the Trust Counties, although this skepticism was somewhat vague in that focus group participants did not say where the revenue actually goes if it does not go to the Trust Counties—these focus group participants seemed to express a general sentiment that governments generally do not do what they say.

As noted previously, the wood products industry is of great economic importance to Oregon; however, Oregonians are worried about the health of the industry, particularly as it affects Oregon’s overall economic health and unemployment in the state. These economic worries sometimes cause a backlash against environmentalists, who some see as being extremist, particularly combined with the fact that the wood products industry is seen positively by most Oregonians, as is the use of wood products. (Nonetheless, there is a substantial undercurrent running against the wood products industry that must be considered, seemingly fueled in particular by opposition to clear-cutting and by the perception among some that the wood-products industry has too much political weight in the state.)

Along with their concern about the wood products industry, Oregonians are highly concerned about the environment, as well. In particular, water quality and habitat for fish and wildlife are high concerns. Furthermore, there is slightly more concern for the environment than for the economy (although this is the most divisive aspect of the concerns). Nonetheless, the State of Oregon and the ODF are perceived as caring about the environment and are seen as attempting to address environmental concerns, particularly as the environment relates to timber harvest.

Although the importance of the wood products industry has previously been demonstrated, the importance of forest-related recreation is evident as well. Statistics show that the State Forest Management Plans have considered recreation needs (for instance, the big three State Forests have approximately 81 miles of hiking trails), and Oregonians think that the State Forest Management Plans are doing a better job of providing recreational opportunities than they once did.

Not surprisingly, clear-cutting is a very divisive issue, with many who support and many who oppose. Furthermore, much of the opposition is *strong* opposition. Some of the opposition

appears to stem from misunderstandings about the ecological effects of clear-cutting, and some of the opposition is based on the aesthetic aspects of clear-cuts. Still others oppose because they associate clear-cutting with poor management practices and/or timber company greed. Certainly, clear-cutting will continue to be a problem if the public does not understand nor support it, which may, in turn, lead to lower credibility of professional foresters and the ODF itself.

Oregonians, for the most part, accept and appear to understand thinning (unlike clear-cutting), particularly in the role it plays in moderating the risk of severe wildfires and in improving the health of forest stands.

Overall, the ODF is not seen as doing well at providing information about forest management, as more than a third of Oregonians disagree that the ODF keeps Oregonians informed about forest management practices. Nor are people getting their information from the ODF. These findings are despite the fact that the ODF enjoys high credibility.

Oregon Residents' Understanding of Management Strategies

Oregonians' understanding of forest management strategies is inconsistent, as is their simple understanding of what a healthy forest looks like. For instance, many Oregonians associate dead trees and snags with an unhealthy forest, although a healthy forest actually contains many dead trees and snags (which, incidentally, provide a necessary habitat niche as part of a complete forest ecosystem). Furthermore, many Oregonians do not appear to understand forest managers' needs for and use of clear-cutting in forest management, nor do some Oregonians have a complete understanding of the role of wildfires in a forest ecosystem and forest management techniques that address the risk of severe wildfires.

Although Oregonians' understanding of forest management strategies is inconsistent, as is their understanding of the composition of a healthy forest, many of them have fairly good understanding of fire prevention strategies and the role of thinning in fire prevention and in improving forest stand health.

Oregonians' understanding of the relationship between the State Forests and the Trust Counties is not as high as it could be, as more than a third of Oregonians did not agree that revenue from timber sales from Oregon State Forests goes to the schools and local governments of the Trust Counties, and many of those who agree only *moderately* agree, indicating that they have doubts. Interestingly, residents of the Trust Counties do not show marked difference from the rest of the state regarding understanding of the relationship between the State Forests and the Trust Counties.

IMPLICATIONS AND RECOMMENDATIONS

- Oregonians' levels of knowledge about the ODF and about forest management should be raised through outreach, particularly because the ODF is perceived as credible and is thought to be doing a good job in managing Oregon's State Forests. The ODF is seen as better than private forest owners and the federal government at managing forests, so the ODF should attempt to distinguish itself from those entities, especially because many Oregonians lump

together various forest-related agencies. The reasoning behind forest management strategies and decisions must be transmitted to the public, as well, thereby taking advantage of the high credibility.

- The ODF must take advantage of the good publicity it can gain through its efforts to protect wildlife and fish habitat, especially its efforts at reversing damage to fish habitat that past forest activities, including road building, have done. Although not a quantitative finding, many of the focus group participants had no awareness that the ODF undertakes habitat protection and improvement activities. Water quality (including the coho salmon's habitat) is a hugely important issue, and any link that can be made between the ODF and protection and improvement of water quality will serve the ODF well.
- While some Oregonians do not think that Oregon's forests are well-managed and/or think that certain interests are given too much weight in management decisions, simply informing the public of the reasoning behind management activities will improve Oregonians' perceptions, again taking advantage of the ODF's high credibility. Regarding Oregonians' perceptions that some interests are given too much weight (some saying environmentalists, and others saying timber companies, are given too much weight), using the word, "balance," when discussing forest management will resonate with Oregonians. If Oregon residents understand the competing interests in forest management and the efforts at balancing those competing interests, they will view forest management more favorably. Also, where possible, inform Oregonians that seemingly competing interests may not, after all, be mutually exclusive.
- The ODF may consider incorporating the word, "balance," into a unifying thematic message regarding what the ODF is, into a logo, and/or into other outreach materials. Both qualitative (focus groups) and quantitative (surveys) research found that "balance" resonates well. In this sense, "balance," would mean that social, environmental, and economic interests and values are all *considered* in management decisions.
- The guiding principles used in the development of State Forest Management Plans are, by and large, supported by the public. This is good news in that it shows that many of the underlying assumptions of forest management are valid. They are not always seen as being followed, however. The ODF must assure Oregonians that the guiding principles are followed in the development of State Forest Management Plans (as it must ensure that they *are* followed).
- The guiding principle that states that the Plans must acknowledge the interests of the Trust Counties has the highest disagreement. As the basis for the agreement—the Trust Counties gave the land to the state in exchange for a share in revenues from timber sales—seems eminently fair, simply publicizing the agreement would likely reduce disagreement to this guiding principle.
 - There was wide skepticism that the Trust Counties actually received the revenue due to them—a finding based on the focus groups as well as the fact that so many in the telephone survey disagreed that the Trust Counties receive the revenue. Again, publicizing the amount of funding provided to the Trust Counties will counteract this erroneous perception.

- The importance of the wood products industry to Oregon will resonate well with Oregonians. For the most part, state residents are supportive of the wood products industry, and a substantial percentage have a personal stake in the industry, either directly working for it or having a family member who works for it. (This is not to say that the wood products industry is fully trusted, as its representatives did not rank highly in credibility, but the industry itself is seen in a favorable light.) Any ties the ODF can make with its actions and the health of the wood products industry, especially in the context of a *balanced* approach that also considers ecological concerns and recreation, will resonate well.
- The importance of forest-based recreation to Oregonians should not be underestimated. State Forest Management Plans will be more supported by Oregonians if they are assured that recreation needs were fully considered.
 - The findings of the current telephone survey suggest that Oregonians participate in hiking at a higher rate than do residents of other states. For this reason, it is important that the Plans accommodate hikers (and other related recreationists, like campers).
- Oregonians want their forests to provide, in addition to economic and recreational benefits, ecological benefits. Indeed, for large numbers of Oregonians, the ecological values of forests are the most important. Again, the ODF must discuss its plans as being *balanced* and assure Oregonians that ecological (not environmental—see sub-bullet below) interests have been considered.
 - The environment can be a highly divisive issue, particularly in light of environmental extremists. When discussing environmental values of forests, the ODF should avoid the term, “environment” or “environmentalist,” in favor of “conservation,” “conservationist,” and “ecological.”
 - Water quality will resonate well with Oregonians, and management efforts tied to water quality, even tangentially, will be supported, for the most part.
 - Oregonians perceived coho salmon as being very important and were highly protective of the species. Ecological efforts that directly mention coho salmon will be supported. The bald eagle is another species that can be mentioned in ecological efforts. On the other hand, the spotted owl and the marbled murrelet will not resonate well and can create a backlash—they are best not mentioned.
- Clear-cutting is highly controversial, and highly misunderstood. Because it is unlikely that forest managers, including the ODF’s State Forest managers, will stop using clear-cutting as a management and harvest tool, the ODF absolutely must explain its use and assure Oregonians that clear-cutting is not anathema to sound ecological management. To start with, there appears to be lack of awareness that a completely natural, untouched forest would have areas that are functionally like a clear-cut (a landslide area, for instance) and that a complete forest ecosystem would include such areas—that some wildlife depend on and thrive in such areas. Furthermore, much of the opposition to clear-cuts is, at least in part, if not wholly, based on aesthetic considerations—recall that viewing scenery is the most popular recreational activity in Oregon. However, even this basis for opposition would be reduced if people understood the functional relationship of a clear-cut to a complete forest ecosystem. The aesthetic basis for opposing clear-cuts is certainly in part because people see clear-cuts *while simultaneously thinking to themselves that they are seeing a damaged*

ecosystem. Also, the ODF may consider that high-visibility areas, where possible, not be clear-cut, because much opposition to clear-cutting is undoubtedly purely aesthetic—clear-cuts simply are not beautiful (e.g., the front side of a mountain visible from a beach should, if possible, not be clear-cut in favor of cutting the backside of the mountain that is more hidden). This is perhaps the biggest issue that has to be addressed. Until the public becomes more accepting of clear-cutting, the ODF risks losing its credibility, and State Forest Management Plans, as well as the wood products industry, will lose support.

- Finally, the study examined Oregonians’ acceptance and support of structure-based management. The results taken together show that structure-based management will not be *fully* supported because one of its elements (clear-cutting) has a high level of opposition. Note, however, that it receives more support than do previous practices—in short, the recommendation here is to keep structure-based management, but continue to attempt to gain wider acceptance of it. It is essential that this aspect of structure-based management—clear-cutting—be explained to gain wider acceptance of structure-based management overall. Furthermore, it appears that some Oregonians do not understand all of the “structures” in structure-based management, as demonstrated by the finding that a substantial percentage of Oregonians perceived dead trees and snags to be the sign of an unhealthy forest when these actually play an important role in structure-based management and in the working of a healthy forest ecosystem.
- Note that the telephone survey conducted as part of this study did not test Oregonians reactions to “adaptive management” because it simply is not seen as controversial. One of the common responses in the focus groups to whether the ODF should use adaptive management was, “Don’t they do that already?” or “How else would you manage forests?” In short, it was perceived in the focus groups as something that should be the standard way to manage forests—obtaining feedback about the effectiveness of a certain management strategy and then making adjustments based on that feedback—and participants were incredulous that a management strategy that was not working as expected would continue to be followed. For this reason, the research team considered that the survey should spend the limited interview time on other aspects of forest management.
- In summary, several important implications came from the research.
 - The ODF needs to separate itself in Oregonians’ minds from federal agencies and from private interests. The ODF also needs to ensure that its State Forests are clearly marked and differentiated from National Forests, from other conserved lands (such as refuges), and from privately owned forests.
 - The ODF is perceived as credible and should use that credibility as a platform to improve outreach and information efforts pertaining to management of State-managed forests.
 - There are competing interests in the management of Oregon’s forests, but Oregonians recognize that fact and will, therefore, respond positively to *balance*, particularly coming from an agency with high credibility. Balance, in this sense, is taken to mean that long-term social, environmental, and economic forest values are all *considered* in management decisions; it is not meant to imply a complete evenness of immediate values or outputs in all management actions, this simply not being feasible in the short-term. Although this consideration of the competing interests in state forest management in achieving greatest

permanent value is better described as an “integration” of social, environmental, and economic forest values rather than a true “balance,” it is unlikely that the term, “integration,” will resonate as well as “balance.”

- Regarding balance, Oregonians care strongly about the wood products industry and support it, so part of the balance equation is forest management that protects the health of the wood products industry. Oregonians also care strongly about water quality and the coho salmon, a second important part of balanced management—in fact, ecological values are rated the most important by much of the population and came out on top in several measures. Finally, outdoor recreation is important in Oregon, and this is the final part of the balance.
 - A further recommendation regarding balance is that the State Forest Management Plans currently attempt to achieve a balance, particularly relative to the old Plans that were superceded, and so this information needs to be communicated to Oregonians. In short, it appears that the Plans are giving Oregonians what they want, and it would be a missed public relations opportunity if residents were not informed of this effort to strike a balance.
 - There is a reaction against “environmental” and “environmentalist”; better terms with similar meaning include “conservation,” “conservationist,” and “ecological.”
 - The guiding principles are supported, although not always perceived as being followed, and the ODF must assure Oregonians that the guiding principles are followed.
 - Finally, clear-cutting will continue to be a public relations problem unless it is fully explained and shown not to be ecologically damaging. Also, where possible, attempt to avoid clear-cutting in high-visibility, scenic areas.
- This report, and the data contained therein, should be used for goal setting and as a baseline against which to compare subsequent data for analyses of trends. For instance, currently 30% of Oregonians *strongly* agree that the ODF does a good job managing Oregon State Forests. A goal could be to raise this to 40% in the following 5 years. Regardless of the goals that are eventually set, these survey data are invaluable in both setting reasonable goals and in assessing subsequent efforts to reach those goals.

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CHAPTER 1. INTRODUCTION

Responsive Management conducted this study for the Oregon Department of Forestry (ODF) to determine the general population's and stakeholders' knowledge of, values regarding, and attitudes toward natural resource management in Oregon State Forests. Specifically, the research examined Oregonians' knowledge of the ODF, their opinions on the importance of forests, their expectations of forest management, and their understanding of management strategies, including structure-based management and adaptive management. The study entailed a literature review, focus groups of State Forest stakeholders and Oregon residents, and a telephone survey of Oregon residents.

The study was undertaken to address very specific informational needs of the ODF, and the report is organized around these informational needs. The ODF wished to assess:

- the importance of forests to Oregonians,
- the public's knowledge of the ODF,
- Oregonians' expectations of forest management, and
- Oregonians' understanding of forest management strategies, including structure-based management and adaptive management.

The ODF manages approximately 789,000 acres of State Forest lands, which account for approximately 3% of Oregon's forests. The State adopted new management plans for the Oregon State Forests in 2001. One of the goals of these new plans is to achieve the "greatest permanent value" to the citizens of Oregon, meaning that the forests are intended to provide a full range of social, economic, and ecological benefits, as well as achieve a balance between short-term and long-term economic returns. These plans are based on "structure-based management," which is designed to produce and maintain an array of forest stand types (i.e., structures) across the forest landscape in a functional arrangement that provides the aforementioned social, economic, and ecological benefits. One of the underlying assumptions guiding the development of the Oregon State Forest Management Plans is that Oregonians will support structure-based management and adaptive management. This report explores Oregonians' attitudes toward and opinions on these assumptions and other related forest issues.

Because forestry management is as much a social endeavor as a biological endeavor, the profession's approach to working with constituents and publics must become as sophisticated as the biological and ecological approach to forestry management (Kellert, 1996; Duda et al., 1998). Addressing the social aspects of forestry management entails understanding public knowledge, attitudes, and opinions toward forests. It would be a mistake for forestry management professionals to fail to apply scientific principles, which they apply in the biological and ecological aspects of forest management plans, to the human dimension aspect of forestry. As a natural resource manager indicated, "managing the natural environment...is more about managing people's opinions than managing the environment itself" (Miller and McGee, 2001). As Gifford Pinchot (1998), the first Chief of the U.S. Forest Service and the primary founder of the Society of American Foresters, said about managing forests, "To start with I had to know something about the people, the country, and the trees. And of the three, the first was most important." This is not to say that public opinion should dictate plans; rather, policymakers must consider public opinion, knowledge, and attitudes as one of the several facets in the overall development of forest management plans.

CHAPTER 2. MAJOR FINDINGS

KNOWLEDGE OF AND OPINIONS ON THE OREGON DEPARTMENT OF FORESTRY

KNOWLEDGE OF THE OREGON DEPARTMENT OF FORESTRY AND FOREST MANAGEMENT

- **Knowledge levels among Oregonians about the ODF and about forest management have room to be raised, as most Oregonians do not believe themselves to be very knowledgeable about forest management and, by implication, cannot be expected to be very knowledgeable about the ODF itself. Also, some Oregonians confuse the ODF with federal agencies.**

Although the research team decided that the telephone survey would not ask *directly* about Oregon residents' knowledge of the ODF (as discussed in the methodology section), previous research by Responsive Management has found low levels of awareness of natural resource agencies in general. For instance, surveys in the sixteen member states of the Southeast Association of Fish and Wildlife Agencies found that a majority of residents in each state, except for Arkansas and Texas, could *not* name which one government agency was most responsible for managing fish and wildlife in that state, and overall, a majority of residents of the southeastern U.S. could not name the one government agency was most responsible for managing fish and wildlife in their state (Responsive Management, 2005a-q). Furthermore, these same respondents, after being informed of the name of their state's agency most responsible for managing fish and wildlife, were asked how familiar they were with that agency, and in each state considerably less than a majority said that they knew a great deal or moderate amount about the agency prior to the survey; for each state, "a little" was the top answer, and percentages saying that they knew "nothing" ranged from 16% to 37% (Responsive Management, 2005a-q).

Similarly, residents of the member states of the Northeast Association of Fish and Wildlife Agencies, for the most part, were unfamiliar with their state's fish and wildlife agency: a majority of each state said that they knew a little or nothing about the agency, and the highest percentage saying that they knew a great deal or a moderate amount was 37% (Responsive Management, 2003a-i, 2004a-e).

Responsive Management has asked residents of various states about their level of awareness of specific natural resource related programs, with results commensurate with those discussed above. Only 24% of Kansas residents responded that they knew a great deal or moderate amount about the programs and activities of the Kansas Department of Wildlife and Parks (Responsive Management, 2002a). Only 30% of Georgia residents knew a great deal or moderate amount about the activities of the Georgia Department of Natural Resources (Responsive Management, 2005r). Finally, only 25% of Delaware residents knew a great deal or moderate amount about the Division of Fish and Wildlife's deer management

program, and only 10% knew a great deal or moderate amount about the Division's Deer Damage Assistance program (Responsive Management, 2005s).

Davis, Hibbitts & Midghall, Inc. (2006) asked Oregonians how knowledgeable they considered themselves about forest management, and while a majority considered themselves knowledgeable (62% said that they were very or somewhat knowledgeable), most of those said that they were *somewhat* knowledgeable (49%), and only a low percentage said that they were *very* knowledgeable (13%). When Oregonians are asked about specific aspects of forest management, they perceive themselves as less knowledgeable than they do about forest management in general. For instance, the same survey by Davis, Hibbitts & Midghall, Inc., found that 55% of Oregonians are not familiar with the Oregon Plan for Salmon and Watersheds.

The focus group research suggested that some people confuse the ODF with federal agencies such as the Bureau of Land Management and the U.S. Forest Service. In addition, there was confusion between Oregon State Forests and National Forests. (Note that the telephone survey made great efforts to clarify to respondents that the survey concerned *State* Forests to counteract this confusion among some respondents when they were being surveyed.)

OPINIONS ON THE OREGON DEPARTMENT OF FORESTRY

- **Despite the relatively low levels of knowledge about the ODF and forest management that exist in Oregon, the ODF itself is highly regarded, with Oregonians, in general, agreeing that the ODF does a good job managing Oregon's State Forests, that the ODF is credible, that the ODF is trustworthy, and that Oregon is a world leader in wise and sustainable forestry management.**

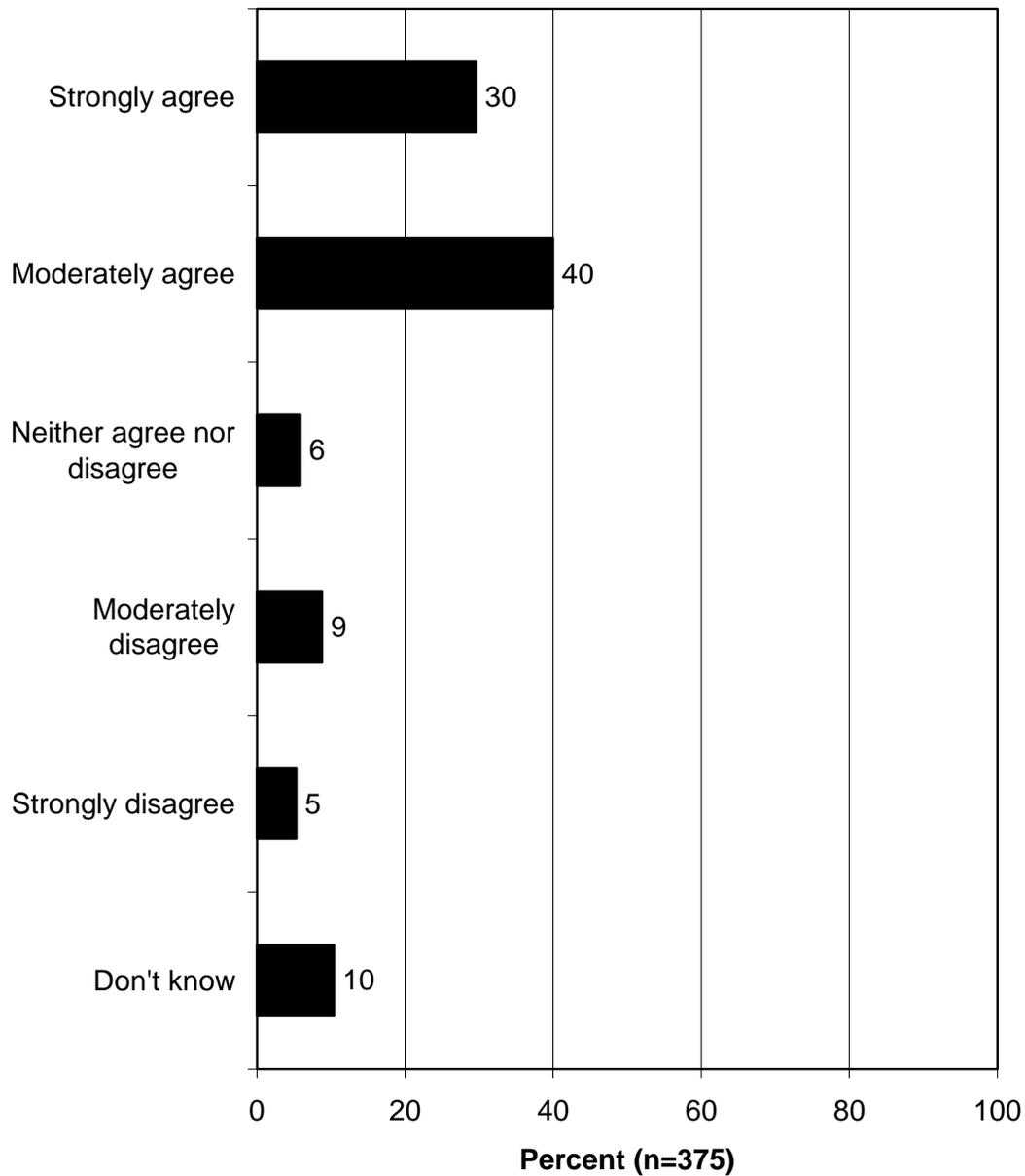
Overall, Oregonians have a high regard for the ODF: in a most basic question, 70% of Oregon residents agree that the ODF does a good job managing Oregon State Forests, while only 14% disagree. Additionally, 79% say that the ODF is credible as a source of information about forests and forest management; only 8% say the ODF is not at all credible. However, *somewhat* credible (44%) is higher than *very* credible (35%).

Davis, Hibbitts & Midghall, Inc. (2006) found state foresters to be credible: in a list of eight sources of information about forestry in Oregon, forestry officials from the State of Oregon were third ranked on the list, with a large majority (72%) saying that they trusted them.

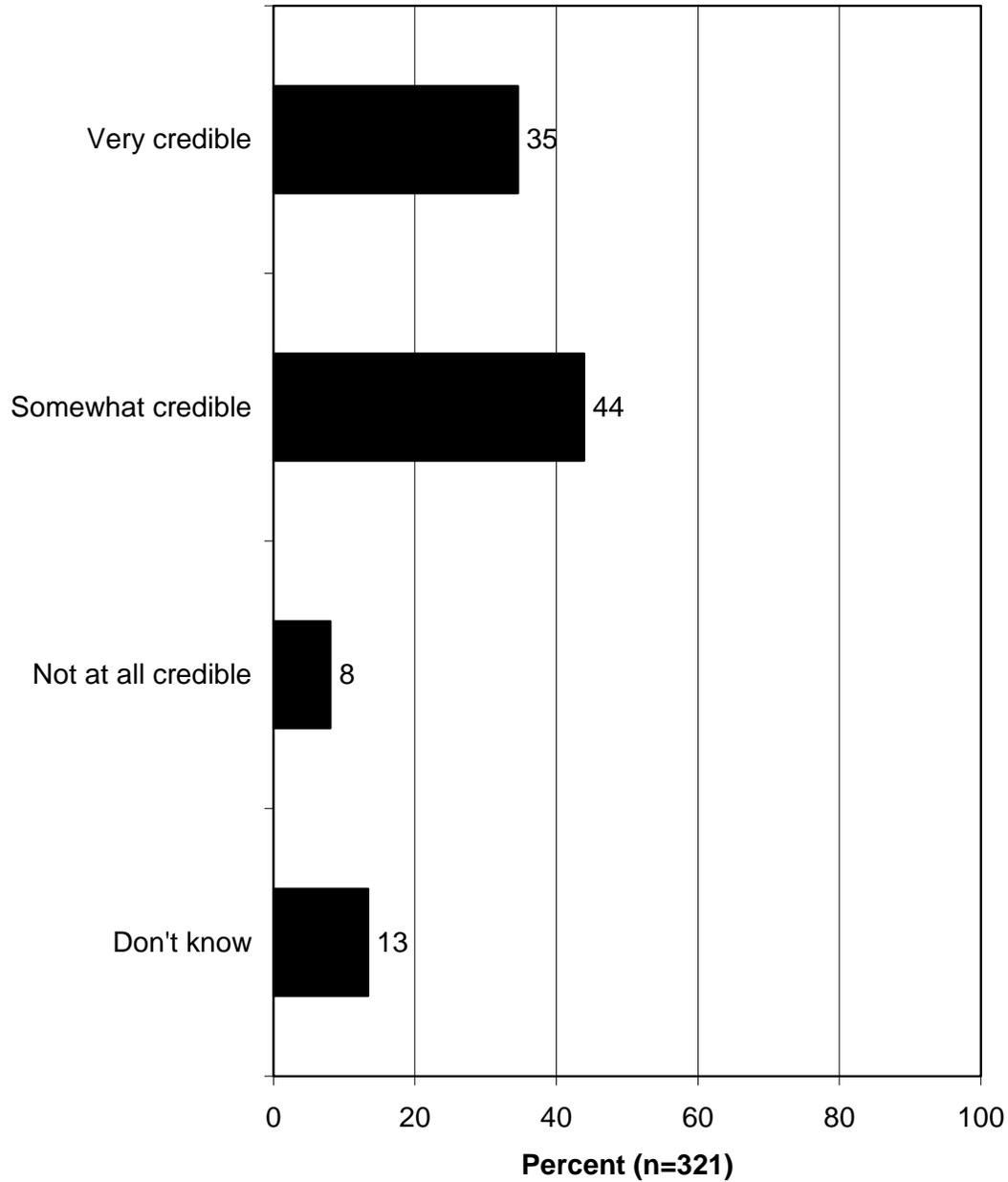
While more Oregon residents agree (47%) than disagree (15%) that the ODF is one of the world leaders in wise forest management, nearly a third (32%) answered that they do not know—an indication of the moderate lack of knowledge about the ODF and what it does. Nonetheless, the good news is that these results further indicate that Oregonians have a high regard for the ODF, with agreement leading disagreement by 3:1 that the ODF is one of the world leaders in wise forest management. Mirroring these results is that 47% of Oregon residents agree that the ODF uses the best scientific information when developing State Forest management plans, while only 18% disagree, and, again, nearly a third (29%) answered that they do not know.

A previous survey in Oregon found that agreement (58%) exceeded disagreement (28%) that Oregon is a world leader in sustainable forest management (Davis, Hibbitts & McCaig, Inc., 2002).

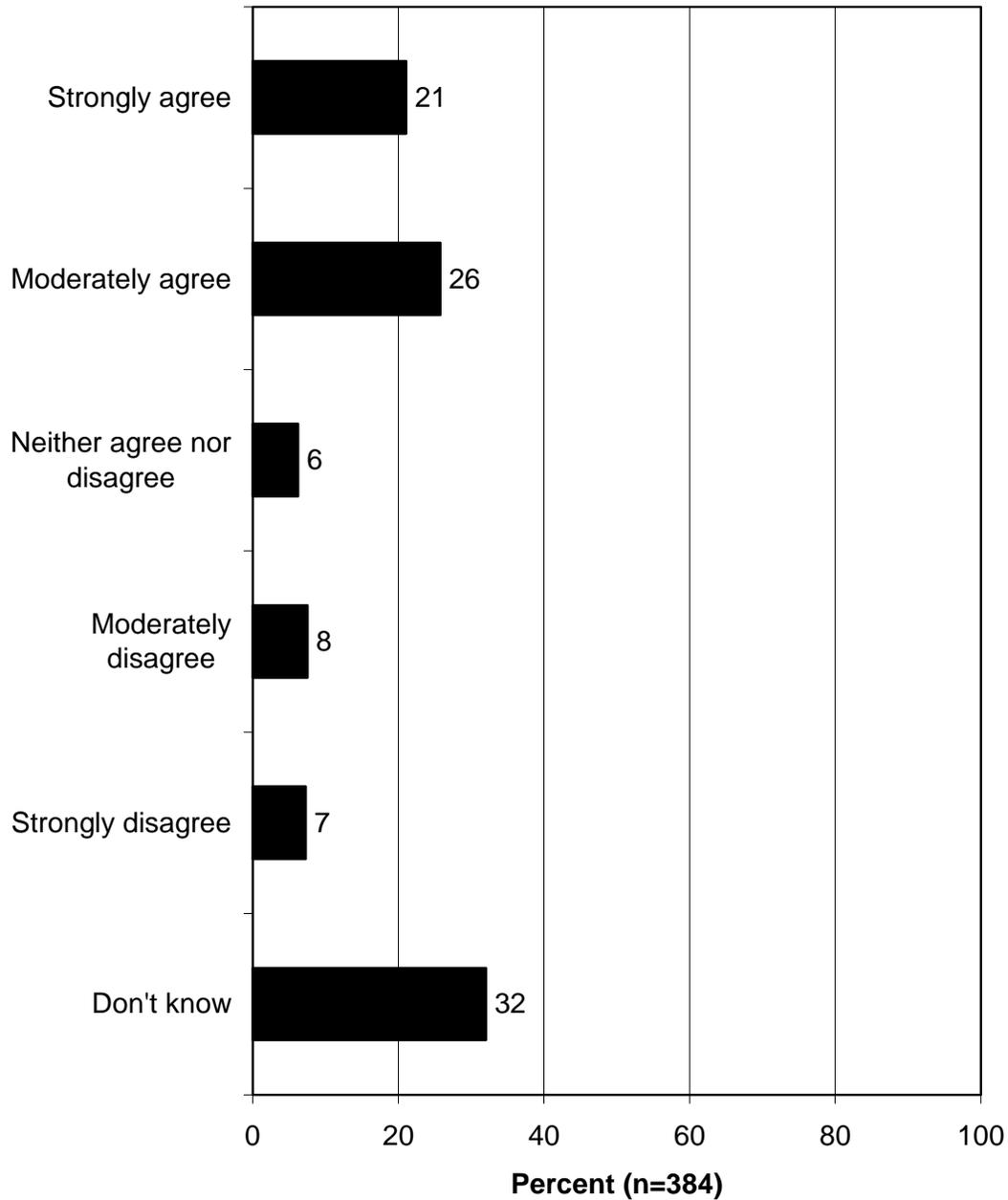
Q119. The Oregon Department of Forestry does a good job managing Oregon State forests. (Do you agree or disagree with this statement?)



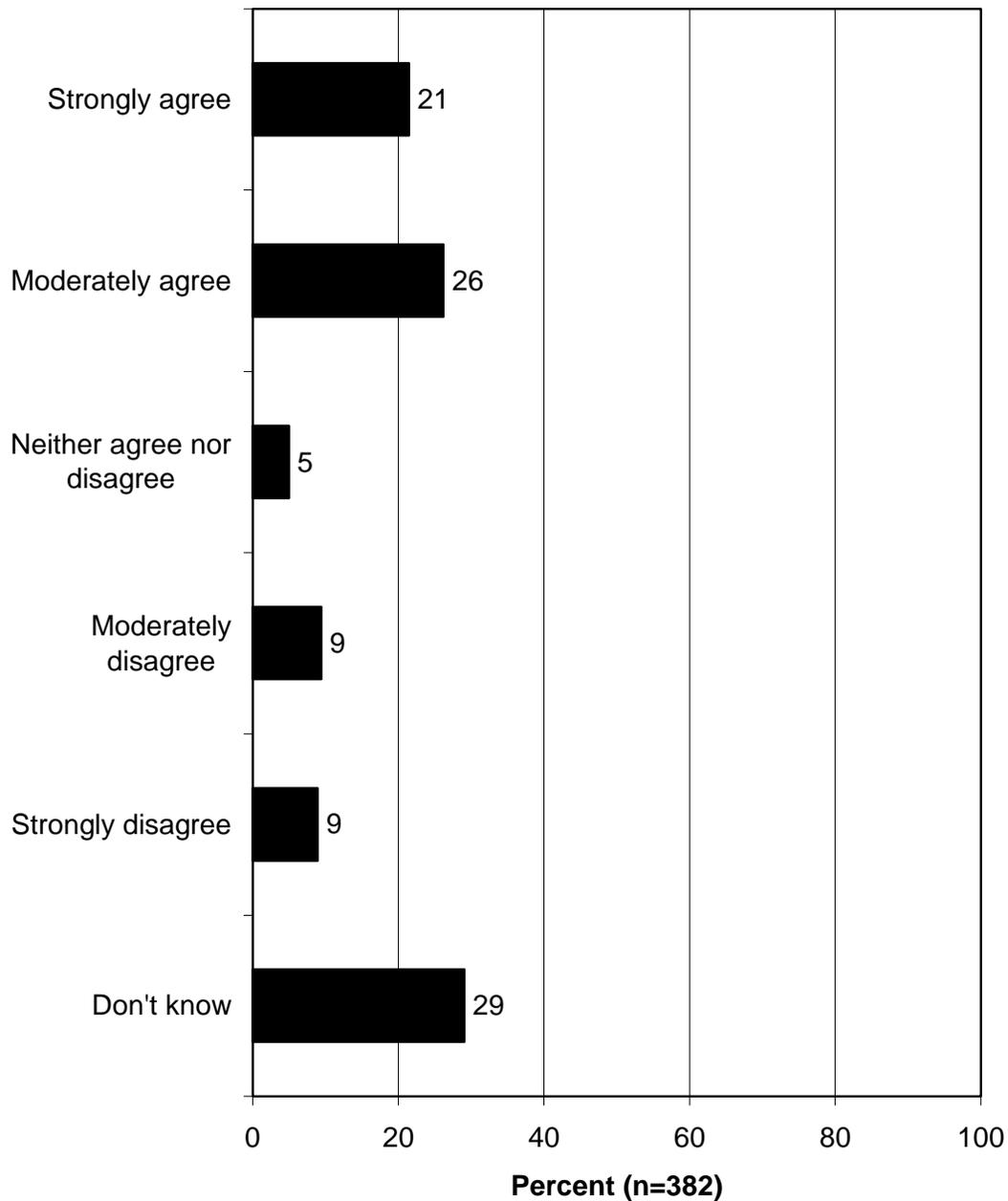
Q173. How credible is the Oregon Department of Forestry as a source of information about Oregon's forests and forest management?



Q113. The Oregon Department of Forestry is one of the world leaders in wise forest management. (Do you agree or disagree with this statement?)



Q116. The Oregon Department of Forestry uses the best scientific information when developing State forest management plans. (Do you agree or disagree with this statement?)



OPINIONS ON EDUCATION AND OUTREACH BY THE OREGON DEPARTMENT OF FORESTRY AND THE DEPARTMENT AS A SOURCE OF INFORMATION

- **Although many Oregonians agree that the ODF keeps them well informed about the state's forest management practices, nearly an equal percentage do not, and being informed is important to Oregonians, as is knowing that the public as a whole is well informed. Furthermore, it does not appear that Oregonians are getting their information about forest management from the ODF.**

Oregonians are split on whether the ODF keeps them well informed about the state's forest management practices: although 48% agree (but mostly *moderately* agree) that the ODF keeps them well informed, 37% disagree, and another 10% answered that they do not know, and 4% answered neutrally. In total, then, a majority of Oregon residents did *not* answer that they agree that the ODF keeps them well informed about the state's forest management practices. In a similar question, 35% of Oregon residents rank the ODF as excellent or good in educating and informing Oregonians about forest management practices, but 56% rate the ODF as fair or poor (fortunately fair over poor by 2:1).

"I'd like to be more educated about it [forest management]. It's kind of hard for me to learn...about it."

–focus group participant, Coos Bay

"I think it would be nice if the general public was a little more educated about the goings-on of...managing the State Forests, and all the forests, really." In similar language, another participant said, "The general population probably could...be better educated about what's going on."

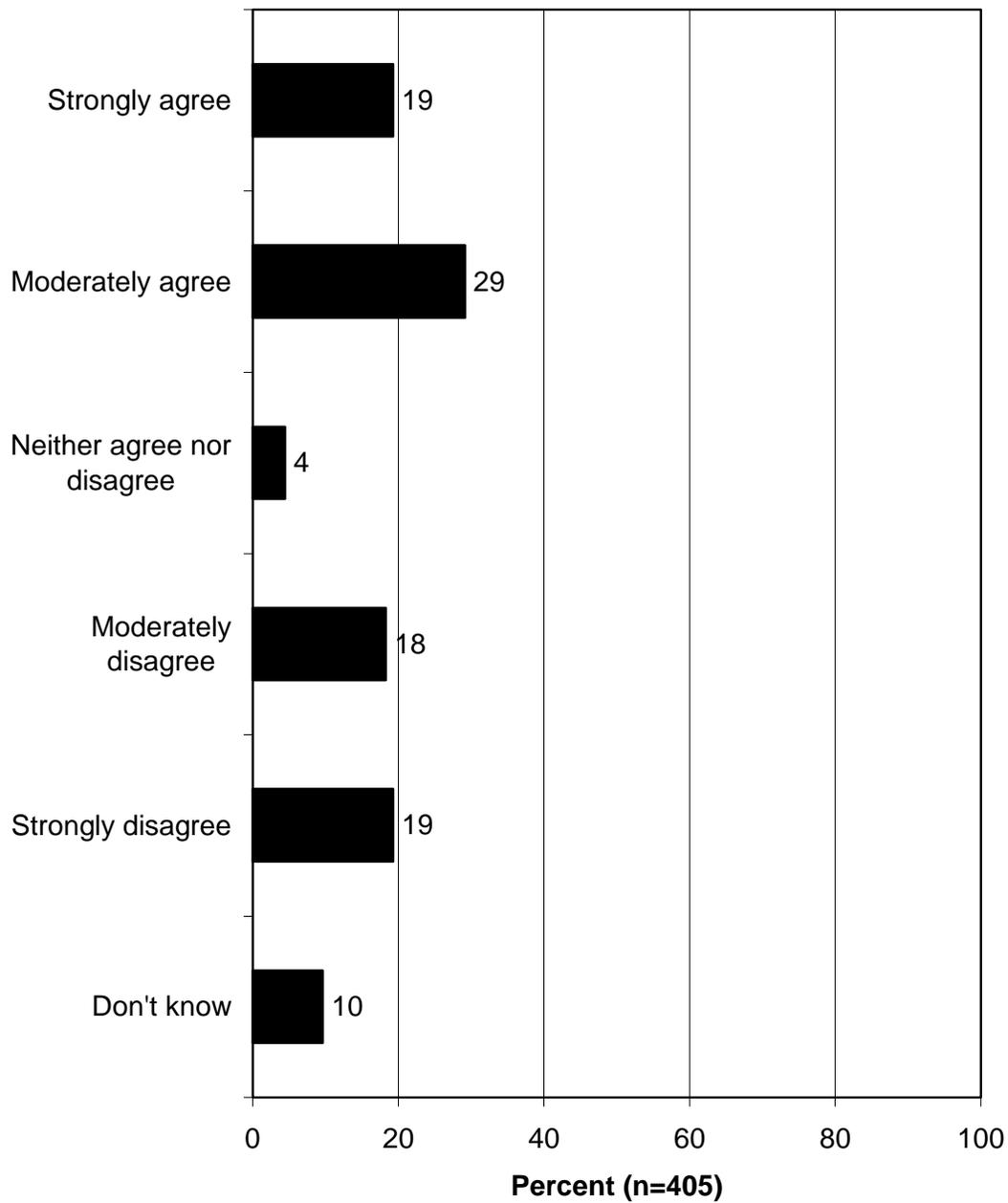
–focus group participants Coos Bay

"Communication. They could increase communication. ... If we knew more about what was going on, about why they were making certain decisions...and we could understand what their choices were, I think it would be better."

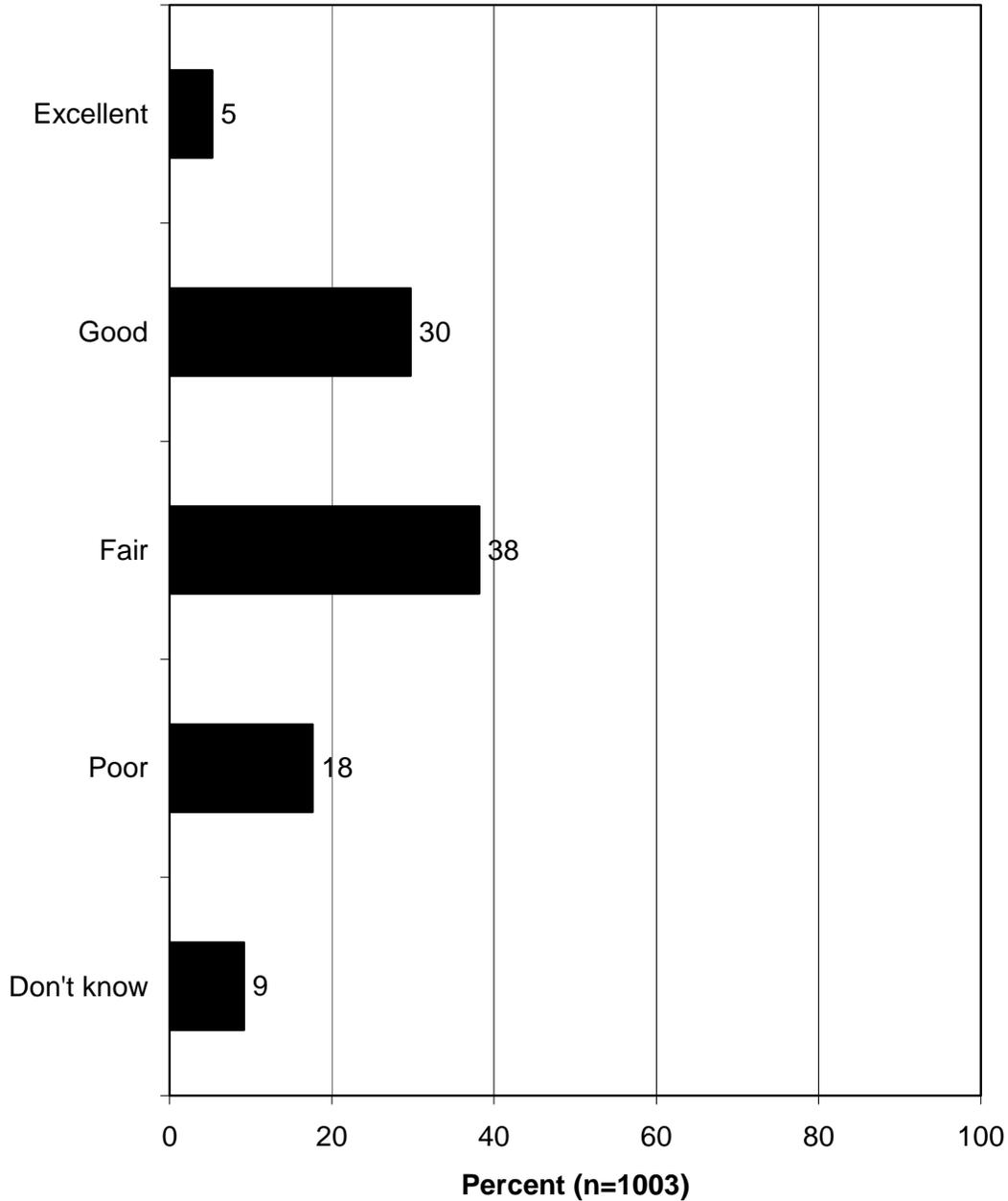
–focus group participant, Portland

A very low percentage of Oregon residents get information about management of state-managed forests in Oregon from the ODF; instead, they hear or see that information in newspapers and on television.

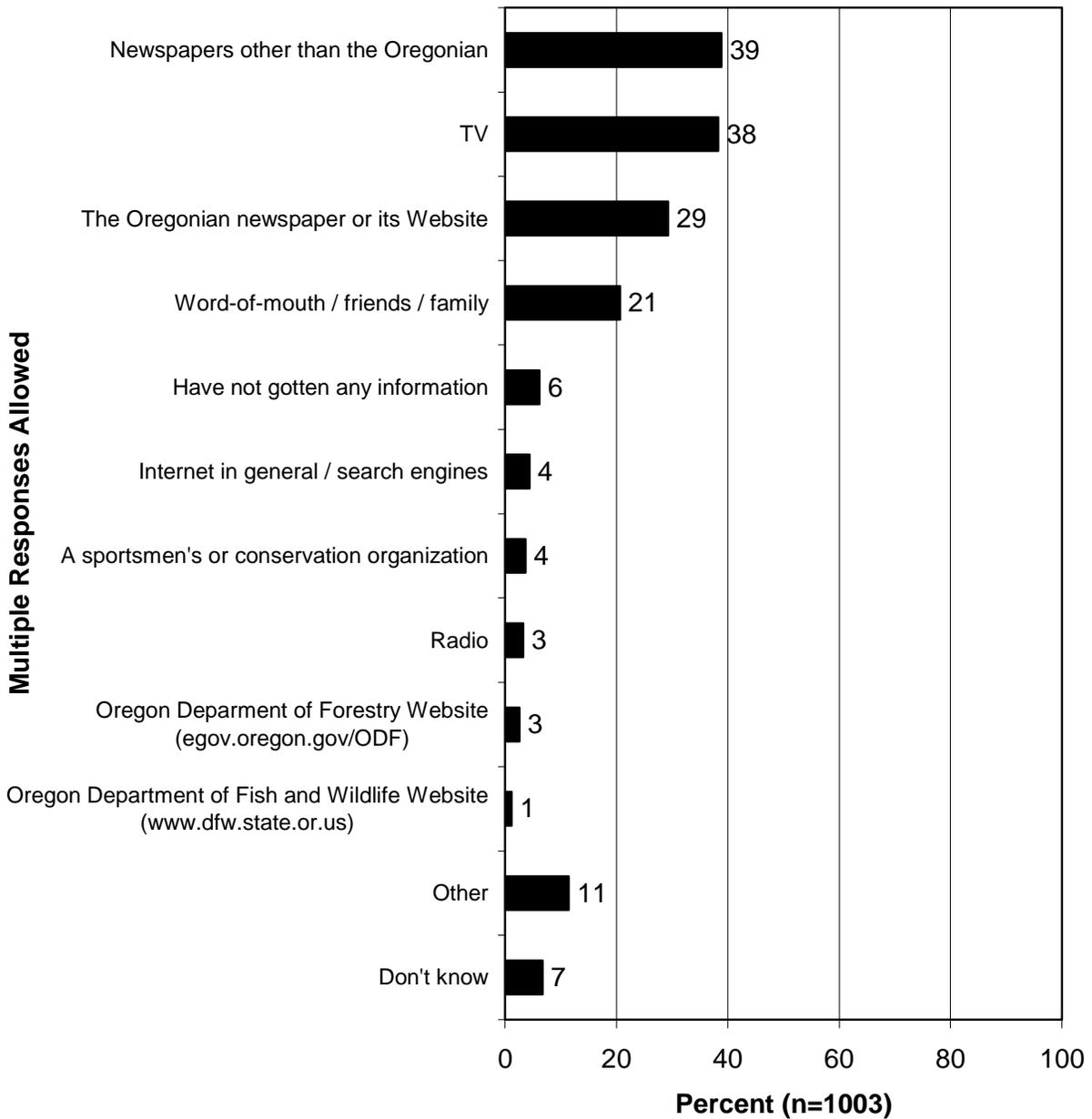
Q111. I feel that the Oregon Department of Forestry keeps Oregonians well informed about the state's forest management practices. (Do you agree or disagree with this statement?)



Q190. How would you rate the Oregon Department of Forestry in educating and informing Oregonians about forest management practices?



Q184. From what sources have your heard or read about management of state-managed forests in Oregon?



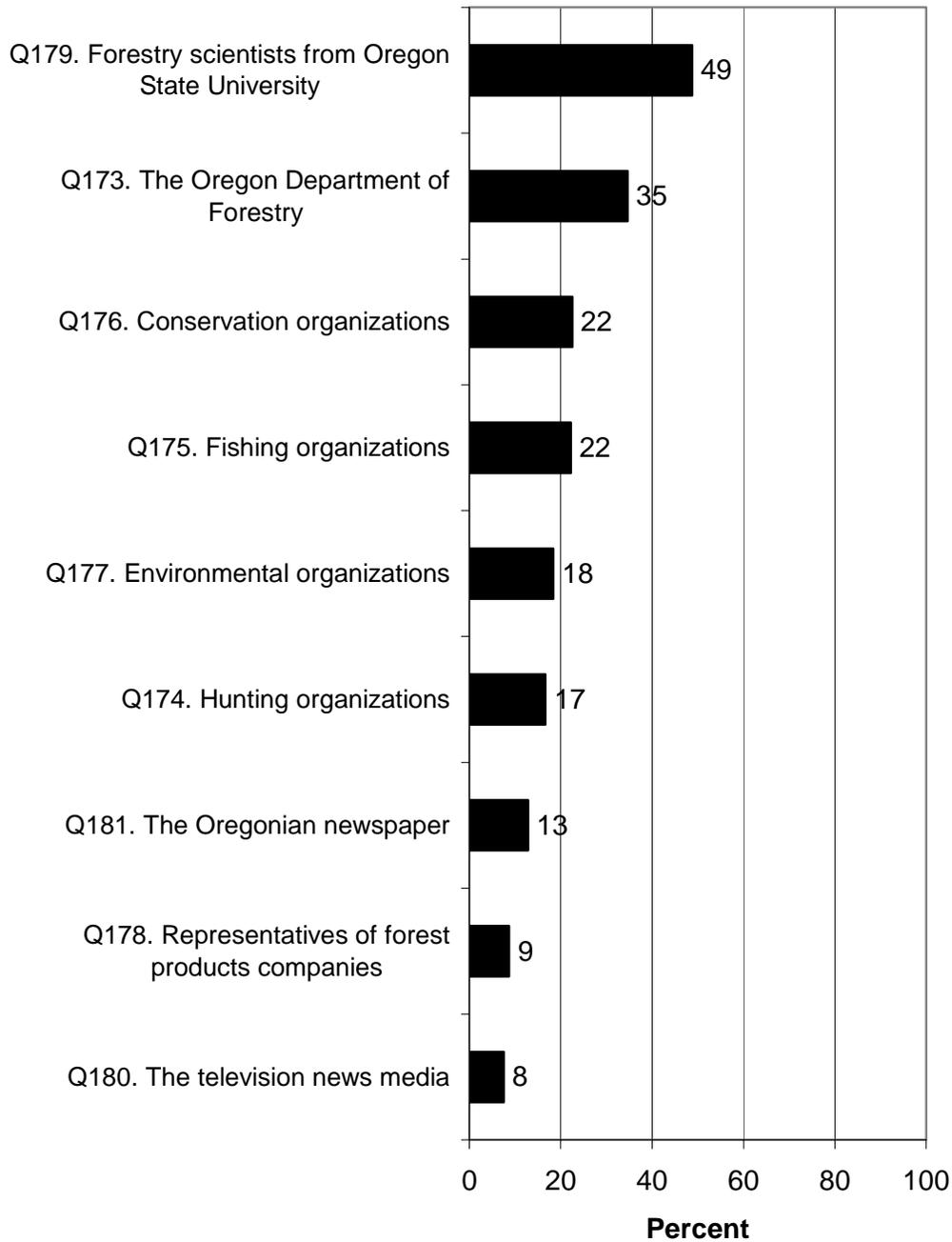
CREDIBILITY OF THE OREGON DEPARTMENT OF FORESTRY

- **As discussed previously, the ODF is seen as highly credible and trustworthy.**

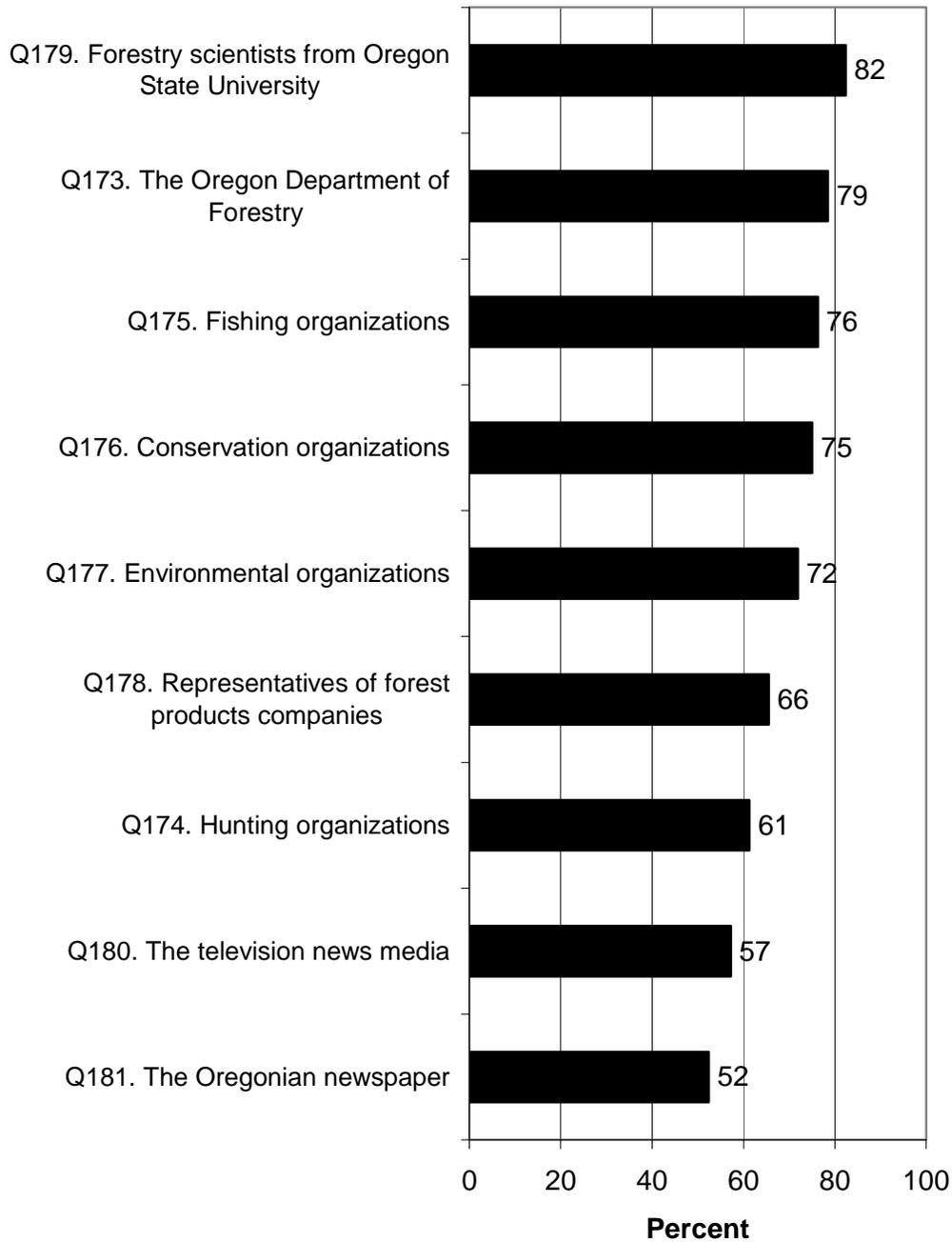
State foresters are perceived as the most credible source of information about forests and forest management, out of the nine sources discussed in the survey. The top two are “forestry scientists from Oregon State University” and “the Oregon Department of Forestry.” The least credible are media (“television news media” and the *Oregonian* newspaper), representatives of forest products companies, and some non-governmental organizations (those that are perceived by some people to have extremist views or links—hunting organizations and environmental organizations; note that conservation organizations and fishing organizations are seen as more credible).

Davis, Hibbitts & Midghall, Inc. (2006) found state foresters to be credible: in a list of eight sources of information about forestry in Oregon, forestry officials from the State of Oregon were third ranked on the list, with a large majority (72%) saying that they trusted them.

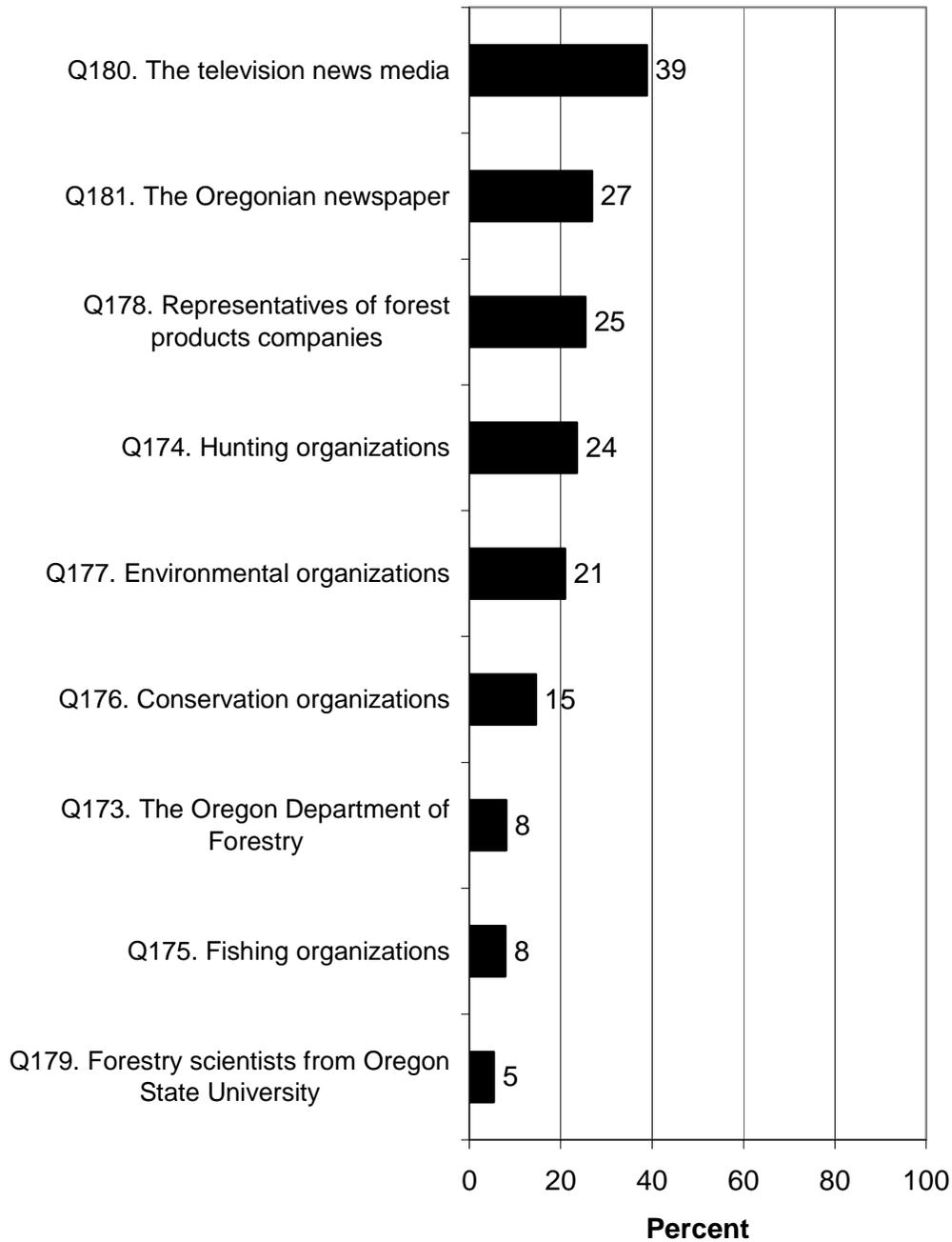
Q173-Q181. Percent who say the following are very credible as a source of information about Oregon's forests and forest management.



Q173-Q181. Percent who say the following are very or somewhat credible as a source of information about Oregon's forests and forest management.



Q173-Q181. Percent who say the following are not at all credible as a source of information about Oregon's forests and forest management.



OPINIONS ON FOREST MANAGEMENT BY THE OREGON DEPARTMENT OF FORESTRY

- **Oregonians are split on how well Oregon's forests are managed and on whether forest management is weighted too heavily in favor of some interests over others. While there are positive signs (for instance, more Oregonians say that forest management is well balanced than say it is out of balance and a majority agree that Oregon does a good job of enforcing forest protection laws), there is room for improvement, as more Oregonians say that forest management on state-owned lands has gotten worse than say it has gotten better in recent years, and substantial percentages of residents do not agree that the State Forest Management Plans actually follow the guiding principles that they *should* follow.**

More Oregonians think that the state's approach to forest management is well balanced (46%) than think it is out of balance (34%); however, *somewhat* well balanced exceeds *very* well balanced by about 4:1.

In a Davis, Hibbitts & Midghall, Inc., survey conducted in 2005 (2006), 42% of Oregonians thought that the state's approach to forest management is balanced, but a nearly equal percentage (40%) thought the state's approach is out of balance.

More Oregonians think that forest management on state-owned lands has gotten worse (26%) than think it has gotten better (19%) in the past 10 years, although the most common answer is that they do not know (33%).

Oregonians are split regarding whether the ODF has allowed economic interests to be more important than environmental interests, with slightly more agreement (43%) to this statement than disagreement (35%). In a contrasting question, Oregon residents are also split regarding whether the ODF has allowed environmental interests to be more important than economic interests: 44% agree with this statement, while 37% disagree.

The results of Question 120 in the survey suggest that Oregon residents think that the ODF and the Oregon legislature have responded to environmental concerns in the management of Oregon forests: 66% of residents agree that forest protection laws and regulations have changed in the past decade to provide greater protection for fish, wildlife, and water quality, far more than disagree (15%).

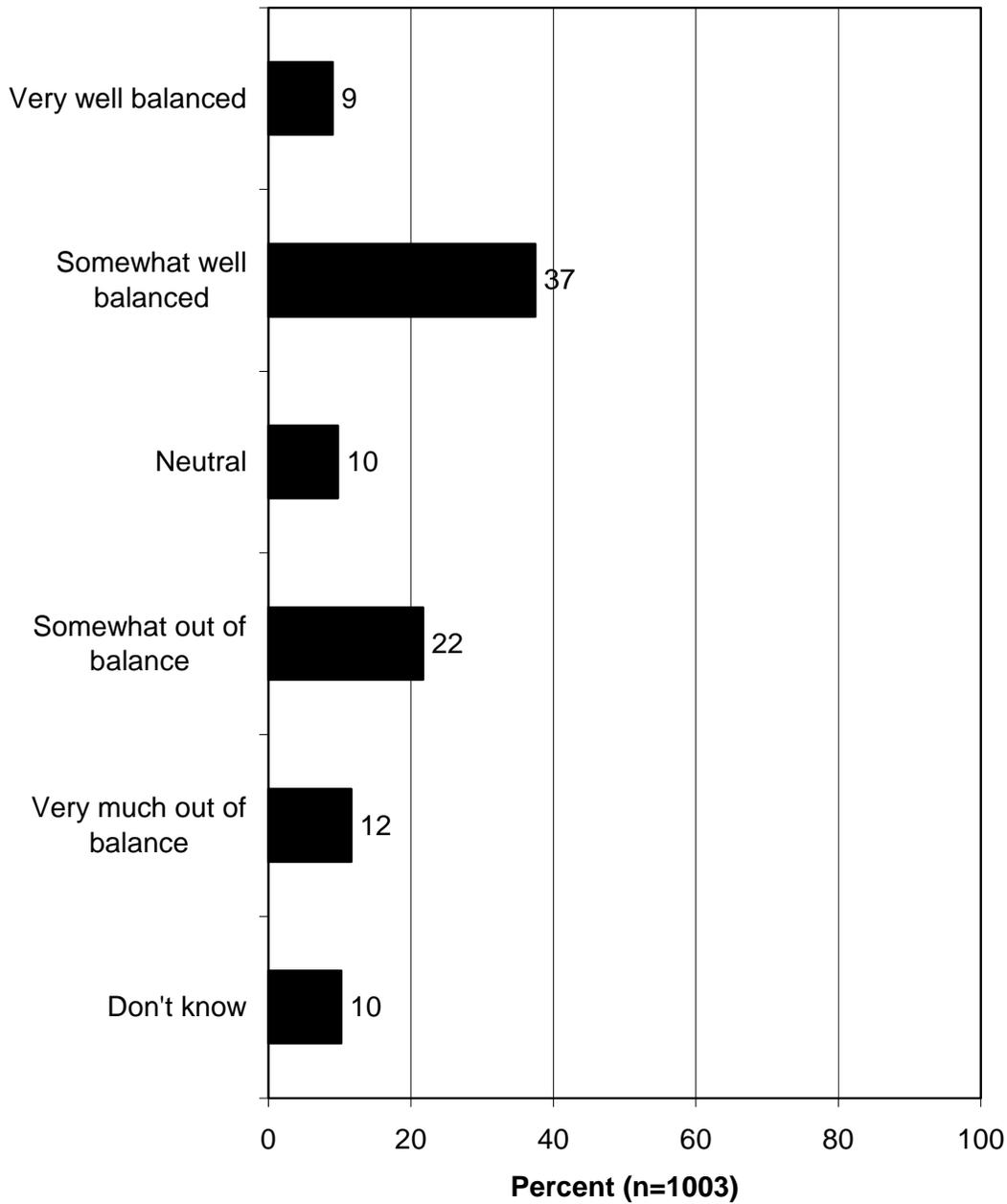
The above question regarding forest protection laws was asked in previous surveys by Davis, Hibbitts & McCaig, Inc. (2002), and agreement declined from those two surveys (in 1999 and in 2002) and the current survey by Responsive Management. In 1999, Davis, Hibbitts & McCaig, Inc., found that 81% of Oregonians agreed that forest protection laws have changed in the past decade to provide greater protection for fish, wildlife, and water quality, while 13% disagreed, and in 2002, 81% agreed and 14% disagreed with the statement (Davis, Hibbitts & McCaig, Inc., 2002).

Despite the high regard that Oregonians have for the ODF, as demonstrated in other questions, substantial percentages of residents do not agree that the State Forest Management Plans actually follow the guiding principles of developing the Plans that they should follow. For each of the guiding principles asked about in the survey, fewer residents *strongly* agree (as well as strongly or moderately agree combined) that the Plans *actually* follow the guiding principle than agree that the Plans *should* follow the principle:

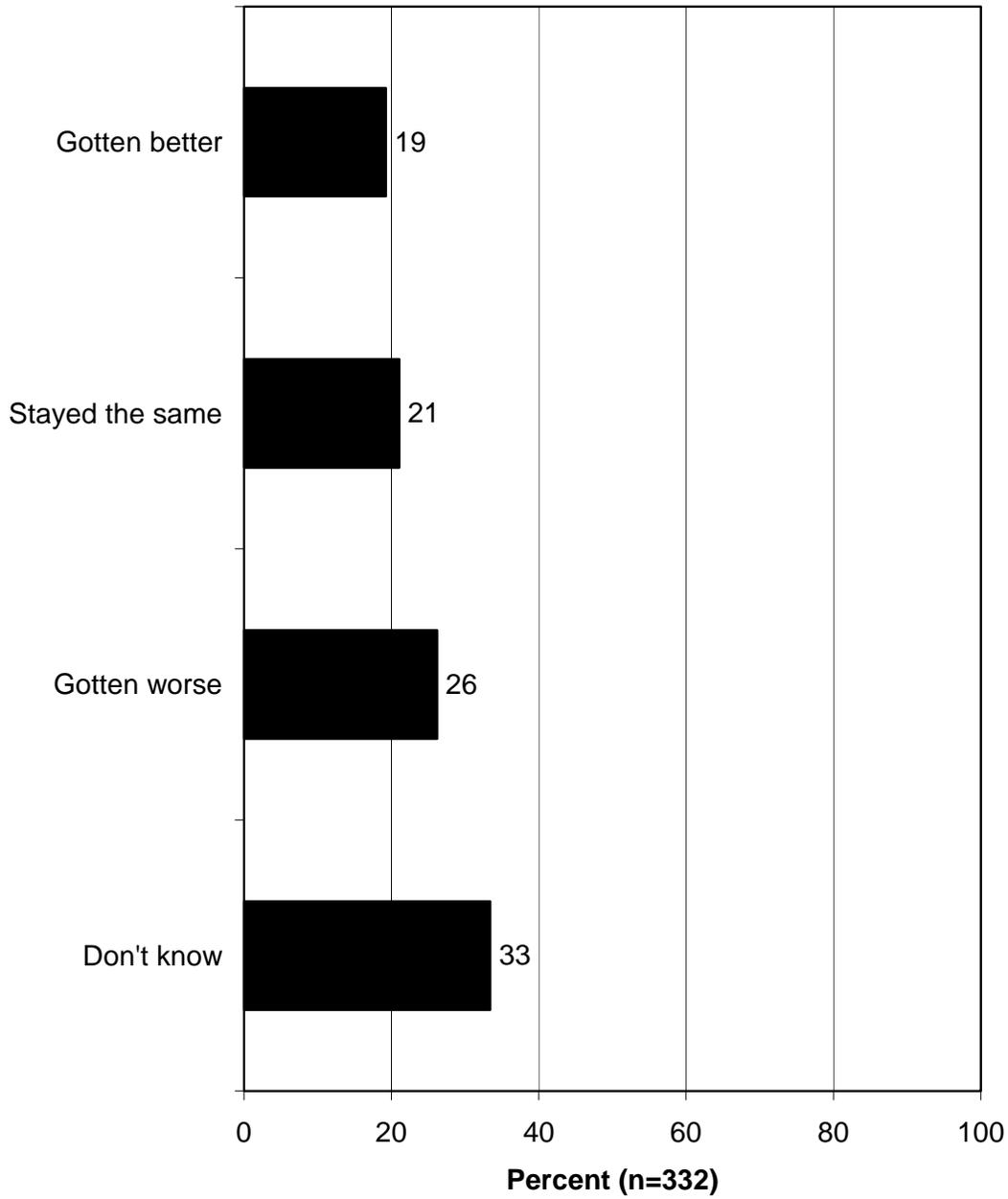
- The State Forest Management Plans should secure the greatest permanent value to the citizens of Oregon by providing healthy, productive, and sustainable forest ecosystems (71% strongly agree that it should follow this; 21% strongly agree that it does—a 50 percentage point gap);
- The State Forest Management Plans should recognize that ecosystem restoration and watershed health are among key goals (70% strongly agree that it should follow this; 24% strongly agree that it does—a 46 percentage point gap).
- The State Forest Management Plans should acknowledge the interests of the counties from which most of the Board of Forestry lands were originally acquired (38% strongly agree that it should follow this; 9% strongly agree that it does—a 29 percentage point gap).
- The State Forest Management Plans should recognize that the State Forests are intended to be an important contributor to timber supply for present and future generations (55% strongly agree that it should follow this; 24% strongly agree that it does—a 31 percentage point gap).
- The State Forest Management Plans should be developed with input from a variety of interested parties (65% strongly agree that it should follow this; 19% strongly agree that it does—a 46 percentage point gap).
- The State Forest Management Plans should consider the overall biological diversity of State Forest lands, including the variety of life and accompanying ecological processes (63% strongly agree that it should follow this; 17% strongly agree that it does—a 46 percentage point gap).

Davis, Hibbitts & Midghall, Inc. (2006) found that approximately 60% of Oregonians agree that Oregon does a good job of enforcing forest protection laws, with about a third of those strongly agreeing. This result is similar to previous surveys by Davis, Hibbitts & McCaig, Inc. (2002) in which 59% of Oregonians agreed with this statement in 1999 and 66% agreed in 2002.

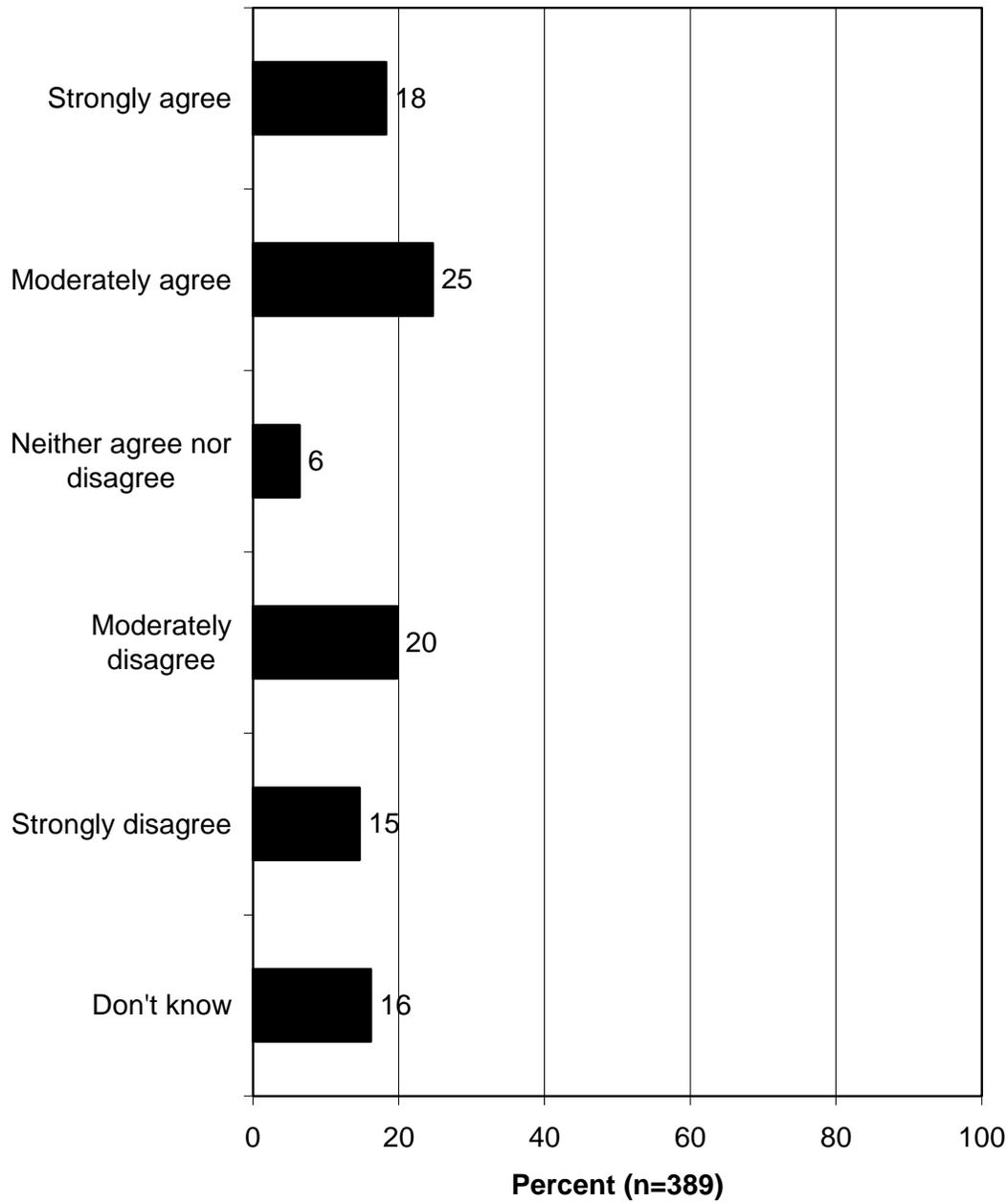
Q126. Some people say that Oregon generally has a balanced approach to forest management, while other people feel the approach is out of balance. Which best describes your opinion?



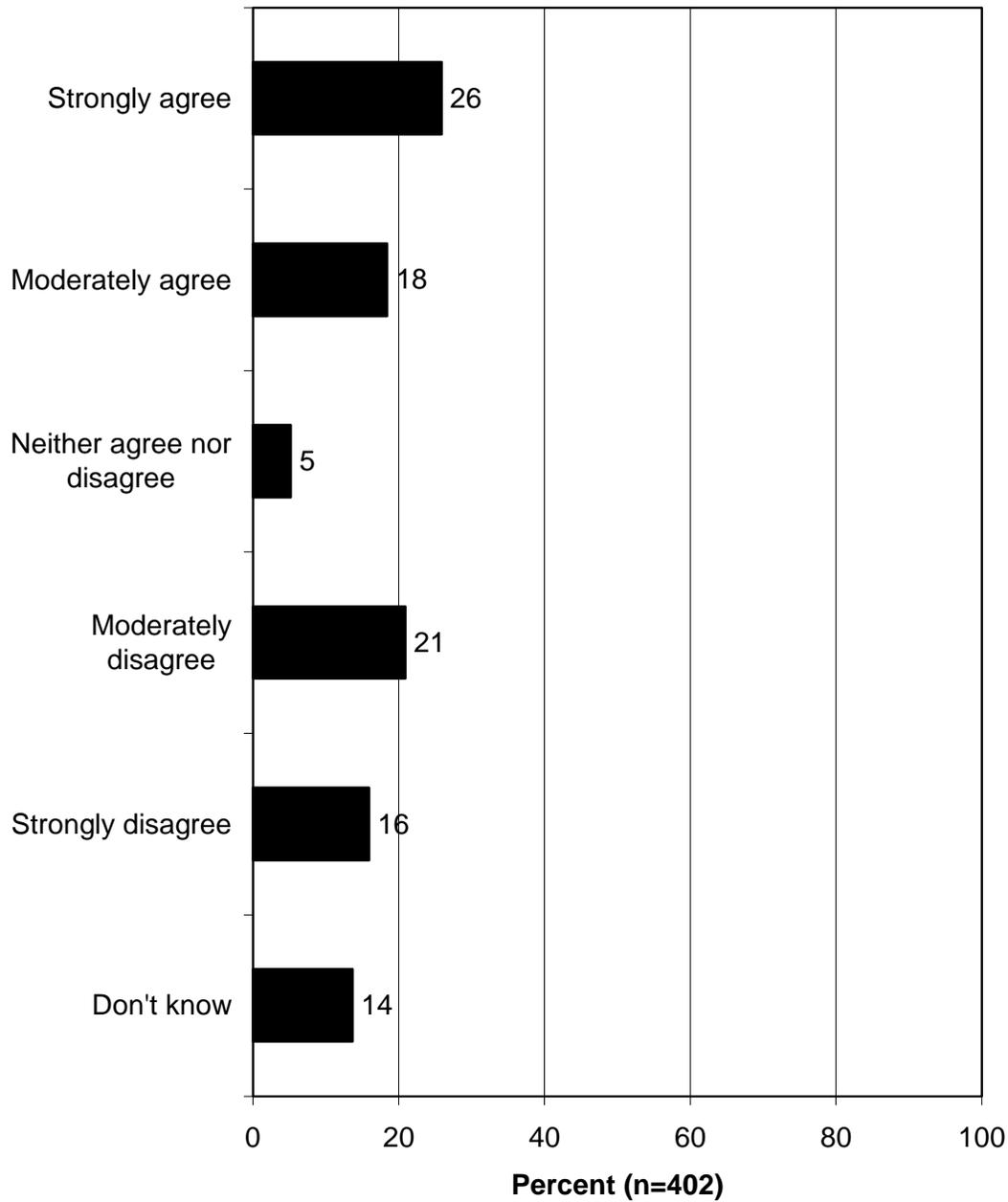
Q129. Has forest management on state-owned land gotten better, stayed the same, or gotten worse in Oregon in the past 10 years?



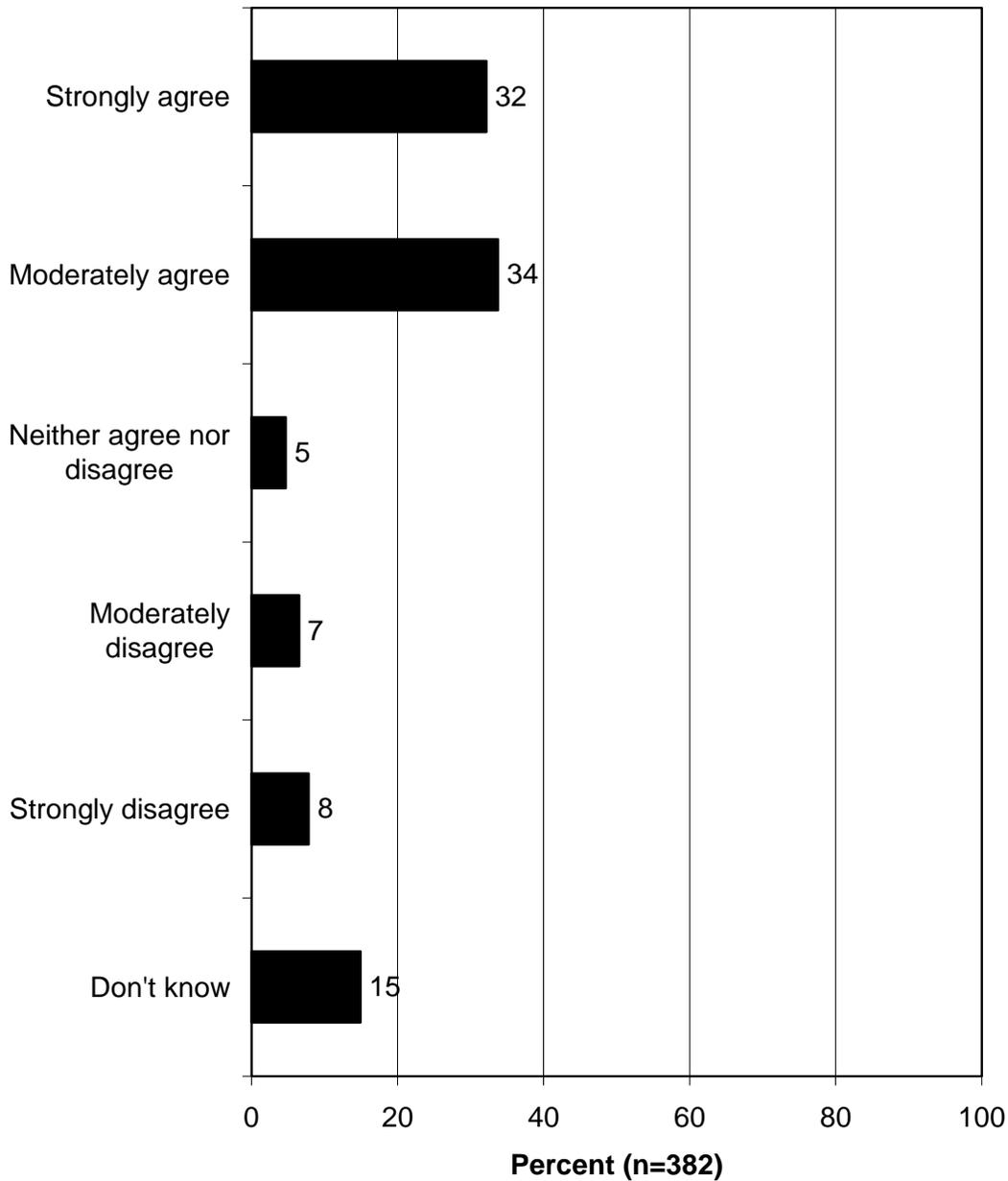
Q114. The Oregon Department of Forestry has allowed economic interests to be more important than environmental interests. (Do you agree or disagree with this statement?)



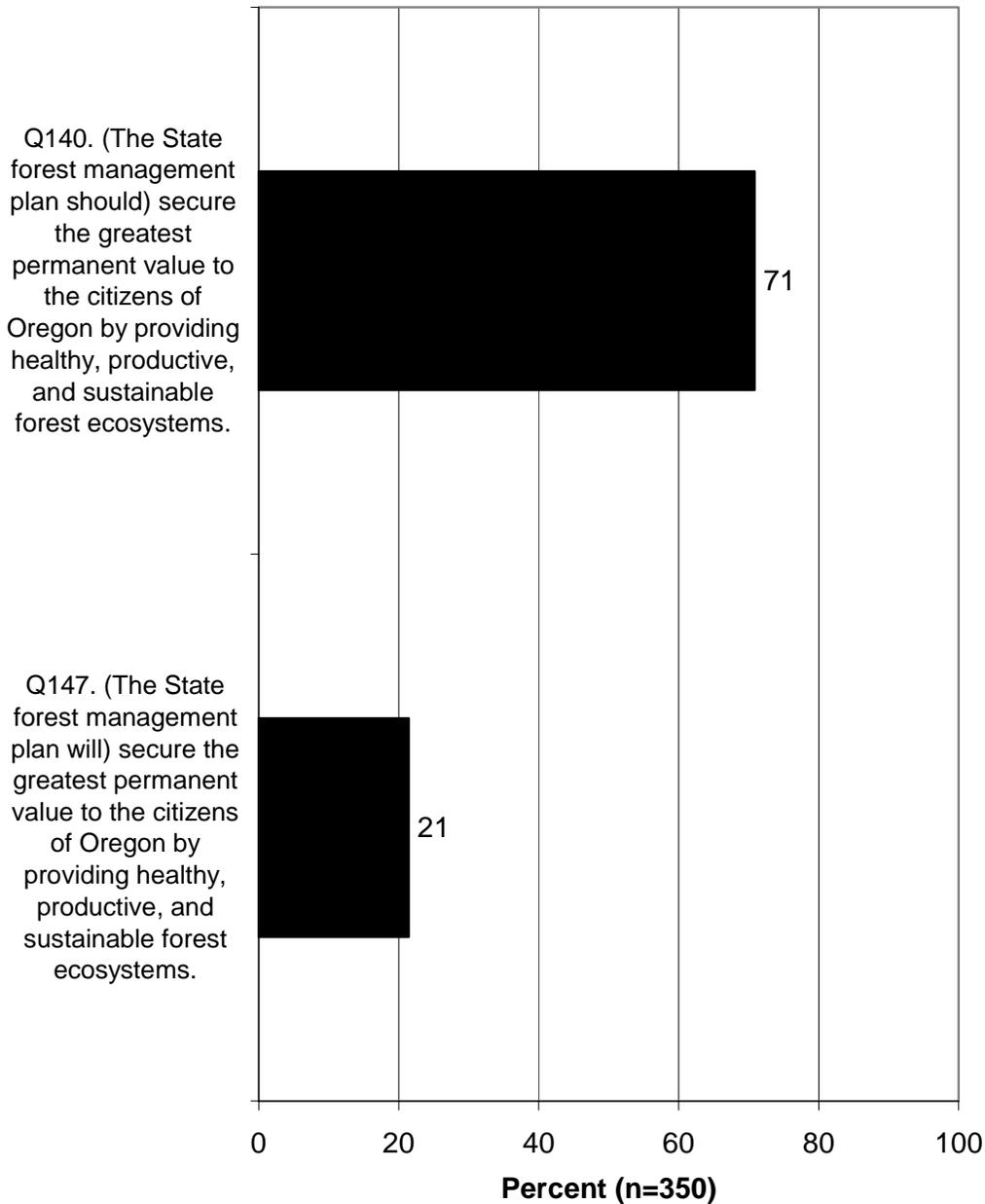
Q121. The Oregon Department of Forestry has allowed environmental interests to be more important than economic interests. (Do you agree or disagree with this statement?)



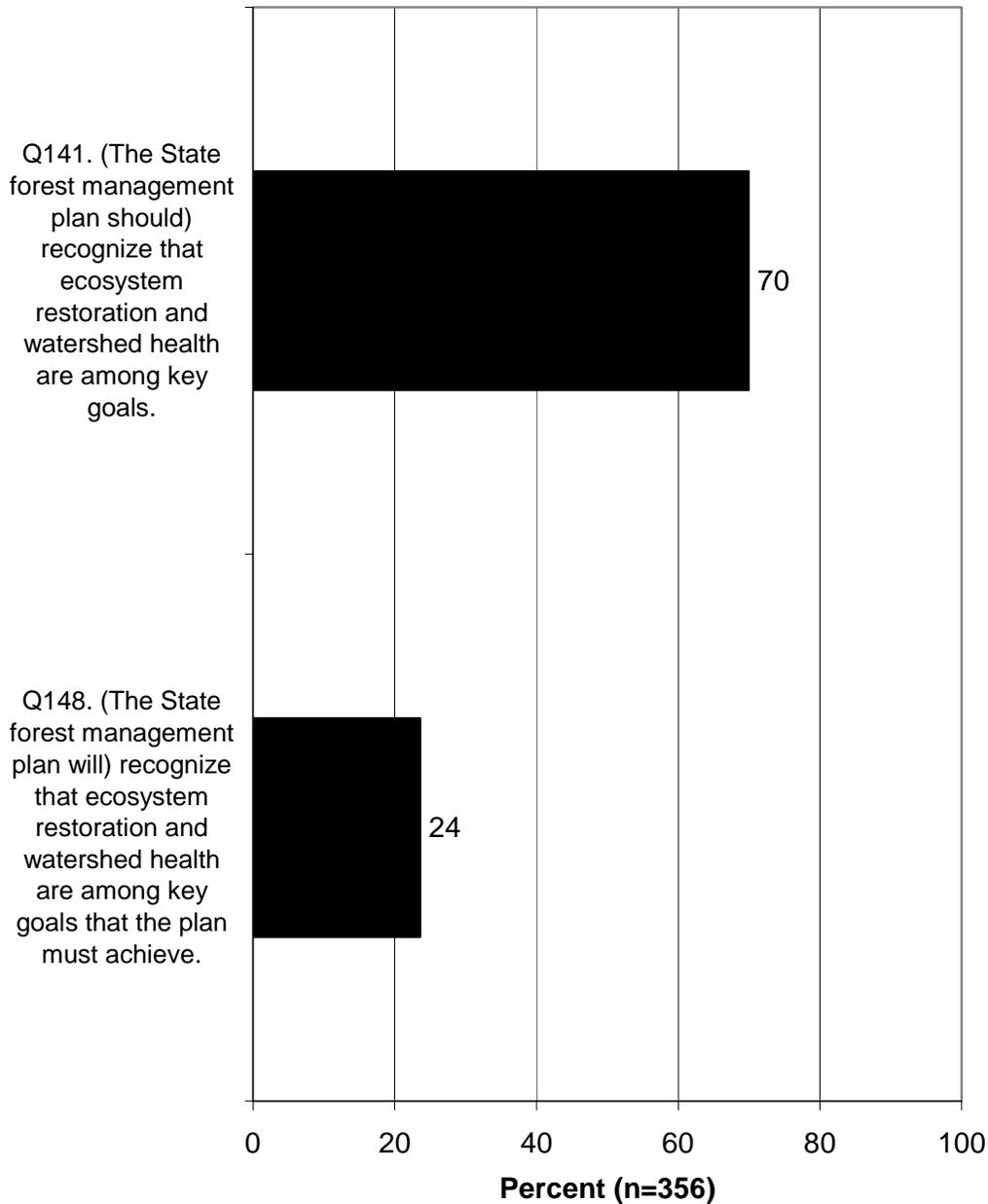
Q120. Oregon's forest protection laws and regulations have changed in the past decade to provide greater protection for fish, wildlife, and water quality. (Do you agree or disagree with this statement?)



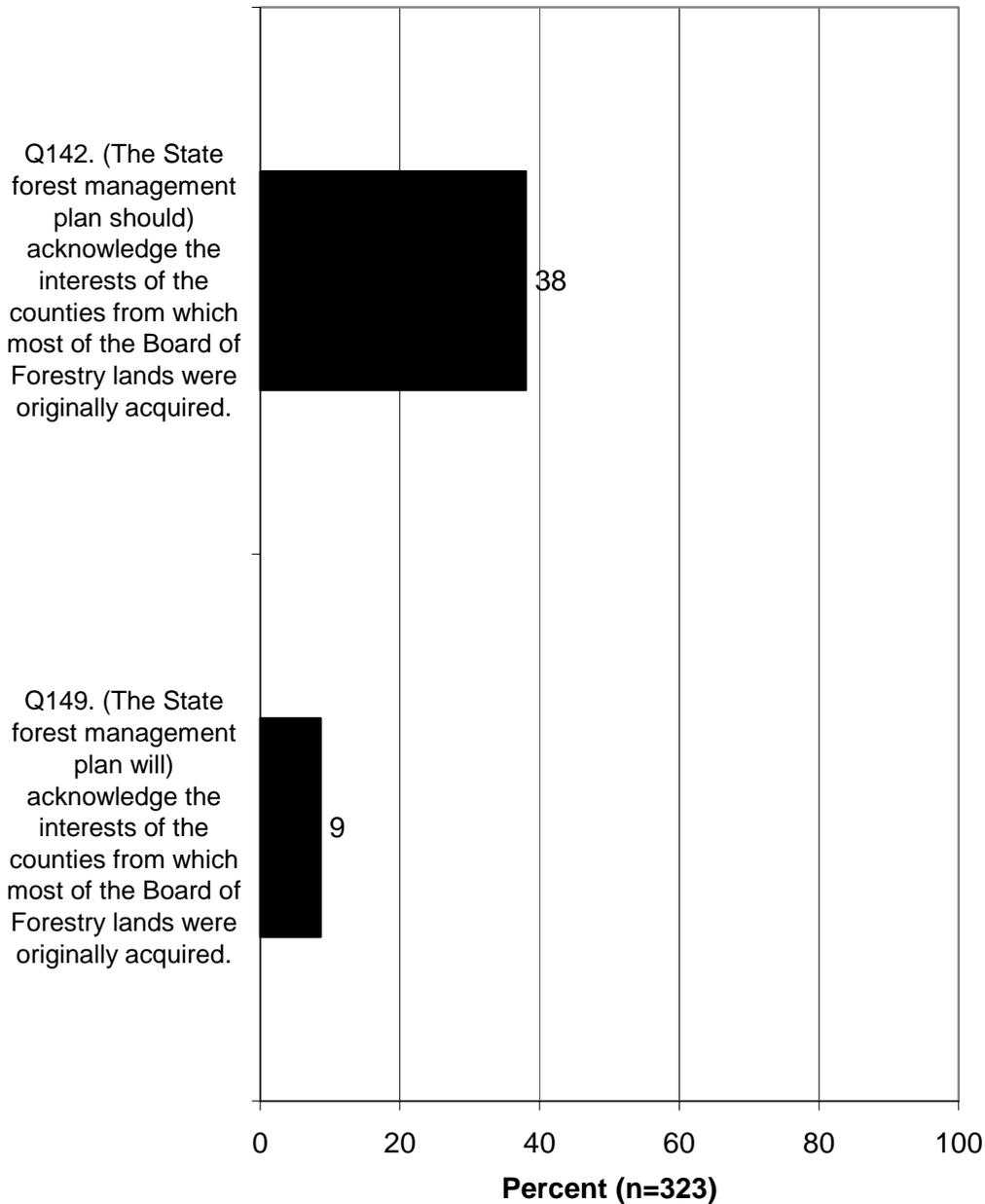
Q140, Q147. Percent who strongly agree that the following should be a guiding principle of State forest management plans versus the percent who strongly agree that State forest management plans actually follow the guiding principle.



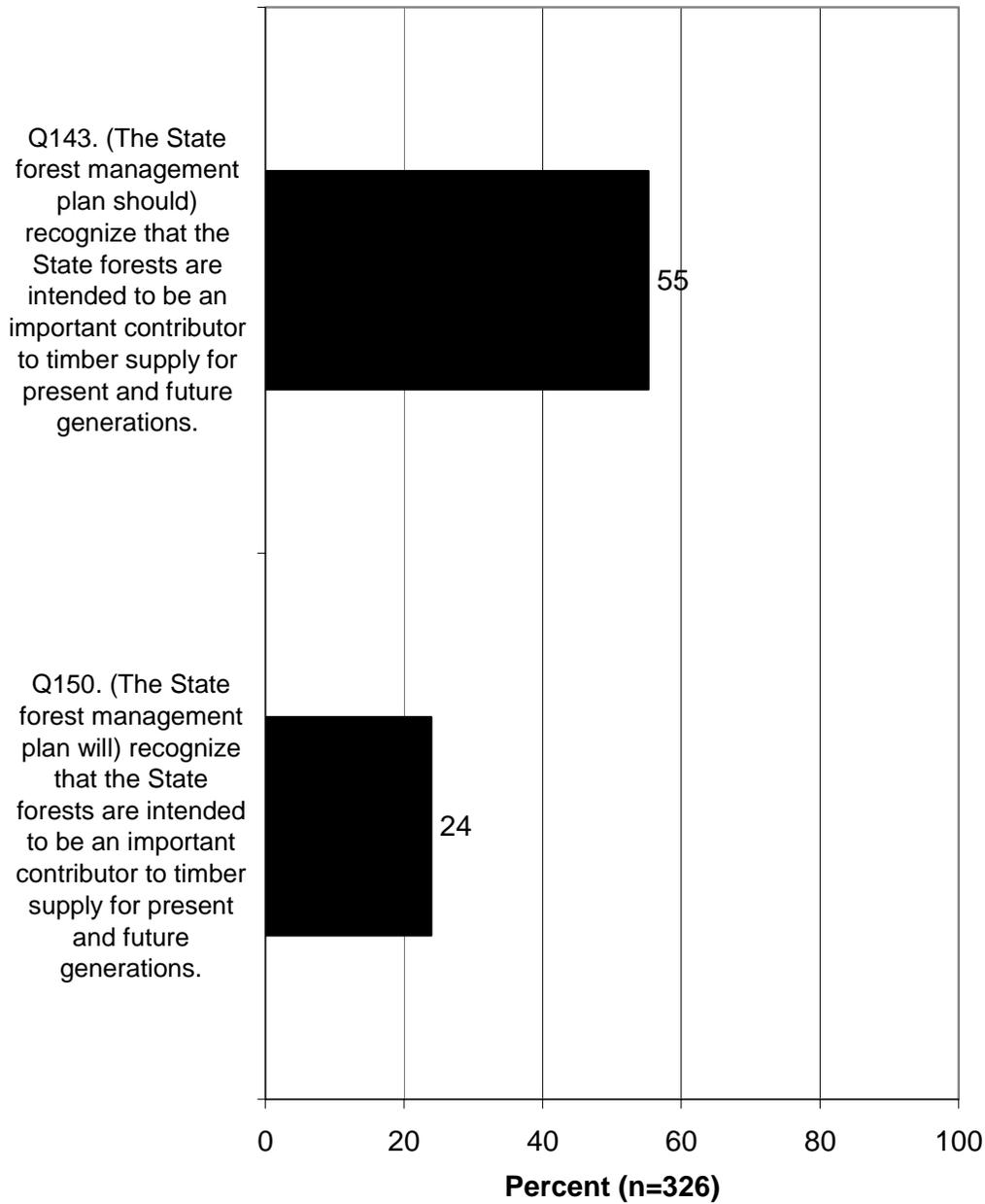
Q141, Q148. Percent who strongly agree that the following should be a guiding principle of State forest management plans versus the percent who strongly agree that State forest management plans actually follow the guiding principle.



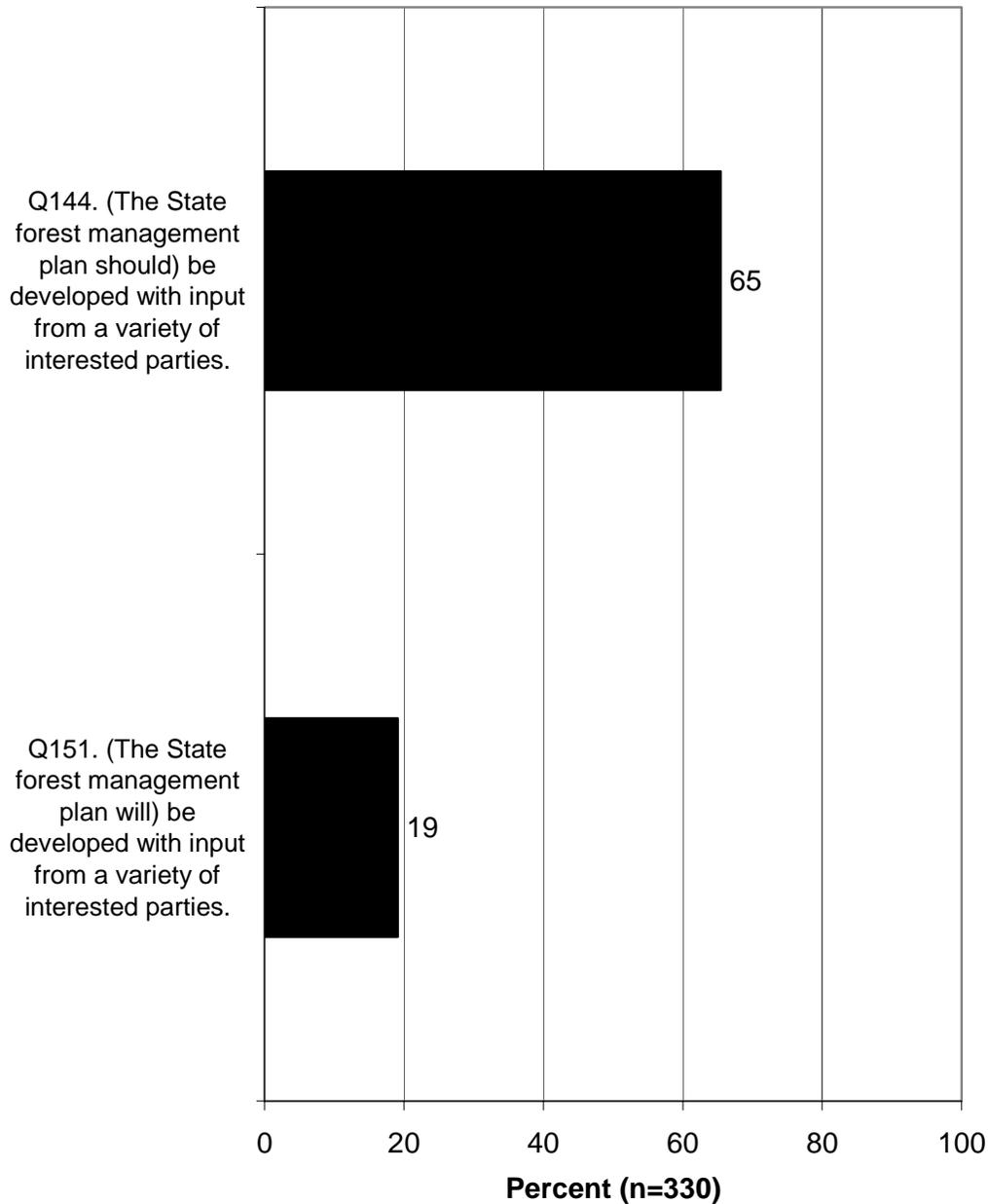
Q142, Q149. Percent who strongly agree that the following should be a guiding principle of State forest management plans versus the percent who strongly agree that State forest management plans actually follow the guiding principle.



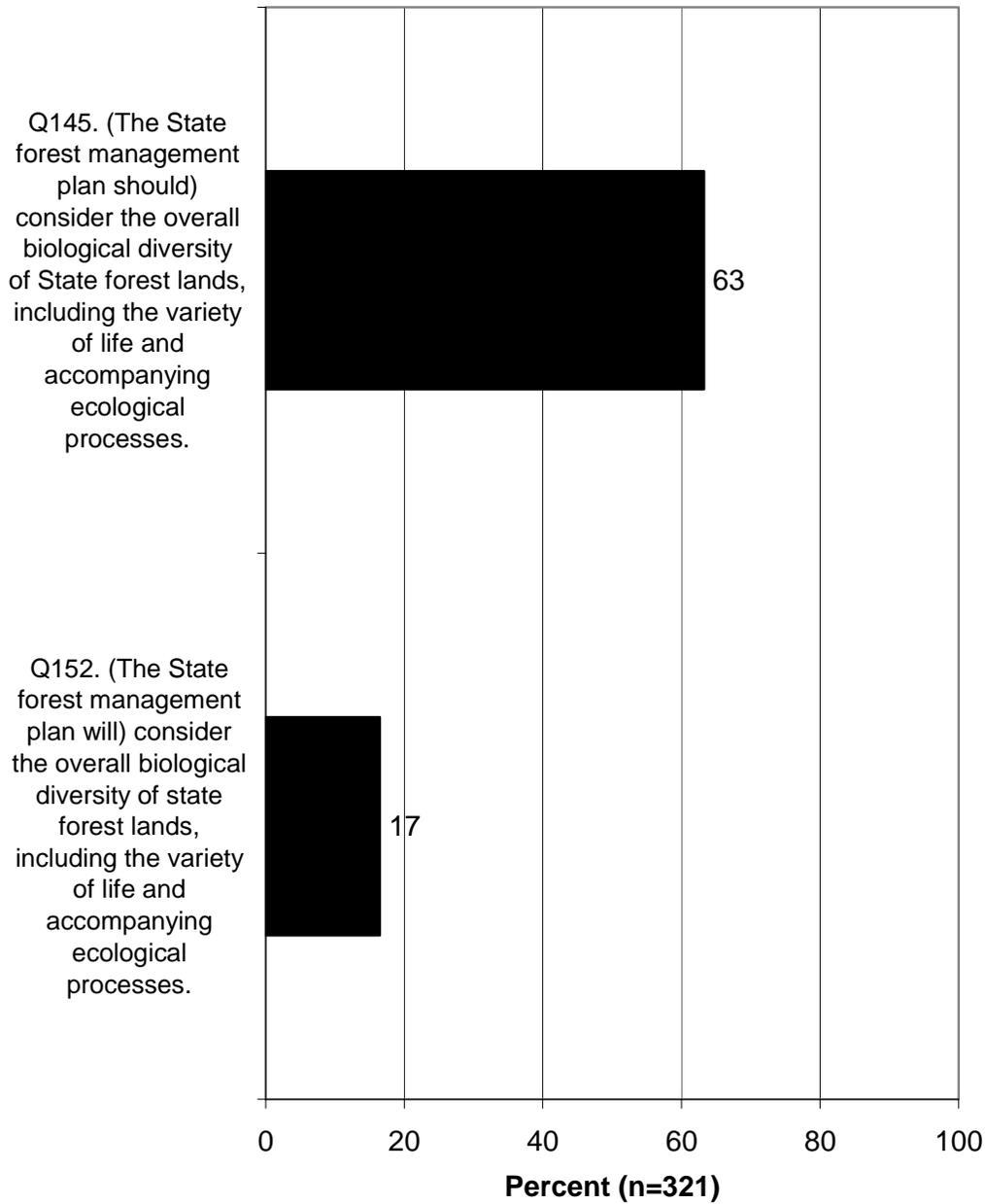
Q143, Q150. Percent who strongly agree that the following should be a guiding principle of State forest management plans versus the percent who strongly agree that State forest management plans actually follow the guiding principle.



Q144, Q151. Percent who strongly agree that the following should be a guiding principle of State forest management plans versus the percent who strongly agree that State forest management plans actually follow the guiding principle.



Q145, Q152. Percent who strongly agree that the following should be a guiding principle of State forest management plans versus the percent who strongly agree that State forest management plans actually follow the guiding principle.

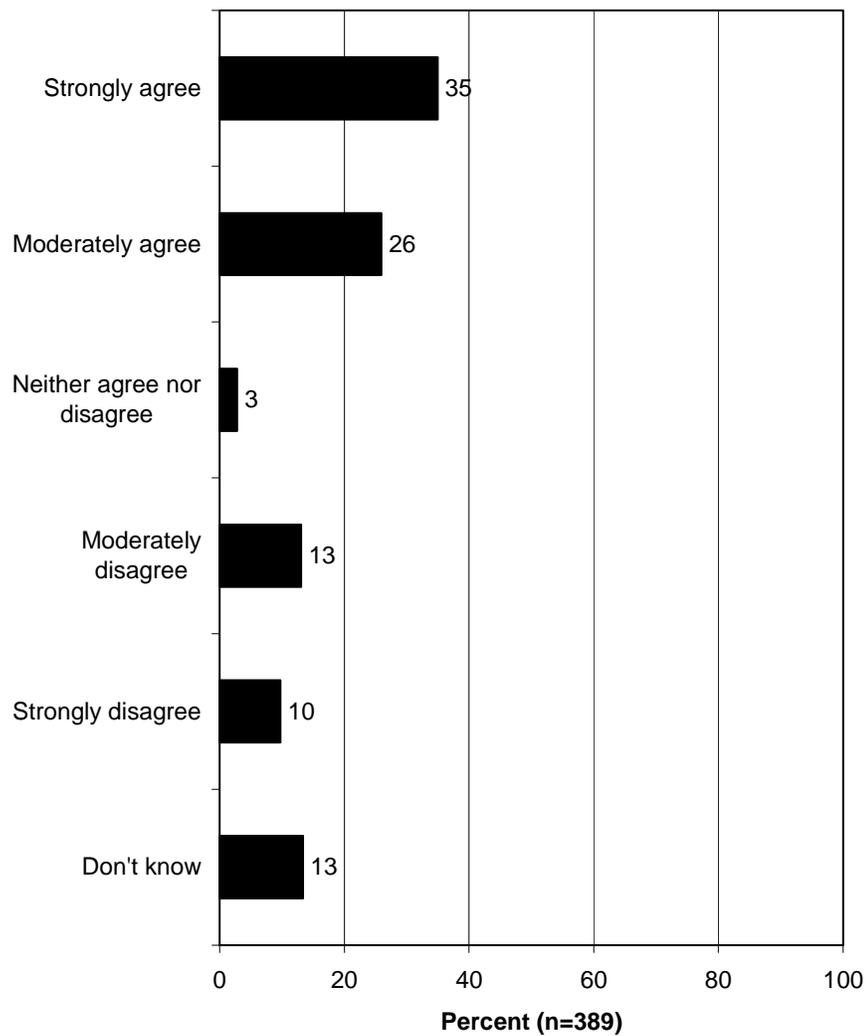


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- **The single finding below is important in the ODF's efforts to distinguish itself from other forest management stakeholders, such as private interests and the federal government.**

In a question that touches on residents' knowledge of Oregon State Forests, a majority of Oregonians (61%) agree that Oregon State Forests are well marked, while 23% disagree.

Q125. Oregon State forests are well marked. (Do you agree or disagree with this statement?)



OREGON RESIDENTS' OPINIONS ON THE IMPORTANCE OF FORESTS

IMPORTANCE OF FORESTS AND FOREST MANAGEMENT OVERALL

- **Although forest management is not the top issue of concern relative to all the various issues facing Oregon, it is still quite important to Oregonians, particularly in light of the economic importance forests play in Oregon: an overwhelming majority of Oregonians express concern about forest management. Furthermore, they are nearly unanimous in agreement that State Forest Management Plans should secure the greatest permanent value to the citizens of Oregon.**

Although forest management ranks relatively low on a list of seven areas of concern for Oregon residents, other areas that forests affect are relatively highly ranked: public education, which is related because timber sales from Oregon State Forests provide funding for public education (the top ranked area of concern), the environment (third ranked), and the economy (fourth ranked). Nonetheless, despite the low ranking relative to the other areas of concern, a majority of Oregon residents (57%) are very concerned about forest management, and another 33% are somewhat concerned (for a total of 90% concerned); only 8% are not at all concerned about forest management.

The importance that Oregonians place on forests is manifested in the finding that nearly all Oregon residents agree (92%) that the State Forest Management Plans should secure the greatest permanent value to the citizens of Oregon by providing healthy, productive, and sustainable forest ecosystems. Only 3% disagree with this guiding principle of the State Forest Management Plans. (Note, however, as previously discussed, that only 51% agree that the State Forest Management Plans actually follow this guiding principle, while 26% disagree.)

Regarding the general values of forests: *“That’s why I live here. I had a real good chance to see the rest of the world, and I came back here.”*

–focus group participant, Coos Bay

“I wouldn’t live anywhere else.”

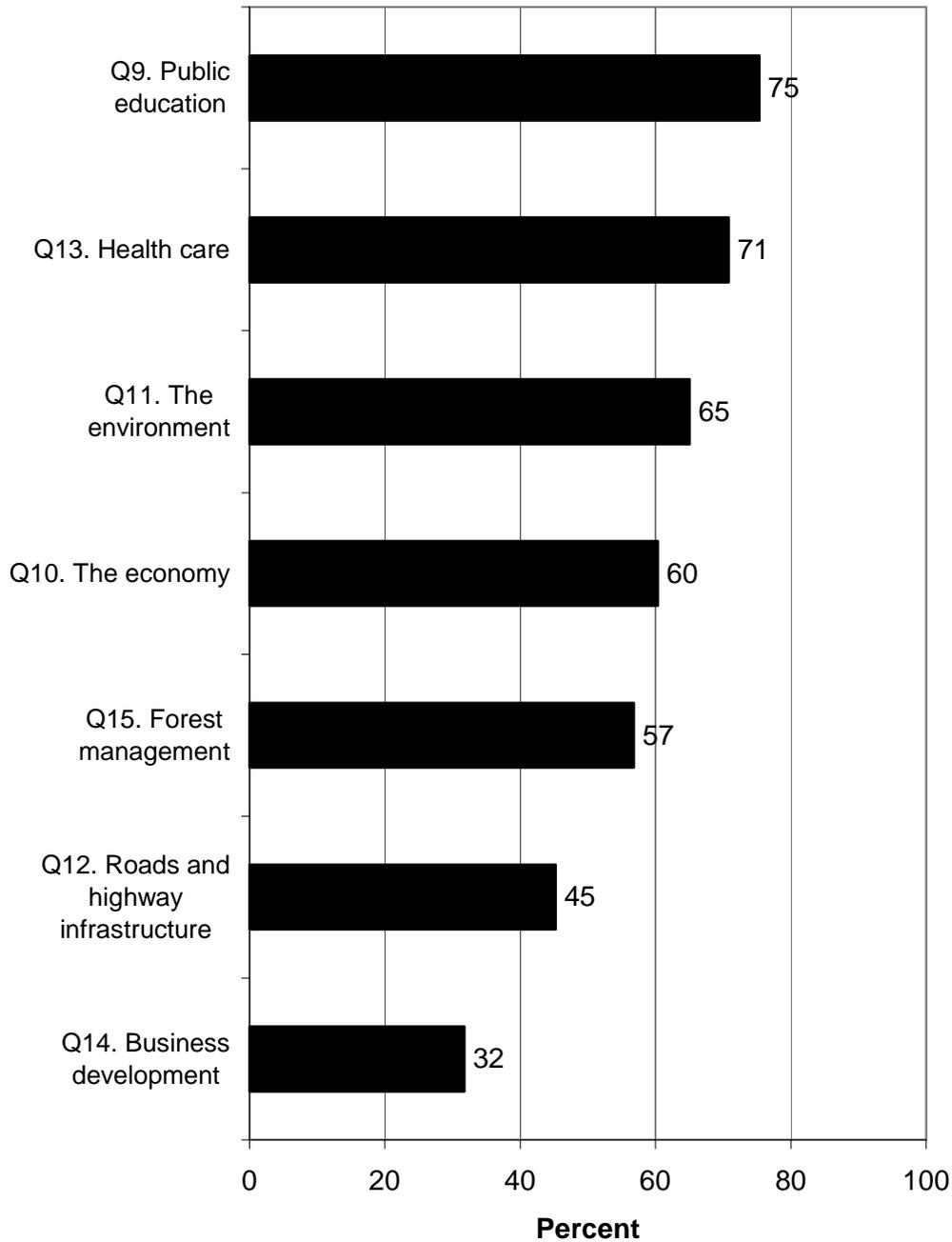
–focus group participant, Portland

“It’s one of the reasons I stayed in Oregon.”

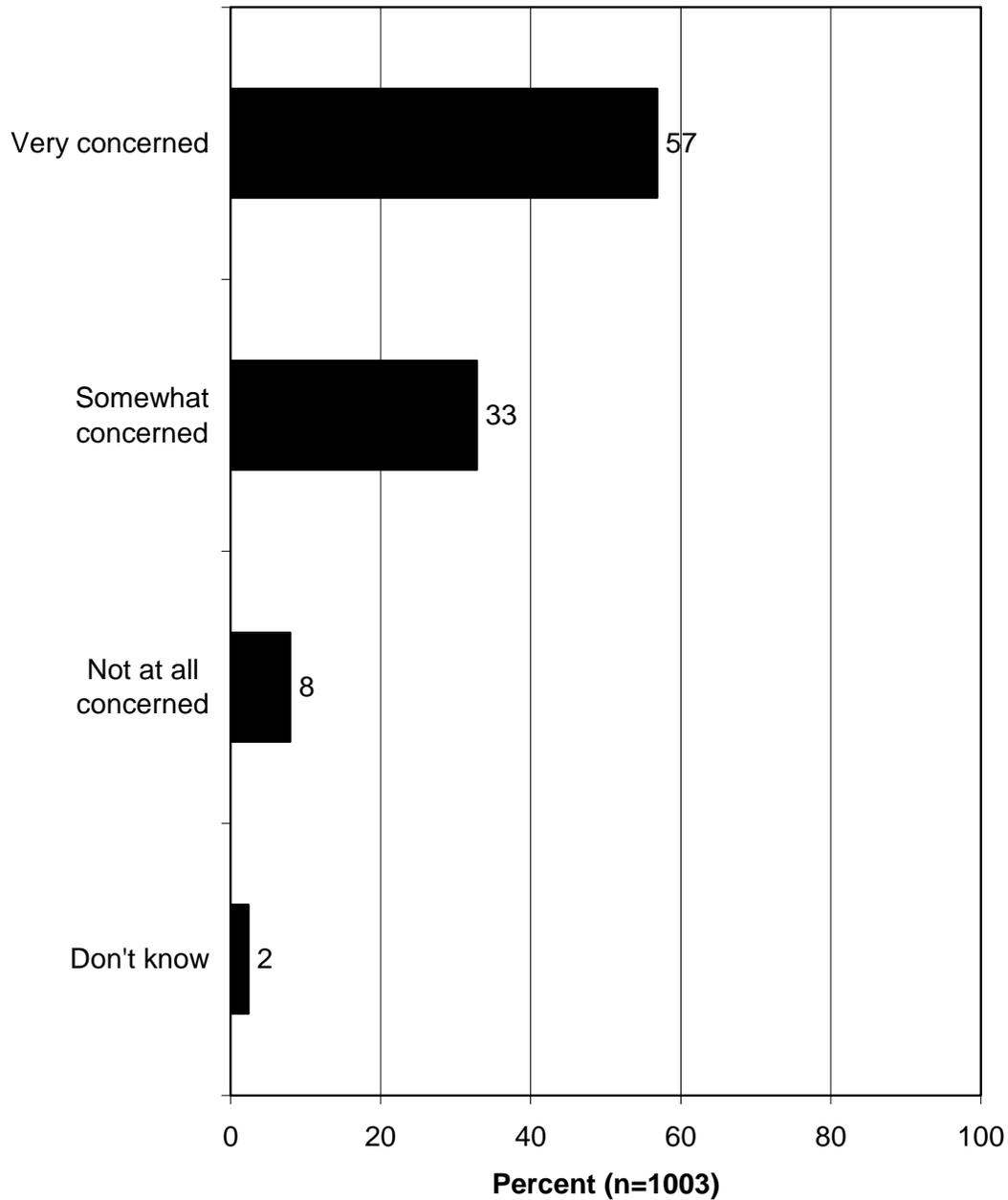
–focus group participant, Portland

Davis, Hibbitts & Midghall, Inc. (2006) surveyed Oregonians about a variety of forestry issues, which showed the perceived importance of forests to Oregonians: over half of Oregonians in that survey *strongly* agreed that Oregon’s forest resources are an important part of Oregon’s overall economic health. Furthermore, in a ranking of six possible trends in Oregon’s future (ranked by its perceived probability), this was ranked as the most probable.

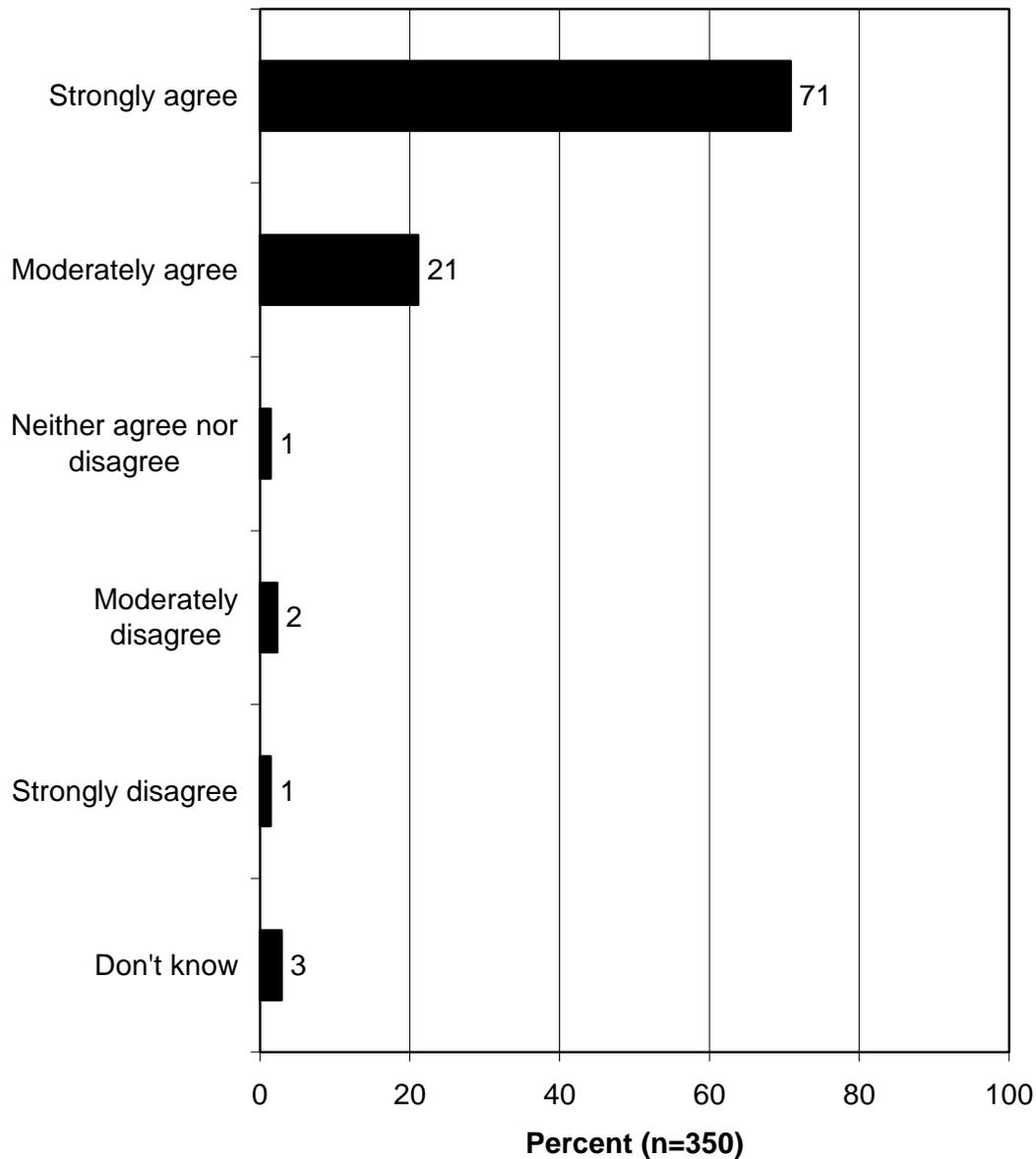
Q9-Q15. Percent who are very concerned about the following in Oregon.



Q15. Are you very, somewhat, or not at all concerned about forest management in Oregon?



Q140. The State forest management plan should secure the greatest permanent value to the citizens of Oregon by providing healthy, productive, and sustainable forest ecosystems. (Do you agree or disagree that this should be a guiding principle of State forest management plans?)



IMPORTANCE OF THE WOOD PRODUCTS INDUSTRY

- **Statistics show that the wood products industry is important to Oregon (accounting for \$343.4 million in wood products exports in 2005 and directly employing at least 32,500 people), as do survey results (22% say that they work or a family member works in the wood products or related industry). Furthermore, Oregonians support the state’s wood products industry.**

A substantial percentage of Oregon residents (slightly more than 9%) work in the wood products industry or a related industry, and 18% have a family member who works in the wood products or a related industry. In total, 22% of Oregon residents work in the wood products or related industry and/or have a family member who does. Additionally, 8% of Oregon residents say that their work is completely related or dependent on forests, another 12% say that their work is somewhat related or dependent on forests, and 23% of Oregon residents say that a family member’s work is related to or dependent on forests. Finally, the sum of all these reveals that more than a third of Oregon residents (34%) say one or more of the following: that he/she personally or a family member works in the wood products or related industry or works in another forest-related occupation.

“It’s been a logging and timber community forever.”

–focus group participant, Coos Bay

Regarding the importance of the wood products industry and concerns facing Oregon: *“Logging rates pretty high.”*

–focus group participant, Coos Bay

Davis, Hibbitts & McCaig, Inc. (2002) asked Oregonians about their buying preferences regarding wood products, and 77% said, if given a choice, that they would buy Oregon wood, compared to 6% who preferred wood from other regions. Many of those who preferred Oregon wood said, in follow-up, that their reason is that buying Oregon wood is good for Oregon’s economy. Most of those few respondents who preferred wood from other regions said their reasoning was to ensure that Oregon’s forests are not depleted. In a 2001 survey by Davis, Hibbitts & McCaig, Inc. (2001), 57% of Oregonians said that they would prefer to purchase wood and paper products that come from Oregon trees, while only 8% preferred such products from another state or country. In short, both surveys, although different in percentages, found preference for Oregon trees for wood and paper products over trees from other regions or countries.

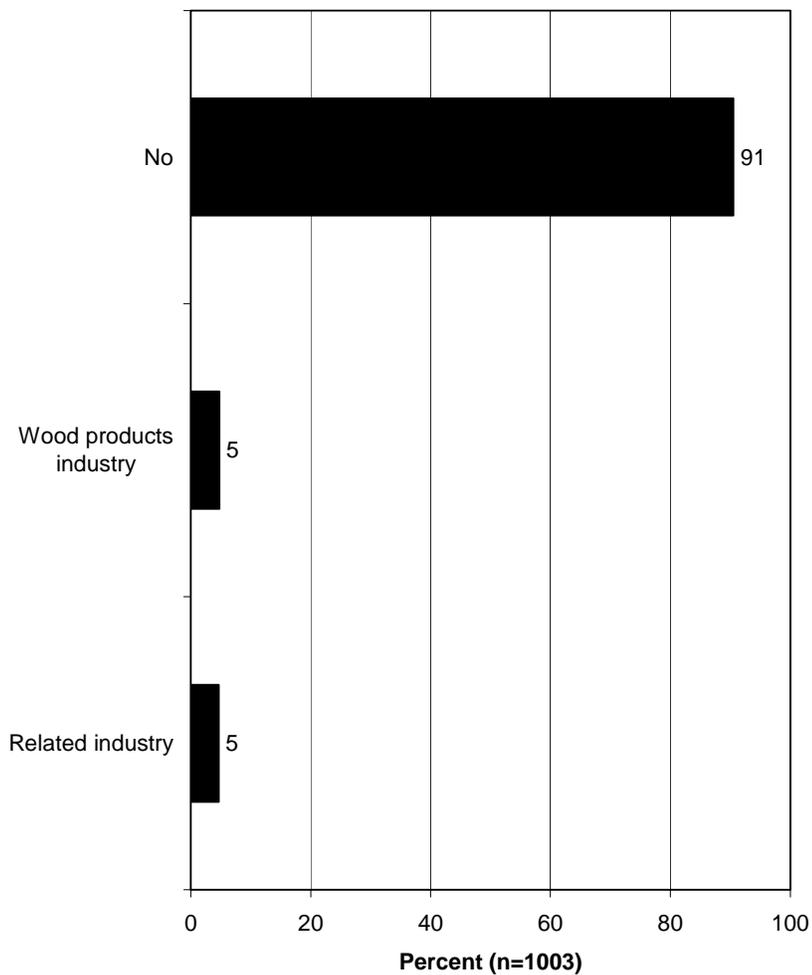
Regarding the best way to meet future demand for paper and wood products, Oregonians are much more likely to say that it is better to harvest trees in places like Oregon (68%) than to import wood from other countries (13%) (Davis, Hibbitts & McCaig, Inc., 2002).

The importance of the wood products industry and timber harvest on Board of Forestry Lands is shown by the amount of harvest on those lands in a single year (from July 1, 2004, to June 30, 2005): the harvest from these lands totaled 281.7 million board feet with a gross value of approximately \$89.5 million, which produced revenues for the Trust Counties

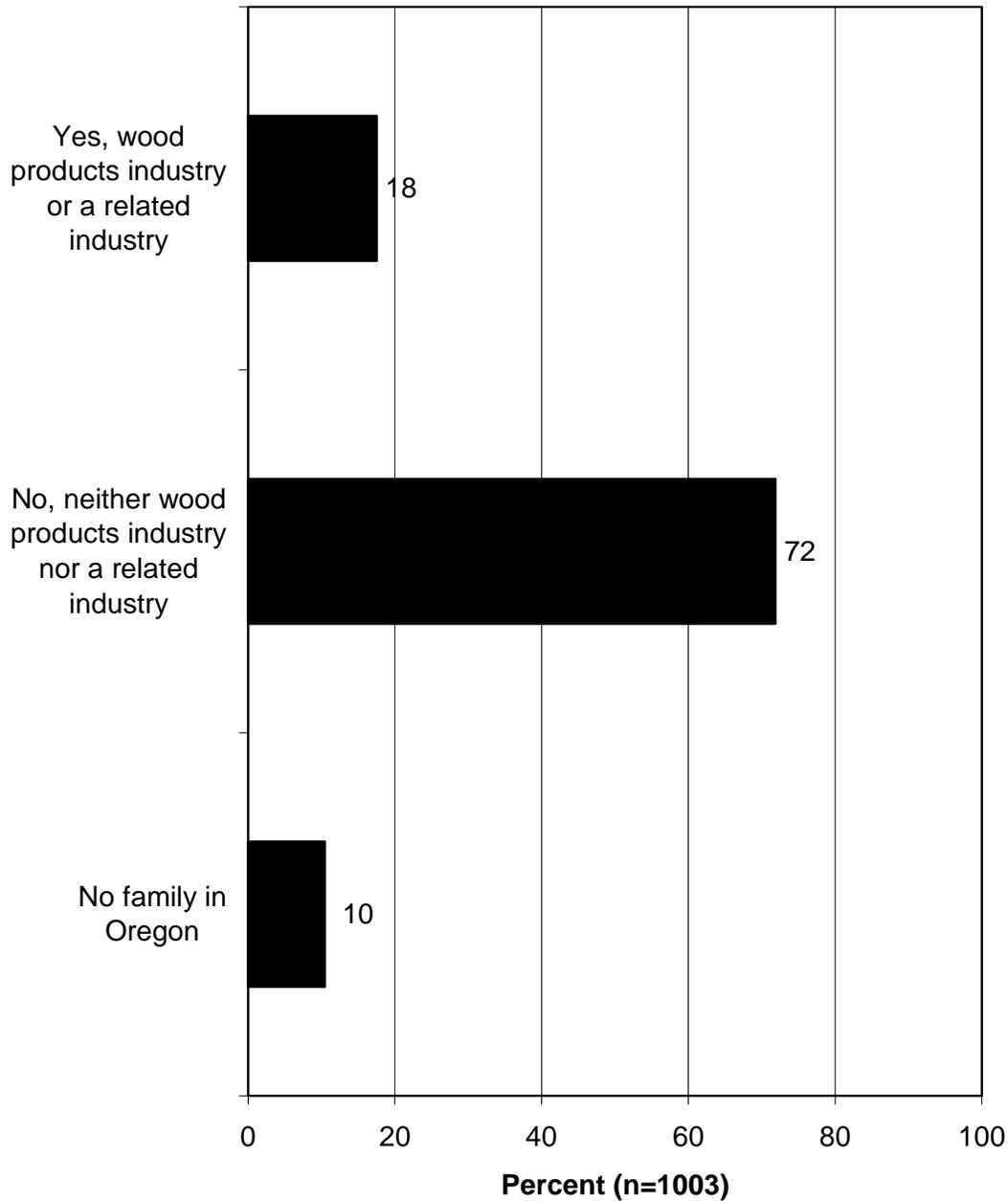
totaling \$48.6 million (Oregon Department of Forestry, 2005). In this time, Clatsop and Tillamook Counties accounted for approximately two-thirds of the harvest from Board of Forestry Lands. Over the period from 2001 to 2005, \$223.6 million in revenue has been generated for the Trust Counties (Oregon Department of Forestry, 2005).

Another indicator of the importance of the wood products industry is provided by Oregon's Office of Economic Analysis, which published statistics showing 32,500 Oregon workers under "Durable Manufacturing, Wood Products" (2006). The same tabulation lists 9,500 workers under "Natural Resources and Mining," but it is not clear if any of these workers are in the timber industry. The value of wood products exports is substantial in Oregon: in 2005, Oregon exported \$343.4 million in wood products (Office of Economic Analysis, 2006).

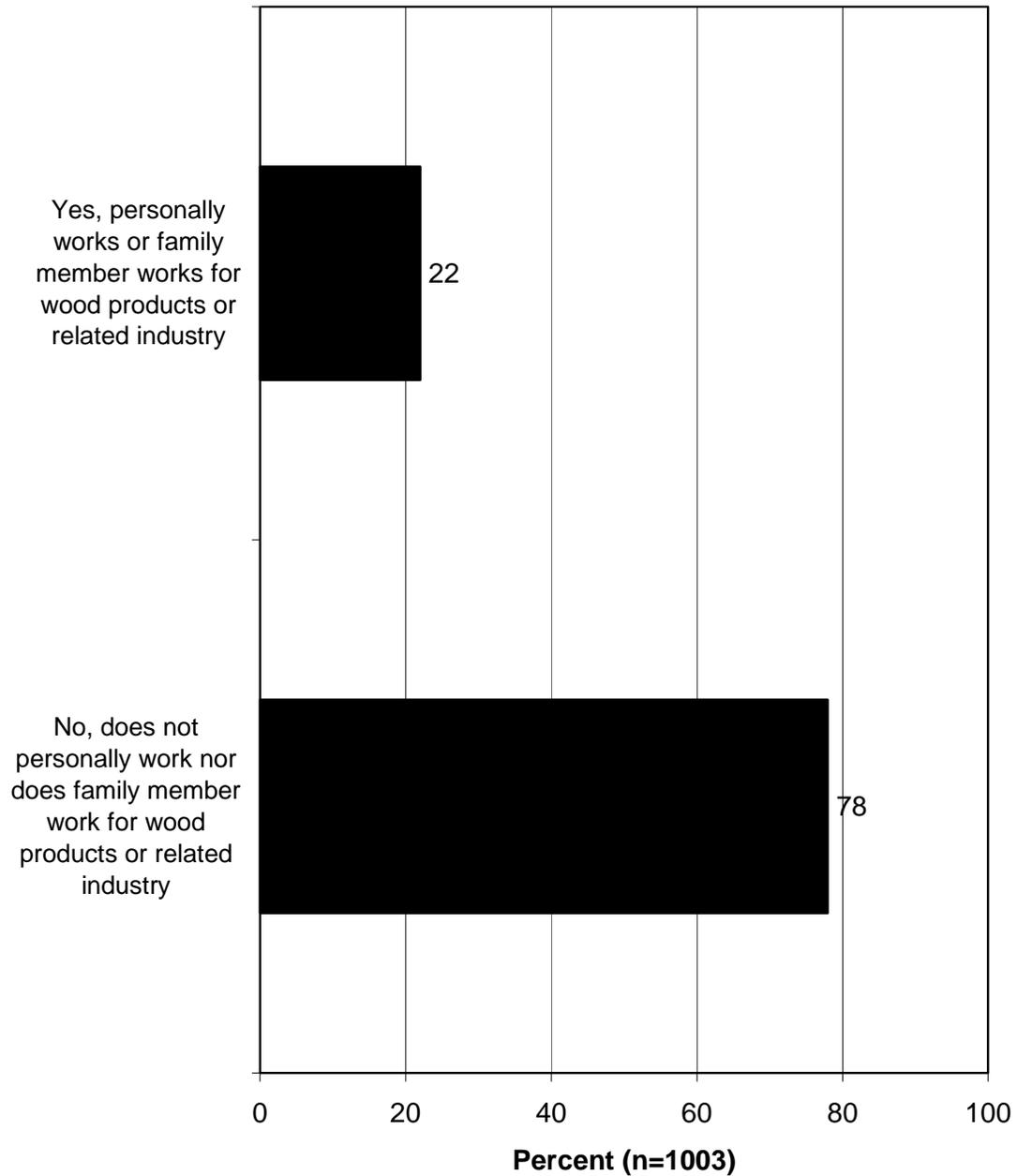
Q92. Do you work for the wood products industry or a related industry?



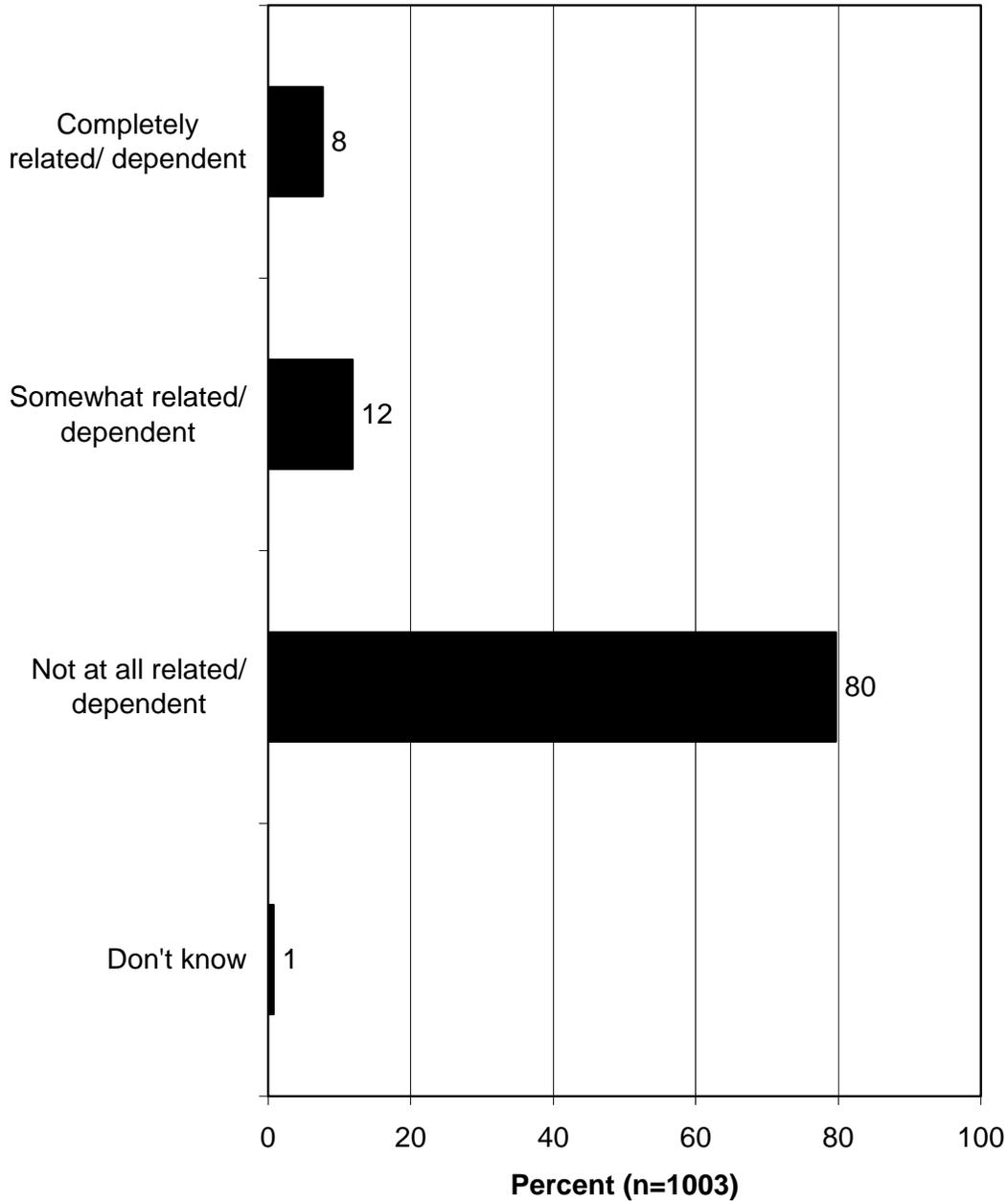
**Q95. Do any family members in Oregon work for the wood products industry or a related industry?
(Among all respondents.)**



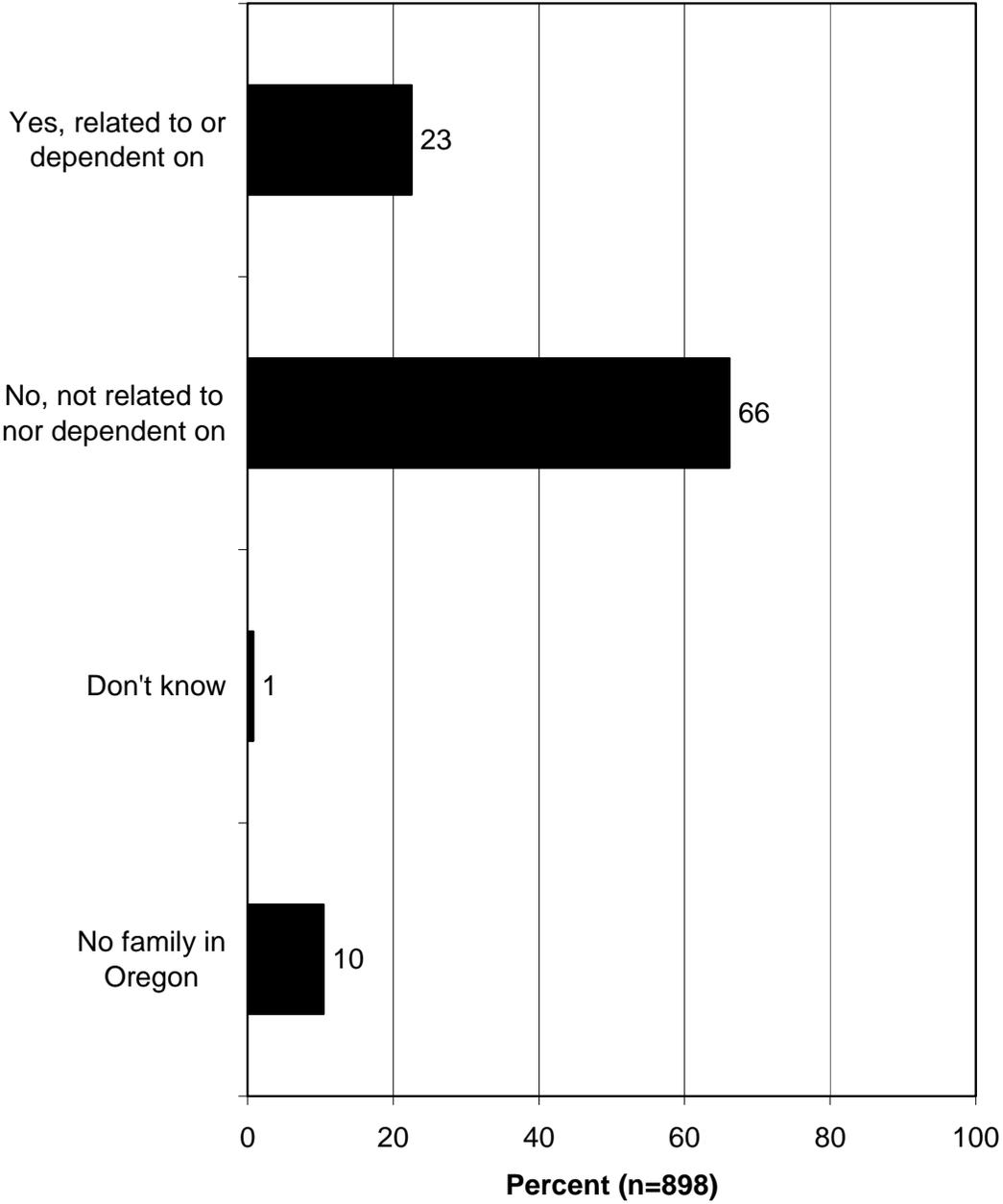
**Works for the wood products or related industry or
family member works for the wood products or
related industry.**



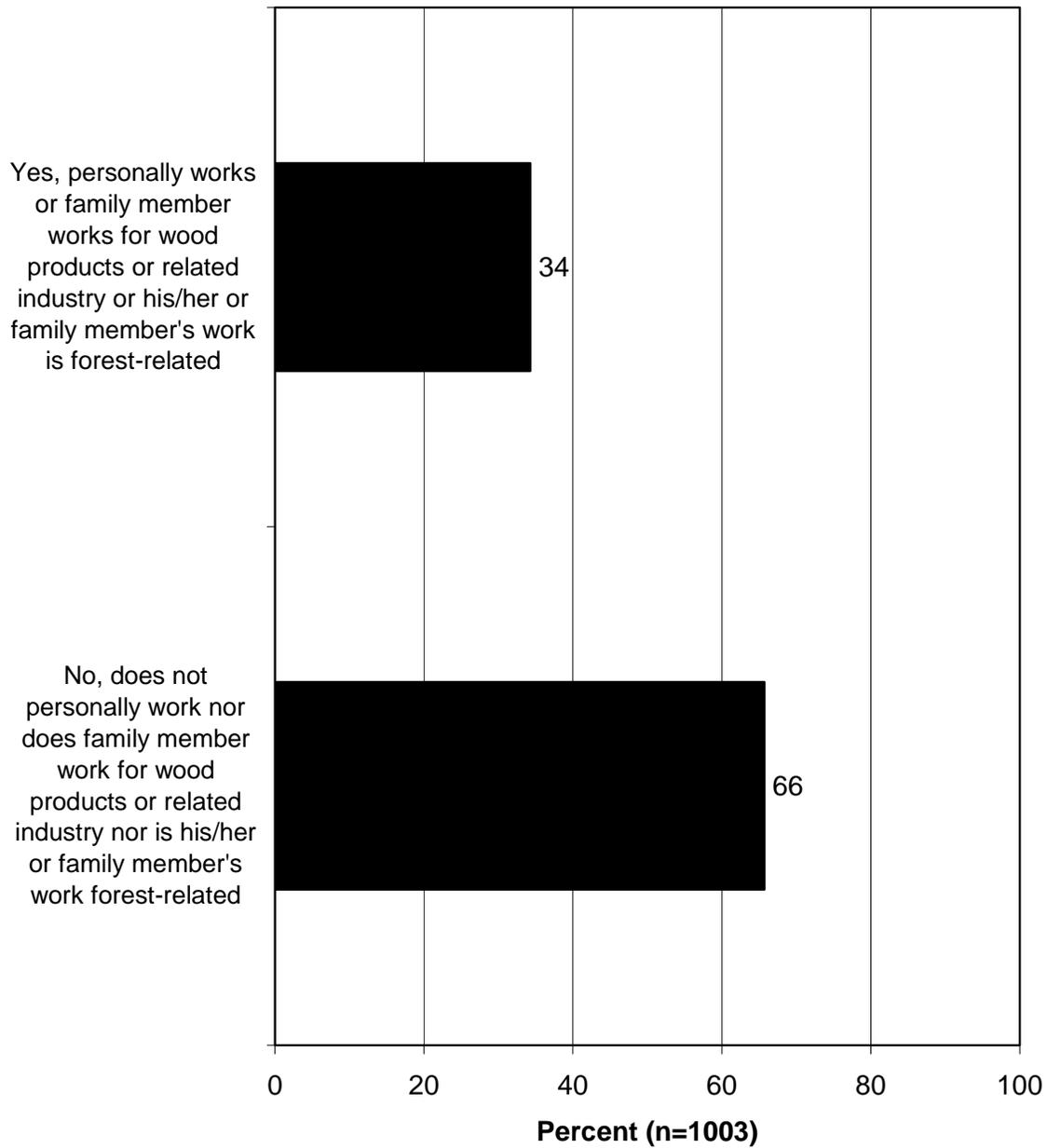
Q96. Is your work related to or dependent on forests (e.g., hunting outfitter, forest manager)?



Q99. Are any family members' work related to or dependent on forests? (Among all respondents.)



Works for the wood products or related industry or his/her work is dependent on forests or family works for wood products industry or family member's work is forest-related.



IMPORTANCE OF FORESTS FOR RECREATION

- **Oregon forests, in addition to being important for the wood products industry, are important to Oregonians for recreation. A majority of Oregonians agree that forest-based recreation is economically important to Oregon and have recreated in an Oregon State Forest in the past 2 years. Furthermore, Oregonians, as a whole, are as active (in fishing and hunting, for example) or more active (in hiking, particularly) in outdoor recreation than are residents of other states in the U.S.**

An overwhelming majority of Oregon residents (88%) agree that forest-based recreation is of great economic importance to Oregon. In a related finding, twice as many Oregon residents think that forest recreational opportunities have gotten better (38%) than think they have gotten worse (19%) over the past 10 years. In a related question, 43% of Oregon residents say Oregon's economy moving away from using forests for wood production would be desirable; however, 47% say this would be undesirable, reflecting an almost perfect split.

Two-thirds of Oregon residents (67%) have visited an Oregon State Forest in the past 2 years, most commonly for recreation. Although this percentage may seem high, keep in mind that two of the State Forests are in close proximity to Oregon's largest city, and those State Forests lie in the pathway between Portland and the coast. Additionally, although the survey included statements reminding respondents that the questions pertained to *State* Forests, there may have been some confusion between State and National Forests, and this may have slightly inflated the percentage who indicated that they had visited a State Forest. Nonetheless, visitation is undoubtedly high, particularly when it includes those who viewed scenery without doing any other activities. The most common recreational activities in Oregon State Forests are viewing scenery (59% of all Oregon residents visited an Oregon State Forest to do this), hiking (47%), using established trails for hiking or biking (44%), wildlife viewing (42%), and camping (36%) in the past 2 years.

The survey asked Oregon residents about their participation in outdoor activities that can be forest-related (but are not necessarily forest-related) anywhere in Oregon. The ranking of activities anywhere in Oregon is nearly the same as in Oregon State Forests: viewing scenery (82%), wildlife viewing (66%), hiking (65%), using established trails for hiking or biking (58%), and camping (53%) are the most popular outdoor activities anywhere in Oregon.

Oregonians have a higher participation rate in hiking than do residents of other states, as shown in previous Responsive Management surveys: 22% of Kansas residents in a 1-year timeframe (2002b), 32% of Iowa residents in a 2-year timeframe (2006a), and 33% of Georgia residents in a 2-year timeframe (2005r).

Regarding fishing specifically, 42% of Oregon residents have fished in Oregon in the past 2 years, most commonly fishing for trout (excluding steelhead), salmon, and steelhead trout, and 20% fished in an Oregon State Forest.

According to the *National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*, 552,000 Oregonians 16 years of age or older participated in fishing in 2001, either in or out of state (U.S. Fish and Wildlife Service/U.S. Census Bureau, 2001). According to Federal Aid data, Oregon had 689,669 licensed anglers in 2001 and 684,517 in 2003 (U.S. Fish and Wildlife Service, Division of Federal Assistance, 2003).

Fishing participation in Oregon is commensurate with fishing participation elsewhere, as found in previous Responsive Management surveys: 30% to 32% in Arizona in a 3-year timeframe (2004f, 2006b), 40% in West Virginia in a 2-year timeframe (2005t), 41% in Kansas in a 1-year timeframe (2002b), and from 41% to 44% in Georgia in a 2-year timeframe (2002c, 2005r).

Regarding hunting, 17% of Oregon residents have hunted in Oregon in the past 2 years, with deer and elk, by far, the most commonly hunted species, and 11% hunted in an Oregon State Forest.

According to the *National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*, 236,000 Oregonians 16 years of age or older participated in hunting in 2001, either in or out of state (U.S. Fish and Wildlife Service/U.S. Census Bureau, 2001). According to Federal Aid data, Oregon had 303,635 licensed hunters in 2001 and 295,422 in 2003 (U.S. Fish and Wildlife Service, Division of Federal Assistance, 2003).

Hunting participation in Oregon is commensurate with hunting participation elsewhere, as found in previous Responsive Management surveys: 9% of Arizona residents in a 1-year timeframe (2004f, 2006b), 10% of Delaware residents in a 2-year timeframe (2005s), 13% of Washington residents in a 2-year timeframe (2002d), 19% of New Hampshire residents in a 5-year timeframe (2004g), 21% of Kansas residents in a 1-year timeframe (2002b), and 27% of West Virginia residents in a 2-year timeframe (2005t), as well as from 16% to 22% of Georgia residents in a 2-year timeframe (2002c, 2004h, 2005r).

A slight majority of Oregon residents (53%) have camped in Oregon in the past 2 years, with about two-thirds of them camping in a tent and a little more than a third camping in an RV (some did both). Just more than a third of Oregon residents (36%) camped in an Oregon State Forest in the past 2 years.

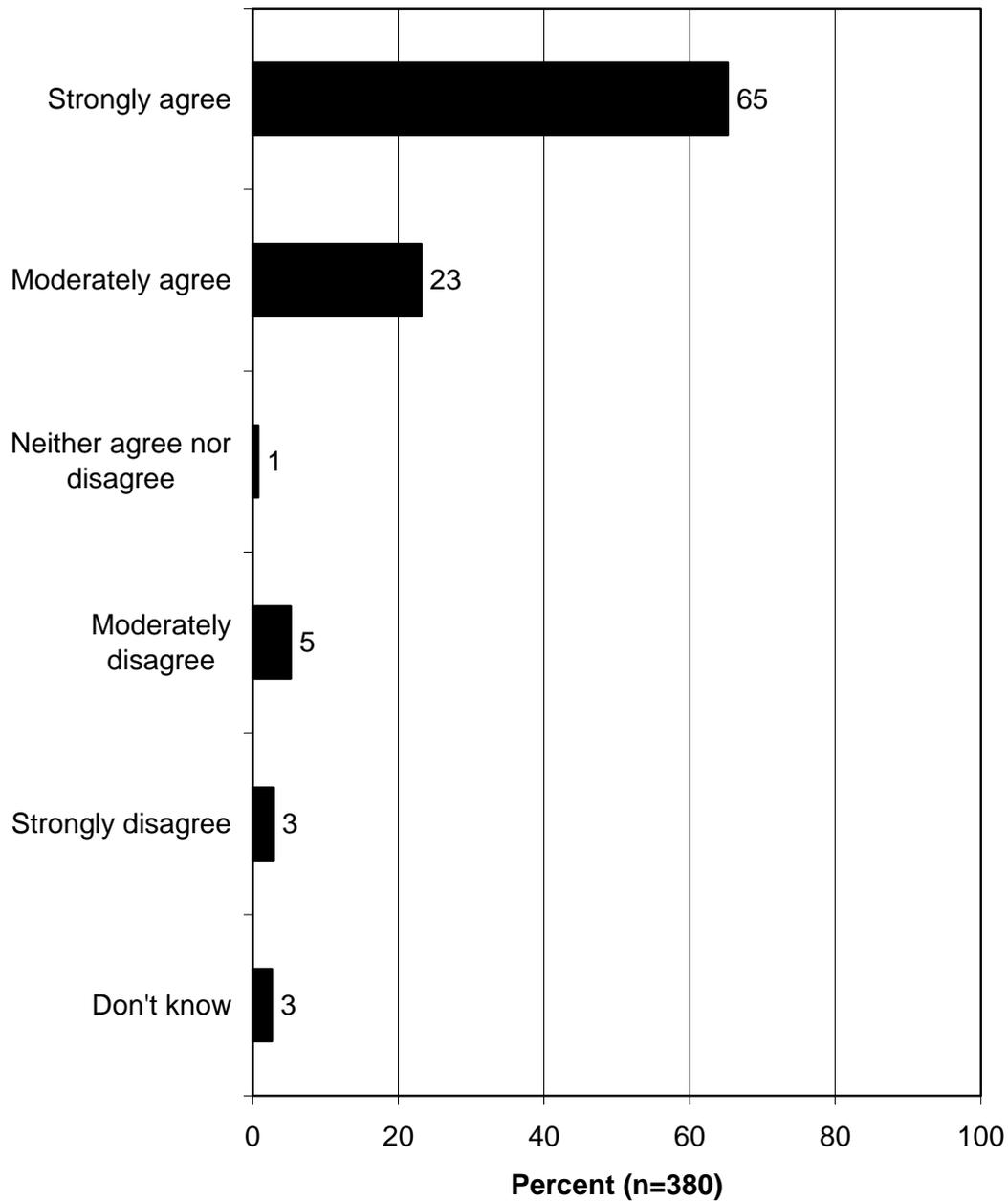
A small percentage of Oregon residents (13%) have participated in off-highway vehicle riding or snowmobiling in Oregon in the past 2 years, most commonly using an ATV, and 8% have done so in an Oregon State Forest.

When asked what forest-related recreational activities they would like to see more of in Oregon, residents most commonly say camping, hiking, and/or wildlife viewing.

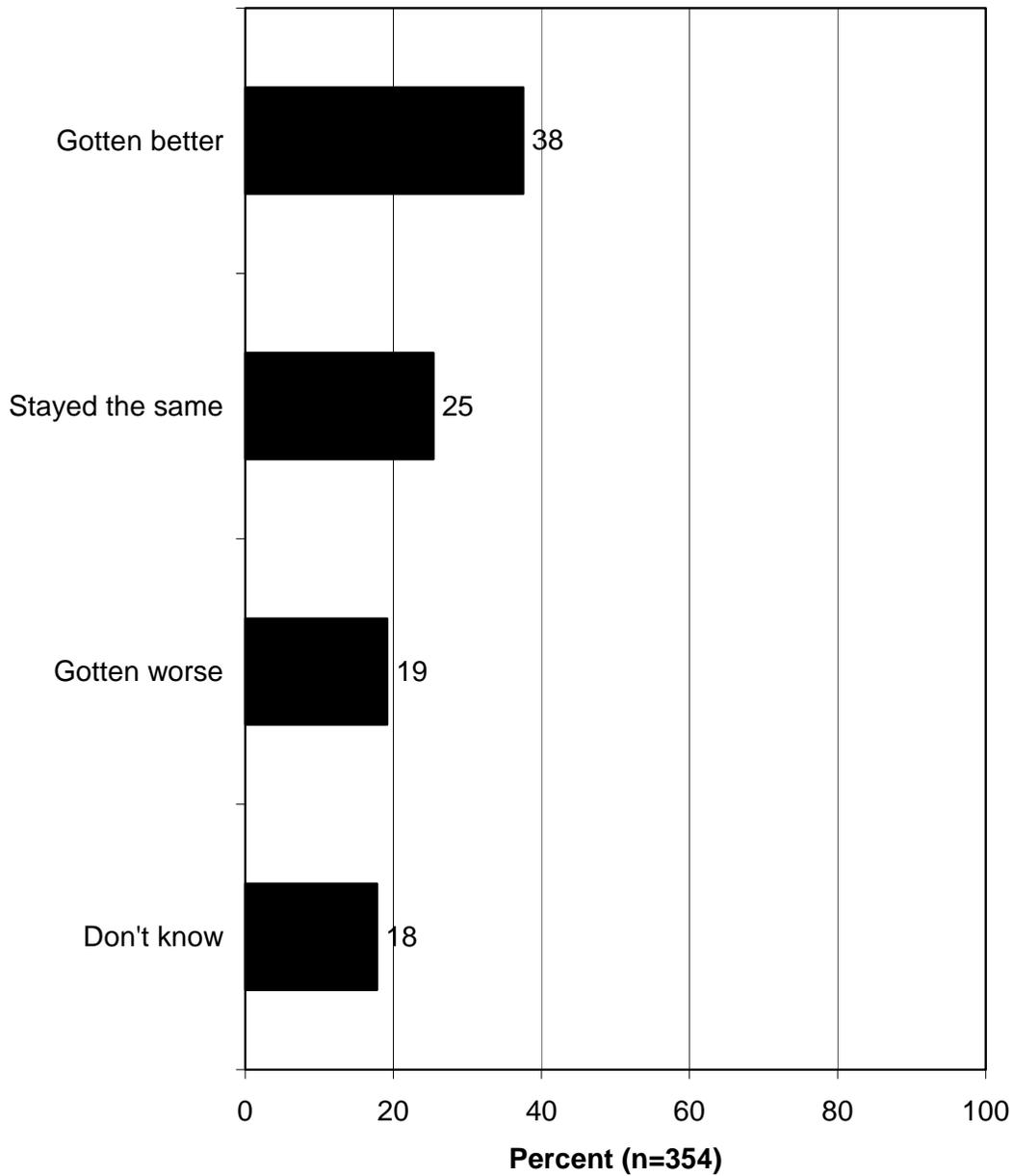
“It’s a natural resource that Oregon has that needs to be balanced, but still needs to be open to all residents of Oregon, i.e., fishing, hunting, logging, recreation, rafting, bike riding, motorcycle riding, hiking.”

–focus group participant, Portland

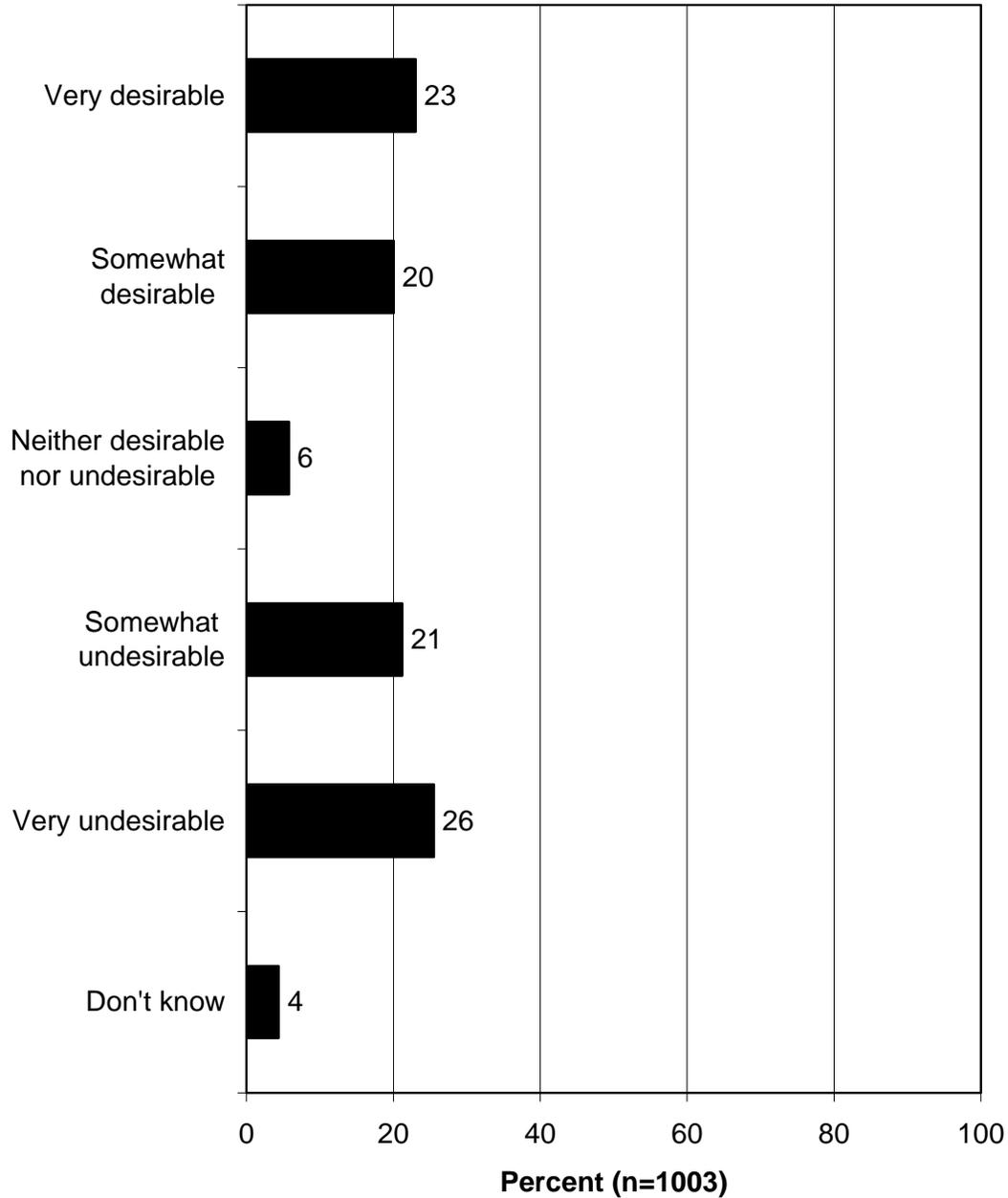
Q117. Forest-based recreation is of great economic importance to Oregon. (Do you agree or disagree with this statement?)



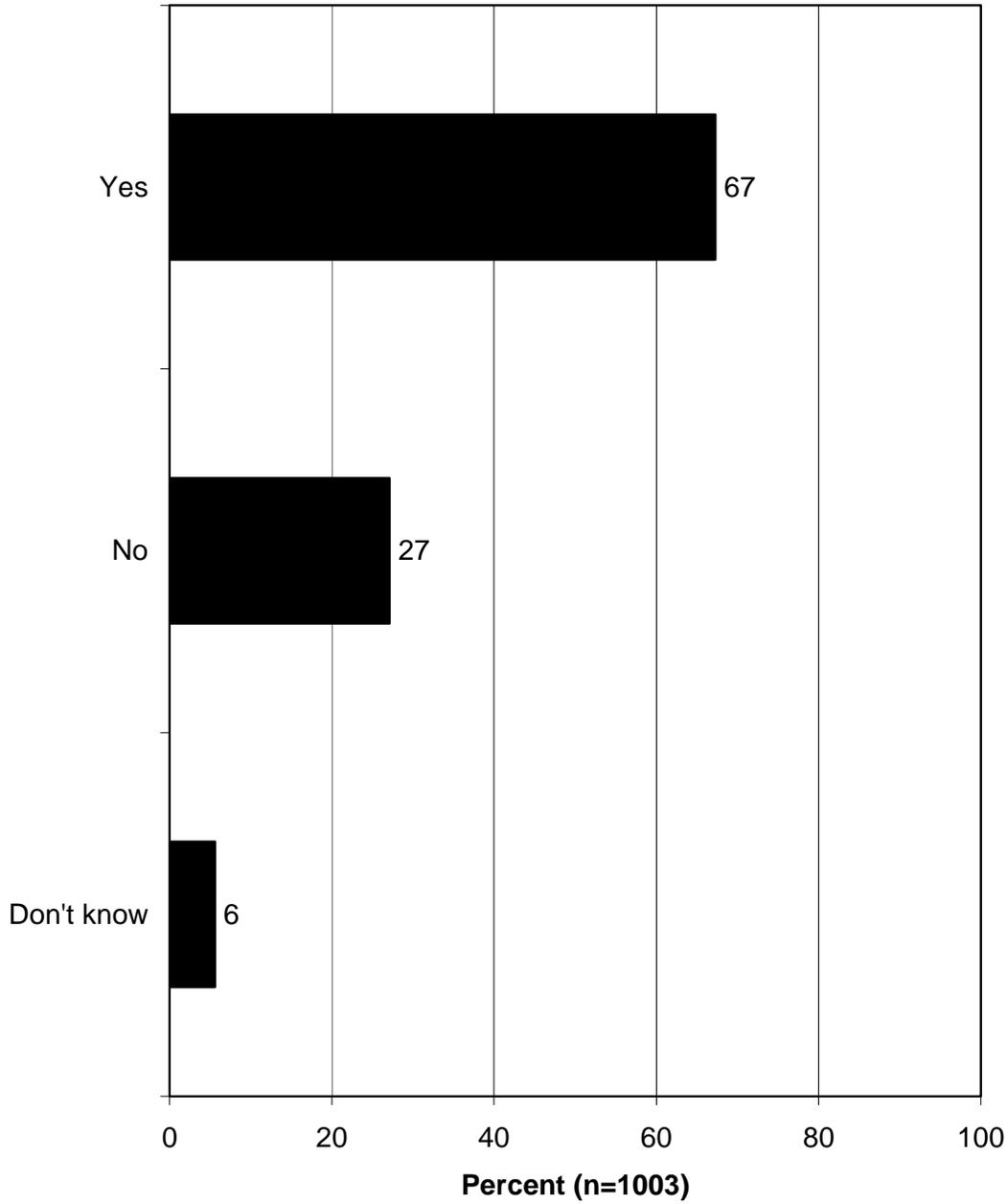
Q136. Have opportunities for forest recreation gotten better, stayed the same, or gotten worse in Oregon in the past 10 years?



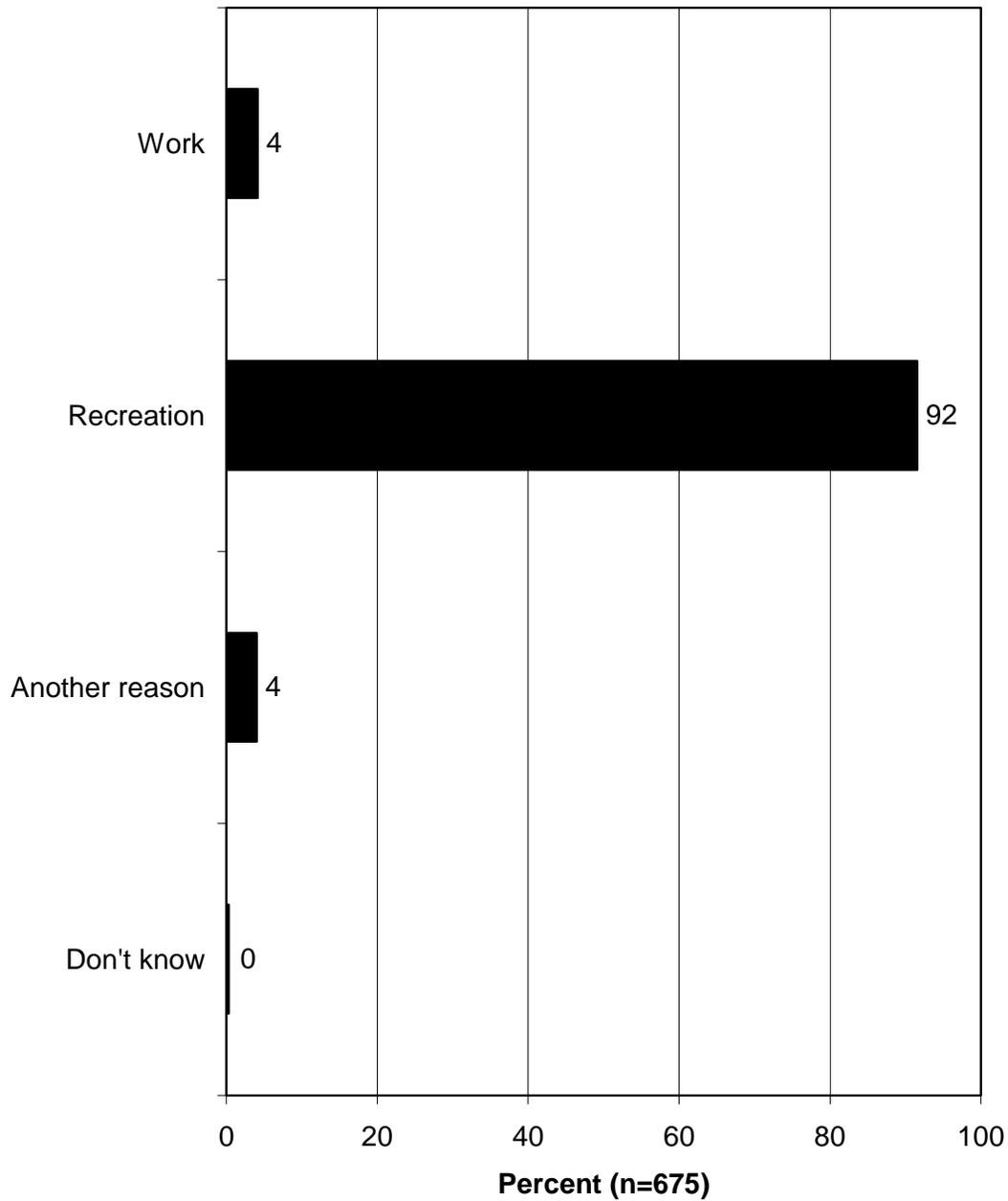
Q166. Oregon's economy will move away from using forests for wood production. (Would this be desirable or undesirable?)



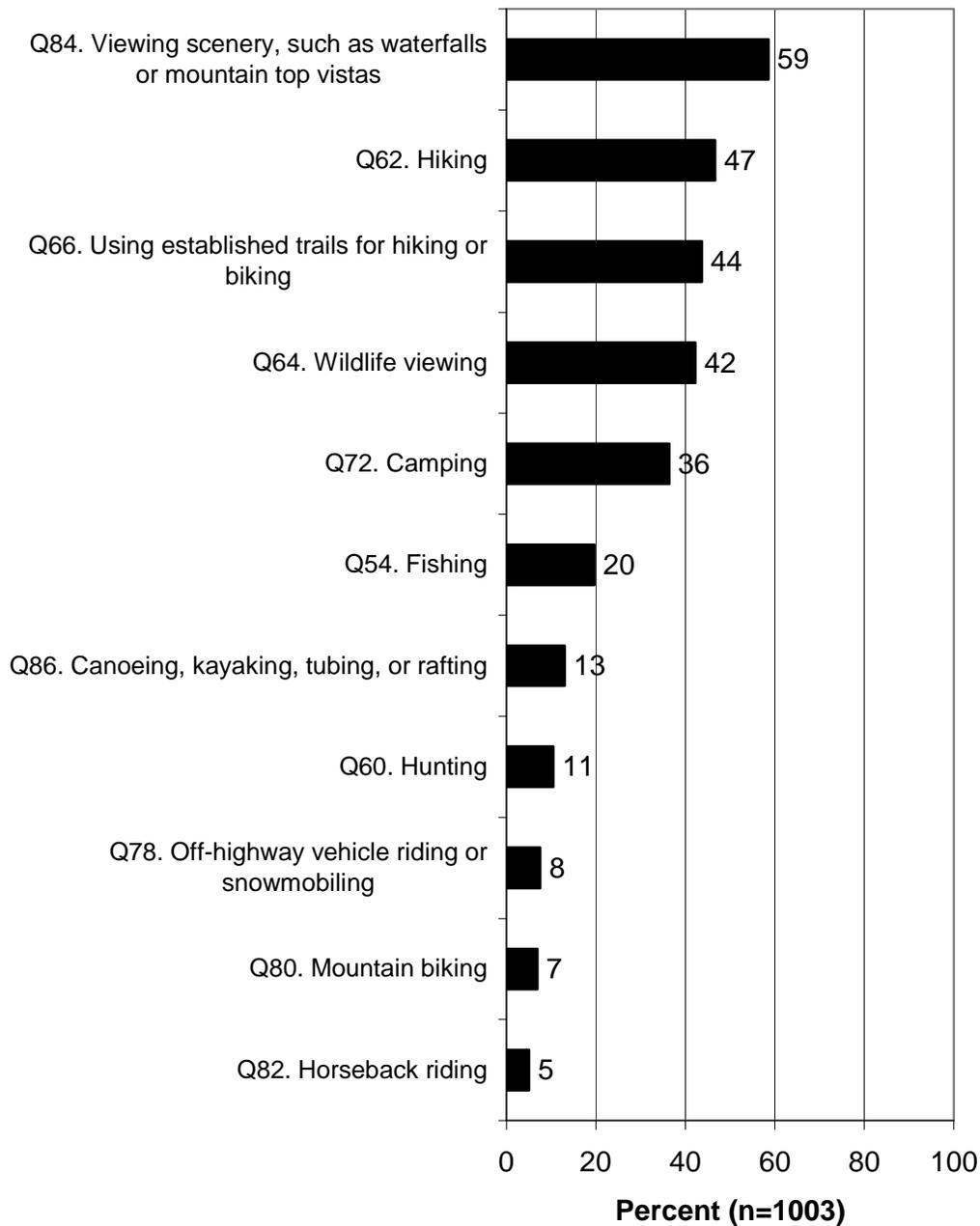
Q46. Have you visited an Oregon state-managed forest for any purpose in the past 2 years?



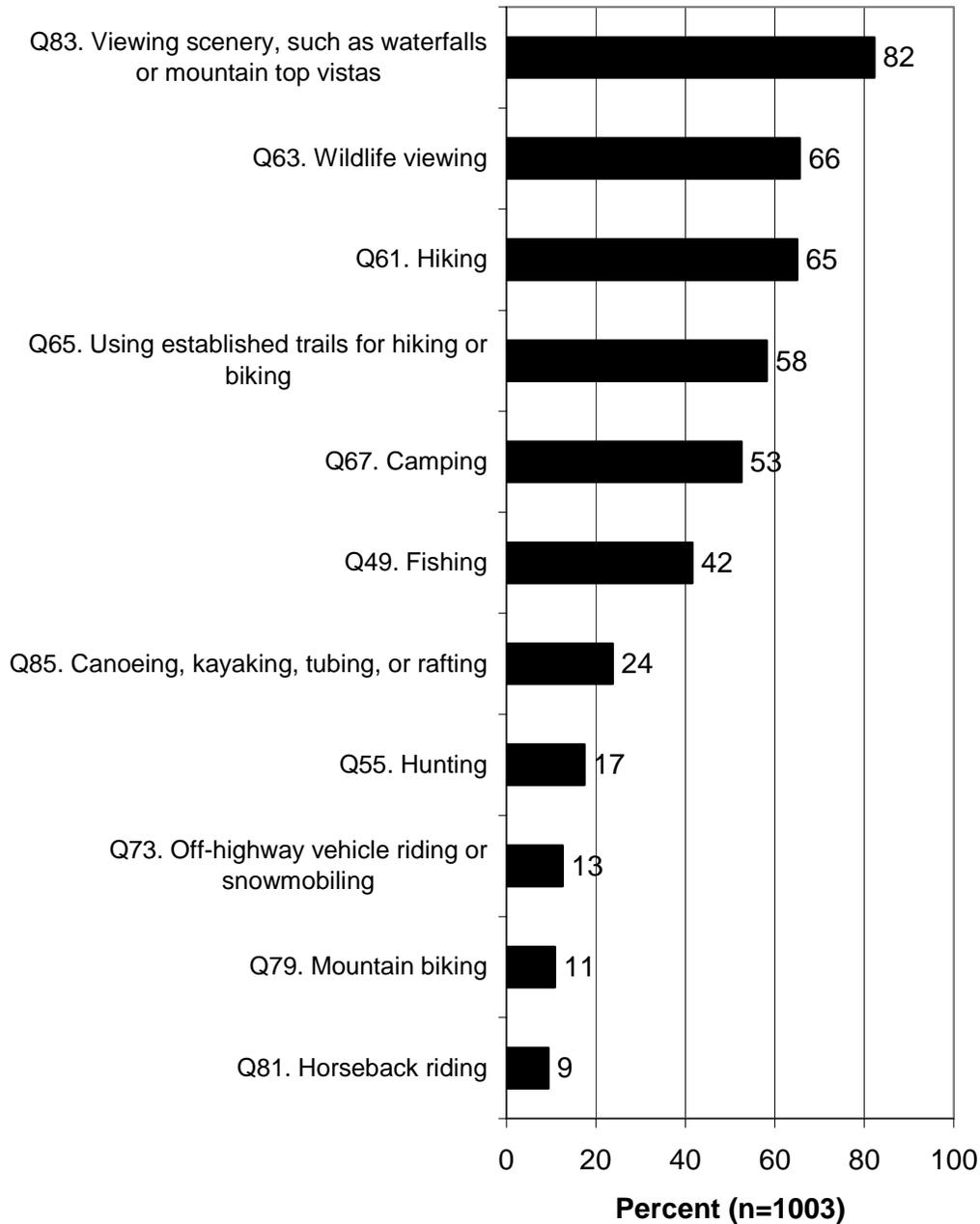
Q47. Was your Oregon state-managed Forest visit for work, for recreation, or for another reason? (Asked of those who visited an Oregon state-managed forest in the past 2 years.)



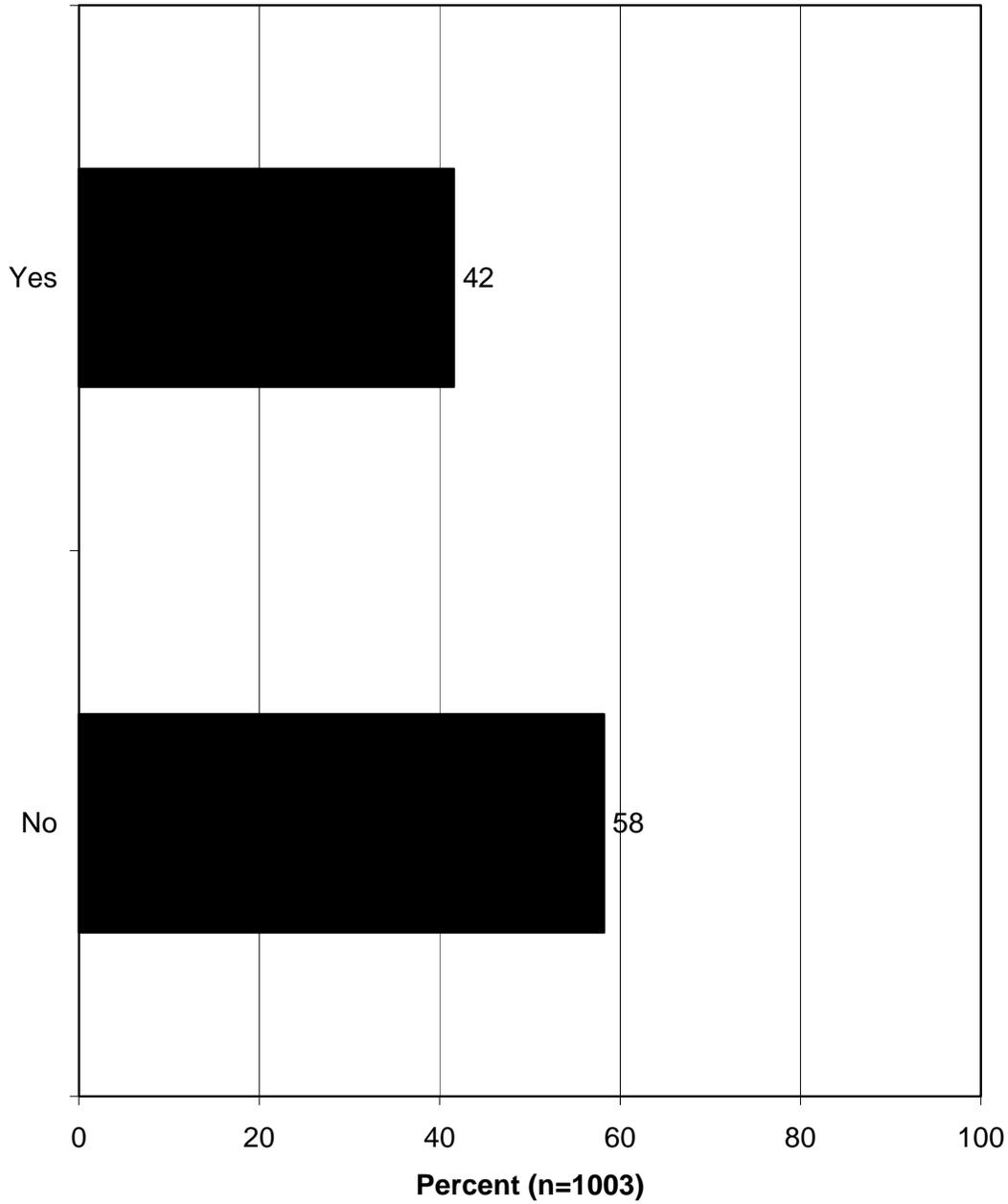
Q54, Q60, et al. Percent who have participated in the following activities in an Oregon state-managed forest in the past 2 years.



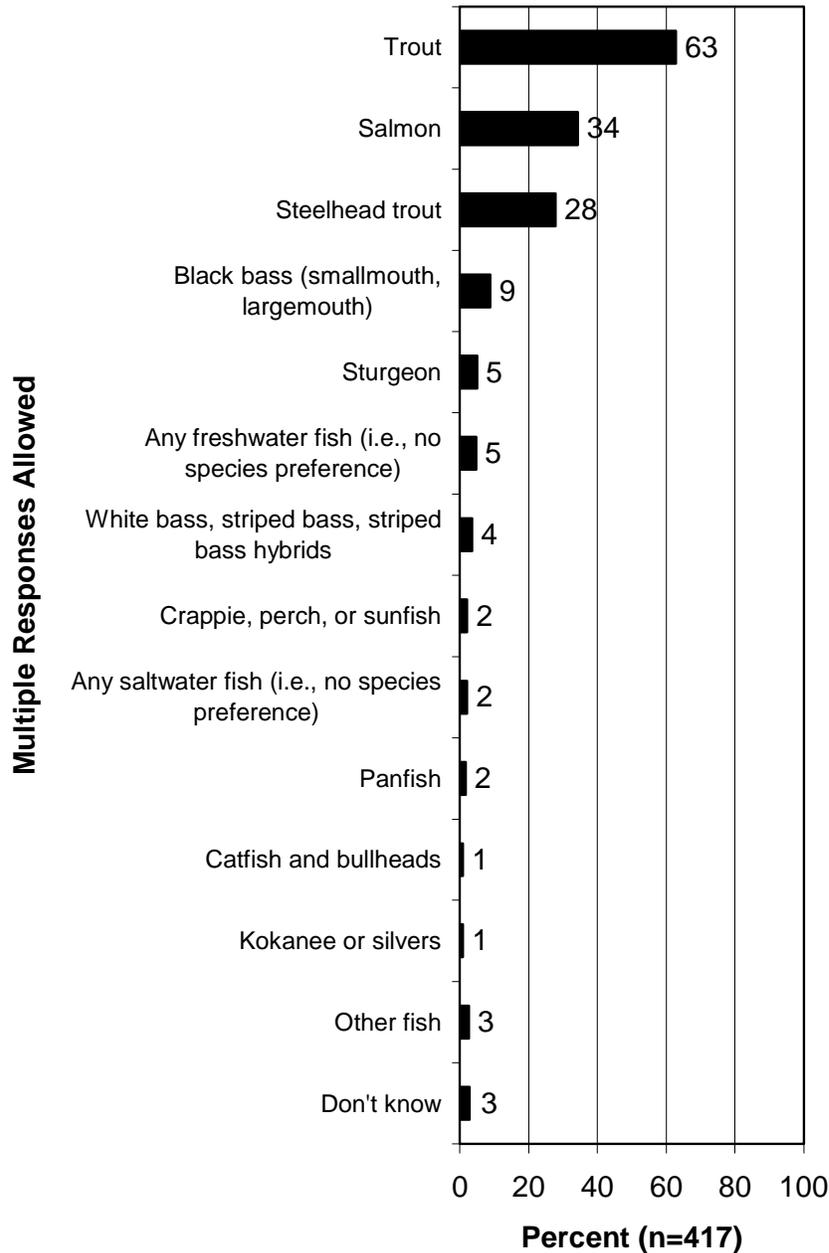
Q49, Q55, et al. Percent who have participated in the following activities anywhere in Oregon in the past 2 years.



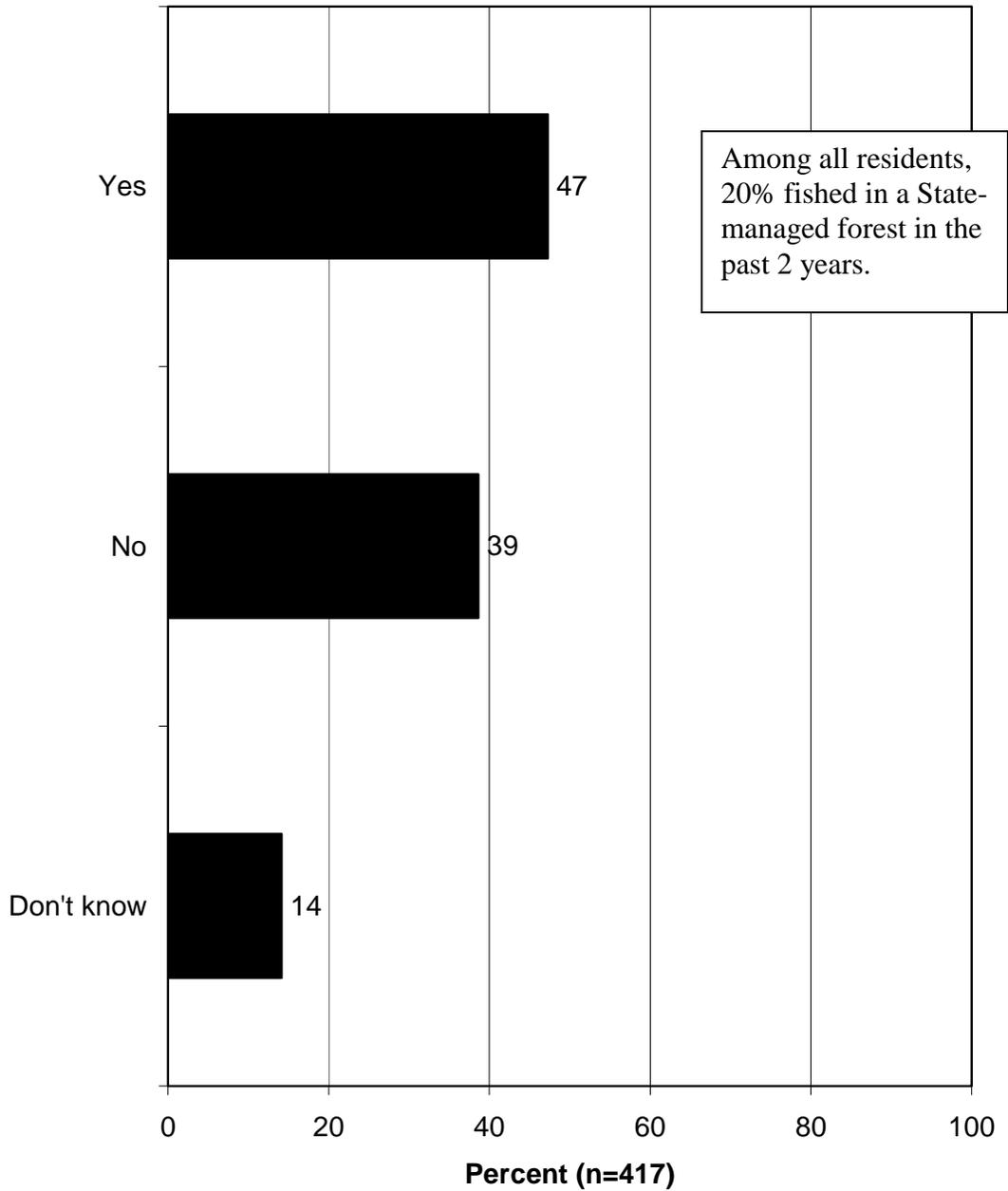
Q49. Have you participated in fishing anywhere in Oregon in the past 2 years?



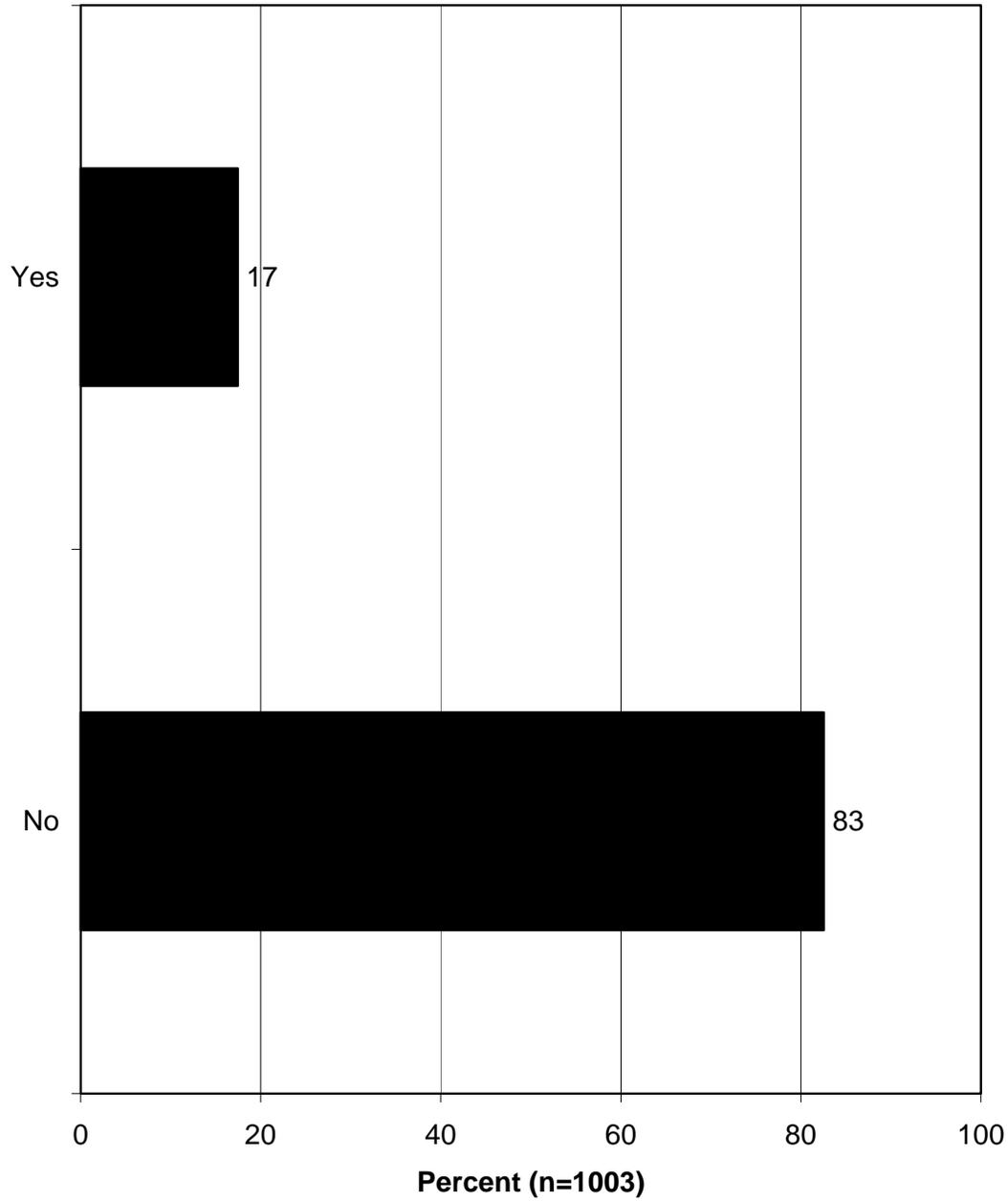
Q52. What species have you fished for in Oregon in the past 2 years? (Asked of those who participated in fishing anywhere in Oregon in the past 2 years.)



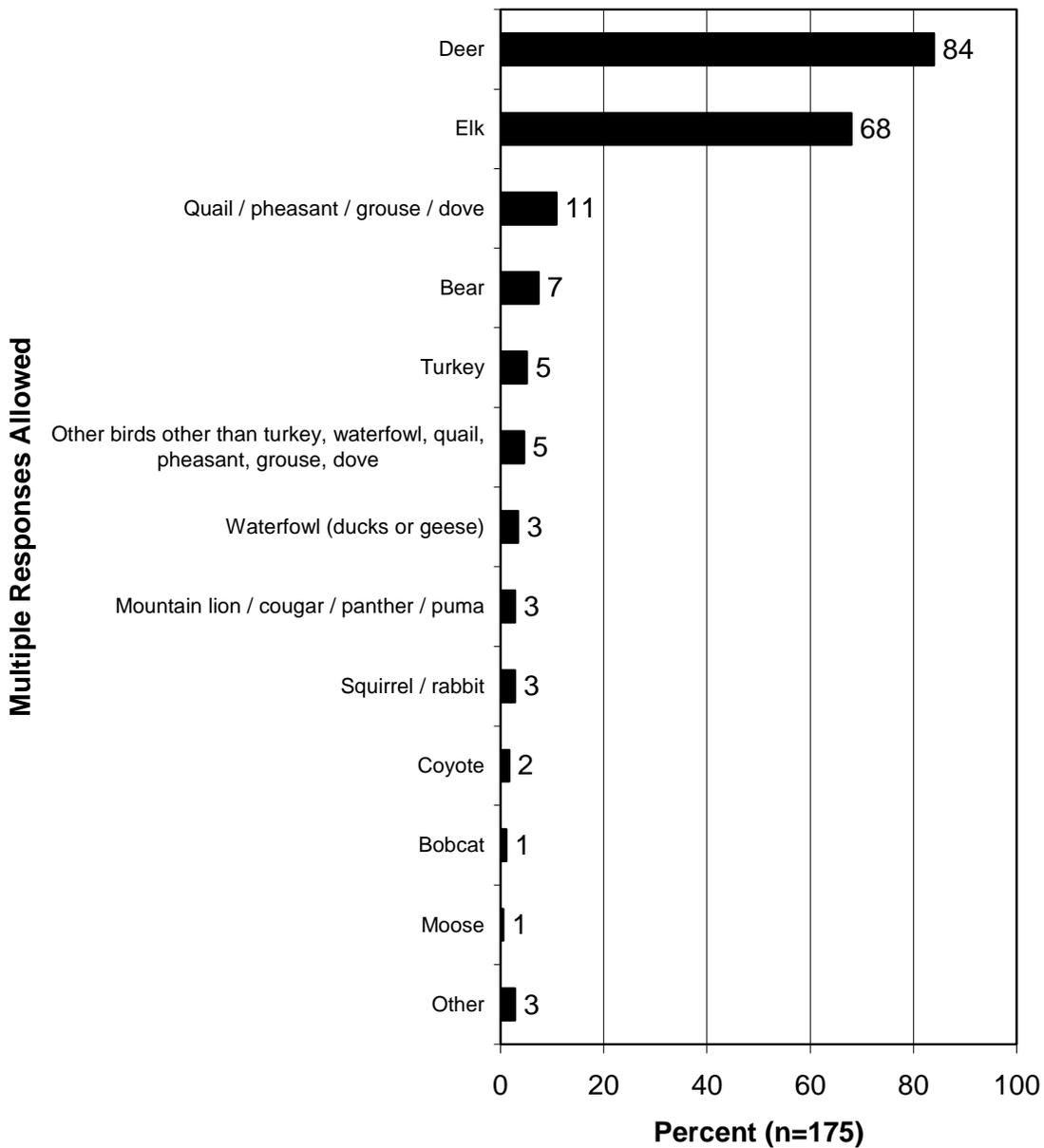
Q54. Have you participated in fishing in an Oregon state-managed forest in the past 2 years? (Asked of those who participated in fishing anywhere in Oregon in the past 2 years.)



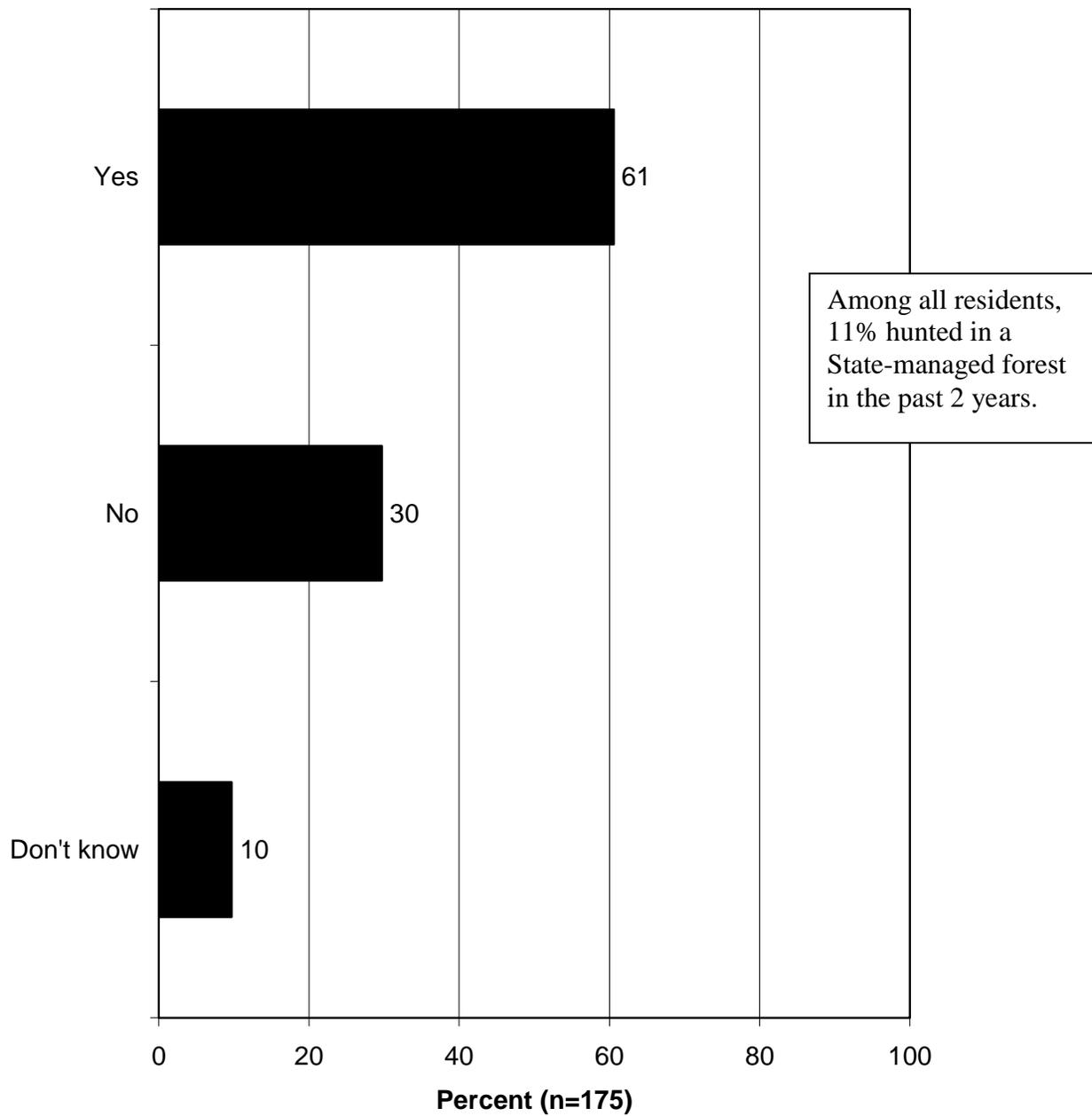
Q55. Have you participated in hunting anywhere in Oregon in the past 2 years?



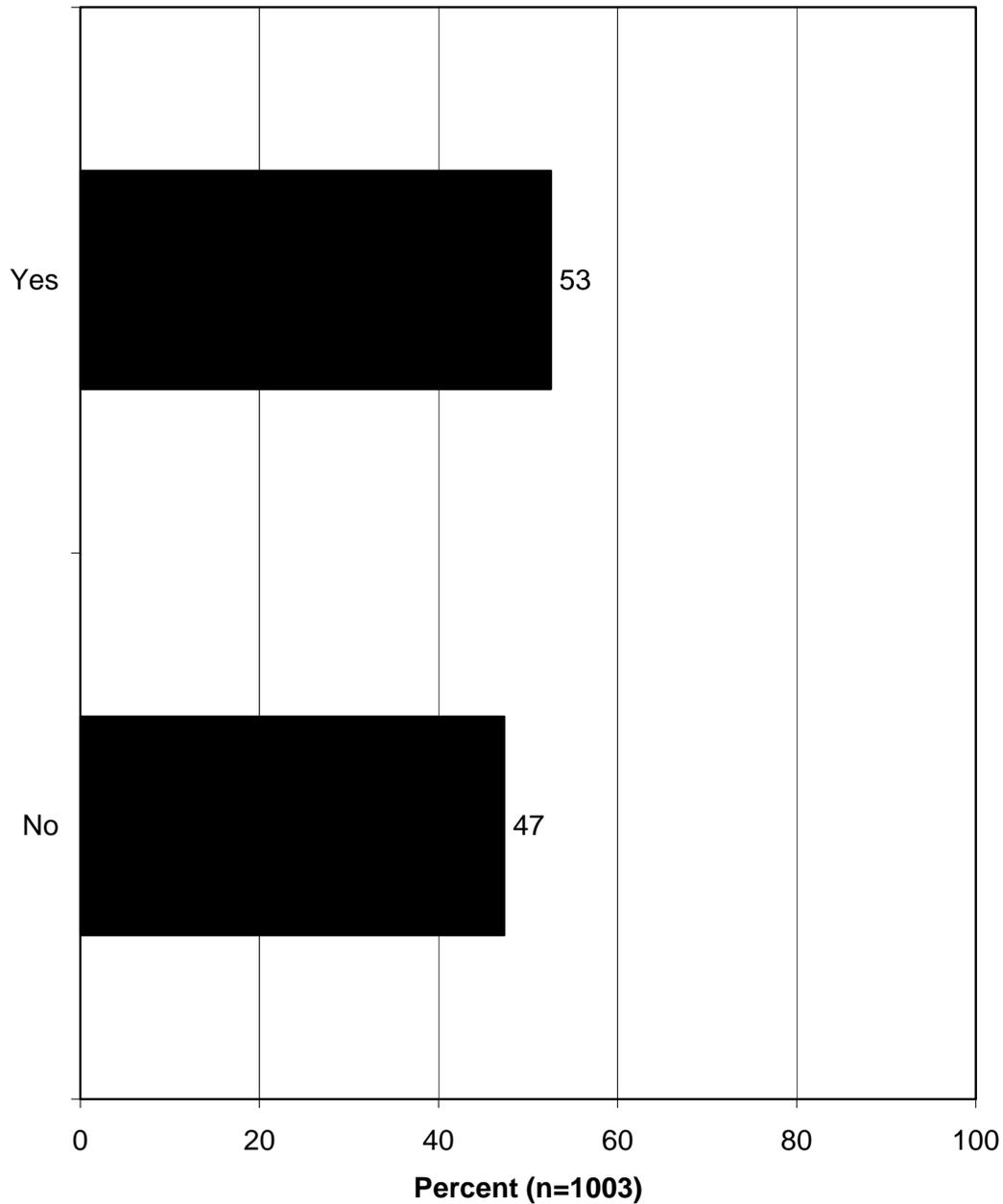
Q58. What species have you hunted in Oregon in the past 2 years? (Asked of those who participated in hunting anywhere in Oregon in the past 2 years.)



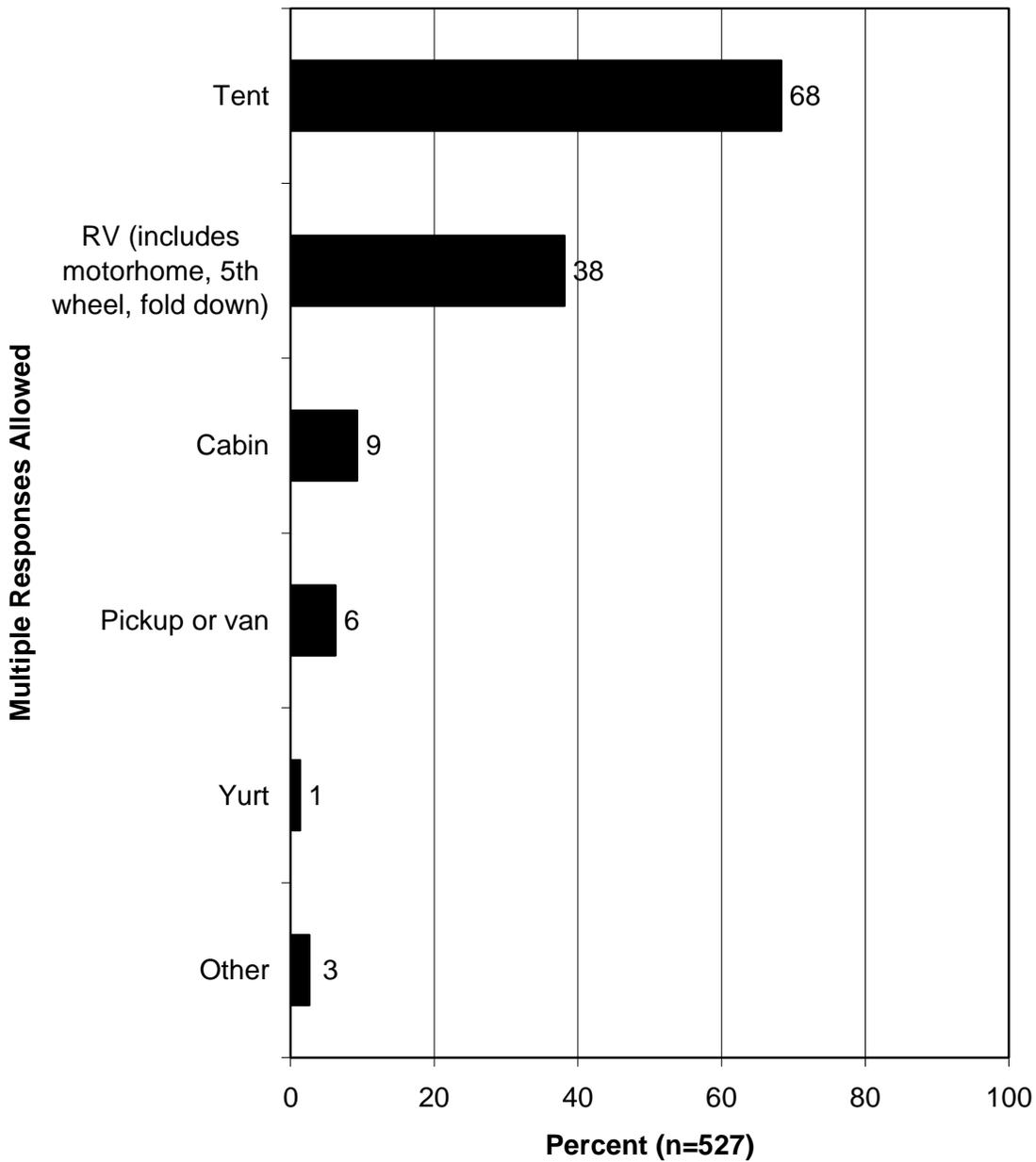
Q60. Have you participated in hunting in an Oregon state-managed forest in the past 2 years? (Asked of those who participated in hunting anywhere in Oregon in the past 2 years.)



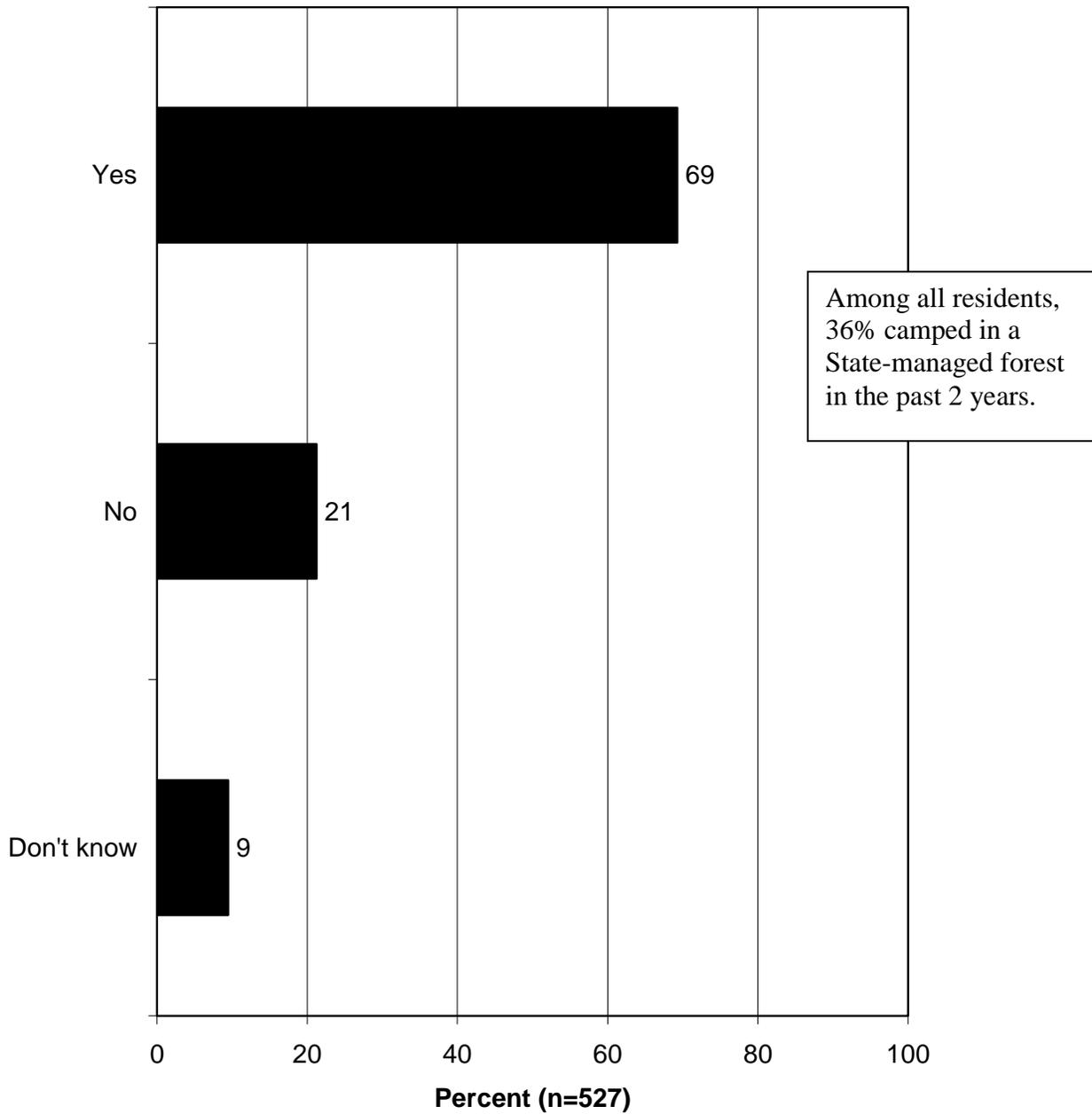
Q67. Have you participated in camping anywhere in Oregon in the past 2 years?



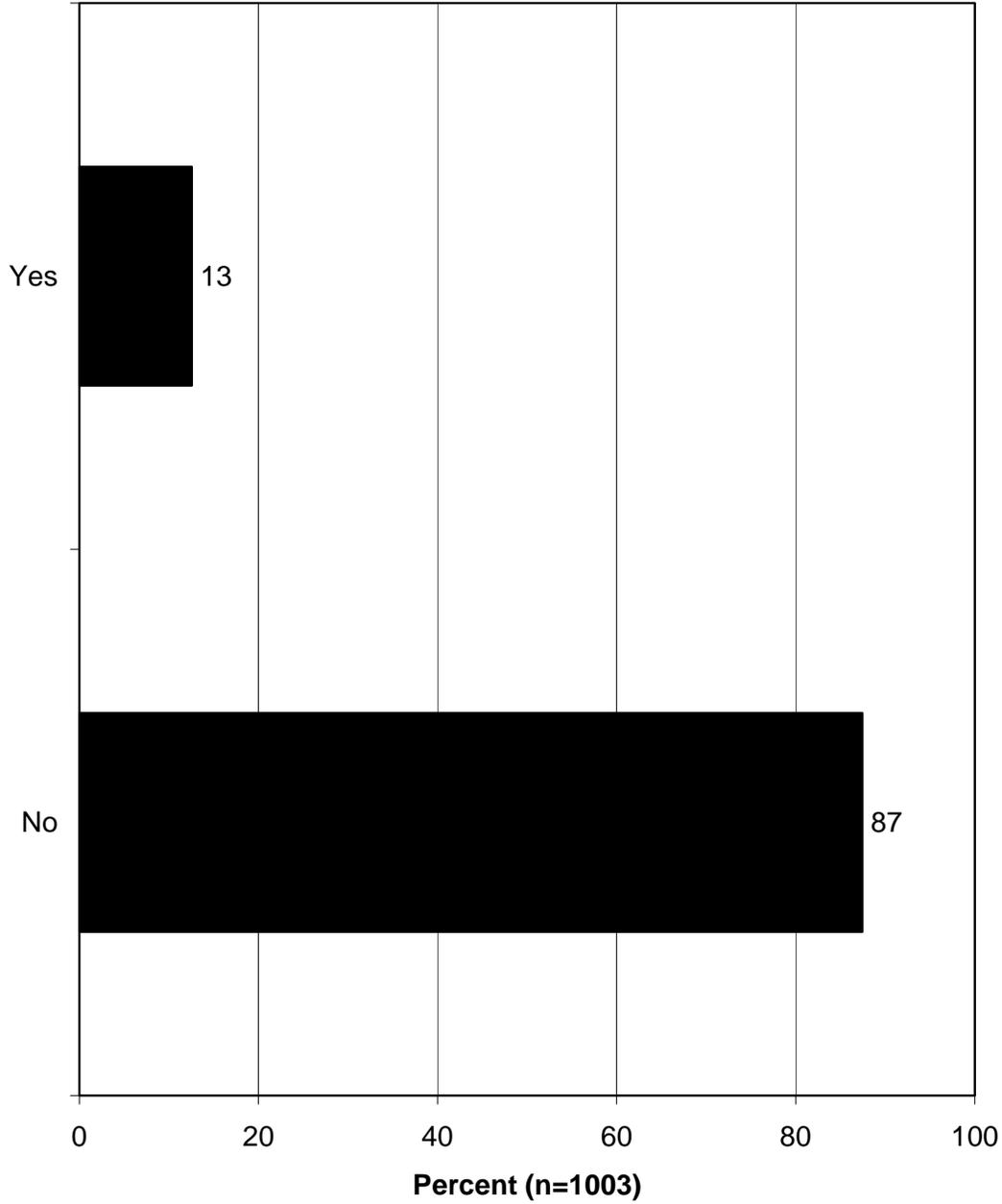
Q70. What type of camping have you participated in anywhere in Oregon in the past 2 years? (Asked of those who participated in camping anywhere in Oregon in the past 2 years.)



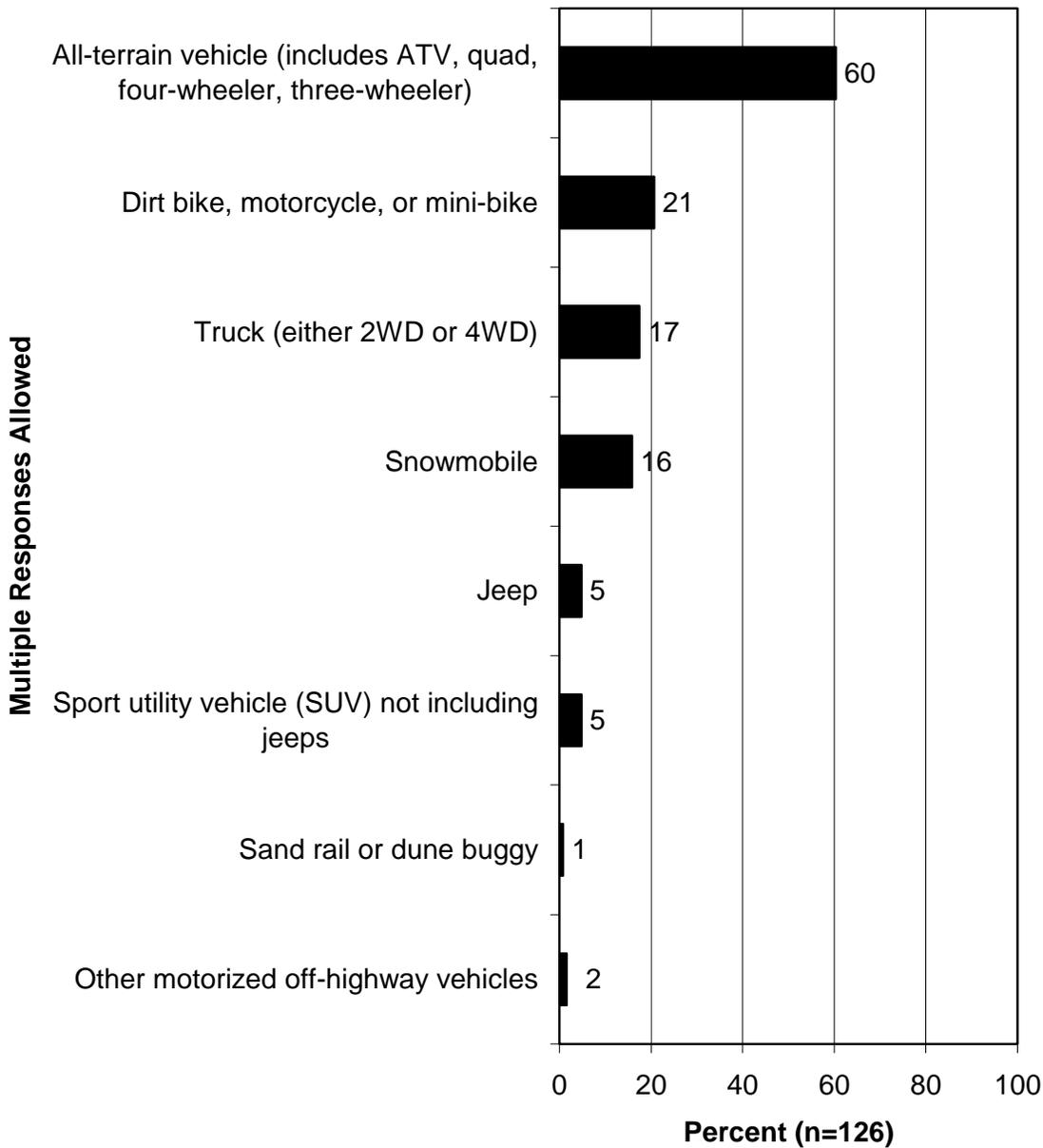
Q72. Have you participated in camping in an Oregon state-managed forest in the past 2 years? (Asked of those who participated in camping anywhere in Oregon in the past 2 years.)



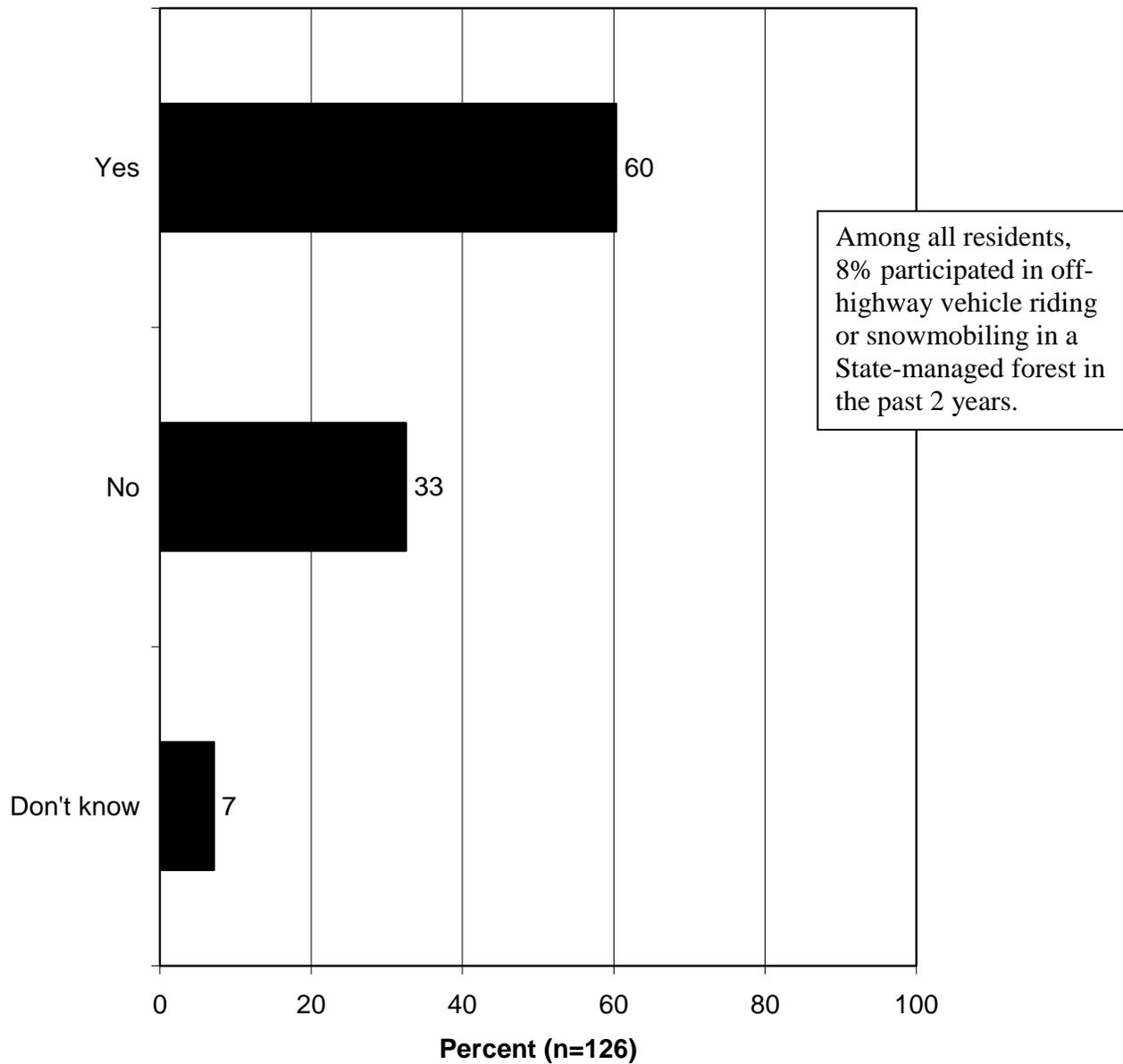
Q73. Have you participated in off-highway vehicle riding or snowmobiling anywhere in Oregon in the past 2 years?



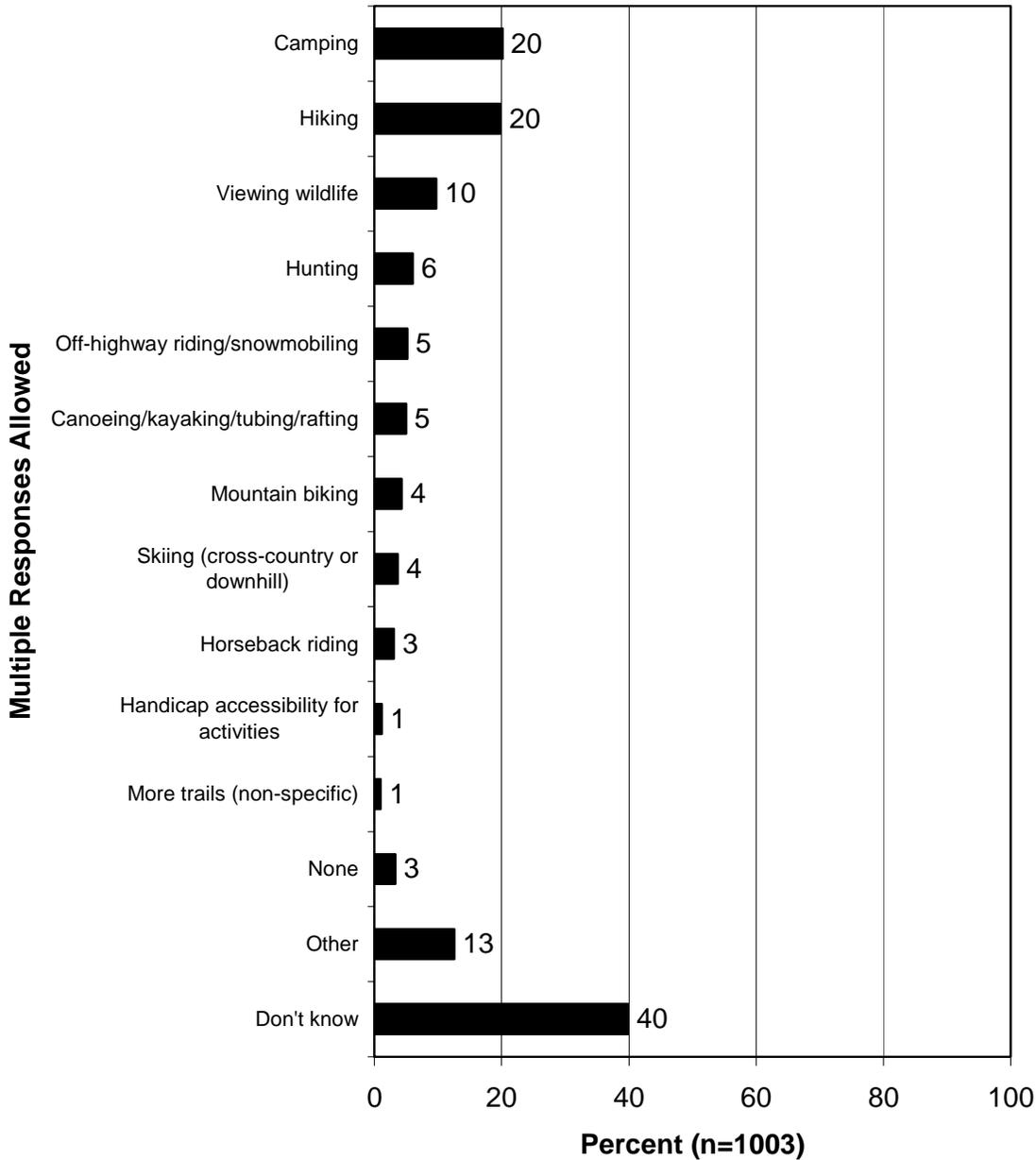
**Q76. What type of off-highway vehicle did you use?
(Asked of those who participated in off-highway
vehicle riding or snowmobiling anywhere in Oregon in
the past 2 years.)**



Q78. Have you participated in off-highway vehicle riding or snowmobiling in an Oregon state-managed forest in the past 2 years? (Asked of those who participated in off-highway vehicle riding or snowmobiling anywhere in Oregon in the past 2 years.)



Q89. Please tell me what types of forest-related recreation opportunities you would like to see more of in Oregon.



OREGON RESIDENTS' EXPECTATIONS OF AND OPINIONS ON FOREST MANAGEMENT

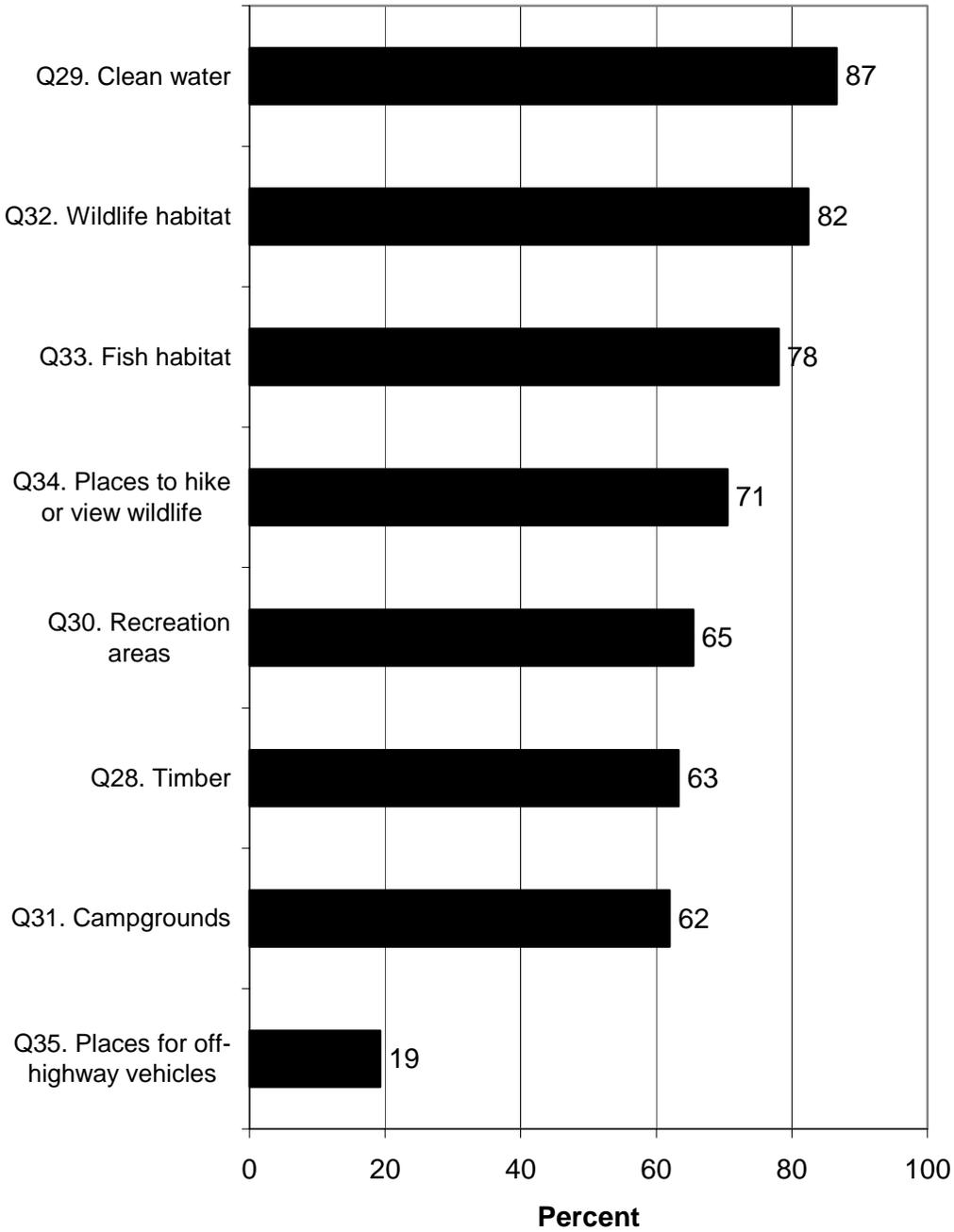
IMPORTANCE OF VARIOUS ASPECTS OF FOREST MANAGEMENT

- **Although the wood products industry and recreation both have been shown to be important to residents, Oregonians also want their forests to provide naturalistic or ecological benefits, as well. Indeed, ecological values are deemed more important than economic and recreational values by large numbers of Oregonians. Nonetheless, each resource (naturalistic, economic, and recreational) that forests can provide is deemed important to Oregonians (with the exception of the forests' provision of places to drive off-highway—an activity that has detractors all across the country).**

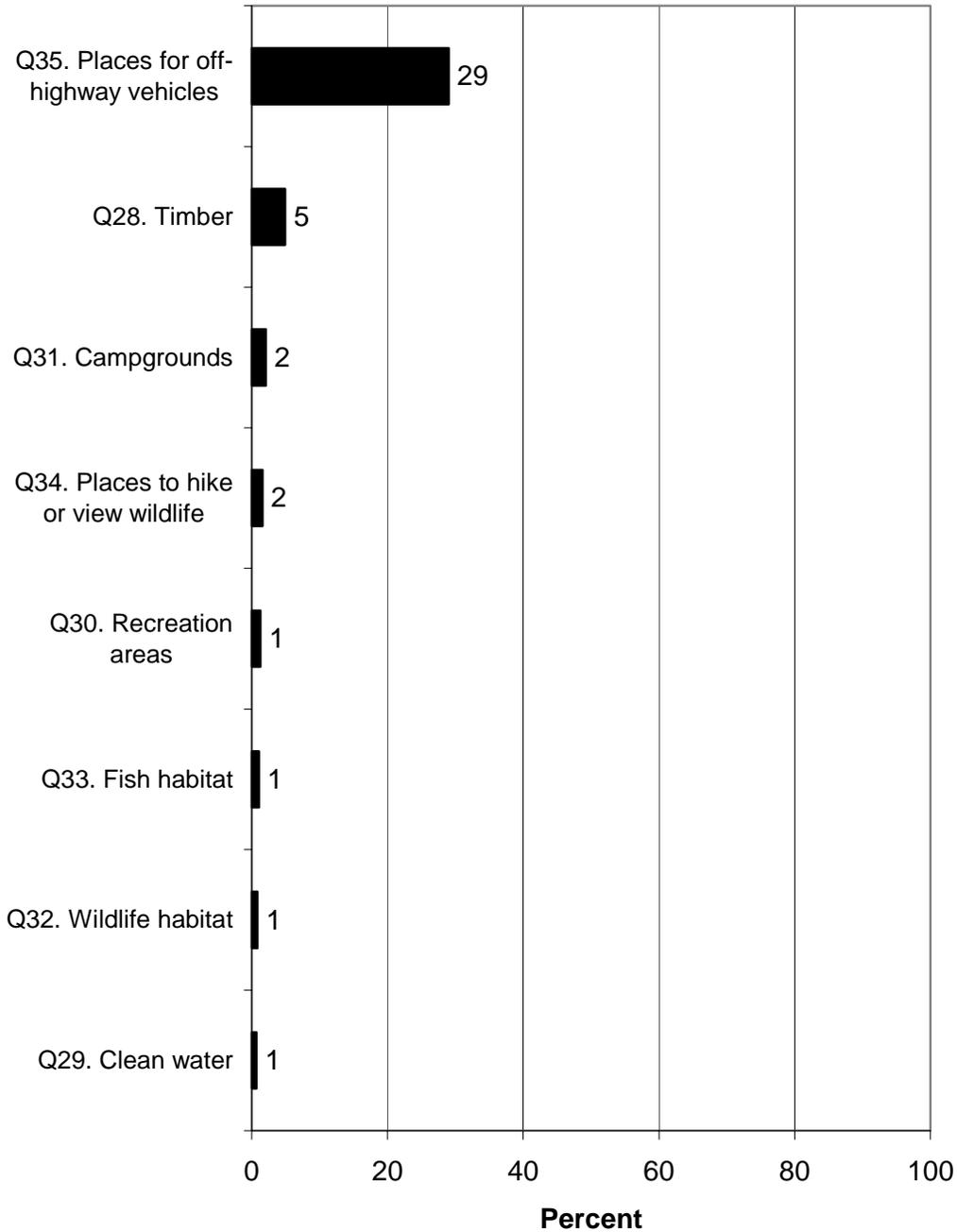
The survey asked Oregon residents how important it is that Oregon State Forests provide eight resources; the top three that Oregon residents think are very important for Oregon State Forests to provide are naturalistic rather than purely economic or recreational: clean water, wildlife habitat, and fish habitat. (It could be argued that clean water is economic—it is a resource that is used—and that wildlife habitat and fish habitat are recreational—but these resources are also naturalistic. This is particularly true of the latter two resources, because a greater percentage of Oregon residents gave a “very important” rating than participate in hunting or fishing, indicating that the naturalistic value outweighs the recreational value for many respondents.) These three naturalistic resources are markedly higher than the purely recreational or economic resources in the ranking (according to percentage saying *very* important). However, note that each resource, except for places for off-highway vehicles, had a majority saying that it is very important that Oregon State Forests provide it. Regarding timber specifically, a large majority of Oregon residents (86%) think that it is very or somewhat important that Oregon State Forests provide timber, while only 10% think providing timber is unimportant.

Although the findings above of Questions 28-35 indicate that residents think that it is important that Oregon State Forests provide naturalistic resources, the findings of Questions 38-45 run somewhat counter. When asked how important it is that Oregon protect eight species or types of species, two of the top three (in the ranking by *very* important) are utilitarian in that people fish or hunt them (coho salmon and deer), and the other species in the top three is iconic (the bald eagle). Low on the ranking are salamanders, the marbled murrelet, and the spotted owl. The survey results also indicate the negative reaction to the spotted owl among Oregonians—the spotted owl is at the top of the ranking of species that are *very* unimportant to protect. Nonetheless, note that a majority of Oregon residents said that it is very or somewhat important that Oregon protect each species or type of species. The lowest on the ranking—salamanders—had 62% of Oregon residents saying that it is very important for Oregon to protect them.

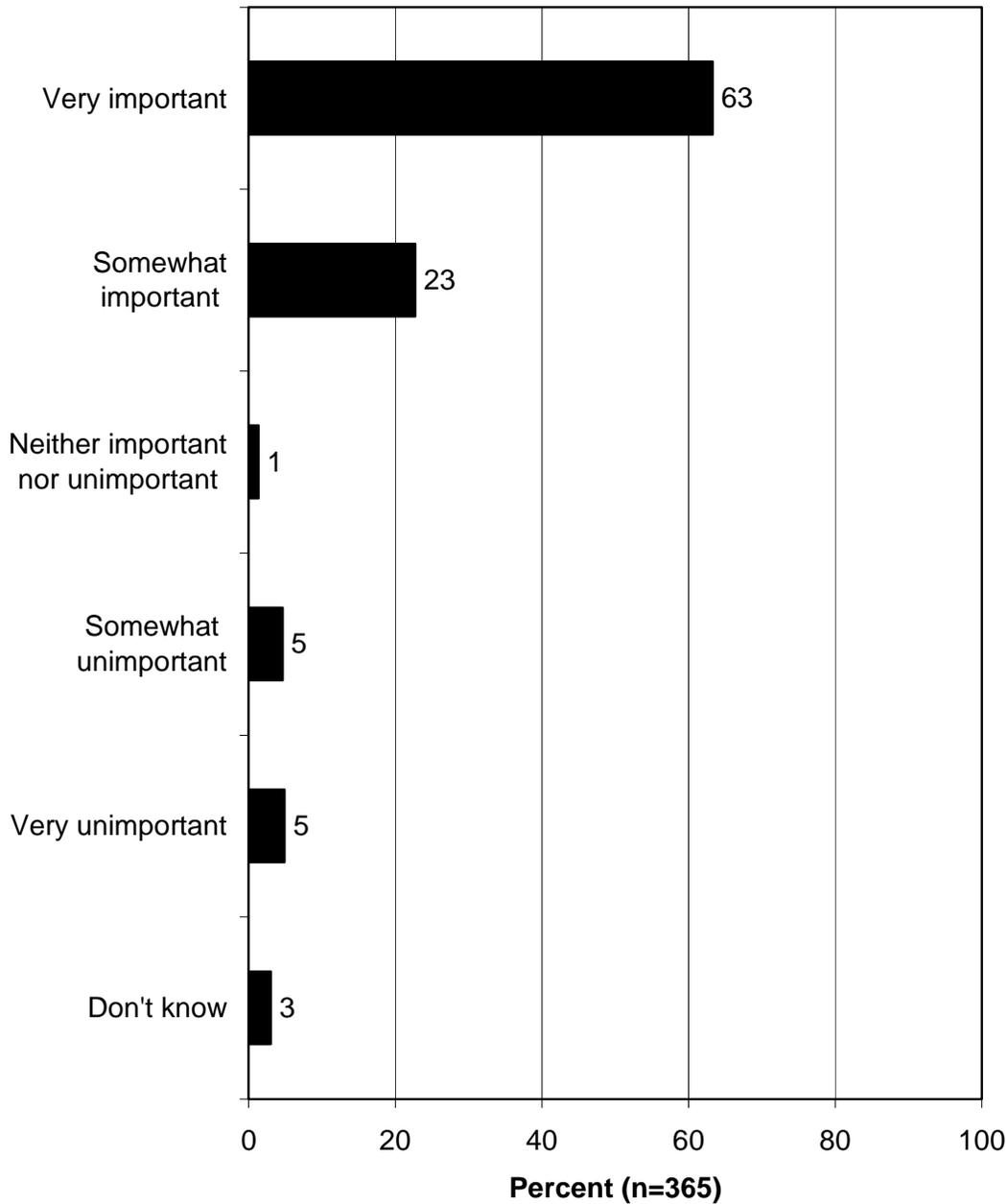
Q28-Q35. Percent who say Oregon State-managed forests are very important for providing the following.



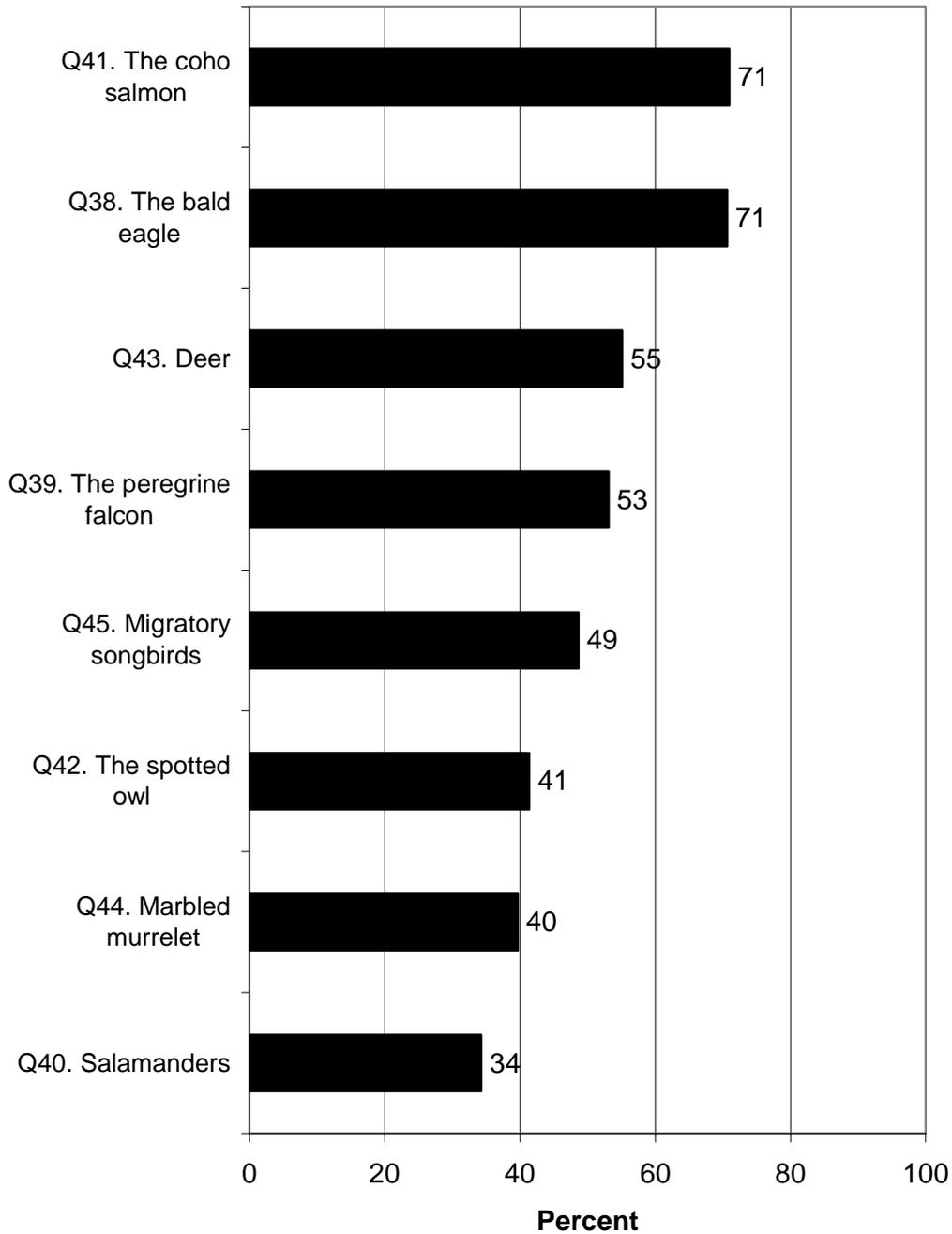
Q28-Q35. Percent who say Oregon State-managed forests are very unimportant for providing the following.



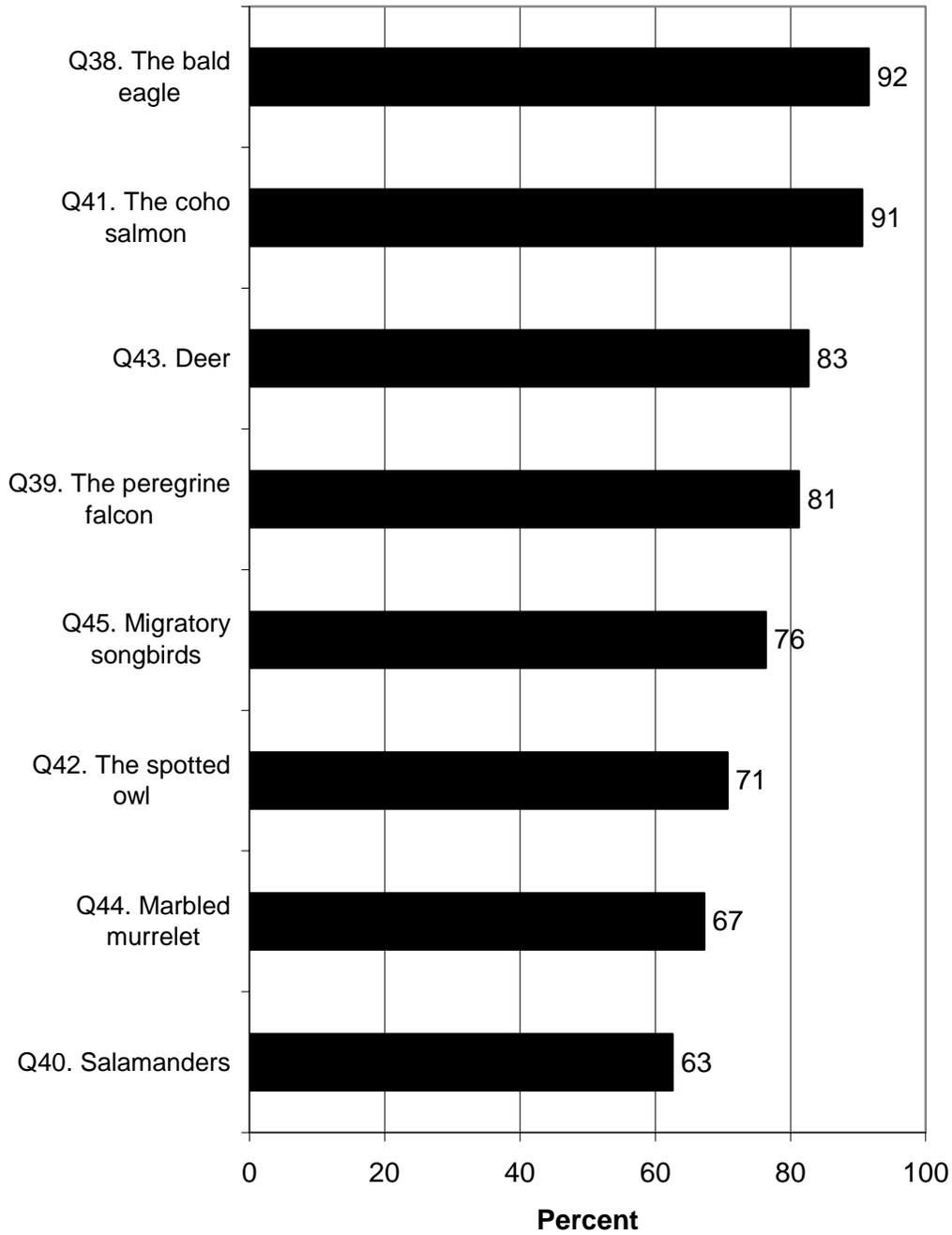
Q28. How important or unimportant are Oregon State-managed forests for providing timber?



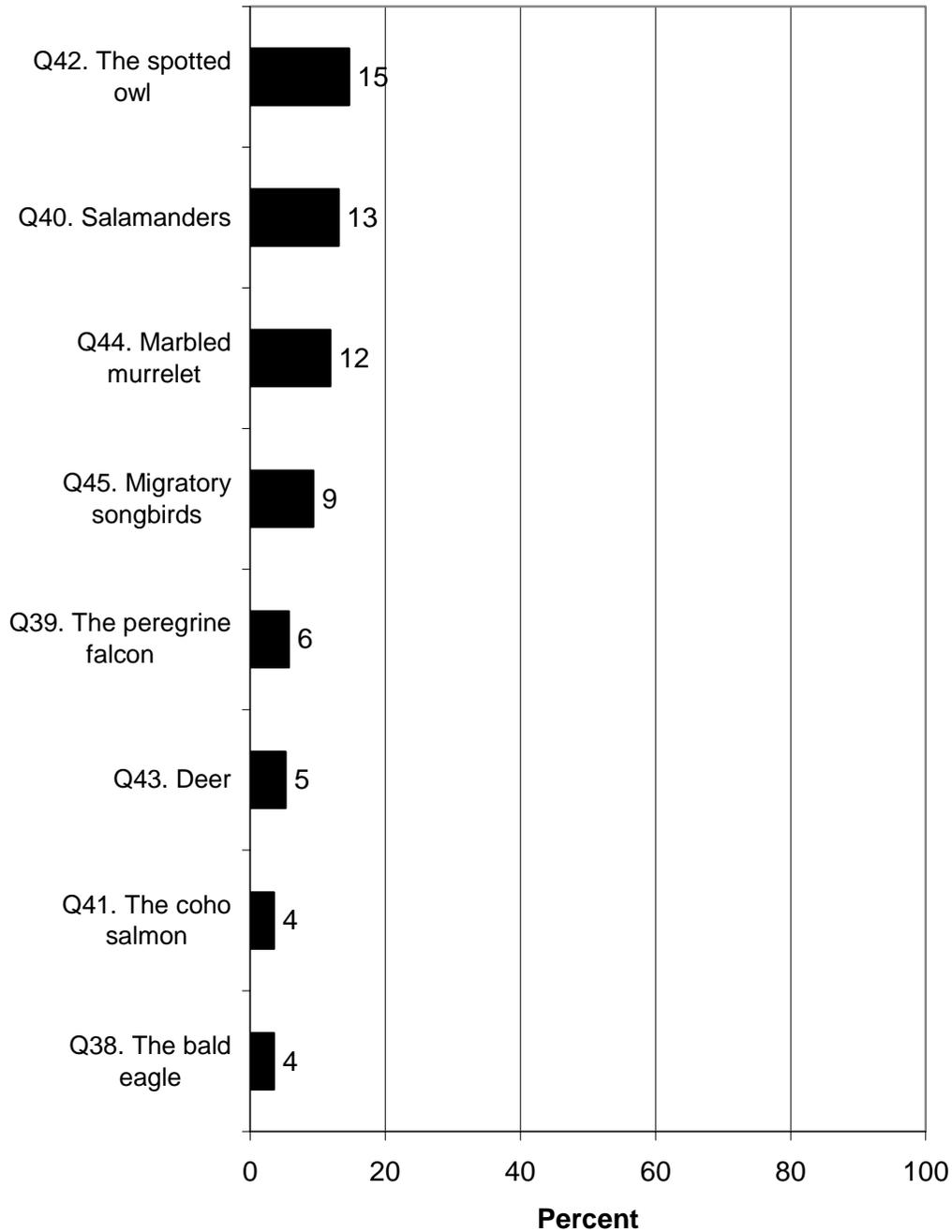
Q38-Q45. Percent who say it is very important to them that Oregon protect the following species.



Q38-Q45. Percent who say it is very or somewhat important to them that Oregon protect the following species.



Q38-Q45. Percent who say it is very unimportant to them that Oregon protect the following species.



ISSUES FACING FORESTS AND FOREST MANAGEMENT

- **Water quality is a highly important issue to Oregonians (as it is all across the country). Other concerns of high importance are habitat protection (including loss of forests), clear-cutting, and severe wildfires.**

The top named issue that Oregon residents feel that Oregon State Forests face is clear-cutting (16%), followed by cutting of old growth forests (8%), wildfires (7%), and degradation and/or loss of wildlife and fish habitat (6%). Also important are loss of timber jobs (4%) and lack of tree species diversity/monoculture (also 4%).

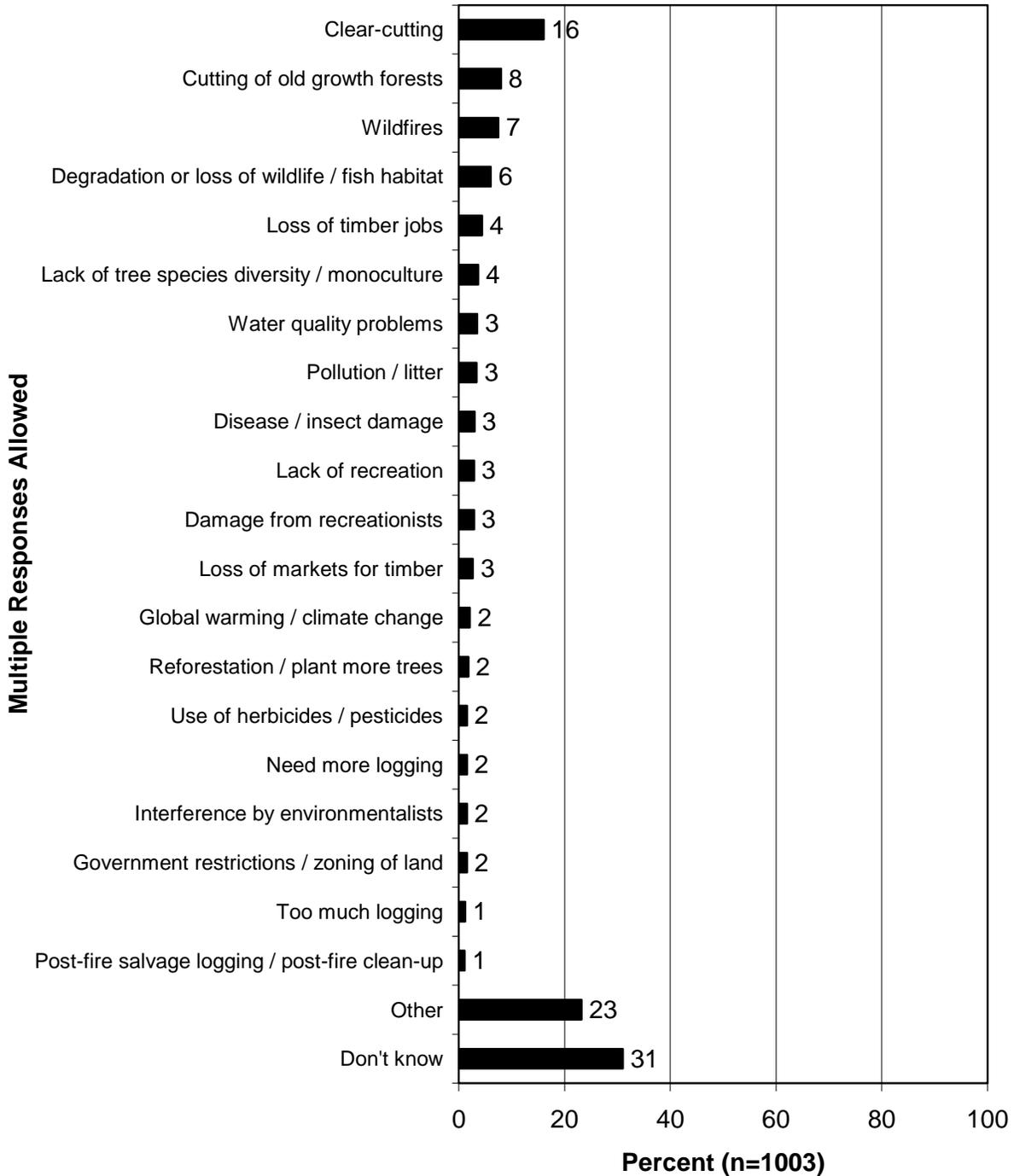
Davis, Hibbitts & Midghall, Inc. (2006) asked Oregonians about 15 forest-related issues, and the top issue, based on the percentage saying that they are *very* concerned, is water quality protection. Other issues with which a majority are *very* concerned include wildlife habitat (54%), loss of forests to urbanization (54%), and clear-cutting (51%). Fish habitat has just under a majority *very* concerned (49%), as do severe wildfires (49%), jobs and revenue for rural communities (48%), and bug infestations and disease (48%). Note that providing wood for homes and products is last in the ranking (33% say that they are *very* concerned about this). In another question from the same survey, 77% of Oregonians say that water quality is *very* important in forest management activities.

Davis, Hibbitts & McCaig, Inc. (2001a, 2002) asked Oregonians about their level of concern for 16 forestland issues: water quality (91% were very or somewhat concerned) and fish and wildlife habitat (87%) were the top-ranked concerns, followed by losing forestland to other developments/uses (84%), wildfire danger (84%), soil erosion/landslides (84%), the relationship between the forest industry and environmental groups (81%), and diseased or insect-damaged trees (81%).

In a 2005 survey by Davis, Hibbitts & Midghall, Inc. (2006), more Oregonians think that losing forestland to urban development (67%) is the largest threat to Oregon's forests than is harvesting of trees for wood products (20%).

Regarding environmental issues in general, Oregonians show high concern for water and water quality. When asked in 2001 what are the most important environmental issues facing Oregon, most commonly Oregonians answered water pollution (14%) and water quality (9%) (Davis, Hibbitts & McCaig, Inc., 2001a). Furthermore, this same study found that water quality ranked the highest in concern among ten environmental issues about which the researchers asked, when ranked by the mean score.

Q24. What are the most important issues facing Oregon State-managed forests?



OPINION ON THE STATE'S MANAGEMENT OF FORESTS

- **As previously shown, the ODF is highly regarded. Its management of forests in Oregon is not as highly regarded, although the numbers are more positive than negative. Relative to management of federal and private forests, management of State Forests is seen as positive.**

Overall, Oregonians have a high regard for the ODF: in a most basic question, 70% of Oregon residents agree that the ODF does a good job managing Oregon State Forests, while only 14% disagree. (This graph is shown in the section of the report titled, "Opinions on the Oregon Department of Forestry.")

More Oregonians think that the state's approach to forest management is well balanced (46%) than think it is out of balance (34%); however, *somewhat* well balanced exceeds *very* well balanced by about 4:1. (This graph is shown in the section of the report titled, "Opinions on Forest Management by the Oregon Department of Forestry.")

Slightly more Oregon residents (42%) approve than disapprove (35%) of current forest management activities in Oregon. In the survey, this question followed several questions regarding Oregon's *overall* economy and environment, so this question reflects opinion on forest management *overall*, not just State Forests.

Davis, Hibbitts & McCaig, Inc. (2002), in a question about Oregonians' approval or disapproval of overall forest management activities in Oregon (not limited to the ODF's management activities), found a fairly even split in 2002: 46% of Oregonians approved of forest management activities in Oregon, but 42% disapproved.

More Oregonians think that forest management on state-owned lands has gotten worse (26%) than think it has gotten better (19%) in the past 10 years, although the most common answer is that they do not know (33%). (This graph is shown in the section of the report titled, "Opinions on Forest Management by the Oregon Department of Forestry.")

"I can't complain much in the way state land is managed."

–focus group participant, Coos Bay

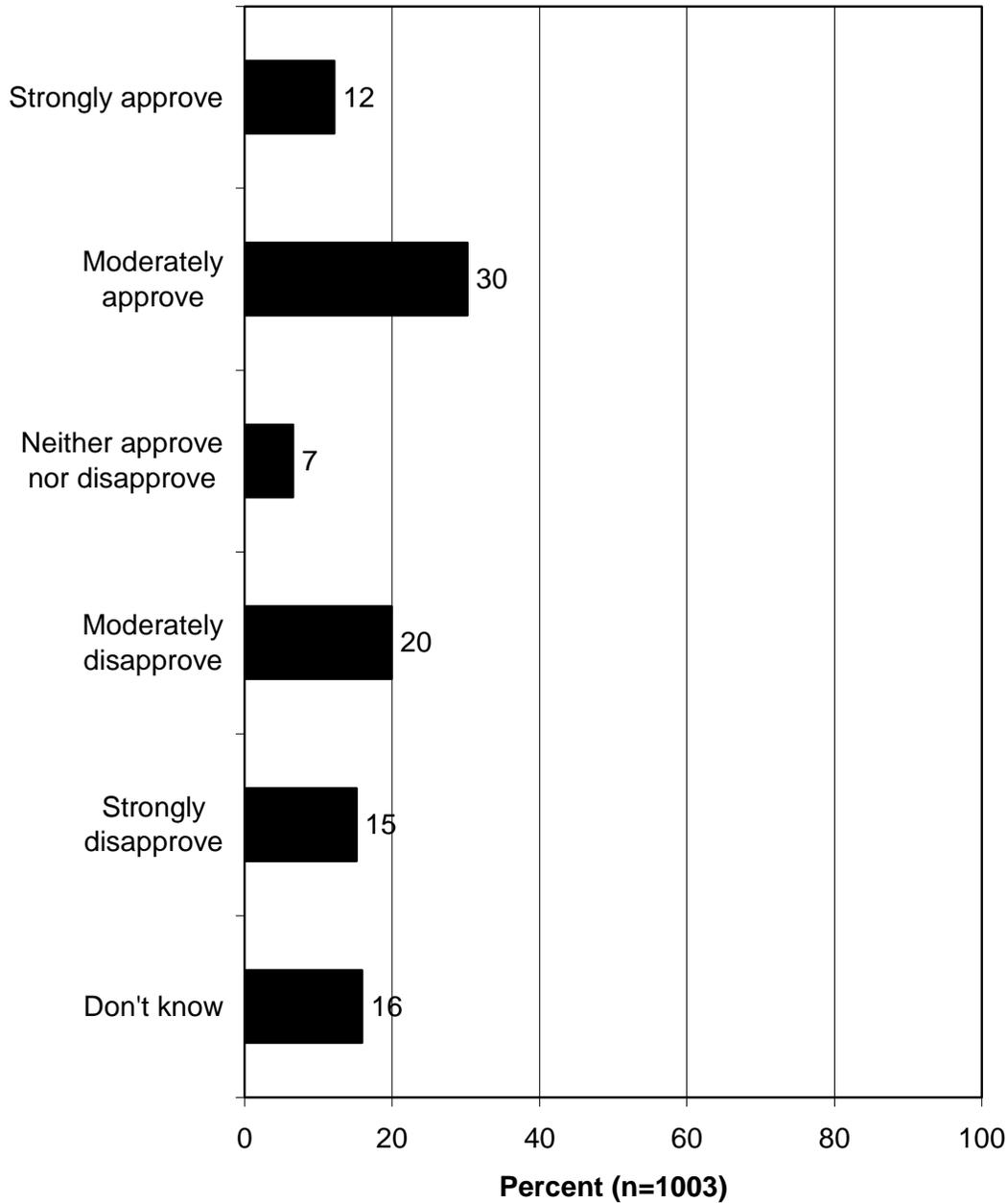
"They [the State] are doing a better job than most of them...[better than] private landowners and the federal [government]."

–focus group participant, Coos Bay

"I think the State's doing a great job, and I think the federal [government]'s doing so-so. The private industry is doing the pits."

–focus group participant, Coos Bay

Q168. From what you have heard, read, or personally seen, do you approve or disapprove of current forest management activities in Oregon?



DEVELOPMENT OF FOREST MANAGEMENT PLANS

- **Oregonians want balance in the development of State Forest Management Plans, particularly in the environmental versus economic realm. Overall, Oregonians are divided in the environment versus economic debate, and it would be impossible to completely please both camps; nonetheless, the best scenario would be to strike a balance between the two and show that strategies to address the environment and the economy need not be mutually exclusive. Another need is for local interests to be balanced with statewide interests. Overall, though, the key word in developing State Forest Management Plans is “balance.”**

The survey asked Oregonians directly which of three factors—social, economic, or environmental—currently has the most influence in the management of Oregon State Forests. The top answer is economic (44%), followed by environmental (33%). Very few (10%) think that social factors have the most influence. The survey also asked three questions to determine which of the factors *should* have the most influence. The environmental factor (protecting water quality and wildlife habitat) had the highest mean (8.6 out of 10) and the highest percentage giving a rating of 10 (50%). The economic factor (growing trees for harvesting for wood products) was second, with a mean of 7.2 and with 24% rating it at 10. Finally, the lowest of the three factors was the social (or recreational) factor: its mean was 6.5, and only 13% rated it 10.

Past research has shown the importance of the environmental concerns in forest management as well: Davis, Hibbitts & McCaig, Inc. (2002) found that environmental concerns were more important than economic concerns and social concerns in management of both private and federal forests.

Davis, Hibbitts & Midghall, Inc. (2006) found that a majority of Oregonians (51%) disagree with the statement, “Oregon’s rural communities have too much influence on the development of the state’s forest management plans” (26% agreed). The analysis of the results of this survey also found *no* correlation between agreement or disagreement with this statement and residing in a metropolitan area.

Although 48% of Oregon residents think that timber company interests have too much influence on the development of State Forest management plans, 55% think that environmentalists have too much influence on the development of State Forest management plans (this sums to more than 100% because these were asked in two separate questions). Also, 44% think that the ODF has allowed environmental interests to be more important than economic interests.

“I think the environmentalists...(and they’re good—I mean, there’s a lot of things they do...right)...but I think they have too much input in the forest production.”

“A lot of the reason for that is because a lot of their followers don’t really know what’s going on.”

“I know it. [Facetiously] But they’re educated.”

–focus group participant dialogue, Coos Bay

Regarding the approach for effecting improvements to forest management, Davis, Hibbitts & Midghall, Inc. (2006) asked Oregonians to say which of three statements came closest to their personal view, and stronger enforcement of forest management laws and regulations, including greater penalties for forestland owners who violate the law (41%) had the highest percentage saying this came closest to their view over the use of tax and other incentives to reward forestland owners for making voluntary improvements to forest conditions (29%) and over letting the free market decide through such approaches as certification or consumer awareness (18%).

Oregonians most commonly (41%) say that they do not know if the planning process for developing forest management plans in Oregon has gotten better or worse over the past 10 years; otherwise, they are evenly distributed: 19% say it has gotten better, 18% say it has stayed the same, and 21% say it has gotten worse.

Focus group participants, in discussing the development of State Forest Management Plans and forest management decisions in general, often mentioned and responded well to the word, “balance.”

“The key word to all this seems to have been balance: nobody wants to see it go all the way one way or all the way the other way.”

–focus group participant, Portland

“There should be a middle ground.”

–focus group participant, Coos Bay

Balance also tested well in a previous survey conducted by Davis, Hibbitts & Midghall, Inc. (2006) in which Oregonians rated the likelihood and the desirability of six possible scenarios: the top-ranked scenario, in a ranking by desirability, was that Oregon will strike an appropriate balance in the management of its forests for environmental, social, and economic benefits. In addition, Ribe and Silvaggio (2002) conducted a mail survey of registered voters in the western parts of Washington and Oregon encompassing the range of the northern spotted owl, and two questions in which “balance” was used elicited a high percentage of agreement (although the survey was about National Forests, the results regarding “balance” are relevant): 82% agreed with the statement, “National forests should be managed according to a balanced allocation of different parts of national forests to timber harvest, wildlife conservation, recreation and other forest values” (only 8% disagreed), and 65% agreed with the statement, “National forests should be managed to provide a balance of jobs across all forest related economies, including non-traditional or special forest products..., traditional timber products..., and recreation/tourism” (only 18% disagreed).

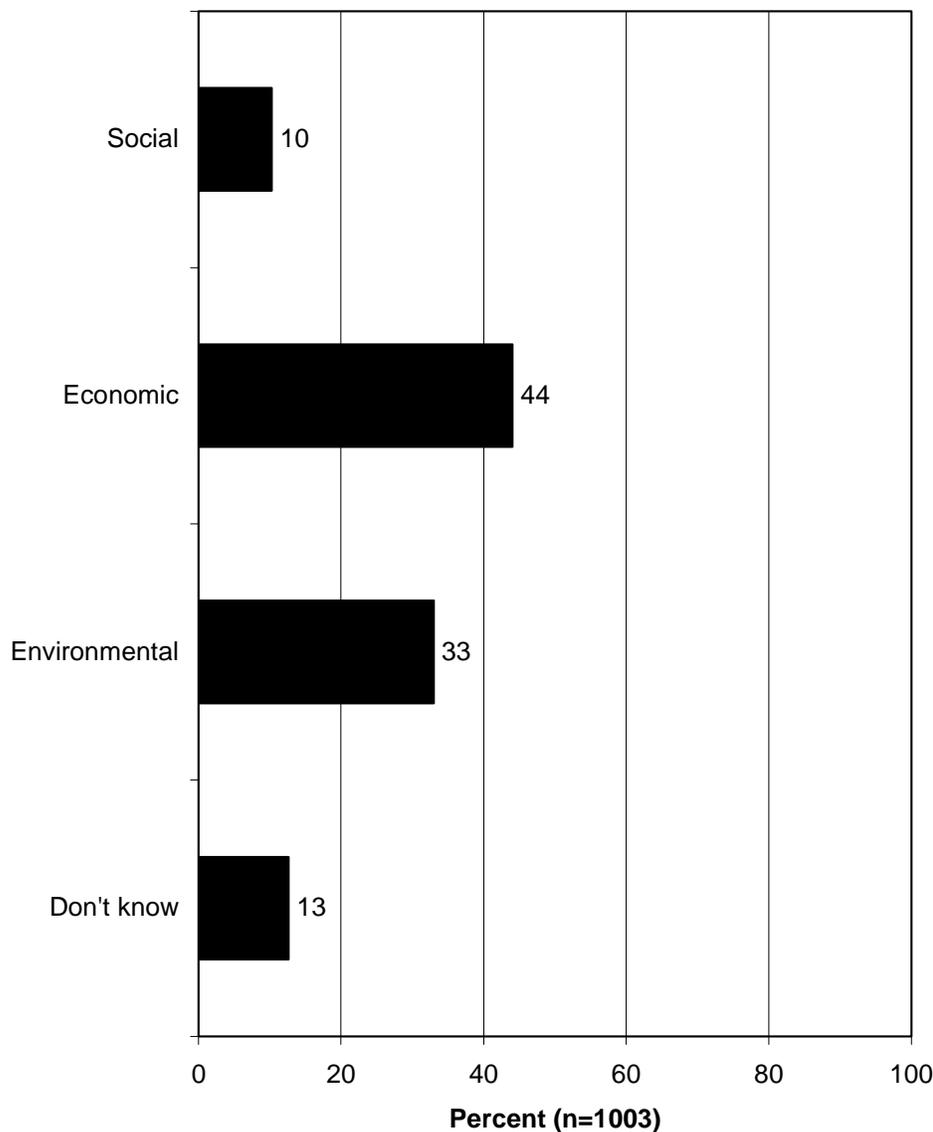
The focus groups included many who thought that management decisions, on both State Forest lands as well as in forests in general, were out of local hands and/or did not consider local interests.

“Most of those who vote on the issue [in Salem] have never seen it [the local forest]; never will.” Another added, *“Not enough attention is paid to it*

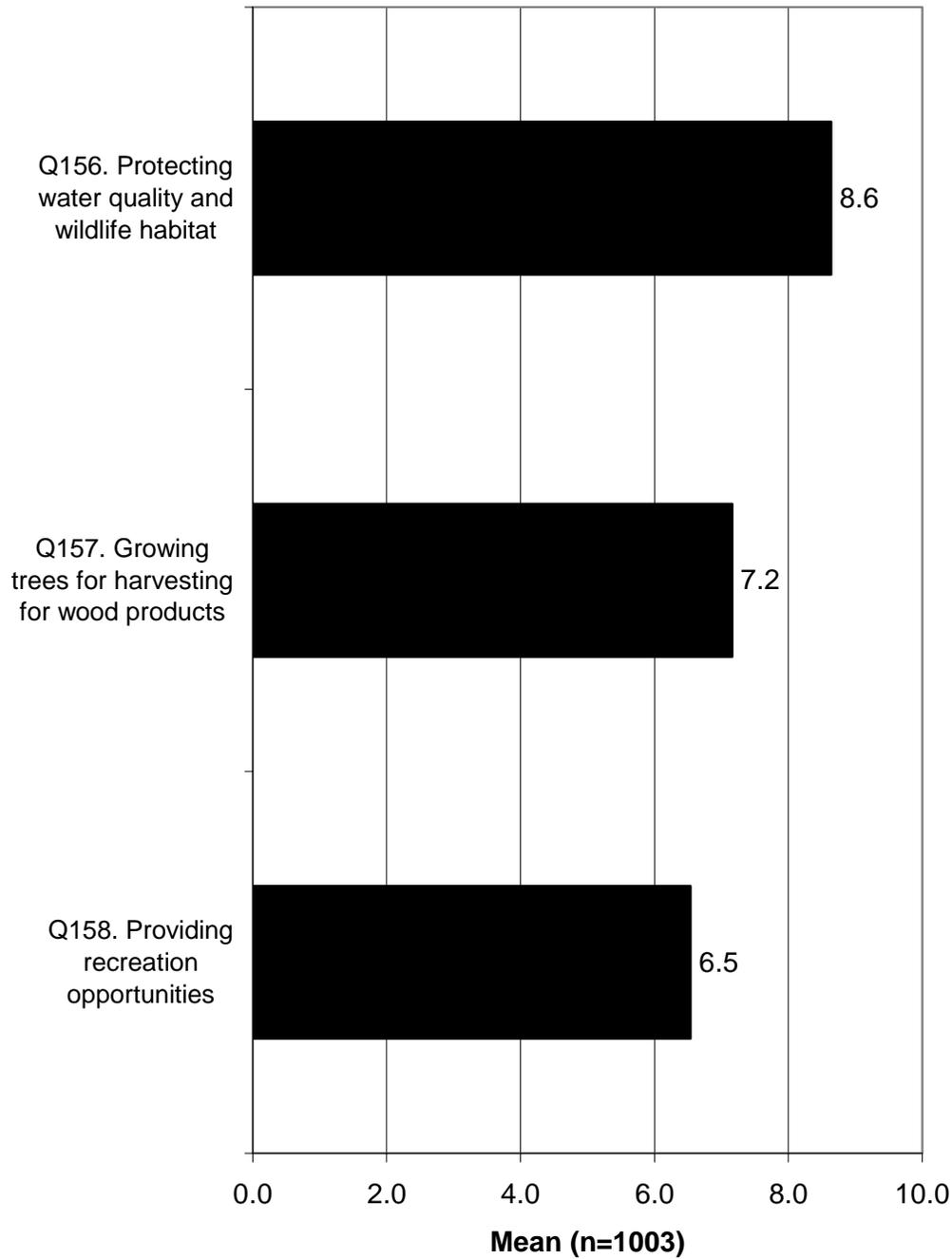
[local input].” Still another said, “I’d just like to see...more people listening to our local voices down here.” Others acknowledged that economic interests are sometimes far from Oregon: “I think a lot of the decisions are made by rich people overseas,” and another said, regarding local control of the forest resource, “It never was in our control.”

—focus group participants, Coos Bay

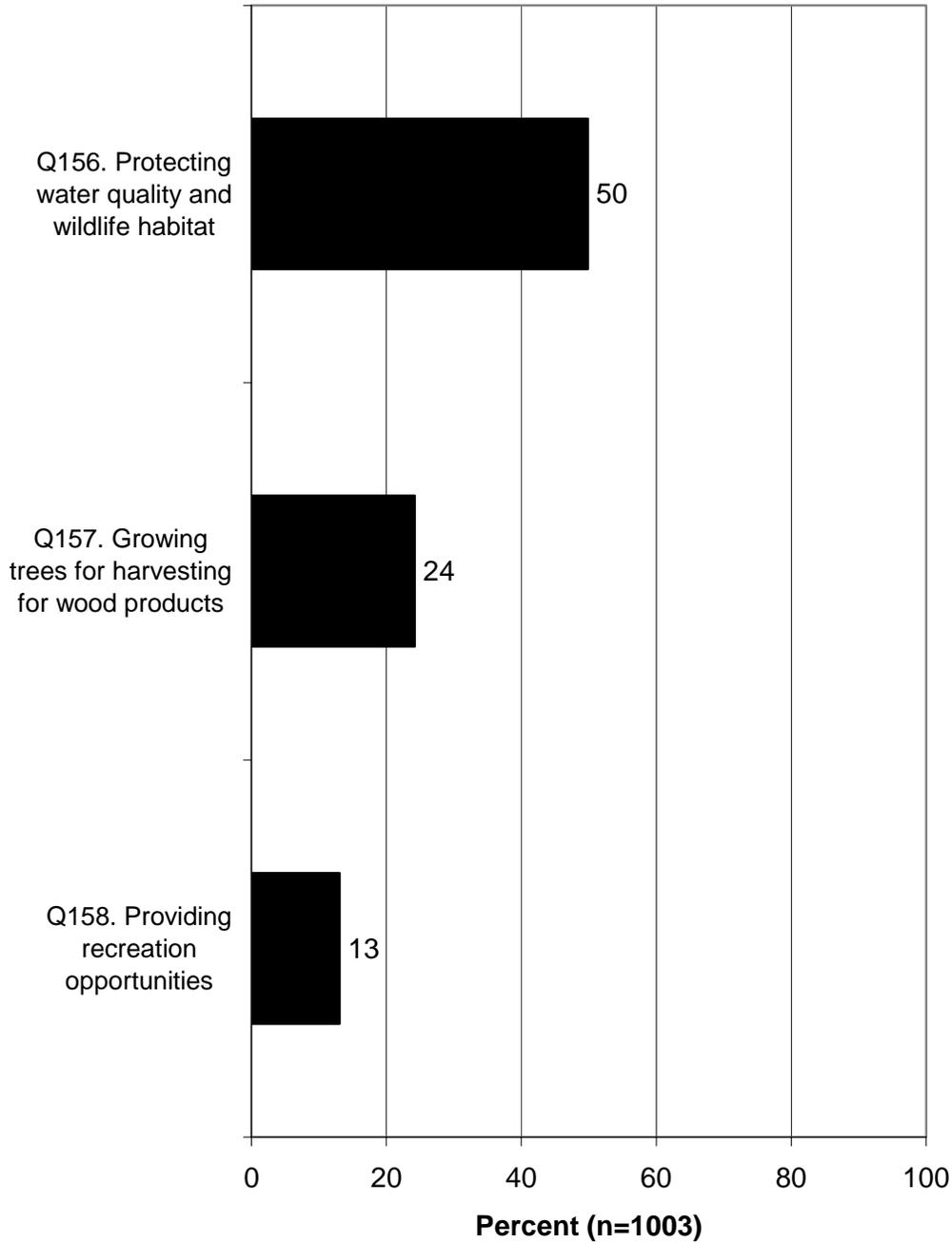
Q153. Currently, Oregon State-managed forests are managed based on social, economic, and environmental factors. Which of the three do you think currently has the most influence?



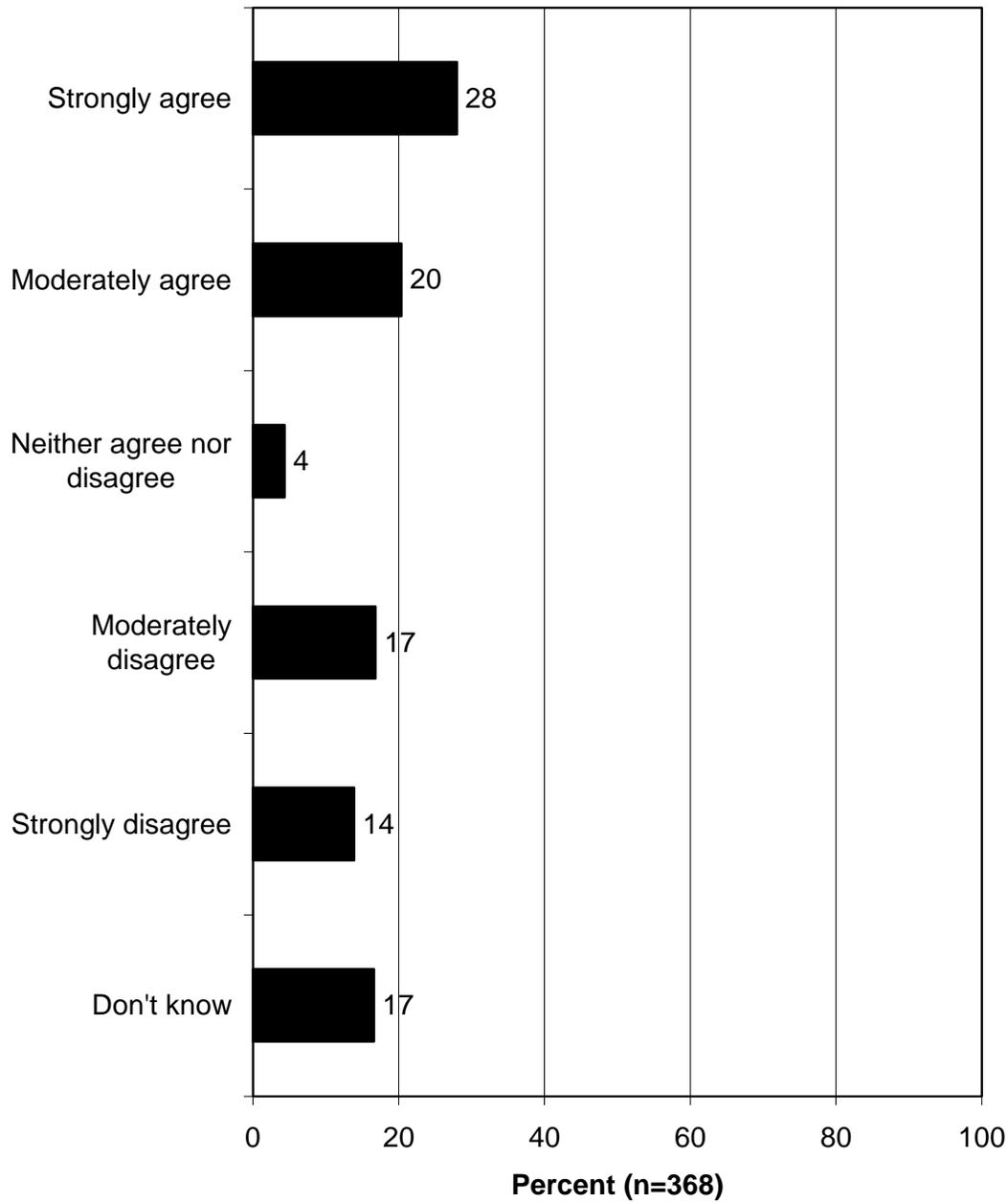
Q156-Q158. Means, on a scale of 0 to 10, of how much weight should be given to the following.



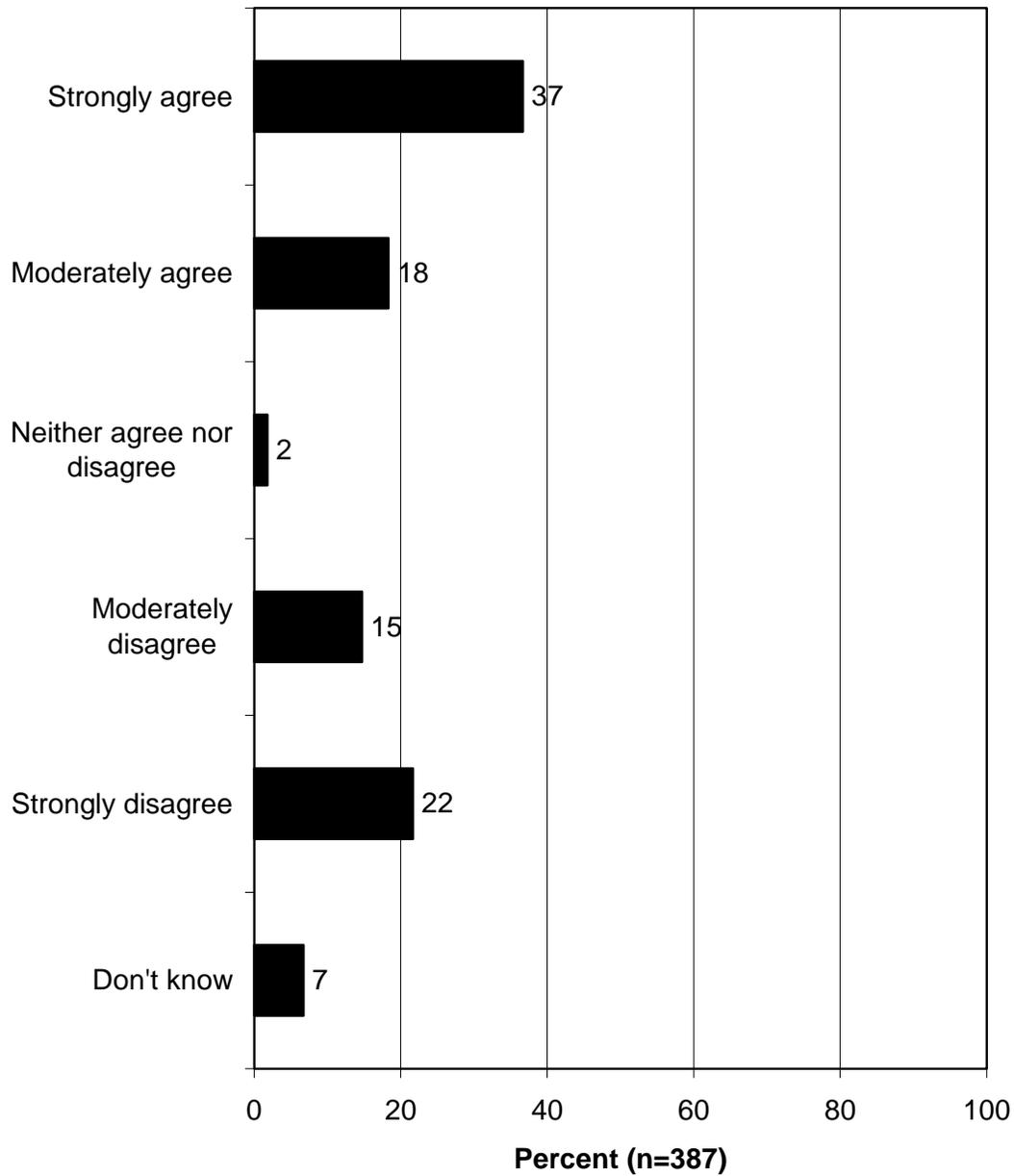
Q156-Q158. Percent who said 10, on a scale of 0 to 10, for how much weight should be given to the following.



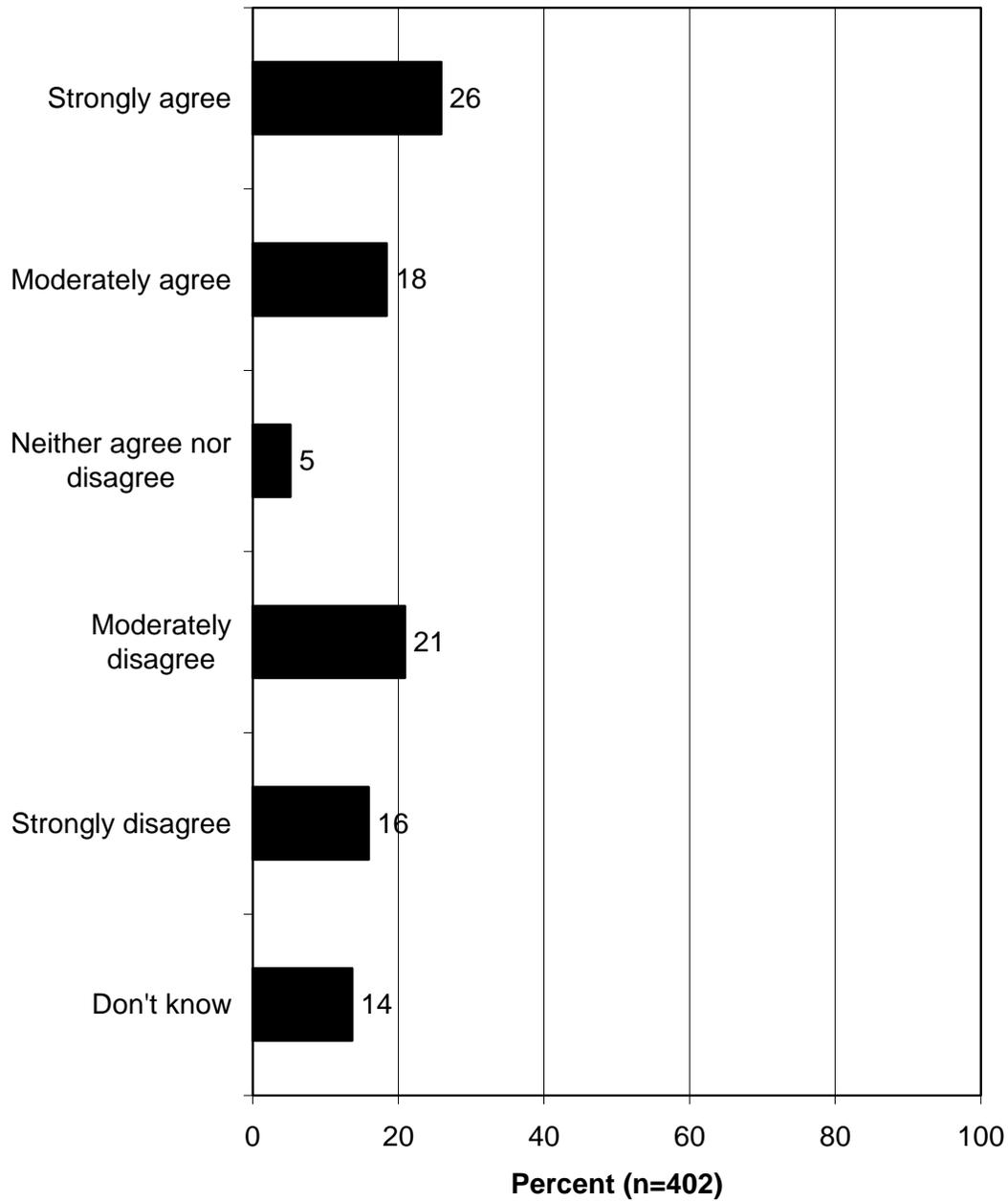
Q118. Timber company interests have too much influence on the development of forest management plans on State forest lands. (Do you agree or disagree with this statement?)



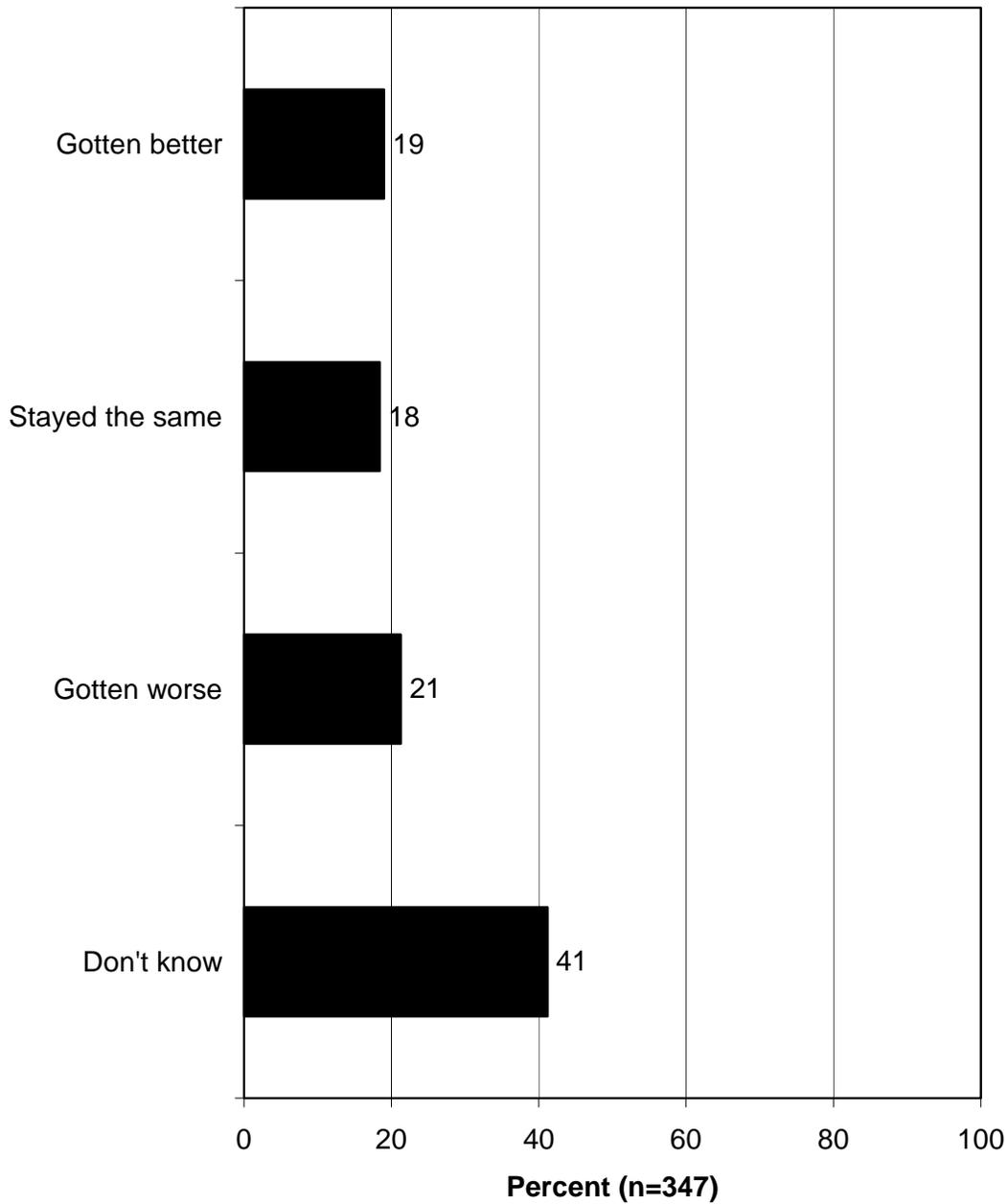
Q124. Environmentalists have too much influence on development of the State forest management plans. (Do you agree or disagree with this statement?)



Q121. The Oregon Department of Forestry has allowed environmental interests to be more important than economic interests. (Do you agree or disagree with this statement?)



Q134. Has the planning process for developing forest management plans gotten better, stayed the same, or gotten worse in Oregon in the past 10 years?



GUIDING PRINCIPLES OF DEVELOPING FOREST MANAGEMENT PLANS

- **The guiding principles used in the development of State Forest Management Plans are strongly supported by Oregonians overall. However, there is some opposition to the guiding principles related to timbering. (Some of this opposition may simply be related to lack of awareness among Oregonians about the relationship of timber harvest and the Trust Counties.) Nonetheless, despite the support for the guiding principles, there is less agreement that the State Forest Management Plans actually follow the guiding principles, particularly that the State Forest Management Plans acknowledge the interests of the counties from which most of the Board of Forestry lands were originally acquired. There was skepticism expressed in the focus groups that the revenue from timber sales on Board of Forestry lands actually goes to the Trust Counties.**

The survey asked about six of the guiding principles set forth in the State Forest Management Plans (Oregon Department of Forestry, 2001). (Note that there are 14 guiding principles, but the survey asked only about those for which the focus group research showed great differences of opinion; in other words, the survey did not ask about those guiding principles that were expected to have overwhelming support and that would be free of controversy—these include such principles as, “The plan will be goal-driven,” or “The plan will be a comprehensive, integrated forest management plan taking into account a wide range of forest values.”) Large majorities *strongly* agree that State Forest Management Plans should:

- secure the greatest permanent value to the citizens of Oregon by providing healthy, productive, and sustainable forest ecosystems (71% *strongly* agree);
- recognize that ecosystem restoration and watershed health are among key goals (70%);
- be developed with input from a variety of interested parties (65%); and
- consider the overall biological diversity of State Forest lands, including the variety of life and accompanying ecological processes (63%).

A slight majority *strongly* agree that State Forest Management Plans should recognize that the State Forests are intended to be an important contributor to timber supply for present and future generations (55% *strongly* agree). Oregonians as a whole, however, do not *strongly* agree that the State Forest Management Plans should acknowledge the interests of the counties from which most of the Board of Forestry lands were originally acquired, as only 38% *strongly* agree. This latter guiding principle is the only one that less than 80% *strongly* or *moderately* agree should be a guiding principle; all other principles discussed in the survey had more than 80% in agreement. Furthermore, the greatest disagreement was for the two guiding principles most closely related to timbering: 13% *strongly* or *moderately* disagree that the Plans should acknowledge the interests of the counties from which most of the Board of Forestry lands were originally acquired, and 12% *strongly* or *moderately* disagree that the Plans should recognize that the State Forests are intended to be an important contributor to timber supply for present and future generations.

In follow-up questions, Oregon residents were then asked if they agree or disagree that the State Forest Management Plans actually follow the guiding principles. In each case, fewer residents agree that the Plans actually follow the guiding principle than agree that the Plans

should follow the principle, as discussed previously in the section titled, “Opinions on Forest Management by the Oregon Department of Forestry.”

Regarding the guiding principle that the State Forest Management Plans should recognize that ecosystem restoration and watershed health are among key goals, a focus group participant agreed, but then said: *“The farmers have more...impact [on water quality] than the forests do.”*

–focus group participant, Coos Bay

Regarding the guiding principle that the State Forest Management Plans should recognize that the State Forests are intended to be an important contributor to timber supply for present and future generations: *“Yes. How you arrive at that is another question.”*

–focus group participant, Coos Bay

Regarding the guiding principle that the State Forest Management Plans should be developed with input from a variety of interested parties: *“I think a few parties could be left out.”* However, another countered with, *“I don’t think you can shut any one party out; then it wouldn’t be a legitimate plan....”*

–focus group participants, Coos Bay

A large majority of Oregon residents (70%) agree that the State Forest Management Plans should acknowledge the interests of the counties from which most of the Board of Forestry lands were originally acquired—a main tenet of the Forest Acquisition Act of 1939 in which counties deeded land to the state in exchange for a share of future timber harvest revenues. Agreement is slightly higher (82%) that the State Forest Management Plans should recognize that the State Forests are intended to be an important contributor to timber supply for present and future generations; only 11% disagree.

The focus group participants were, in general, either unaware or skeptical that revenue from timber sales in State Forests went to the Trust Counties.

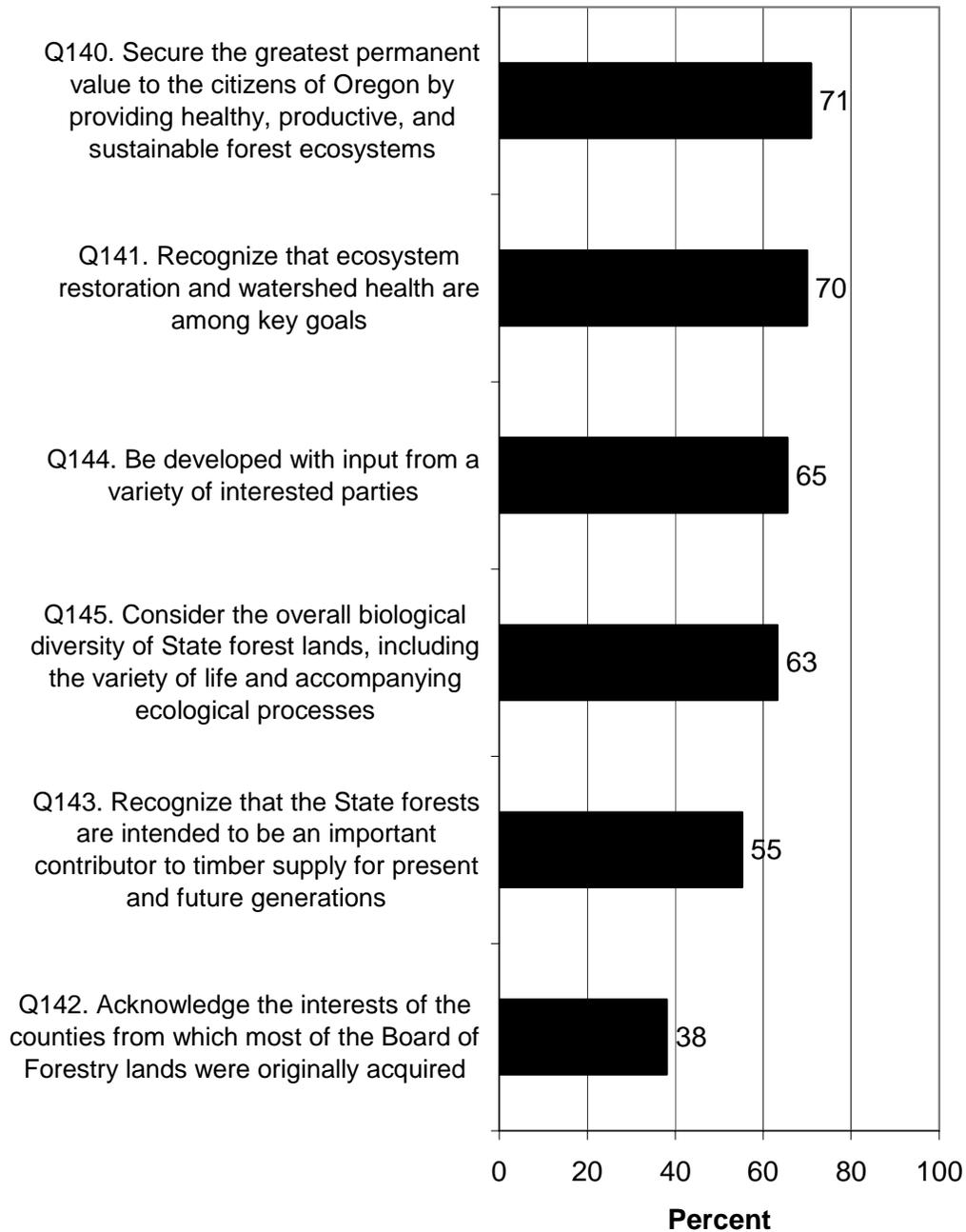
“I don’t think the general public is aware of this [that the Trust Counties get revenue from State Forest timber sales]. I was not aware of this.”

–focus group participant, Coos Bay

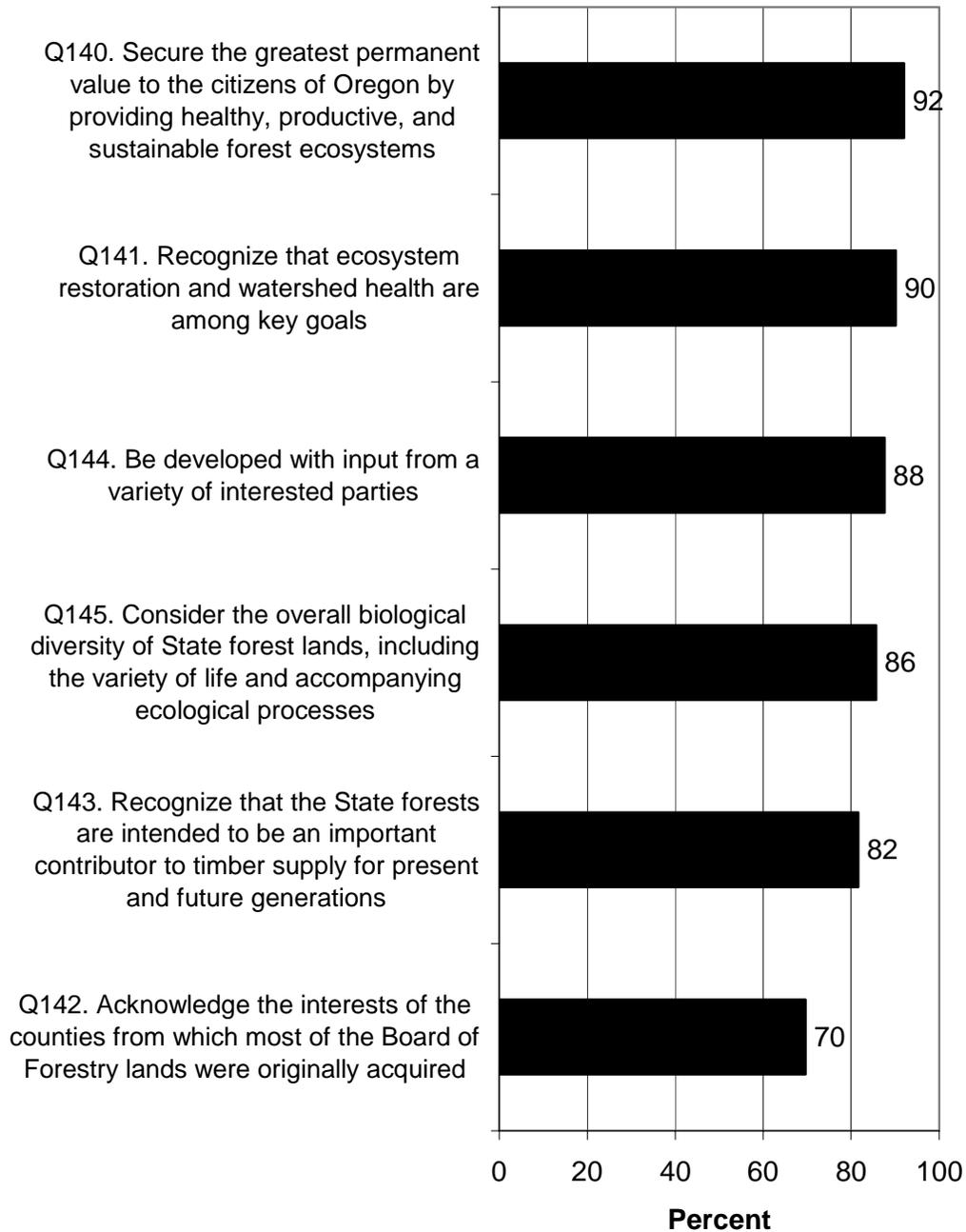
“I think the percentage [of revenue from State Forest timber sales] going into politics is more than is going into our schools.”

–focus group participant, Coos Bay

Q140-Q145. Percent who strongly agree that the following should be guiding principles of State forest management plans.



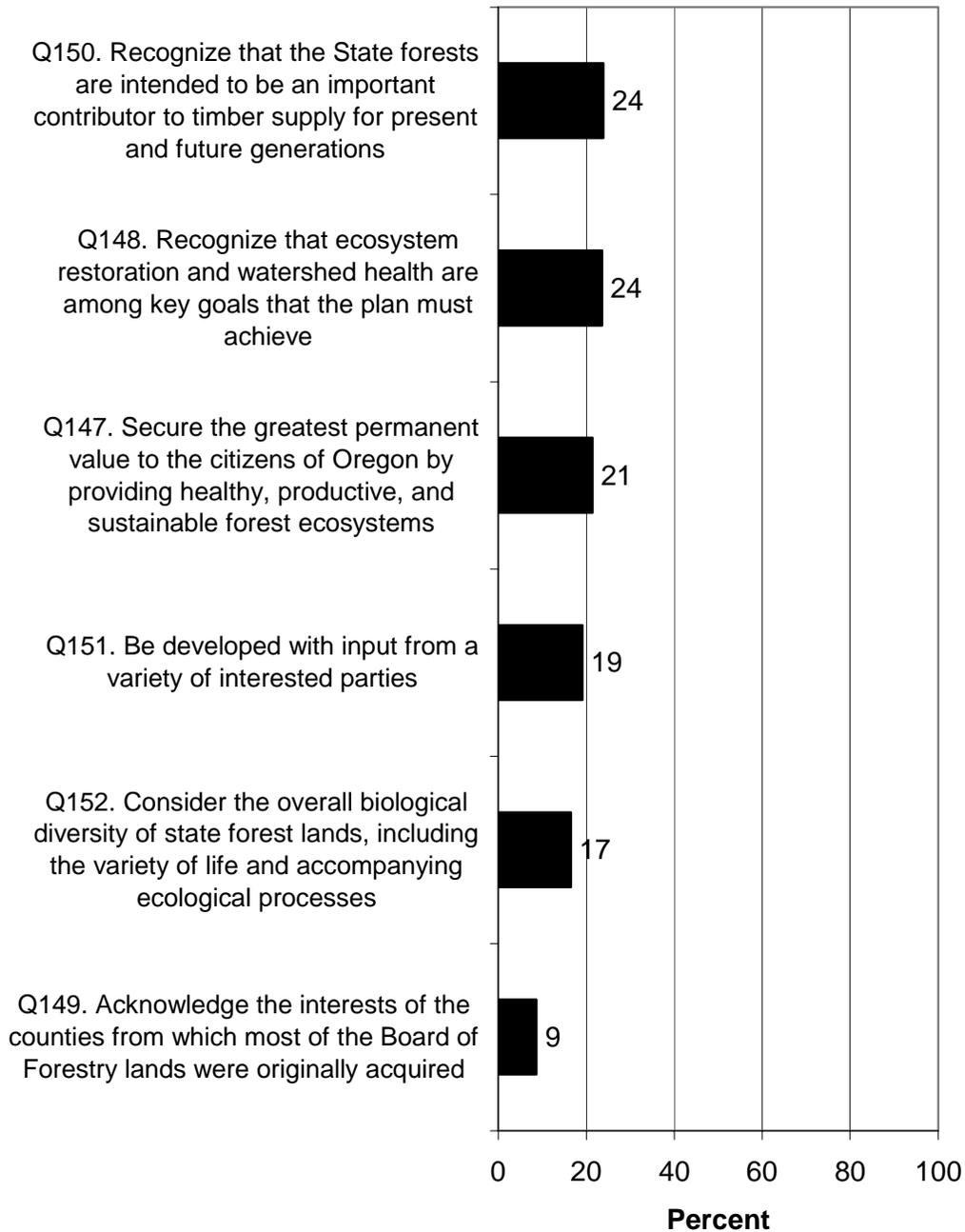
Q140-Q145. Percent who strongly or moderately agree that the following should be guiding principles of State forest management plans.



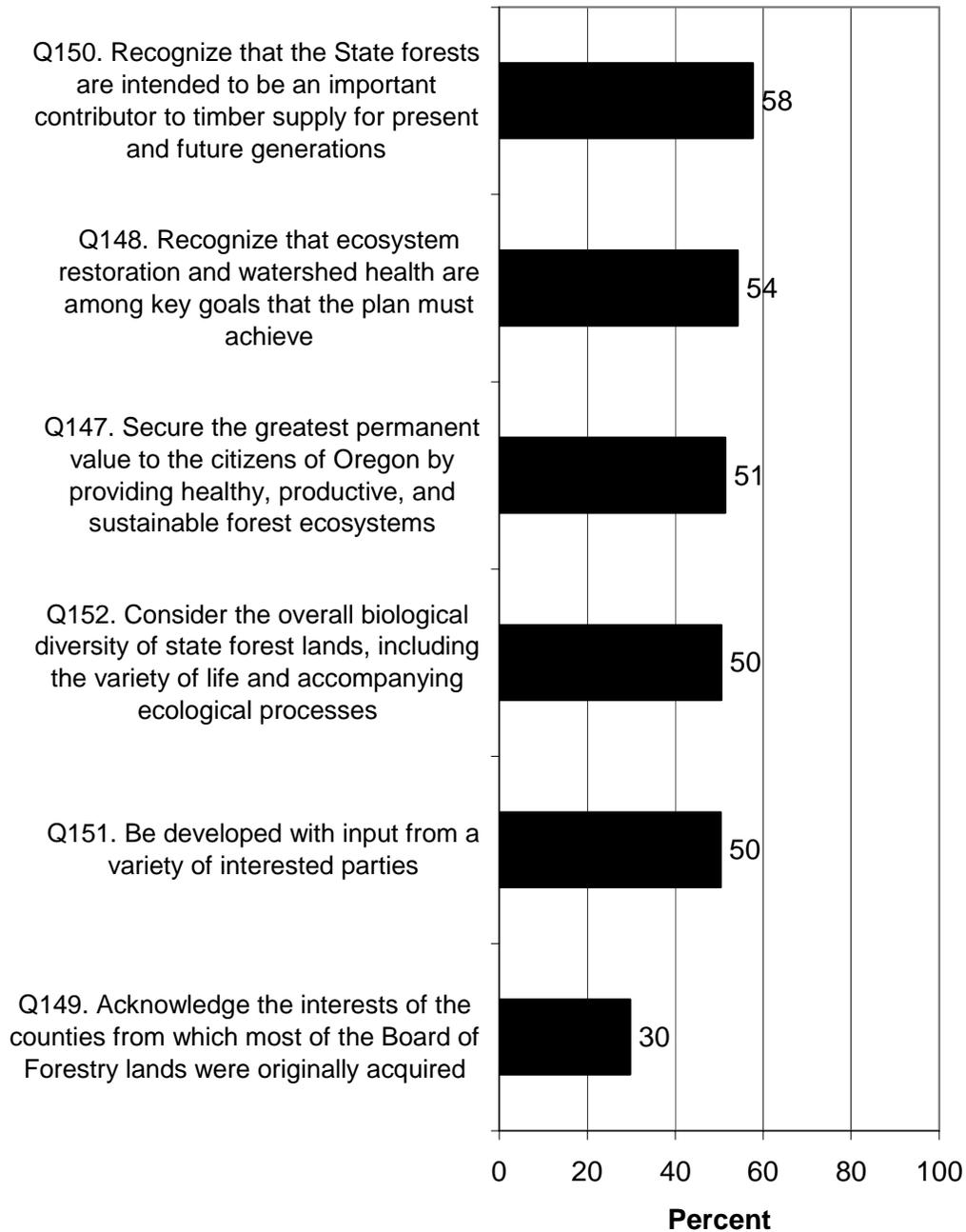
Q140-Q145. Percent who strongly or moderately disagree that the following should be guiding principles of State forest management plans.



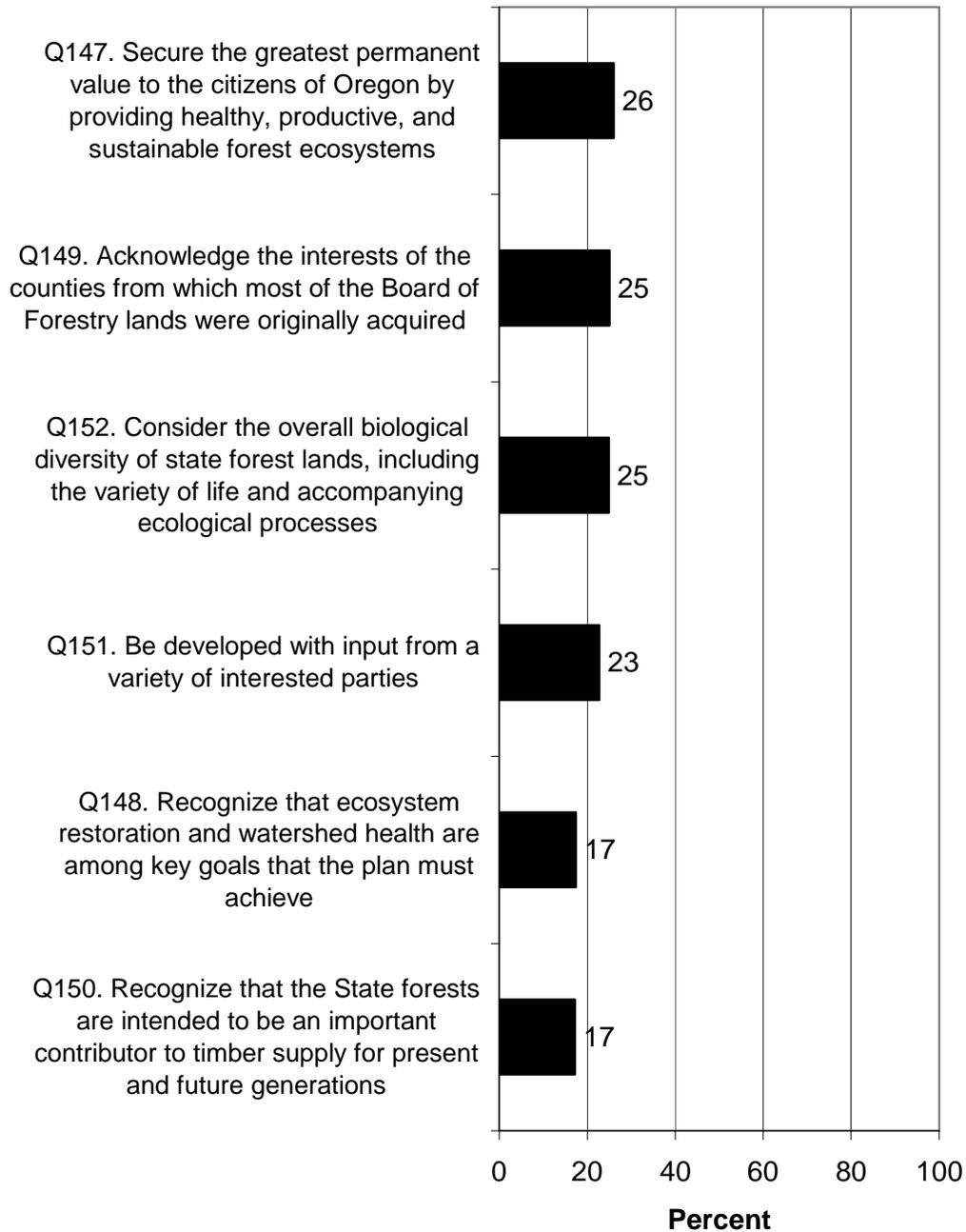
Q147-Q152. Percent who strongly agree that State forest management plans actually follow the following guiding principles.



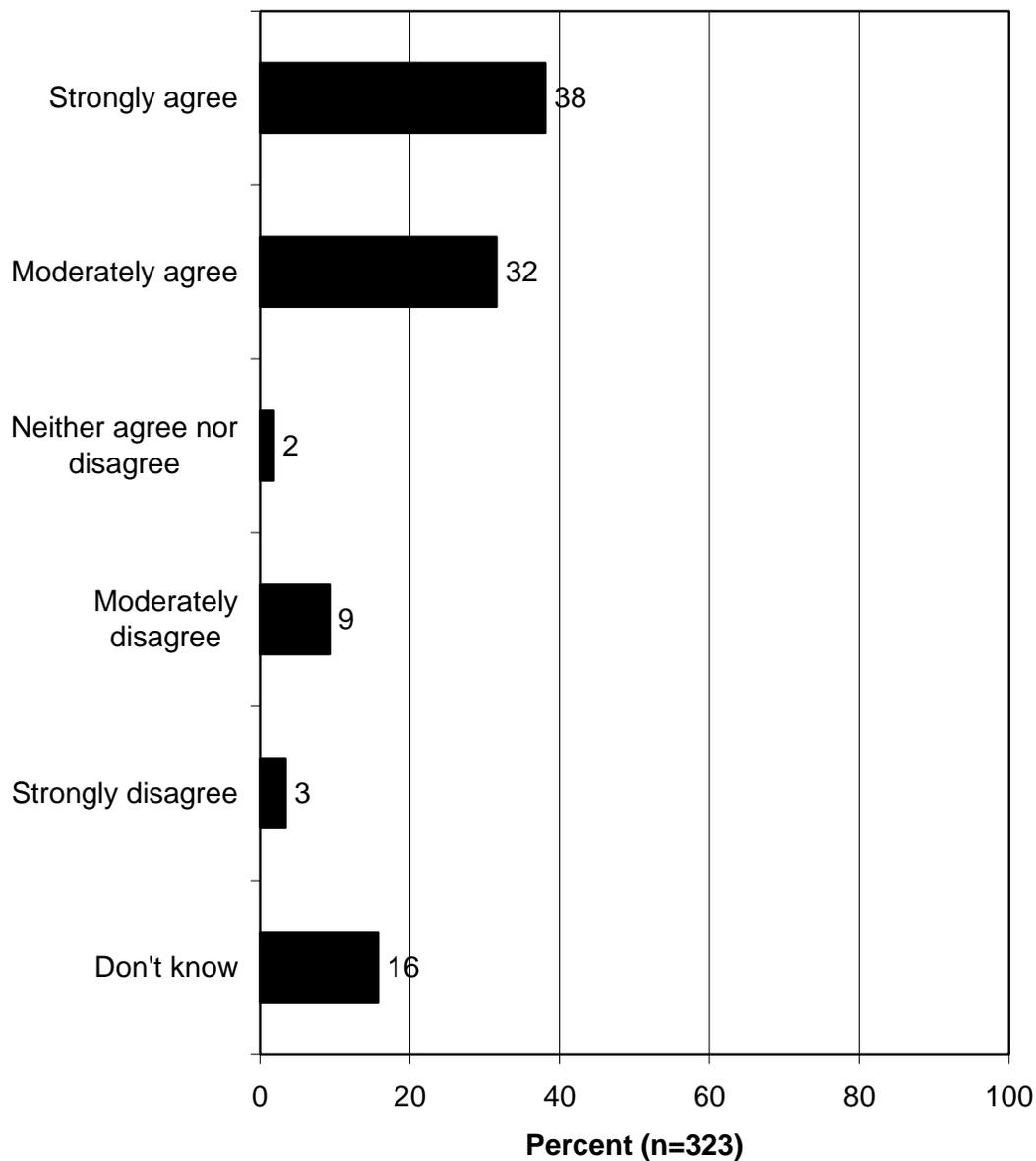
Q147-Q152. Percent who strongly or moderately agree that State forest management plans actually follow the following guiding principles.



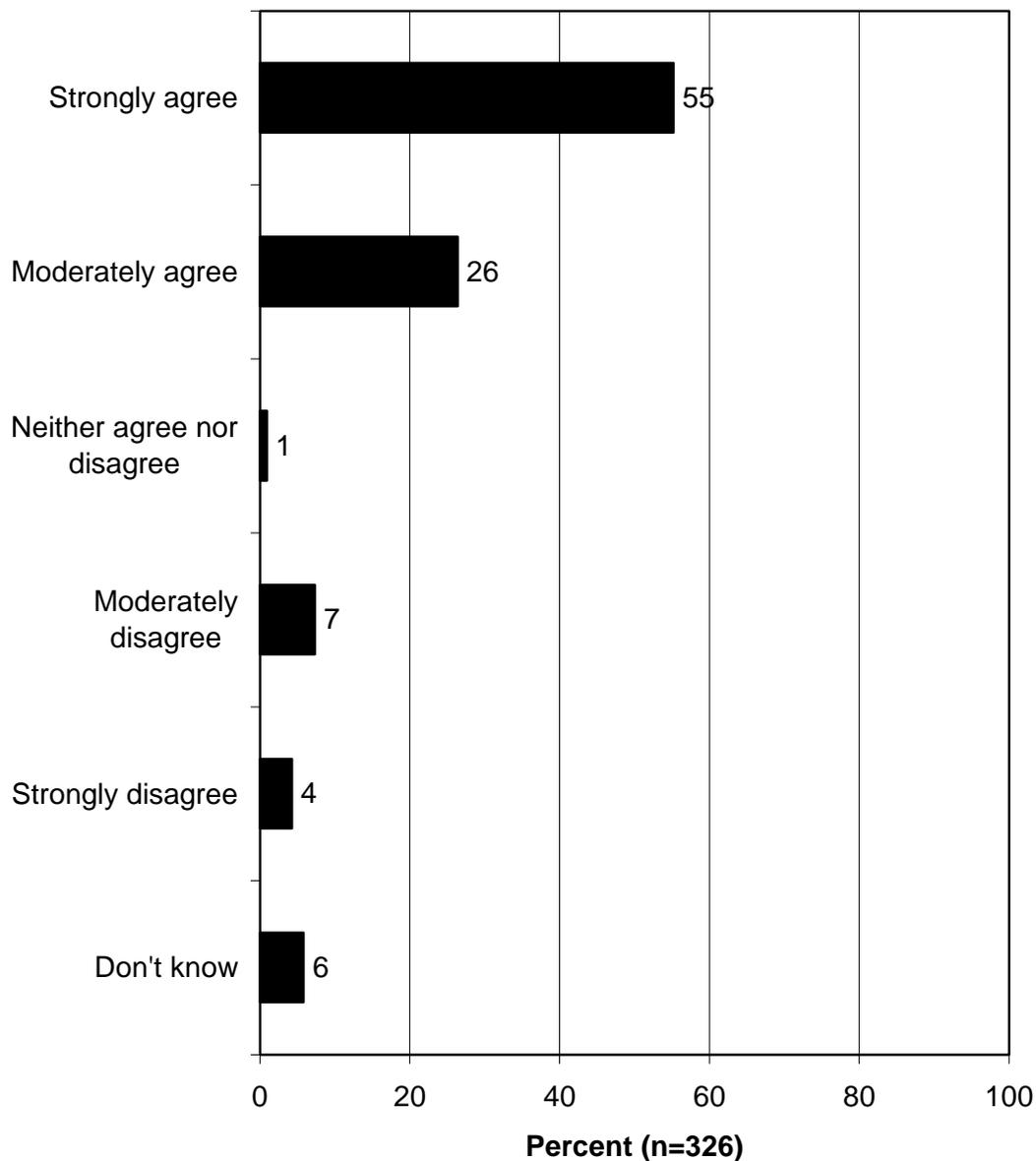
Q147-Q152. Percent who strongly or moderately disagree that State forest management plans actually follow the following guiding principles.



Q142. The State forest management plan should acknowledge the interests of the counties from which most of the Board of Forestry lands were originally acquired. (Do you agree or disagree that this should be a guiding principle of State forest management plans?)



Q143. The State forest management plan should recognize that the State forests are intended to be an important contributor to timber supply for present and future generations. (Do you agree or disagree that this should be a guiding principle of State forest management plans?)



THE WOOD PRODUCTS INDUSTRY AND FOREST MANAGEMENT

- **As noted previously, the wood products industry is of great economic importance to Oregon; however, Oregonians are worried about the health of the industry, particularly as it affects Oregon's overall economic health and unemployment in the state. These economic worries sometimes cause a backlash against environmentalists, who some see as being extremist, particularly combined with the fact that the wood products industry is seen positively by most Oregonians, as is the use of wood products. (Nonetheless, there is a substantial undercurrent running against the wood products industry that must be considered, seemingly fueled in particular by opposition to clear-cutting and by the perception among some that the wood-products industry has too much political weight in the state.)**

Oregonians show great apprehension about the wood products industry in Oregon, as a majority (56%) say that the health of the wood products industry in Oregon in the past 10 years has gotten worse, five times the percentage who say that it has gotten better (11%). Another 12% say that it has stayed the same.

Loss of jobs (12%) is the most commonly named issue that Oregon residents feel that Oregon's wood products industry faces, closely followed by unsustainable harvesting (11%), government policies/onerous legal hurdles to harvesting (10%), interference by environmentalists (9%), and loss of markets (8%).

A literature review by Davis, Hibbitts & McCaig, Inc. (2001b) discussed a 1993 study by Shindler et al. wherein Oregonians showed more concerned about timber jobs than did respondents nationally: 48% of Oregon residents disagreed with setting aside endangered species laws to preserve timber jobs, while nationally 65% disagreed, demonstrating a higher concern of endangered species over jobs in the national sample.

Davis, Hibbitts & Midghall, Inc. (2006) asked Oregonians directly about their concern for jobs and revenue for rural communities from forests, and nearly a majority (48%) were *very* concerned, and an overwhelming majority (85%) were very or somewhat concerned, and about a third (33%) said that they were *very* concerned about providing wood for homes and products. This same survey found that a majority of Oregonians agreed (54%) with the statement, "Oregonians wanting to shut down natural resource-based economies for economic and social reasons cause undue economic and social burden on rural communities" (only 23% disagreed).

A majority of Oregon residents (59%) agree that wood products companies care about the long-term health of Oregon's forests, about double the percentage who disagree (30%). Recall that 22% of Oregon residents work in the wood products or related industry or a family member does, and note that these people are much more likely to say that wood products companies care about the long-term health of Oregon's forests. In an additional finding, more Oregonians think that the practices of timber companies in Oregon over the past 10 years have gotten better (37%) than think they have gotten worse (19%) (and, again, residents who work in the wood products or related industry are more likely to say that

timber company practices have gotten better in the past 10 years). Also, a majority of residents (66%) rate representatives of forest products companies as very or somewhat credible as sources of information on forests and forest management. These findings indicate that, for the most part, Oregonians have a positive view of wood products companies in Oregon. Nonetheless, there is a substantial undercurrent of discontent. Recall that nearly a majority of Oregon residents (48%) think that timber company interests have too much influence on the development of State Forest Management Plans, and 43% of Oregonians think the ODF has allowed economic interests to be more important than environmental interests. Also, representatives of forest products companies ranked low in credibility among the nine sources discussed in the survey.

A 2005 survey by Davis, Hibbitts & Midghall, Inc. (2006) found slightly lower credibility among representatives of forest products companies than was found in Responsive Management's current survey: the Davis, Hibbitts & Midghall, Inc., survey asked about how much respondents trusted (a slight nuance difference from "credible") eight sources of information about forestry in Oregon, and only 42% trusted representatives of forest products companies, which ranked below government foresters, family forest landowners, and environmental groups as a source of information about forestry.

A study in 1986 by Moore Information (as cited in Davis, Hibbitts & McCaig, Inc., 2001b) found Oregonians were split on whether harvesting practices damage habitat: 47% agreed that "harvesting trees causes serious damage to fish and wildlife populations," but 40% disagreed. Regarding fish habitat specifically, a study by the Nelson Report in 2000 (as cited in Davis, Hibbitts & McCaig, Inc., 2001b) found that Oregonian registered voters by more than 2:1 thought that then-current timber harvesting practices harmed (44%) fish habitat rather than improved (17%) fish habitat in Oregon. Note, however, that when Oregonians were asked in 1994 what they thought was most responsible for declining salmon populations, timber harvest activities (7%) was well behind hydroelectric dams (30%), overfishing (19%), and industrial/commercial development (18%) (Moore Information, 1994, as cited in Davis, Hibbitts & McCaig, Inc., 2001b).

Moore Information (1994) (as cited in Davis, Hibbitts & McCaig, Inc., 2001b) asked Oregonians how good a job forest products companies were doing in protecting the forest environment including forest streams and wildlife: Oregonians showed an almost even split, with 35% rating forest products companies as excellent or above average at protecting the forest environment, and 27% rating those companies as below average or poor. The most common single answer was "average" (36%).

Regardless of whether it is actually the case, more Oregonians agree (40%) than disagree (22%) that more revenue could be generated from the forest by selling miscellaneous forest products than by selling timber products; note, however, that a relatively large percentage (38%) answered that they do not know or gave the neutral answer. (While this study does not explore the amounts of revenue that could be generated by sales of miscellaneous forest products, no forestry stakeholders questioned about this statement indicated that more

revenue could be generated by selling miscellaneous forest products than by selling timber.) Some of the forest products include beargrass, boughs, ferns, moss, mushrooms, rock, salal, vine maple, alder, and other miscellaneous plants (Oregon Department of Forestry, 2005).

Oregon residents are nearly perfectly split on whether it would be desirable or undesirable if Oregon's economy moved away from using forests for wood production. When presented with the statement that assumes a 30-year time frame, "Oregon's economy will move away from using forests for wood production," a graph of results is almost perfectly symmetrical: *very* desirable and *very* undesirable are close (23% and 26%, respectively) and *somewhat* desirable and *somewhat* undesirable are nearly tied (20% and 21%). Overall, 43% say "desirable," and 47% say "undesirable." (This graph is shown in the section of the report titled, "Importance of Forests for Recreation.")

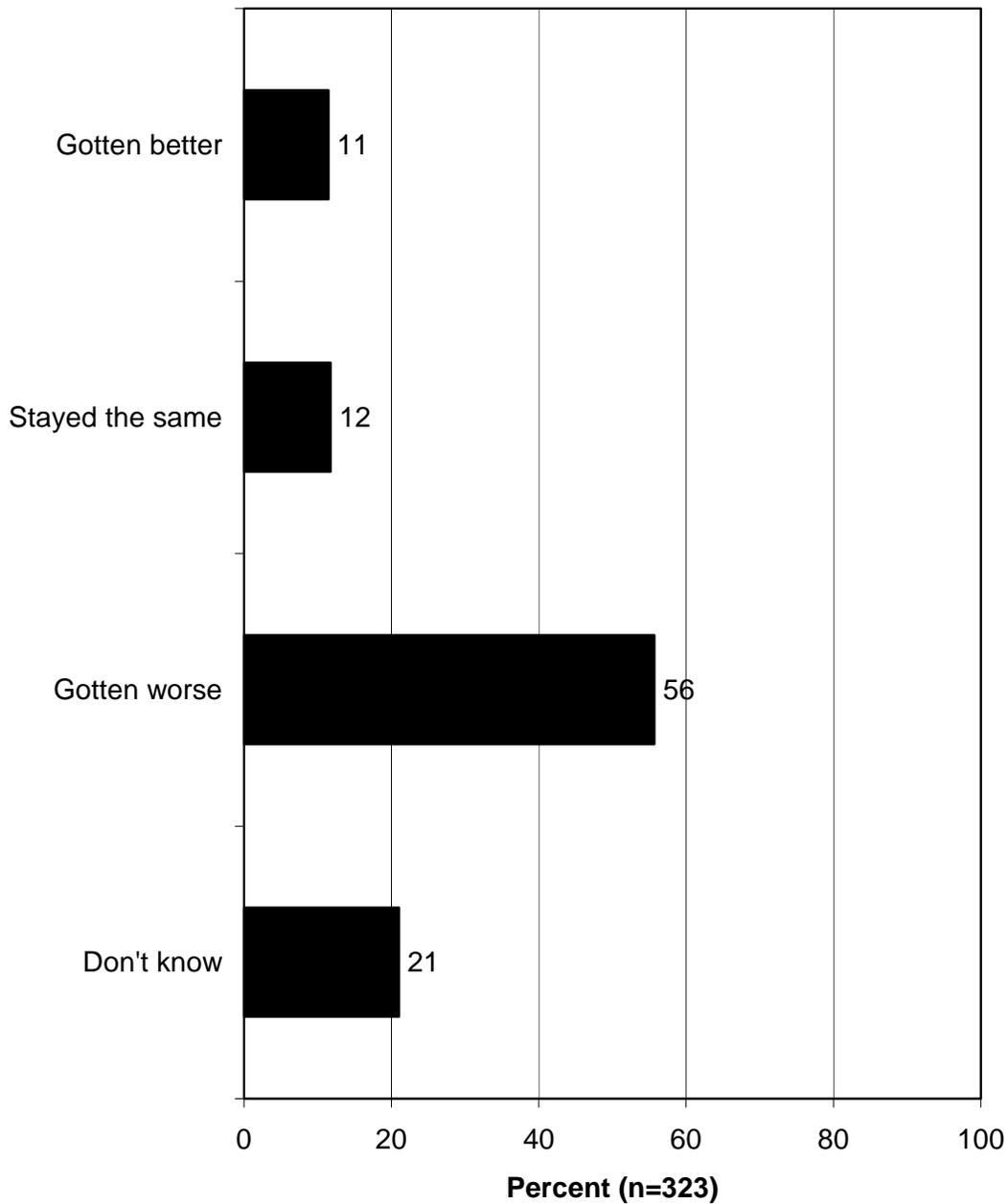
A previous survey asked about the probability and desirability of Oregon's economy moving away from using forests for wood products. This scenario was one of six tested, and this was the last ranked of the six scenarios by desirability—in other words, it was perceived as the least desirable scenario (Davis, Hibbitts & Midghall, Inc., 2006).

The survey asked respondents how likely they thought that in 30 years forests for wood production will be an important part of Oregon's overall economic health. Overall, 64% of Oregon residents said this is likely to be the scenario in 30 years. The survey then asked about the desirability of having this be the case in 30 years, and 72% think this would be a desirable scenario. A crosstabulation shows that one's attitudes toward the wood products industry colors one's opinions on future conditions: those who show support for the wood products industry are more likely to say that in 30 years wood production will be an important part of Oregon's overall economic health than are those who do not support the wood products industry. (In this crosstabulation, a respondent was said to support the wood products industry if he/she said that it would be desirable if in 30 years forests for wood production is an important part of Oregon's overall economic health.)

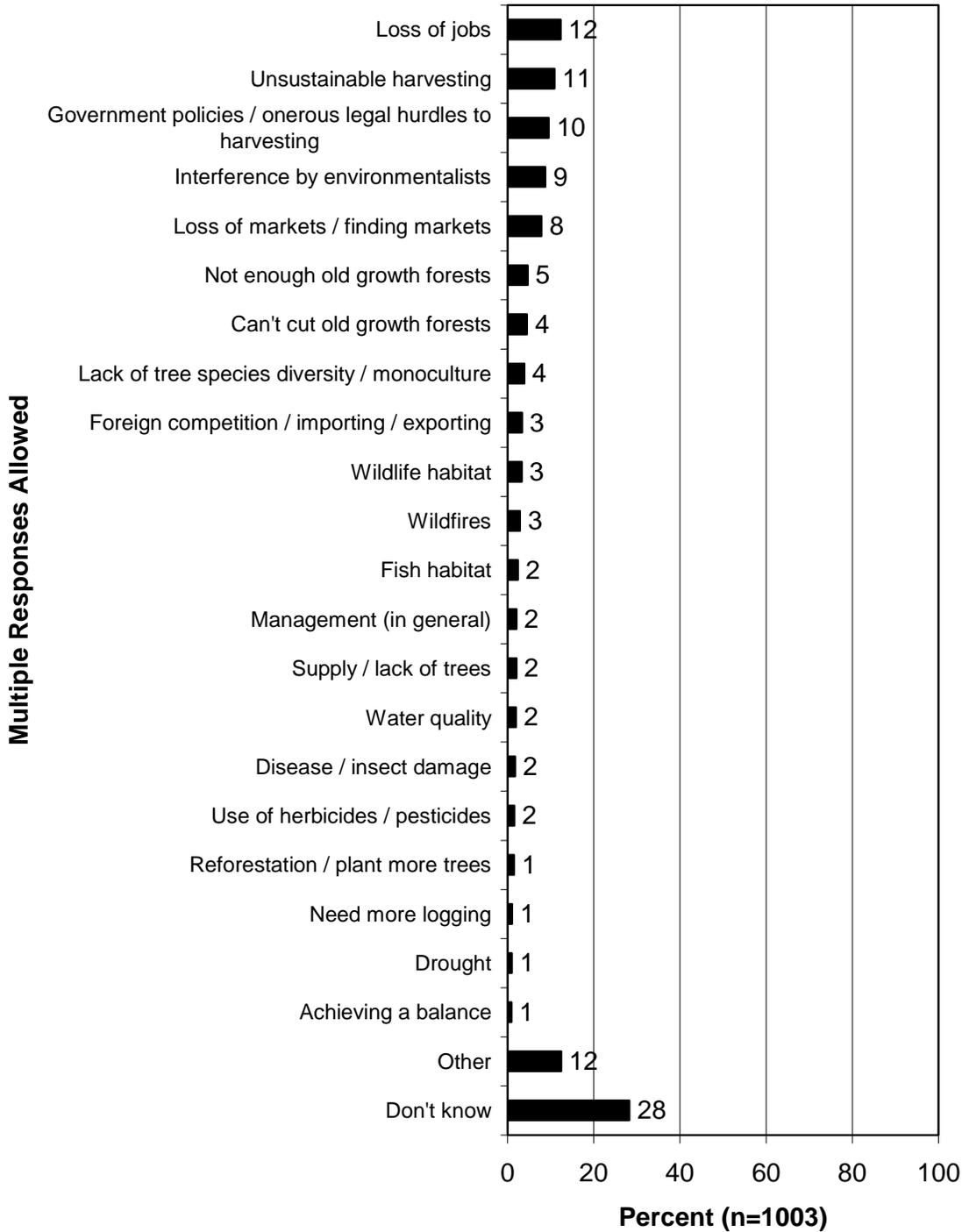
In a similar question to the one discussed above, a survey of Oregonians by Davis, Hibbitts & Midghall, Inc. (2006) found that the top scenario, of the six discussed in that survey, as ranked by its perceived probability was that "Forest resources will be an important part of Oregon's overall economic health." Regarding the desirability of this scenario, it was the second ranked among the six. Note that there is a wording difference in the two questions: the question discussed in the paragraph above specifically mentions "forests for wood production," while the latter question simply refers to "forest resources."

There is a split regarding the use of wood versus the use of alternatives because of over-harvesting concerns, with slightly more Oregonians comfortable with using wood products: 51% of Oregonians said that the statement that came closest to their view, of the two statements presented, was "It's okay for me to use wood products because they are a better environmental choice than the alternative," while 32% said their view was closest to "I should use alternatives to wood products, such as steel, plastic, and cement because we are over-harvesting the forests" (Davis, Hibbitts & Midghall, Inc., 2006).

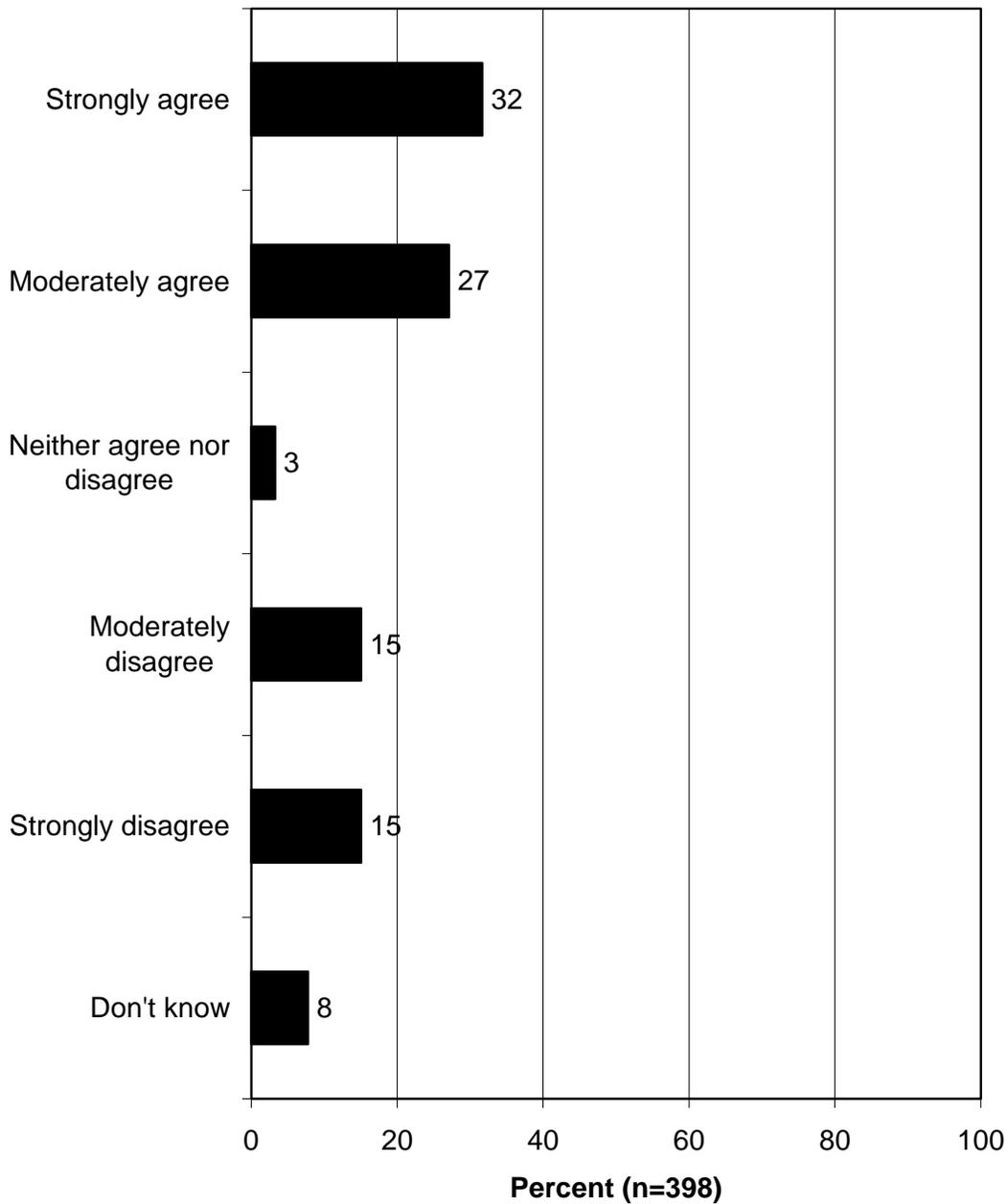
Q130. Has the health of the wood products industry gotten better, stayed the same, or gotten worse in Oregon in the past 10 years?



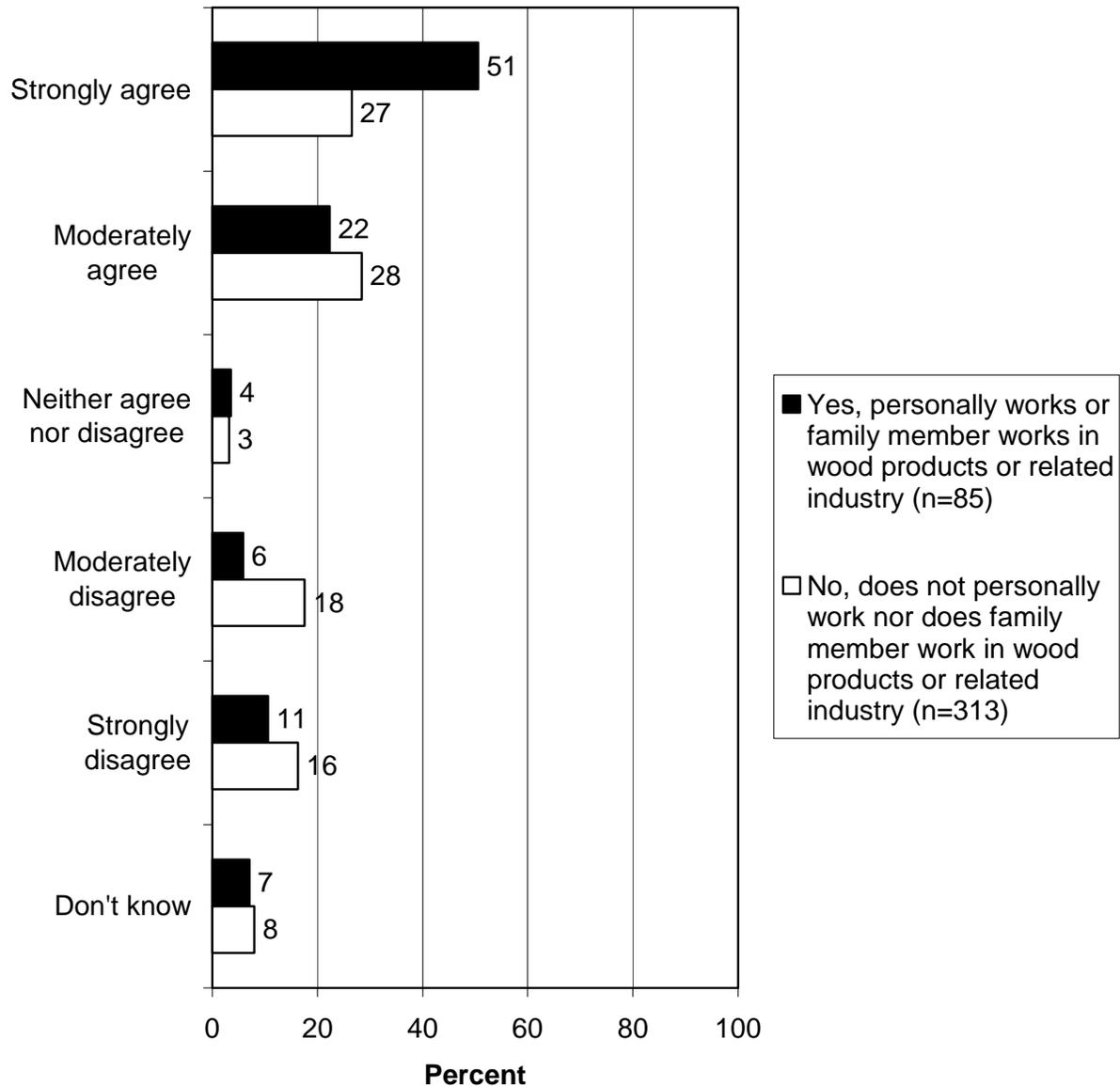
Q20. What are the most important issues facing Oregon's wood products industry?



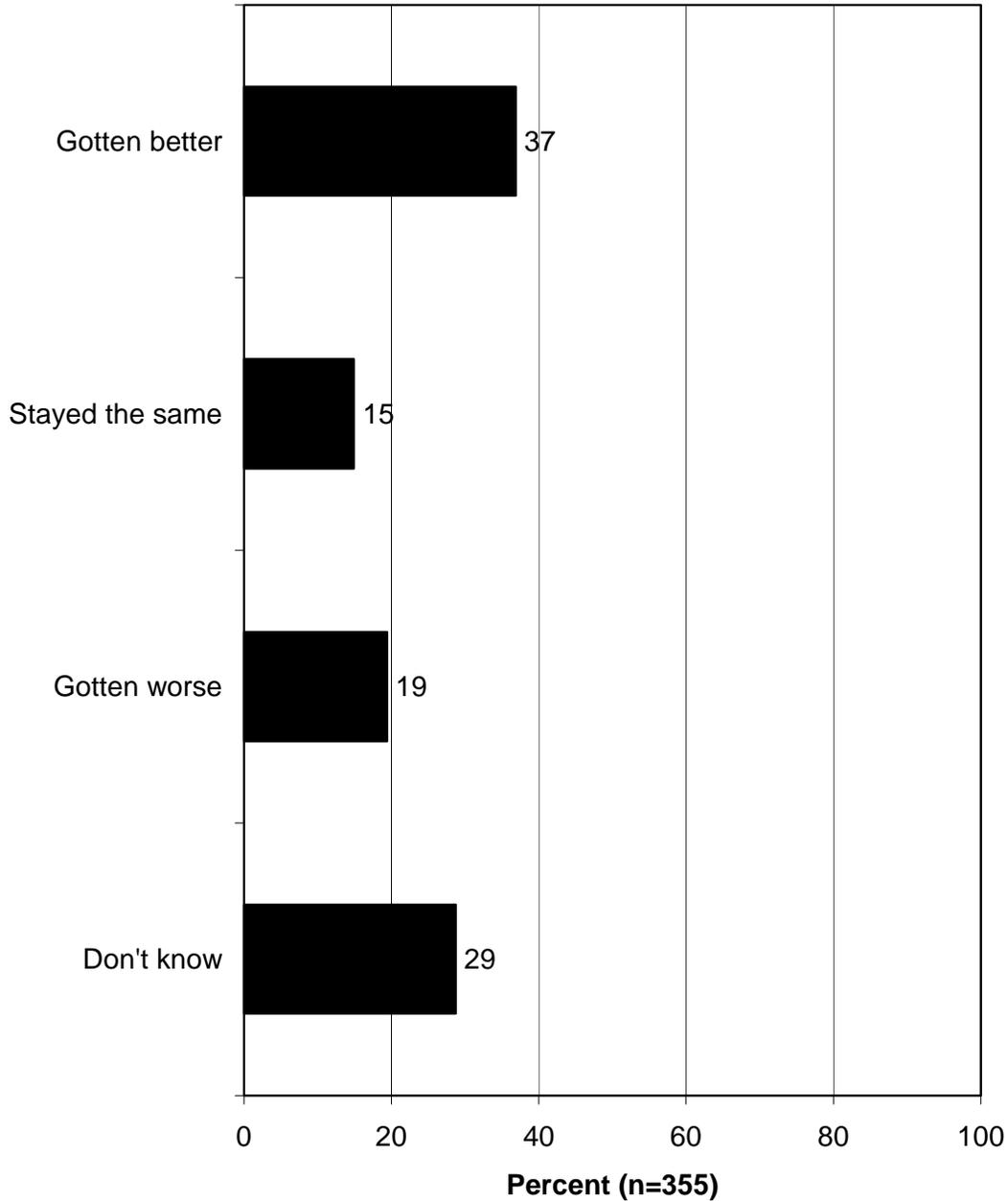
Q115. Wood products companies care about the long-term health of Oregon's forests. (Do you agree or disagree with this statement?)



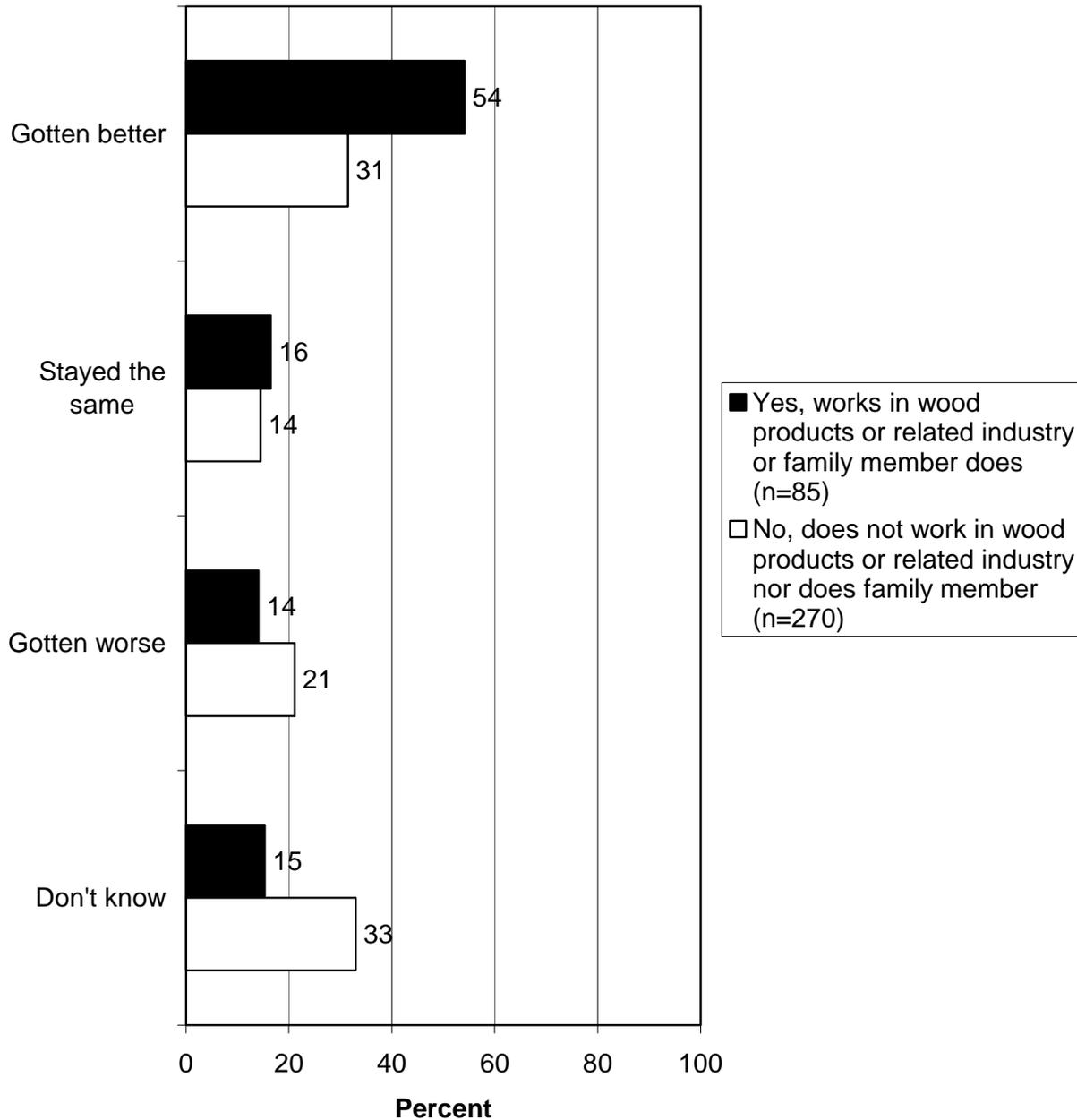
Q115. Wood products companies care about the long-term health of Oregon's forests. (Do you agree or disagree with this statement?) (Crosstabulated with those who work or whose family member works in wood products or related industry.)



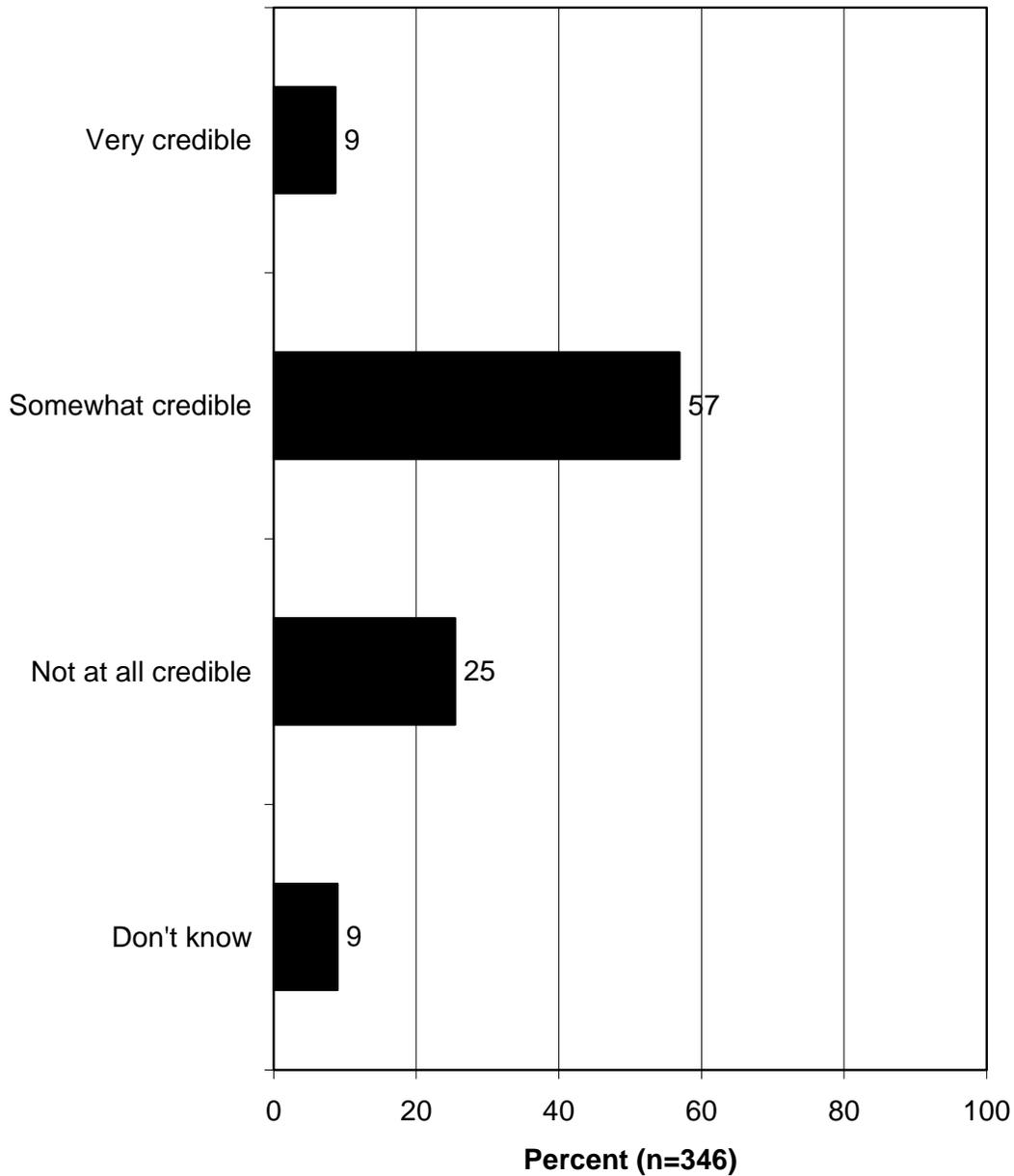
Q135. Have practices of timber companies gotten better, stayed the same, or gotten worse in Oregon in the past 10 years?



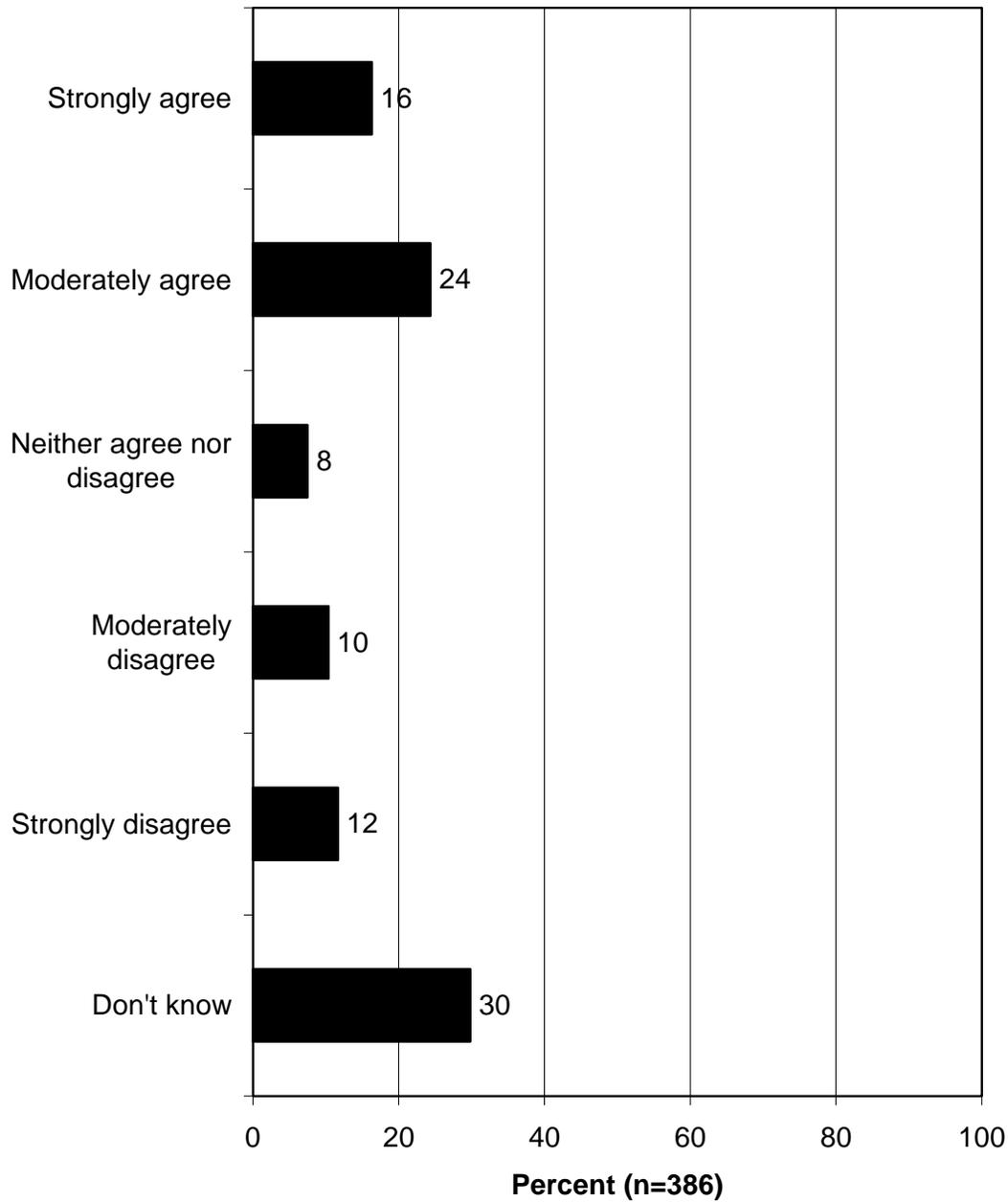
Q135. Have practices of timber companies gotten better, stayed the same, or gotten worse in Oregon in the past 10 years?



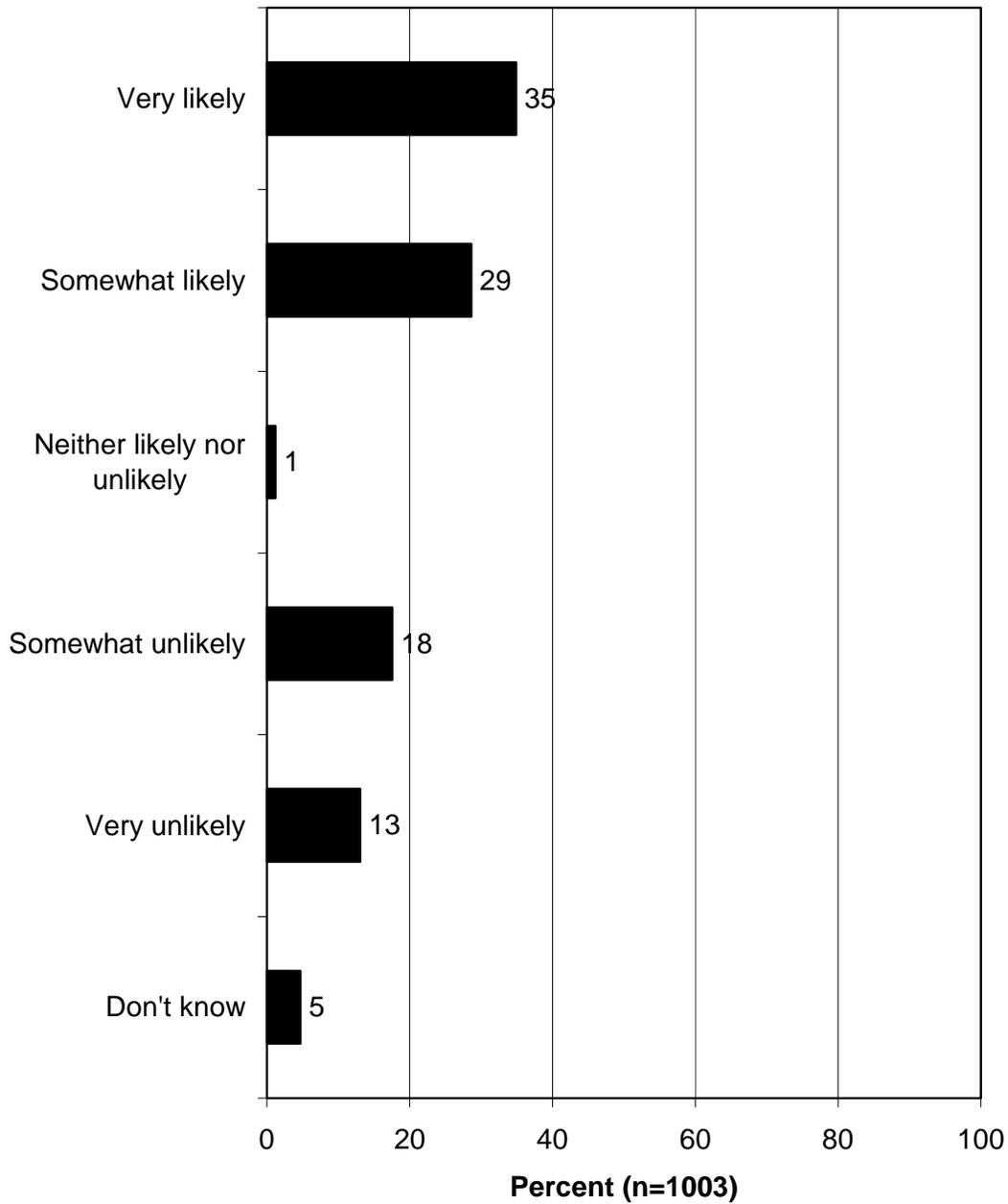
Q178. How credible are representatives of forest products companies as a source of information about Oregon's forests and forest management?



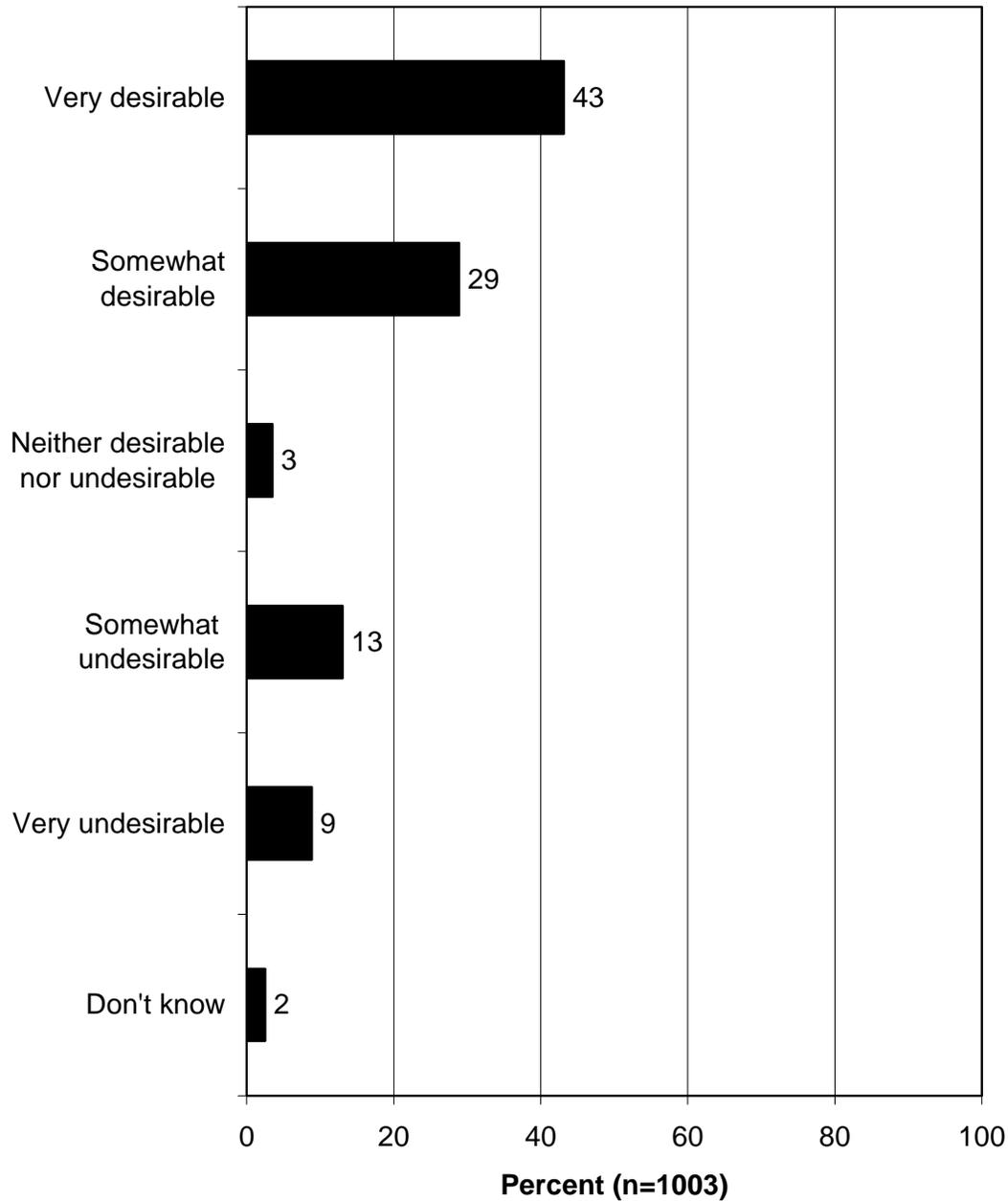
Q123. More revenue could be generated from the forest by selling miscellaneous forest products than by selling timber products. (Do you agree or disagree with this statement?)



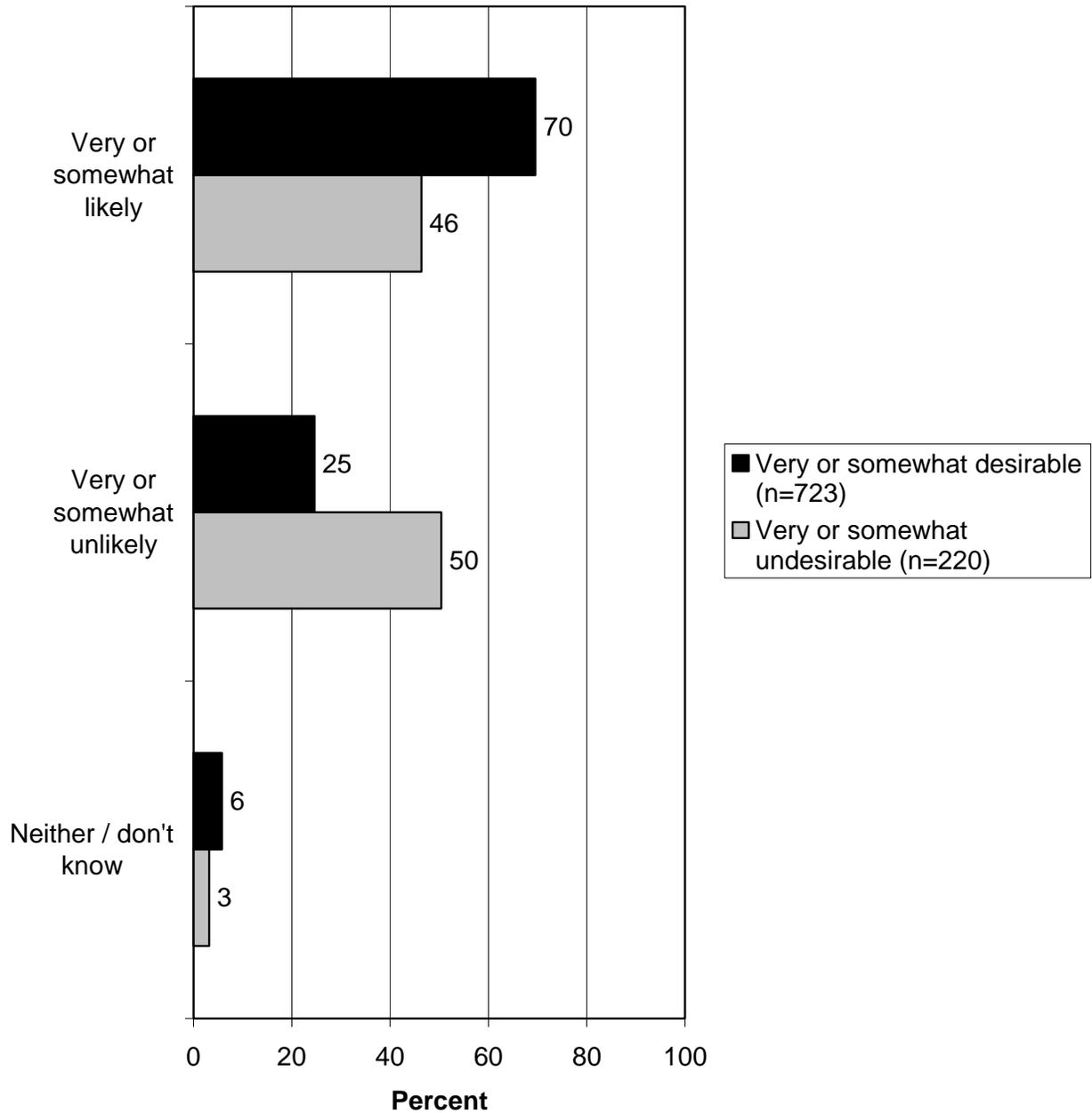
Q162. Forests for wood production will be an important part of Oregon's overall economic health. (How likely or unlikely is this to be the case in 30 years?)



**Q167. Forests for wood production will be an important part of Oregon's overall economic health.
(Would this be desirable or undesirable?)**



Q162. Forests for wood production will be an important part of Oregon's overall economic health. (How likely or unlikely is this to be the case in 30 years?)



THE ENVIRONMENT AND FOREST MANAGEMENT

- **Along with their concern about the wood products industry, Oregonians are highly concerned about the environment, as well. In particular, water quality and habitat for fish and wildlife are high concerns. Furthermore, there is slightly more concern for the environment than for the economy (although this is the most divisive aspect of the concerns). Nonetheless, the State of Oregon and the ODF are perceived as caring about the environment and are seen as attempting to address environmental concerns, particularly as the environment relates to timber harvest.**
 - **Although Oregon is taking positive steps in addressing environmental concerns, such as its efforts to improve fish habitat, these efforts do not appear to be well publicized.**

That the State Forests are considered to be for more than just timber production is indicated by the finding that 90% of Oregon residents agree that State Forest Management Plans should recognize that ecosystem restoration and watershed health are among key goals of the Plans; only 3% disagree. Similarly, 85% of Oregon residents agree that the State Forest Management Plans should consider the overall biological diversity of State Forest lands, including the variety of life and accompanying ecological processes.

Past research has shown the importance of environmental concerns in forest management: Davis, Hibbitts & McCaig, Inc. (2002) found that environmental concerns were more important than economic concerns and/or social concerns in management of both private and federal forests. Although these surveys did not ask specifically about State Forests, the results suggest that environmental concerns would be important in management of State Forests, as well.

Davis, Hibbitts & Midghall, Inc. (2006) found high concern among Oregonians for wildlife and fish habitat, with 86% (for wildlife) and 84% (for fish) of Oregonians being very or somewhat concerned about habitat, when questioned about forest-related concerns.

The importance of forests in Oregon for fish and wildlife habitat is demonstrated by past research cited by Davis, Hibbitts & McCaig, Inc. (2001b). Moore Information (1994) conducted surveys in which Oregonians were asked to rate the importance of specific forest uses, and fish and wildlife habitat as a forest use was highly rated in two annual surveys: 70% rated it as 4 or 5 on a scale with 5 at the most important in 1993, and 74% rated it as 4 or 5 in 1995.

Research of public opinion from other parts of the U.S. shows the importance that people place on fish and wildlife habitat. Responsive Management asked residents of the southeastern U.S. to rate the importance of various wildlife-related programs of their state's fish and wildlife agency, and the top program area based on a ranking of the means was conserving fish and wildlife habitat (2005q).

Oregon residents are split regarding whether wildlife habitat in Oregon has gotten better (28%) or gotten worse (32%) over the past 10 years. Their outlook regarding fish habitat, on the other hand, is more negative: 44% think that fish habitat has gotten worse over the past

10 years, double the percentage who think it has gotten better (22%). When asked specifically about salmon populations, their ratings are even more negative: 54% think that the health of salmon populations in Oregon has gotten worse in the past 10 years, while only 17% think it has gotten better. Finally, regarding water quality, they are evenly divided into three groups: 27% think water quality has gotten better in the past 10 years, 26% think it has stayed the same, and 29% think water quality has gotten worse in the past 10 years.

Mirroring the results above in which the health of fish habitat is perceived more negatively than is the health of wildlife habitat, Davis & Hibbitts, Inc. (1997) found that 87% of Oregonians thought that the protection of fish habitat needed to improve, while 80% thought that protection of wildlife habitat needed to improve. Note that the questions in this 1997 survey and the current survey discussed in the paragraph above are not directly comparable, but the results concerning fish habitat relative to wildlife habitat in both the studies are similar. These results were reported in the literature review conducted by Davis, Hibbitts & McCaig, Inc. (2001b).

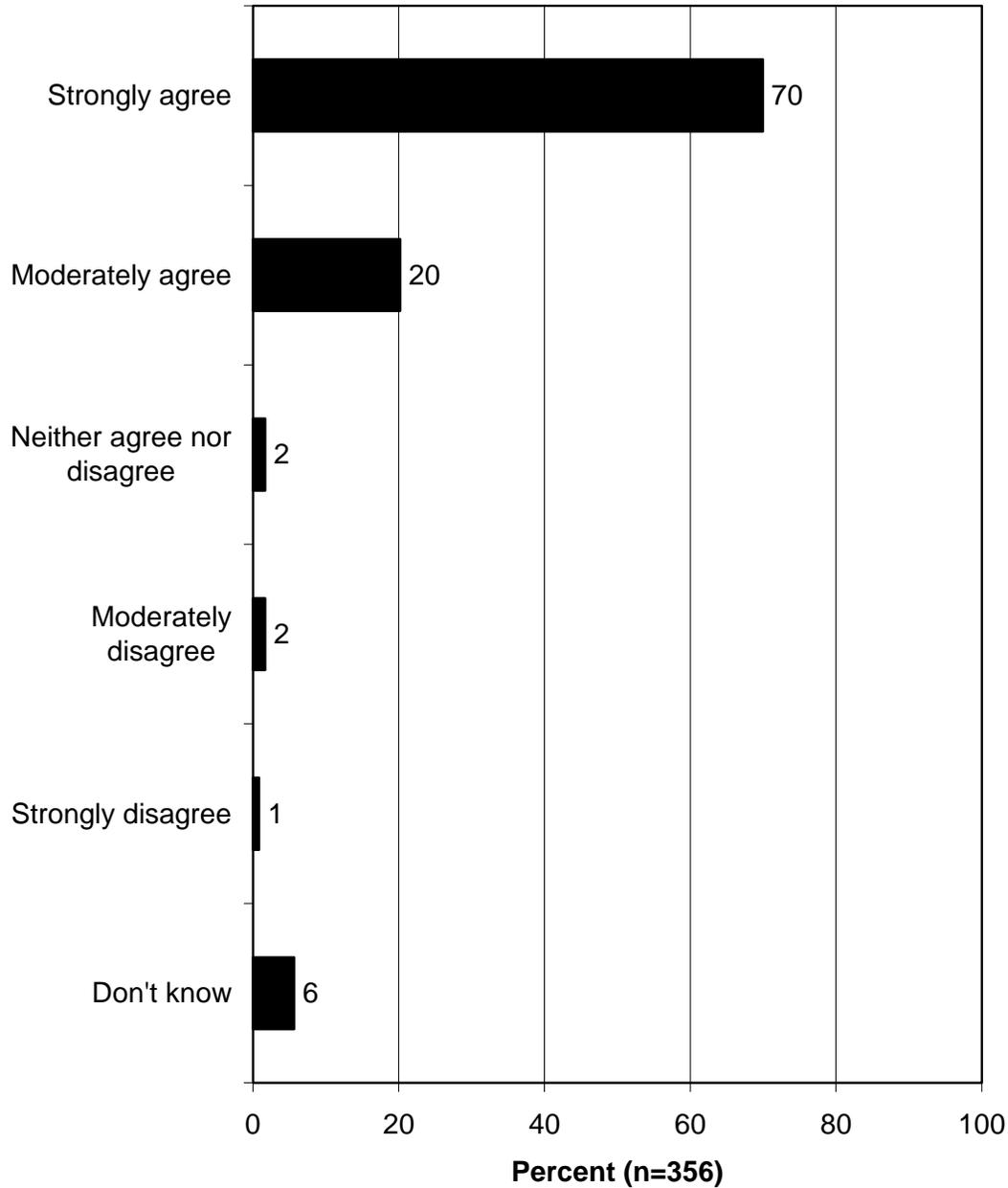
Davis, Hibbitts & McCaig, Inc. (2001a) asked Oregonians the same question about trends in water quality as was discussed above, and in 2001 many more Oregonians thought that water quality in Oregon's forests was getting worse (34%) than thought it was getting better (10%). This is a slightly more negative outlook than Responsive Management found in the current survey (29% say worse, and 27% say better).

The results of Question 120 in the survey suggest that Oregon residents think that the ODF and the Oregon legislature have responded to environmental concerns in the management of Oregon forests: 66% of residents agree that forest protection laws and regulations have changed in the past decade to provide greater protection for fish, wildlife, and water quality, far more than disagree (15%). (This graph is shown in the section of the report titled, "Opinions on Forest Management by the Oregon Department of Forestry.")

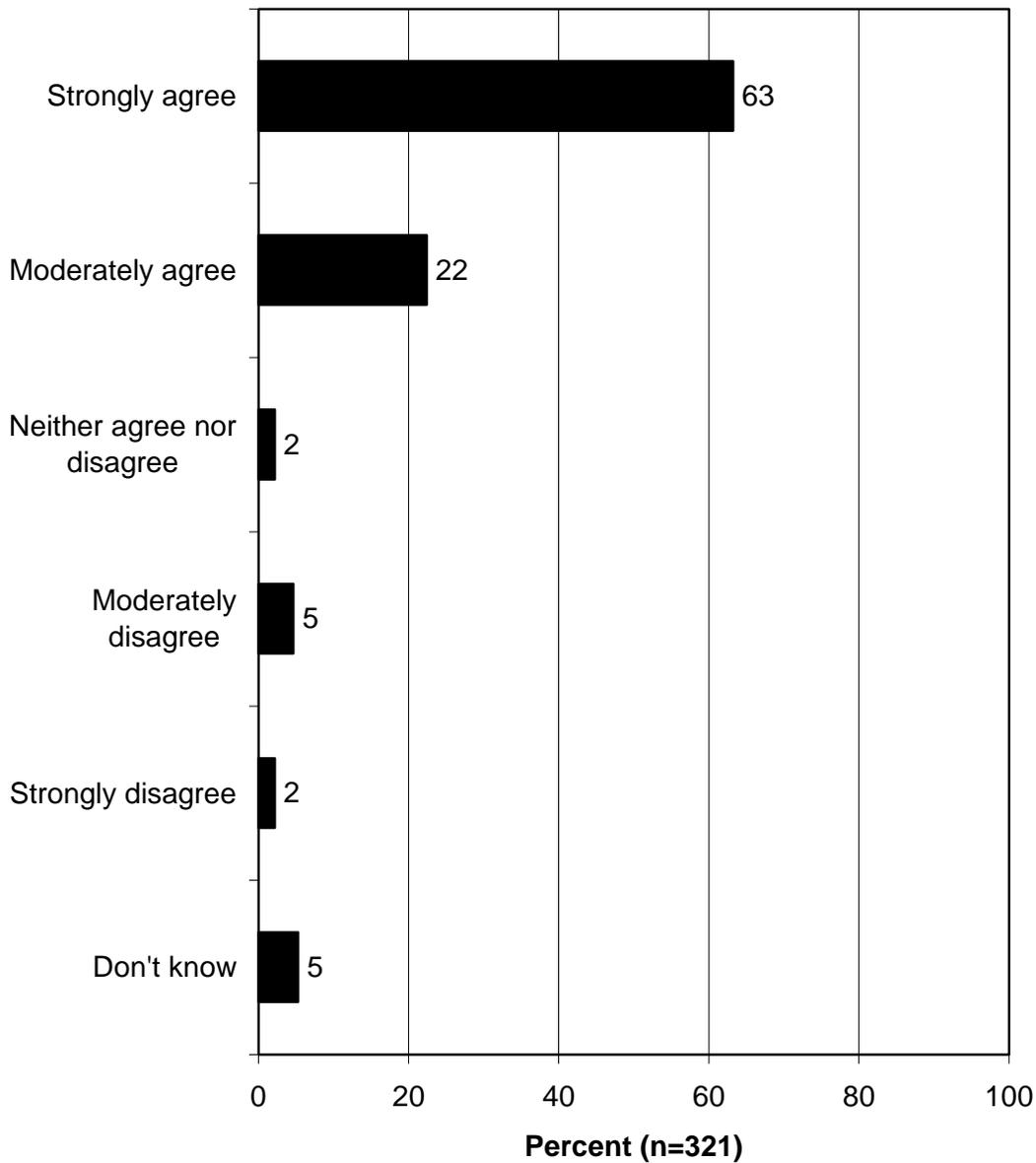
The ODF's annual report to the Council of Forest Trust Land Counties discusses many efforts underway in the State Forests to improve fish habitat. For instance, in the Forest Grove District of the Tillamook State Forest, two in-stream projects improved approximately 1,200 feet of stream, and three road crossings were changed to allow fish migration (three traditional, non-fish friendly culverts were replaced by an embedded culvert, an open bottom pipe arch, and a bridge), and in the Tillamook District, nine culverts were either changed or abandoned to allow fish passage (Oregon Department of Forestry, 2005).

A large majority of Oregon residents (62%) think that it will be likely in 30 years for environmental protection to be more important than economic growth (only 30% think that this will be unlikely). Meanwhile, when asked about the desirability of a scenario in 30 years where environmental protection is more important than economic growth, a large majority of Oregon residents (62%) think that this would be desirable (only 28% think that this would be undesirable). Interestingly, a crosstabulation of these two questions found no marked difference in how likely or unlikely respondents feel this will be according to how desirable they think it would be for this to be the case. In other words, regardless of the perceived desirability of having environmental protection be more important than economic growth, nearly two-thirds think that such a situation will be likely in 30 years.

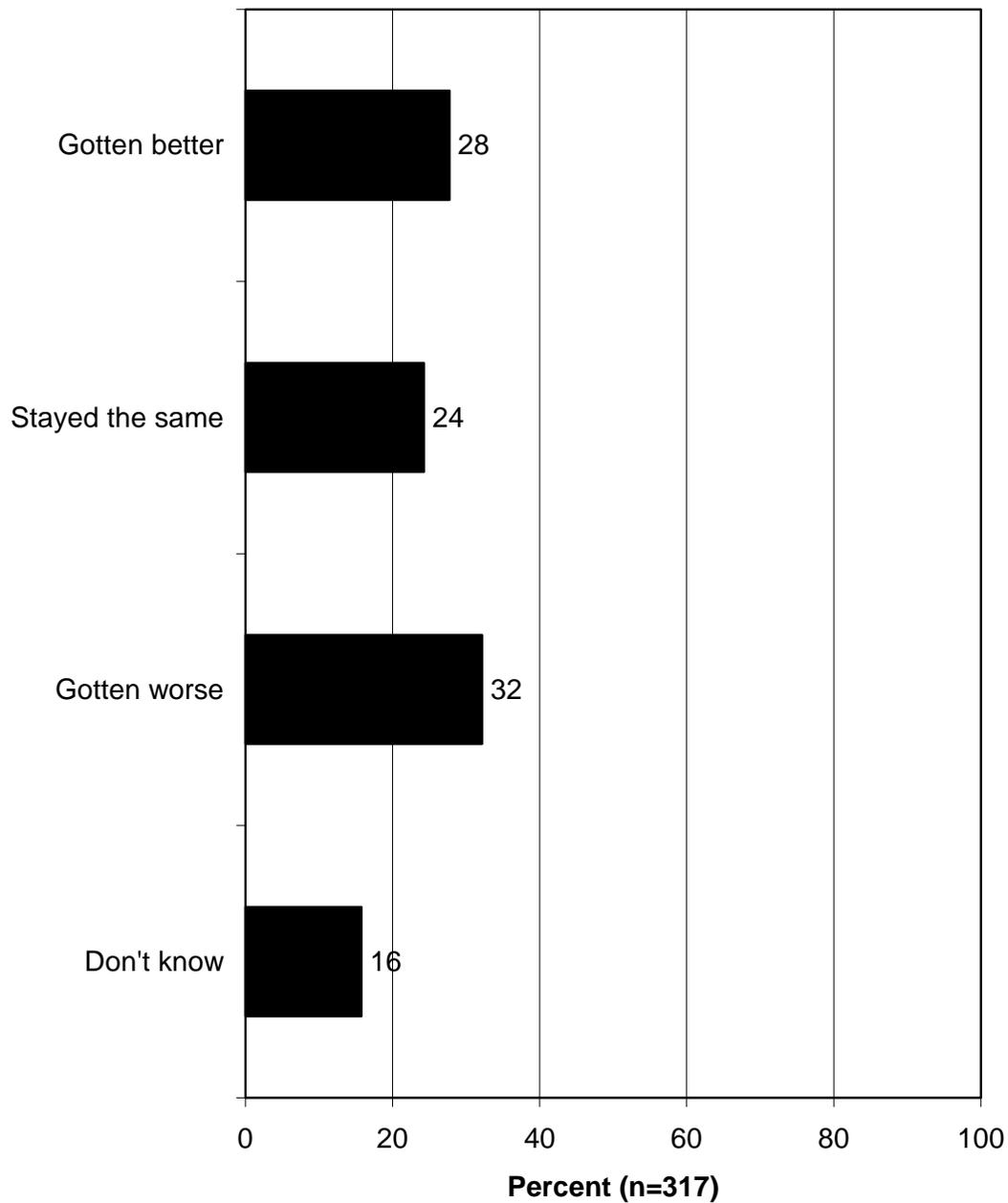
Q141. The State forest management plan should recognize that ecosystem restoration and watershed health are among key goals. (Do you agree or disagree that this should be a guiding principle of State forest management plans?)



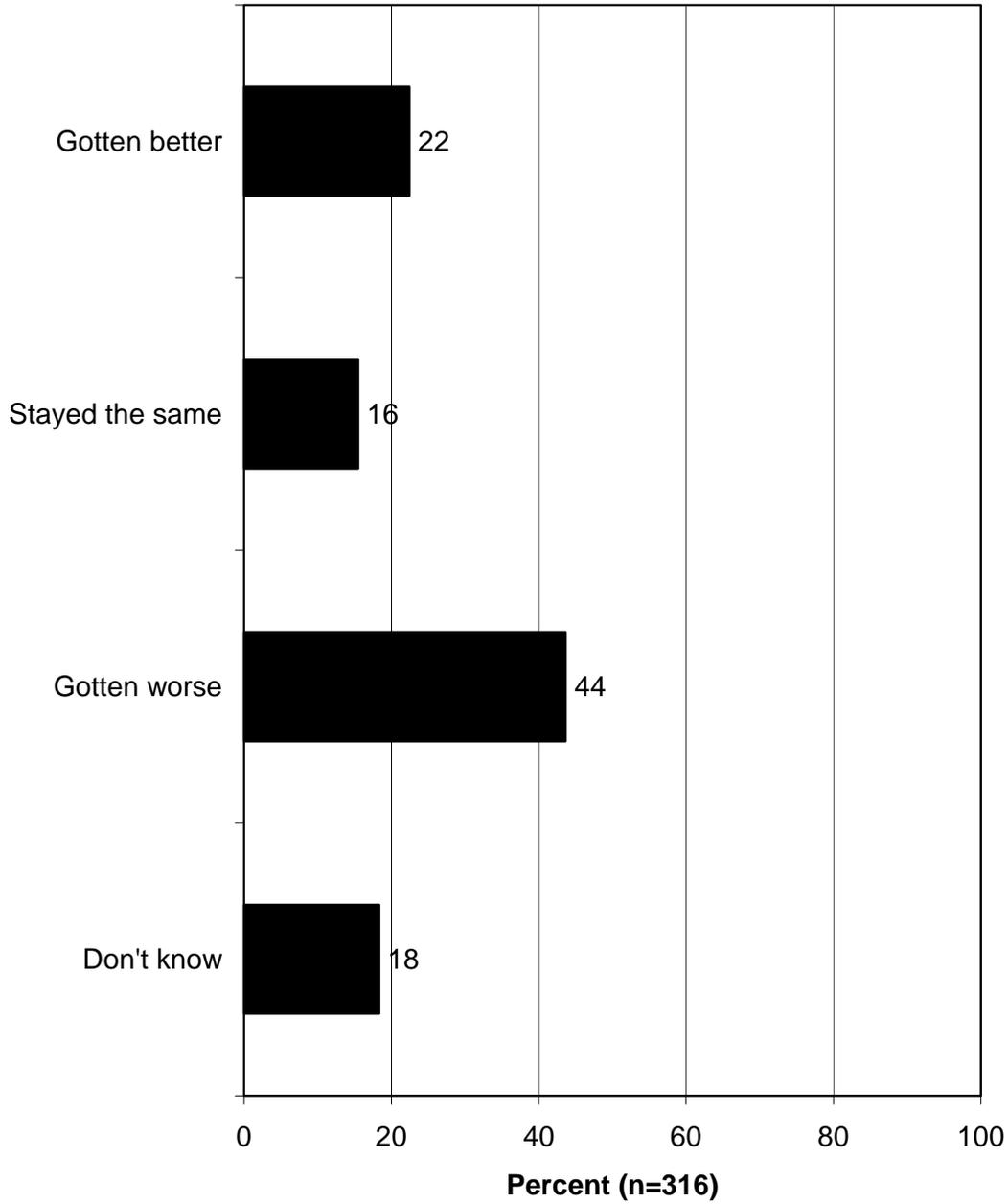
Q145. The State forest management plan should consider the overall biological diversity of State forest lands, including the variety of life and accompanying ecological processes. (Do you agree or disagree that this should be a guiding principle of State forest management plans?)



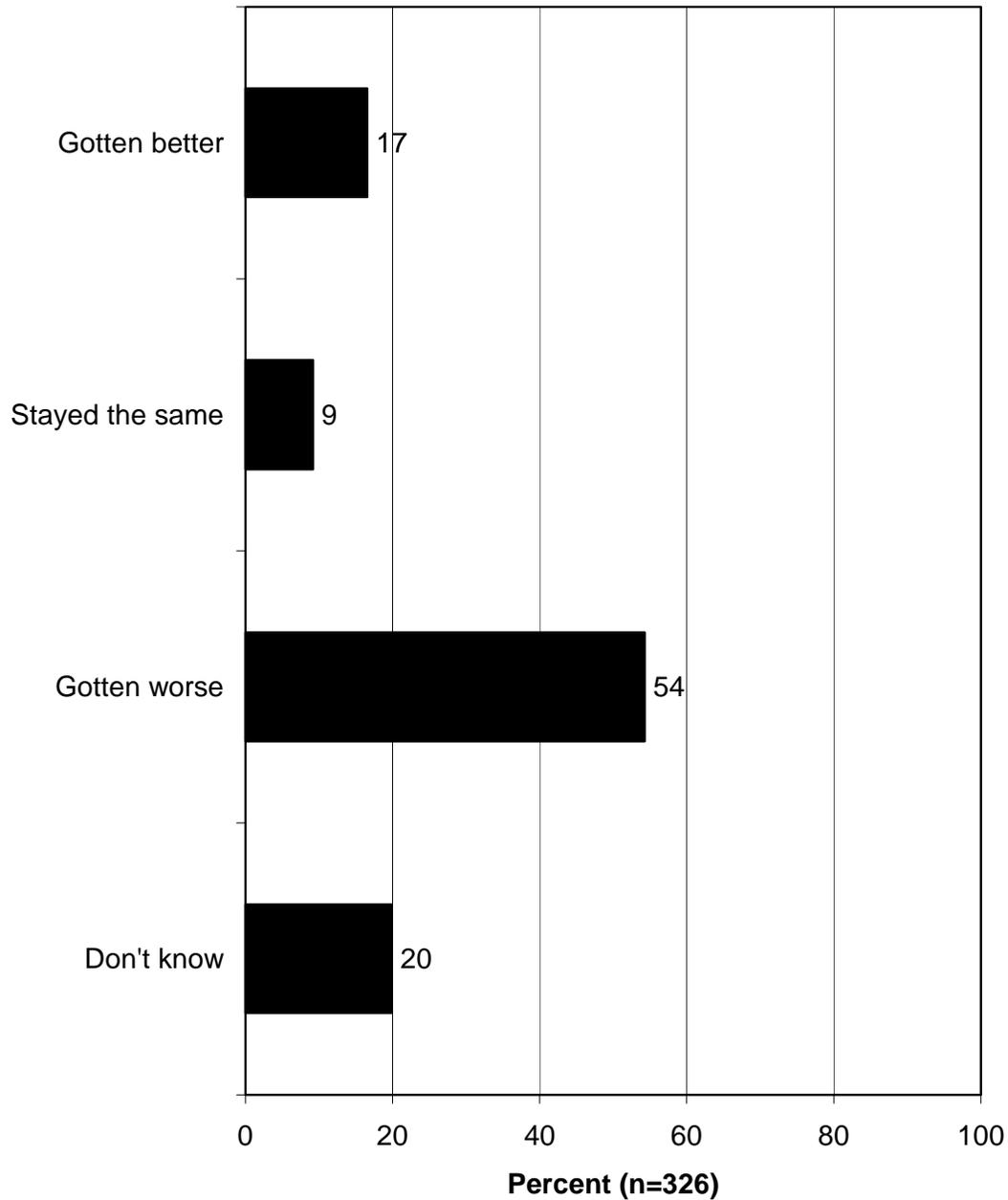
Q131. Has wildlife habitat gotten better, stayed the same, or gotten worse in Oregon in the past 10 years?



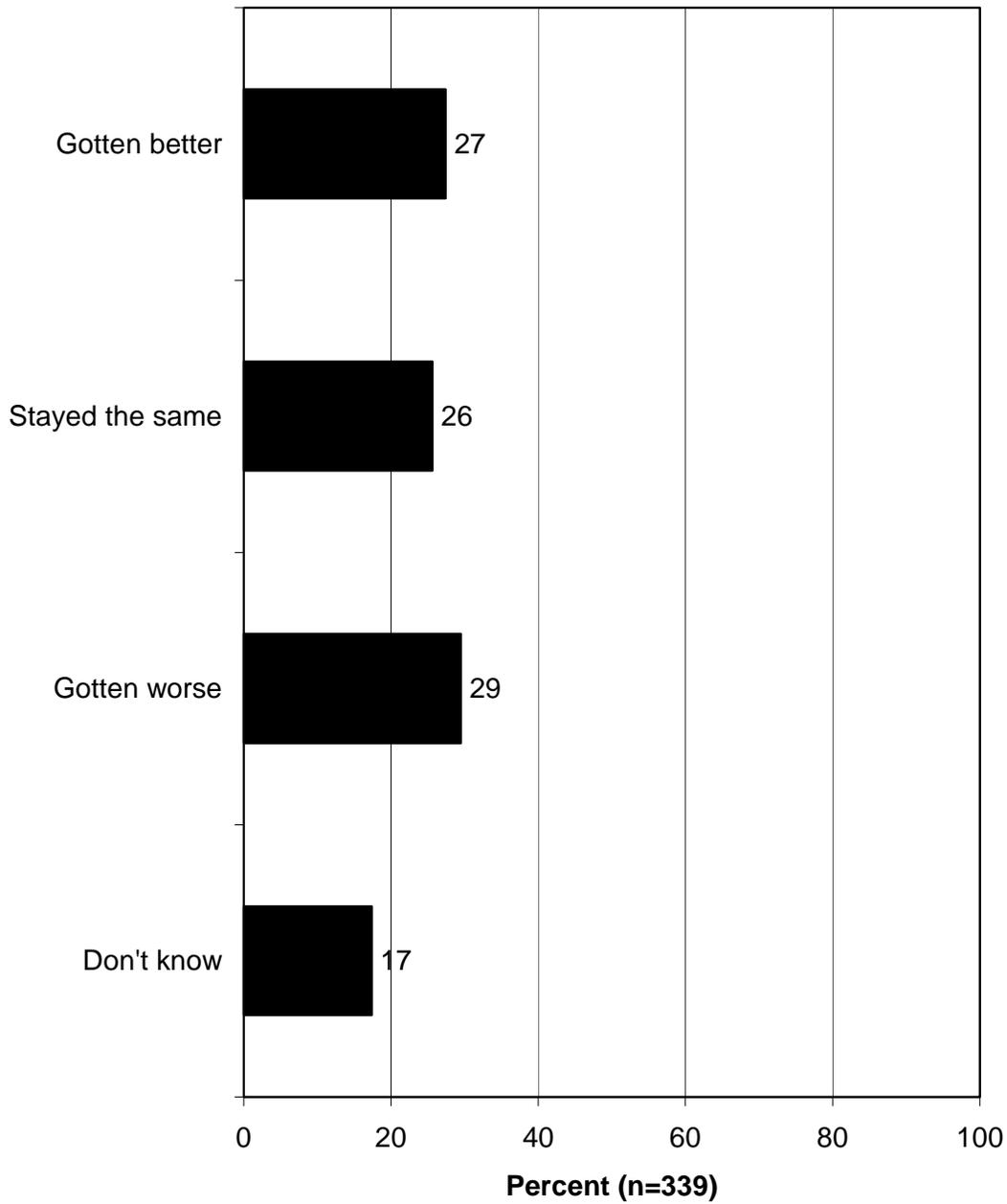
Q132. Has fish habitat gotten better, stayed the same, or gotten worse in Oregon in the past 10 years?



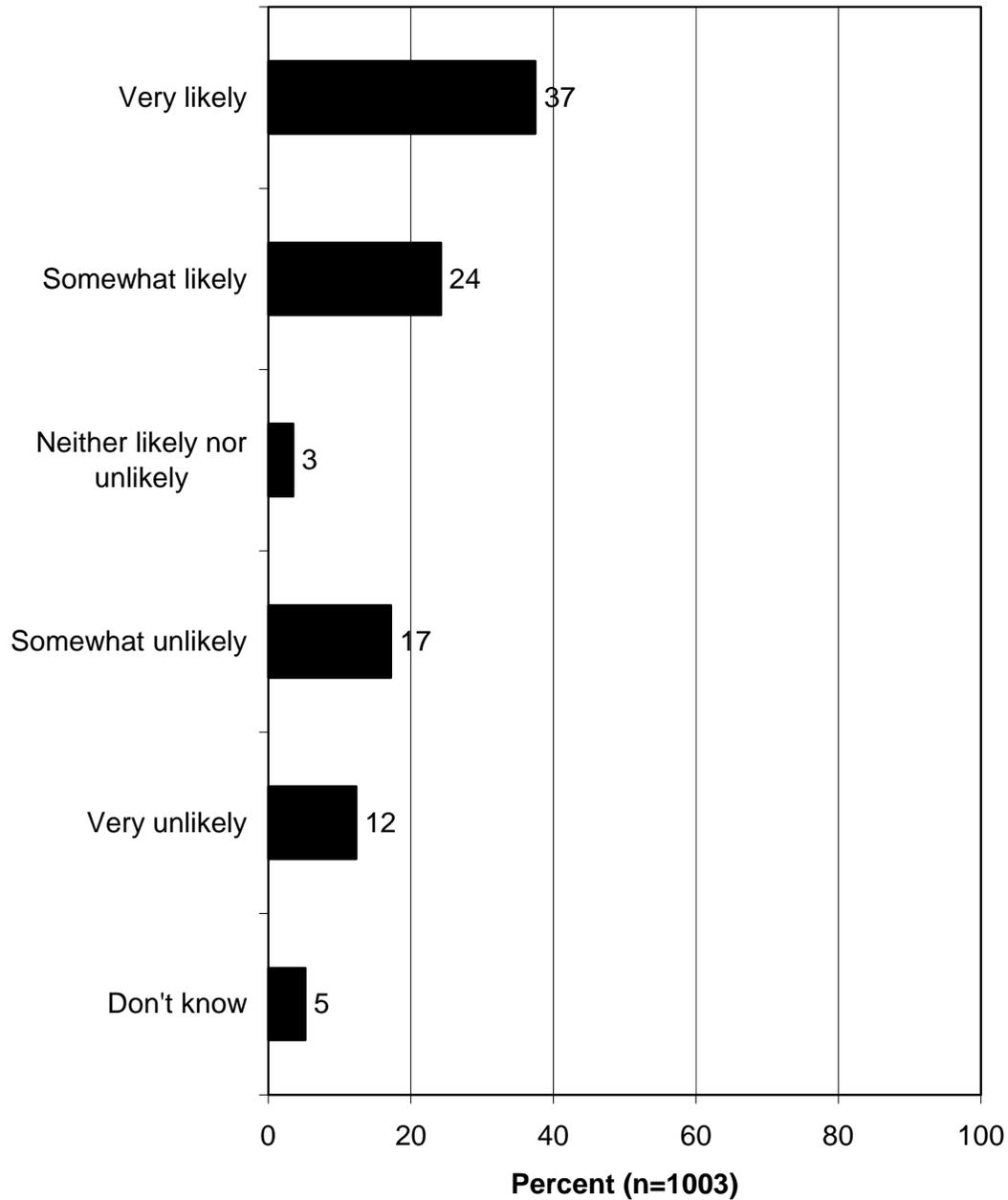
Q133. Has the health of salmon populations gotten better, stayed the same, or gotten worse in Oregon in the past 10 years?



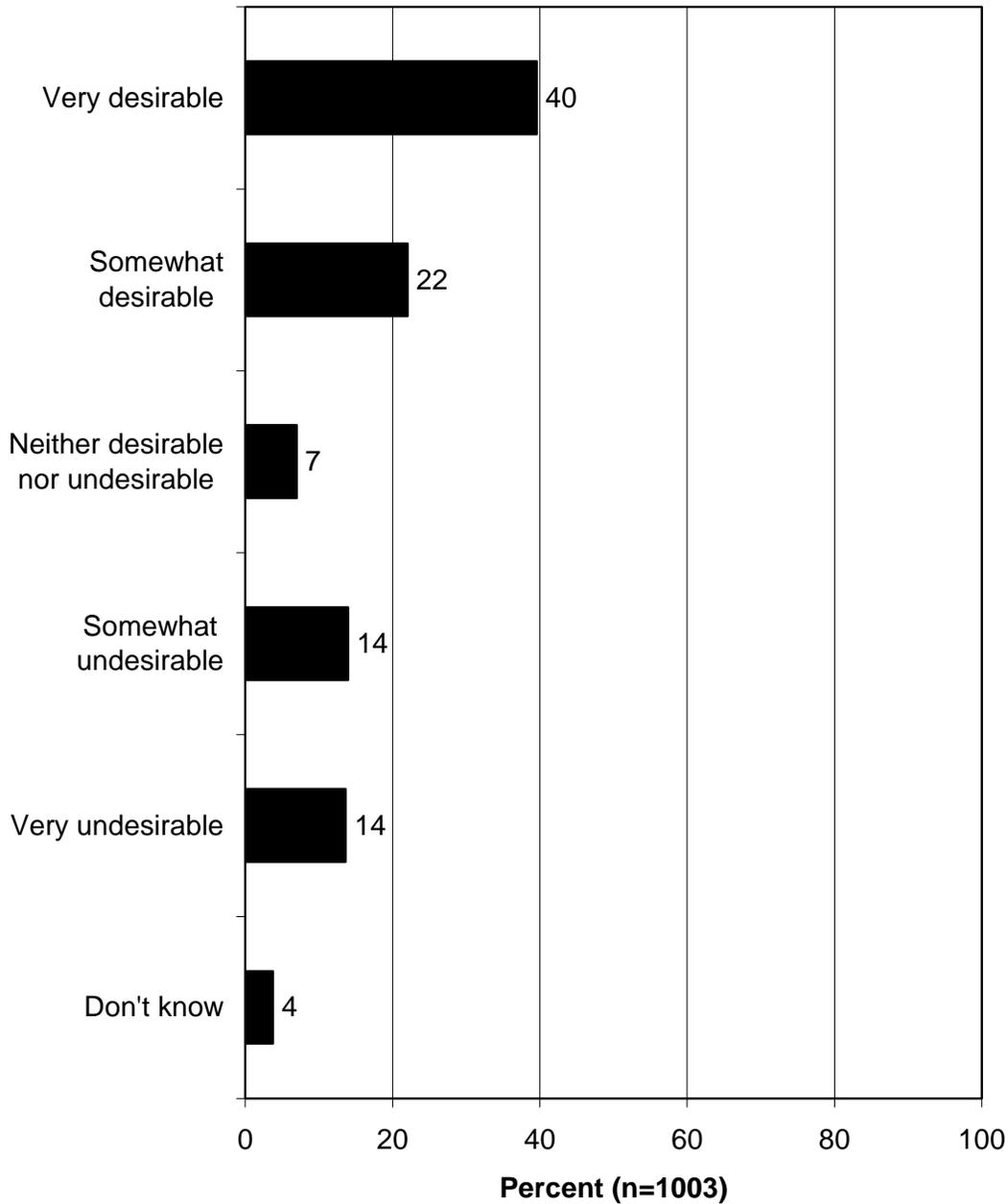
Q137. Has water quality gotten better, stayed the same, or gotten worse in Oregon in the past 10 years?



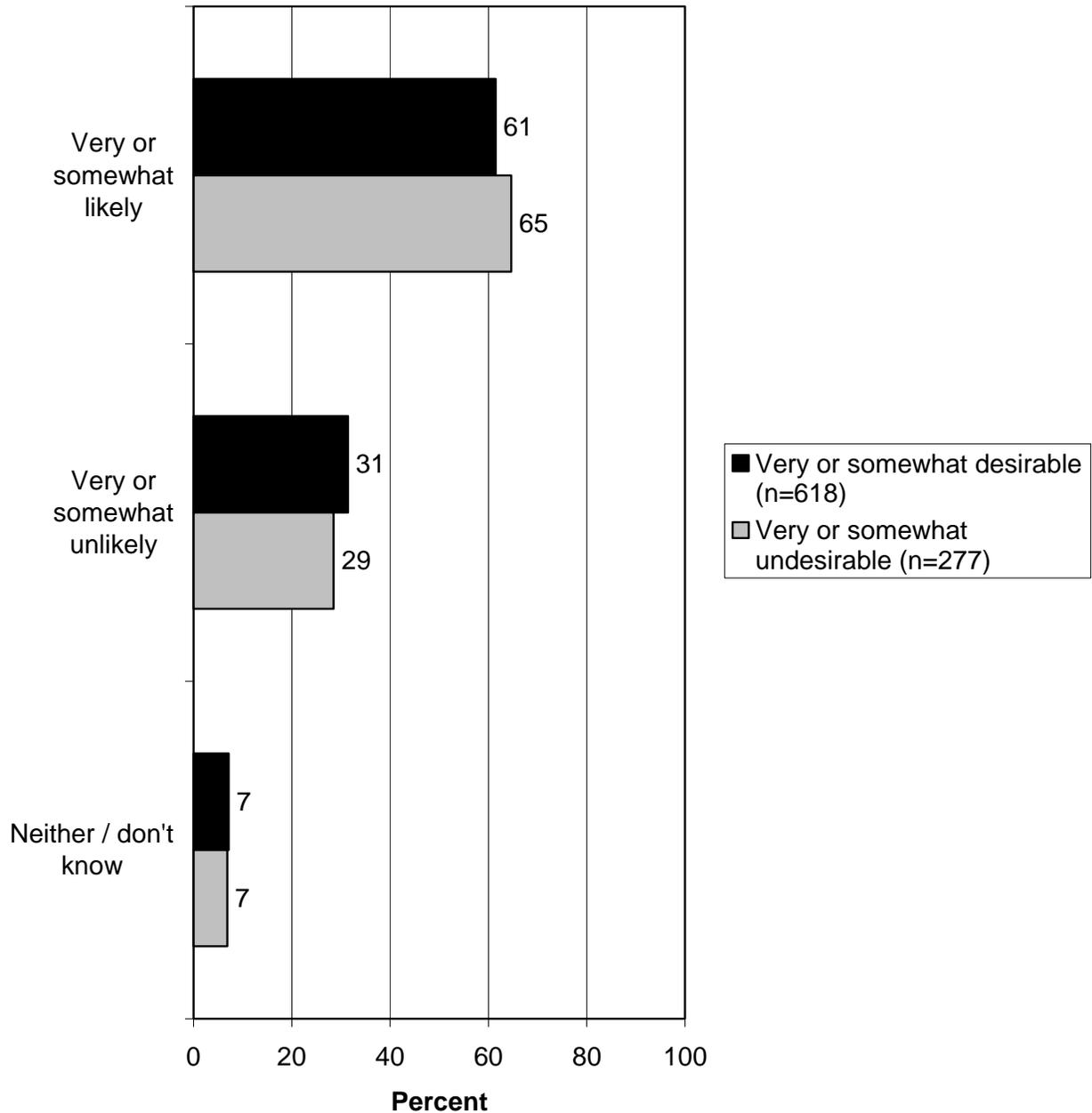
Q161. Environmental protection will be more important than economic growth. (How likely or unlikely is this to be the case in 30 years?)



Q165. Environmental protection will be more important than economic growth. (Would this be desirable or undesirable?)



Q161. Environmental protection will be more important than economic growth. (How likely or unlikely is this to be the case in 30 years?)



RECREATION AND FOREST MANAGEMENT

- **Although the importance of the wood products industry has previously been demonstrated, the importance of forest-related recreation is evident as well. Statistics show that the State Forest Management Plans have considered recreation needs (for instance, the big three State Forests have approximately 81 miles of hiking trails), and Oregonians think that the Plans are doing a better job of providing recreational opportunities than they once did.**

A recreation facilities inventory by the ODF demonstrates the role in recreation that Oregon State Forests have. The Clatsop, Tillamook, and Santiam State Forests together contain approximately 60.5 miles of mountain biking trails, approximately 81 miles of hiking trails (including 5 miles of “interpretive trails”), approximately 38.5 miles of equestrian trails, approximately 174 miles of ATV and motorcycle trails (all in Tillamook), approximately 48 miles of 4X4 trails (all in Tillamook), 2 non-motorized boat launch sites, 216 vehicle camp sites, 31 walk-in tent camp sites, 34 day-use picnic sites, and 10 education and interpretive sites (Oregon Department of Forestry, 2005).

Interestingly, a literature review by Davis, Hibbitts & McCaig, Inc. (2001b) discussed a 1992 study by Brunson and Shelby that asked respondents to rate various forest types for their acceptability for hiking and camping. The 1992 mail survey found that old growth forests were rated best for camping, but “patch cut” forests (patch cuts are simply small clear-cuts) were rated *almost* as acceptable for camping.

Twice as many Oregon residents think that forest recreational opportunities have gotten better (38%) than think they have gotten worse (19%) over the past 10 years. (This graph is shown in the section of the report titled, “Importance of Forests for Recreation.”)

CLEAR-CUTTING

- **Not surprisingly, clear-cutting is a very divisive issue, with many who support and many who oppose. Furthermore, much of the opposition is *strong* opposition. Some of the opposition appears to stem from misunderstandings about the ecological effects of clear-cutting, and some of the opposition is based on the aesthetic aspects of clear-cuts. Still others oppose because they associate clear-cutting with poor management practices and/or timber company greed. Certainly, clear-cutting will continue to be a problem if the public does not understand nor support it, which may, in turn, lead to lower credibility of professional foresters and the ODF itself.**
 - **It is important to note that clear-cutting is extremely important to the timber industry, as it accounts for most of the harvest of timber in Oregon.**

Clear-cutting is specifically defined by the Oregon Revised Statutes. The Oregon Forest Practices Act permits clear-cuts of up to 120 acres in size and requires that at least two standing trees, either snags or green trees, and two downed logs be left per acre (Oregon Revised Statutes, 2005).

In a question specifically about clear-cutting, a slight majority of Oregonians (51%) agree that clear-cutting of Oregon State Forests should never be allowed, but a substantial percentage hold the opposite view—42% disagree with that statement. Note that most of those who agree that clear-cutting of Oregon State Forests should never be allowed *strongly* agree, while disagreement is about evenly split between *strong* and *moderate*. Additionally, there is a split, albeit with slightly higher agreement than disagreement, regarding whether ecologically sound forest practices would prohibit all clear-cutting: 51% agree, but 40% disagree. A crosstabulation shows that hunters are more supportive of clear-cutting than are non-hunters (in the focus groups, they often mentioned that clear-cuts provided food for game and mentioned that more game animals were in clear-cuts than in deep forest), while those whose activities are aesthetically based—hikers, wildlife viewers, and those who view scenery—are less supportive of clear-cuts.

Outside of Oregon, clear-cutting does not receive much support. For instance, in New Hampshire in a 2004 survey, 51% of residents opposed clear-cutting (even with the added provision that the clear-cuts would be small in area), while 37% supported; when asked about clear-cutting larger tracts, New Hampshire residents were more uniform in their opposition, as 72% opposed, while only 15% supported (Responsive Management, 2004i).

Other surveys of Oregonians show little support for clear-cutting. Ribe and Silvaggio (2002) surveyed registered voters in the western parts of Washington and Oregon encompassing the range of the northern spotted owl and found that 60% of them disagreed with the statement, “Clear-cuts are acceptable on National Forests because they provide the most wood to support jobs in the forest products industry at the lowest cost and greatest safety for harvesting” (only 18% agreed) (although the question pertained to National Forests, the results are pertinent to this study of Oregon State Forests).

Recall that the top named issue that Oregon residents feel that Oregon State Forests face is clear-cutting (16%), named by twice as many respondents as the next issue in the ranking (cutting of old growth forests, at 8%). (This graph is shown in the section of the report titled, "Issues Facing Forests and Forest Management.")

Davis, Hibbitts & McCaig, Inc. (2001a) found that clear-cutting was the most important environmental issue facing Oregon, after water pollution and water quality, when Oregonians were asked to name the most important environmental problems.

The split in opinion about clear-cutting was apparent in the focus groups. Many vehemently objected to it, while others supported it as a valid forest management practice. Some saw the utility in clear-cutting for disease control and as one of the landscape types in structure-based management. Others saw it as a highly visible manifestation of poor management and even attributed it to timber company greed.

Regarding clear-cutting and forest management: *"That's my biggest gripe.... They go in and knock everything down."* Clear cuts were blamed for ancillary problems: *"This clear-cutting: They're having more slides on our roads...in Oregon. The rock's busted loose because there's nothing there to hold it."*

–focus group participants, Coos Bay

However, clear-cutting had its supporters: *"I think a clear-cut makes a good, healthy forest."* Another participant agreed, *"It starts a new life cycle."* Added another, *"Whenever you walk into a clear-cut, you'll see stuff growing all the time. You'll see deer; you'll see little trees popping up."* In response to the direct question, "Does it [a healthy forest] include clear-cuts?", a participant answered, *"In some instances, yes."*

–focus group participants, Coos Bay

The Portland focus group had differing opinions on clear-cutting as well, with some who objected to the practice. Yet others supported clear-cutting: *"A clear-cut isn't all bad...it helps the hunters."*

–focus group participant, Portland

Several focus group participants saw the utility in clear-cutting: *"There's disease in forests, and the only thing that can cure that is clear-cutting and burning it."* Fire control, as well as disease control, was mentioned in the focus groups: *"If you don't clear-cut...it'll all be devastated by fire."*

–focus group participants, Portland and Coos Bay

A literature review by Davis, Hibbitts & McCaig, Inc. (2001b) discussed a 1993 study by Shindler et al. wherein over half of Oregonians who replied to a randomly distributed mail survey agreed that clear-cutting should be banned on federal forest land. Although this study concerned federal forests instead of State Forests, there was little evidence to suggest that

Oregonians' opinions on clear-cutting would greatly change when discussing State Forests. Additionally, Davis, Hibbitts & McCaig, Inc. (2001b) discussed a review of research by Johnson and Armstrong (1999), who in turn reported that 62% of Portland residents supported the statement, "Clear-cutting should be banned on federal forest land" (Hansis, 1995).

Oregon voters defeated Oregon Forest Conservation Initiative, also called Ballot Measure 64, in 1998 by a margin of 4 to 1; statewide, 19% of Oregon voters voted for Ballot Measure 64 (Kline and Armstrong, 2001). Note that the measure called for a ban on the use of chemical herbicides and pesticides, harvest of any tree greater than 30 inches diameter at breast height (dbh—the standard measure of diameter taken above the base swell), on-site slash burning, as well as a ban on clear-cut logging. Therefore, the results cannot be said to apply to only clear-cutting. Furthermore, this issue was further complicated when several environmental groups—a constituent that many thought would support Ballot Measure 64—came out against it leading up to election day, claiming that Measure 64 was poorly written and too extreme. Therefore, it would be dangerous to say that Oregonians who voted *supported* clear-cutting by a margin of 4 to 1; rather, this particular proposed ban of clear-cutting, along with other forestry practices, was *not* supported. It is unknown how many of those who voted against the Ballot Measure 64 did so despite the fact that they do not support clear-cutting. Nonetheless, the results of the 1998 election further demonstrate Oregonians' division on this issue.

A county-by-county analysis of the results of Ballot Measure 64 showed that support for the ban on clear-cutting (and other forestry practices) was positively correlated with population density, income, education, and the proportion of county voters who are registered Democrats; conversely, a negative correlation existed with the proportion of workers in the county employed by the forest industry and the proportion of the county who are native-born Oregonians (Kline and Armstrong, 2001). In short, it appears that urban professionals—a constituent far removed from the logging industry and the logging heritage—are less sympathetic with the wood products industry.

Davis, Hibbitts & McCaig, Inc. (2002) found that females were more likely than were males to express concern about the amount of forest land harvested by clear-cutting. Additionally, they found that lower income residents were also more likely than were higher income residents to express concern about the amount of forest land harvested by clear-cutting.

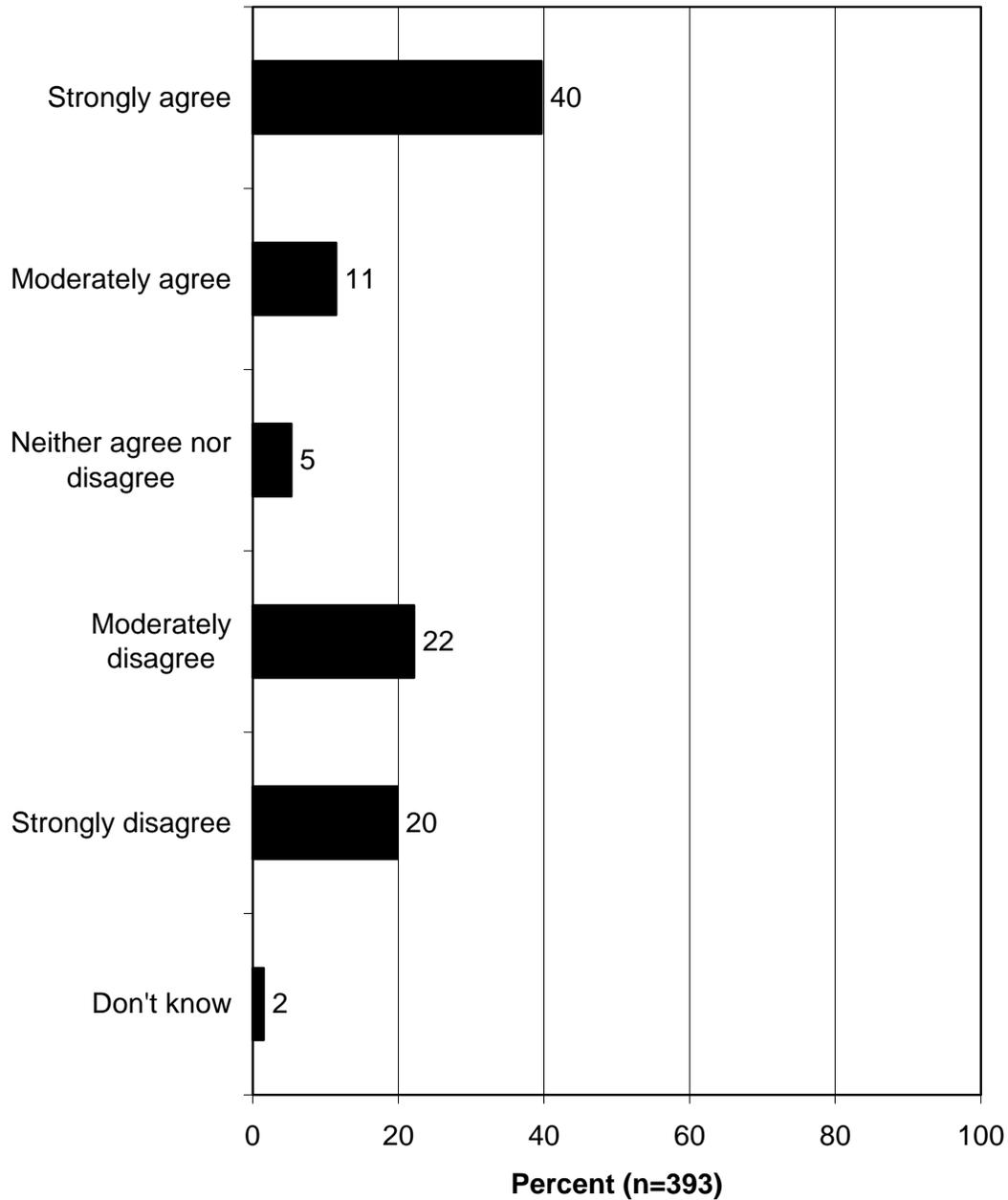
Davis, Hibbitts & Midghall, Inc. (2006) asked Oregonians directly how concerned they were about clear-cutting, and a slight majority (51%) said that they were *very* concerned about it, and 77% were very or somewhat concerned. The researchers further found a positive correlation to expressing concern about clear-cutting and residing in a metropolitan area, being female, being younger than 65 years of age, and having lived in Oregon for less than 10 years. However, the same survey found that a majority of Oregonians (59%) agree that there are valid scientific reasons to allow some clear-cutting, about equally divided between *strongly* agreed and *somewhat* agreed.

Davis, Hibbitts & McCaig, Inc. (2002) first asked Oregonians whether they approved or disapproved of forest management activities in Oregon, and those who disapproved most commonly said in a follow-up question that too much clear-cutting was their reason for disapproval.

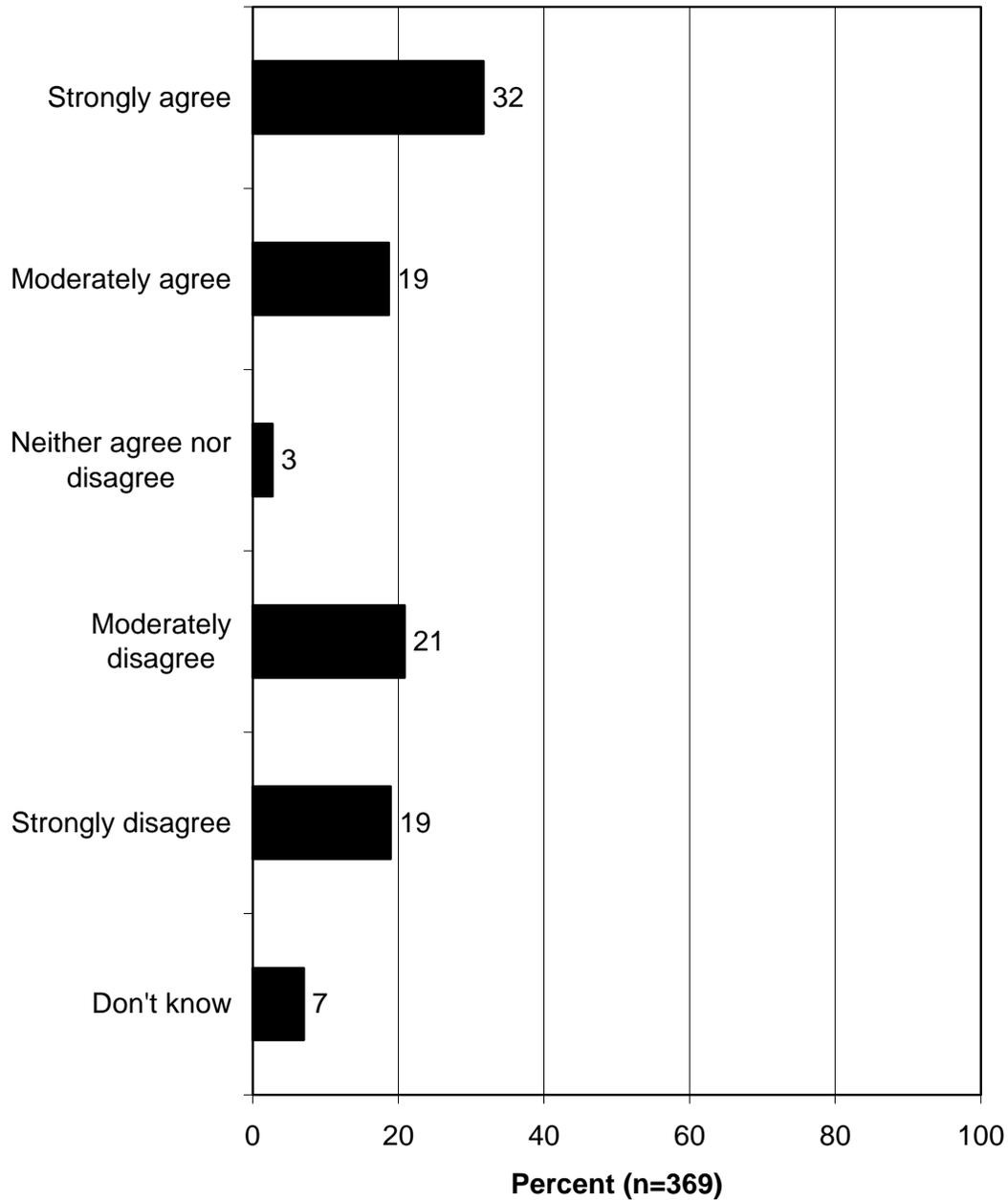
Bliss (2000), as discussed in Davis, Hibbitts & McCaig, Inc. (2001b), argued that continuing to include clear-cutting as a management tool when clear-cutting is perceived by so many people to be unacceptable will alienate the public from foresters, further impeding the process of public involvement in forest management decisions.

It is worth noting that clear-cutting is extremely important to the timber industry, as it accounts for most of the harvest of timber in Oregon. For instance, according to one estimate made in 1998, as cited in Kline and Armstrong (2001), clear-cutting accounted for 89% of Oregon's timber harvest (Barnard, 1998).

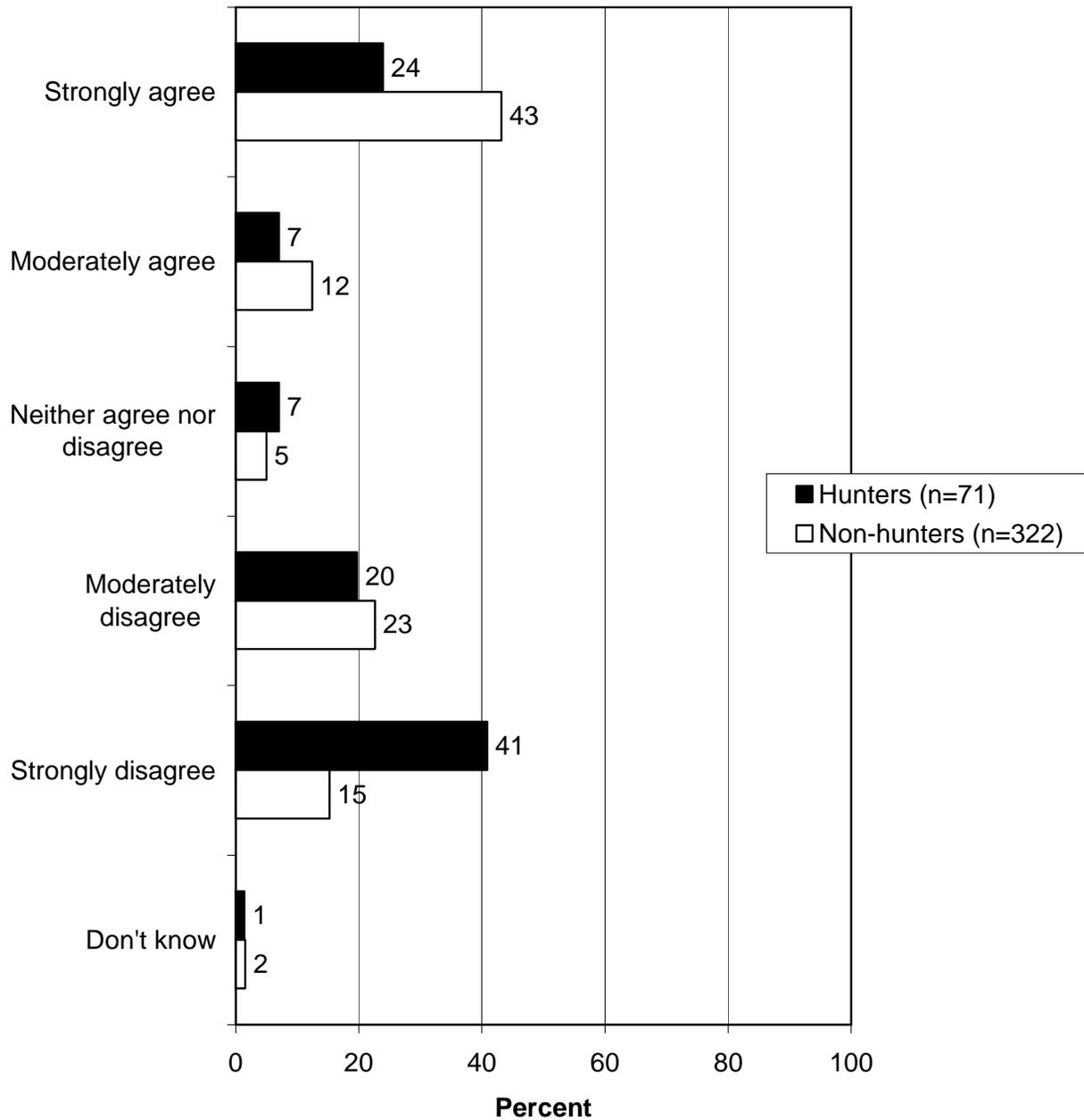
Q122. Clear-cutting of Oregon State forests should never be allowed. (Do you agree or disagree with this statement?)



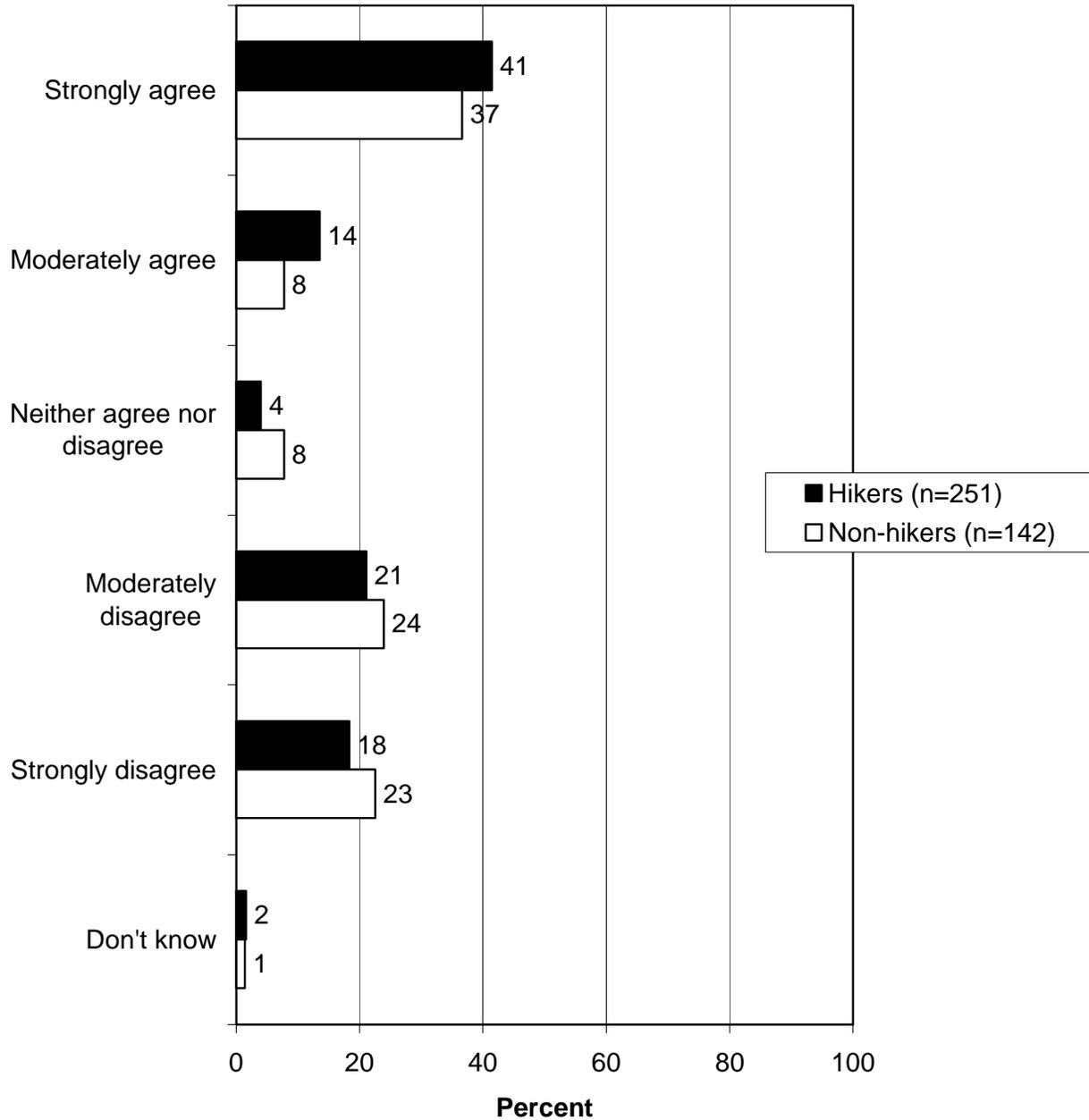
Q103. Ecologically sound forestry practices would prohibit all clear-cutting. (Do you agree or disagree with this statement?)



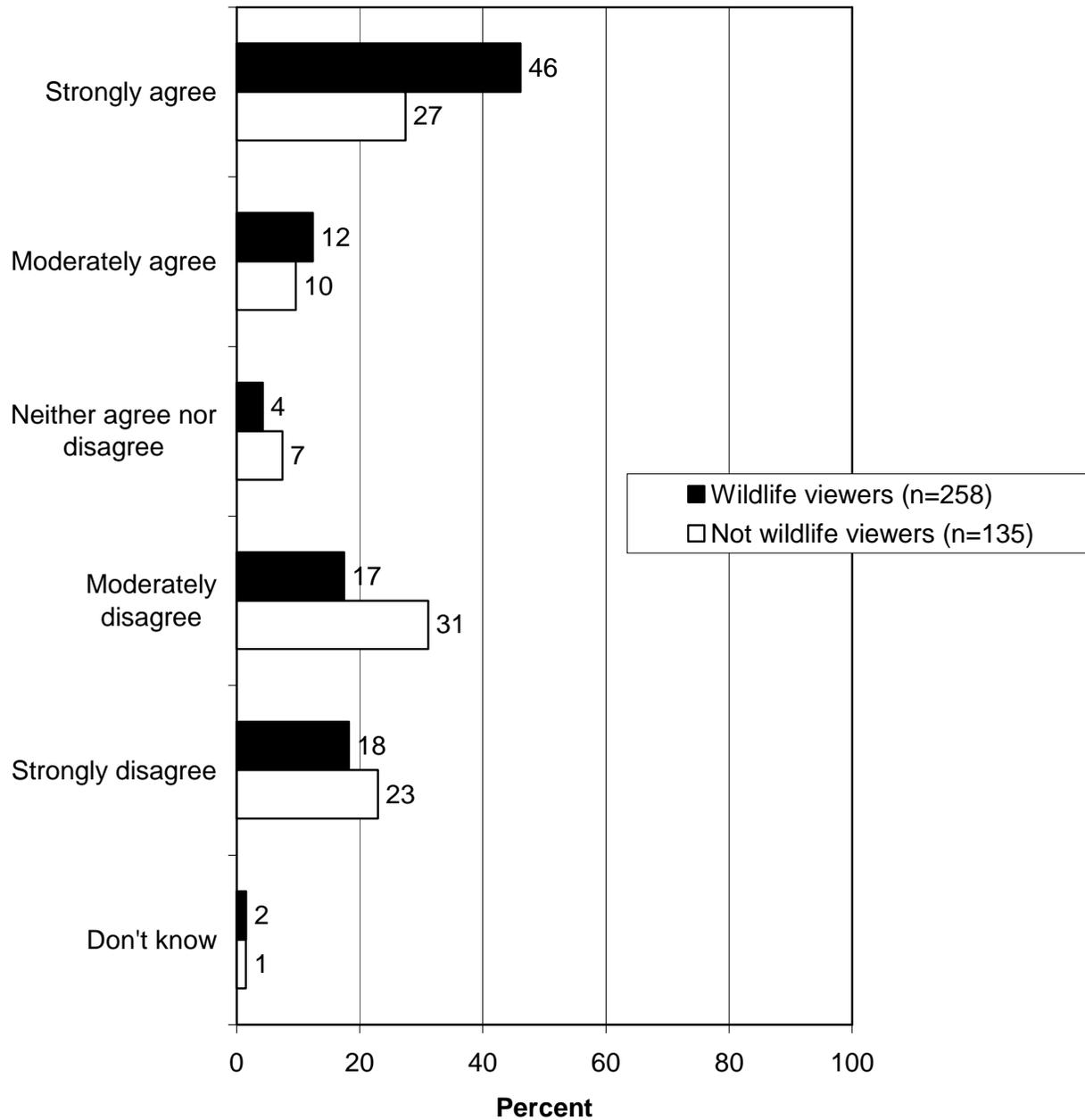
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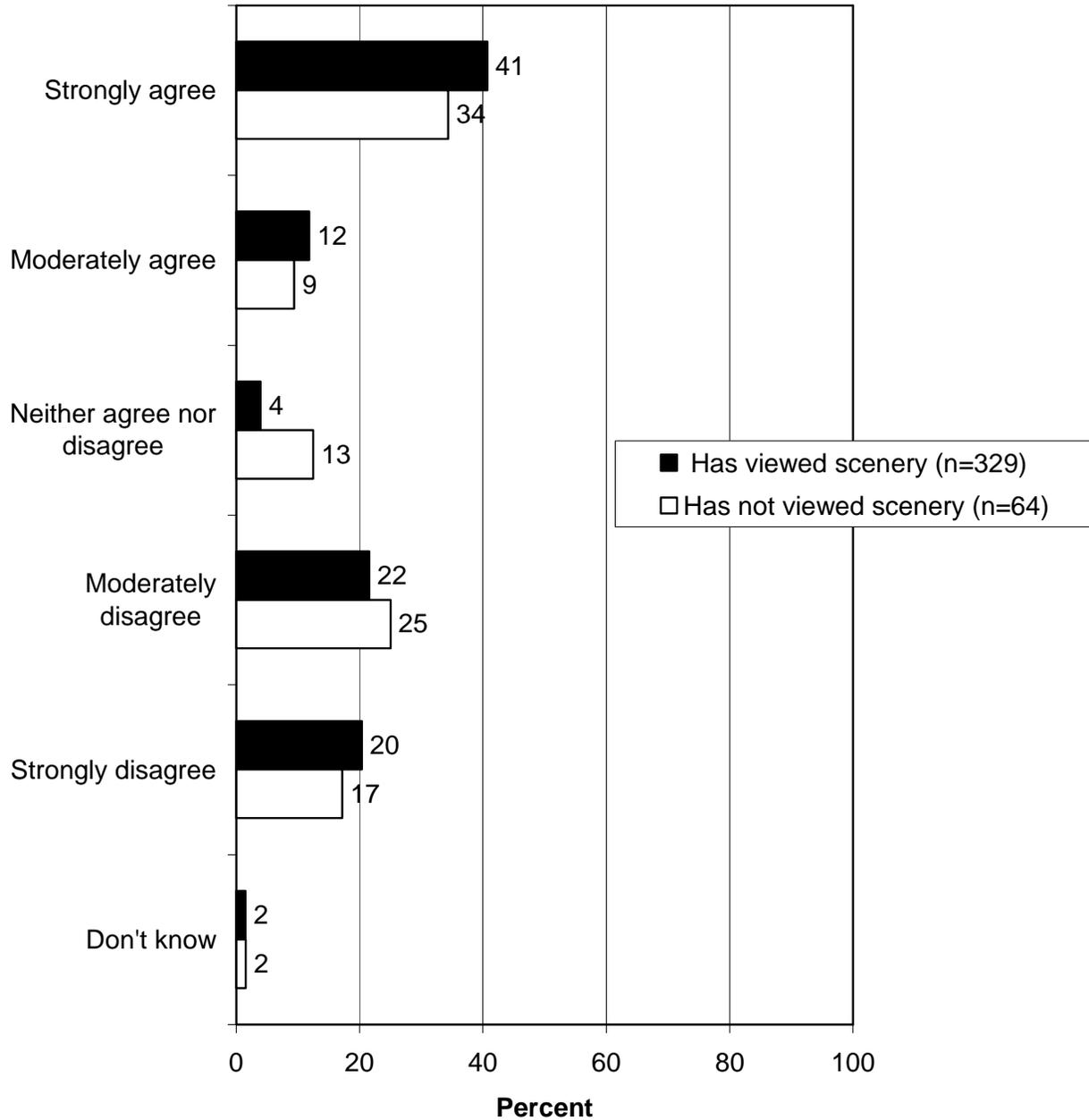
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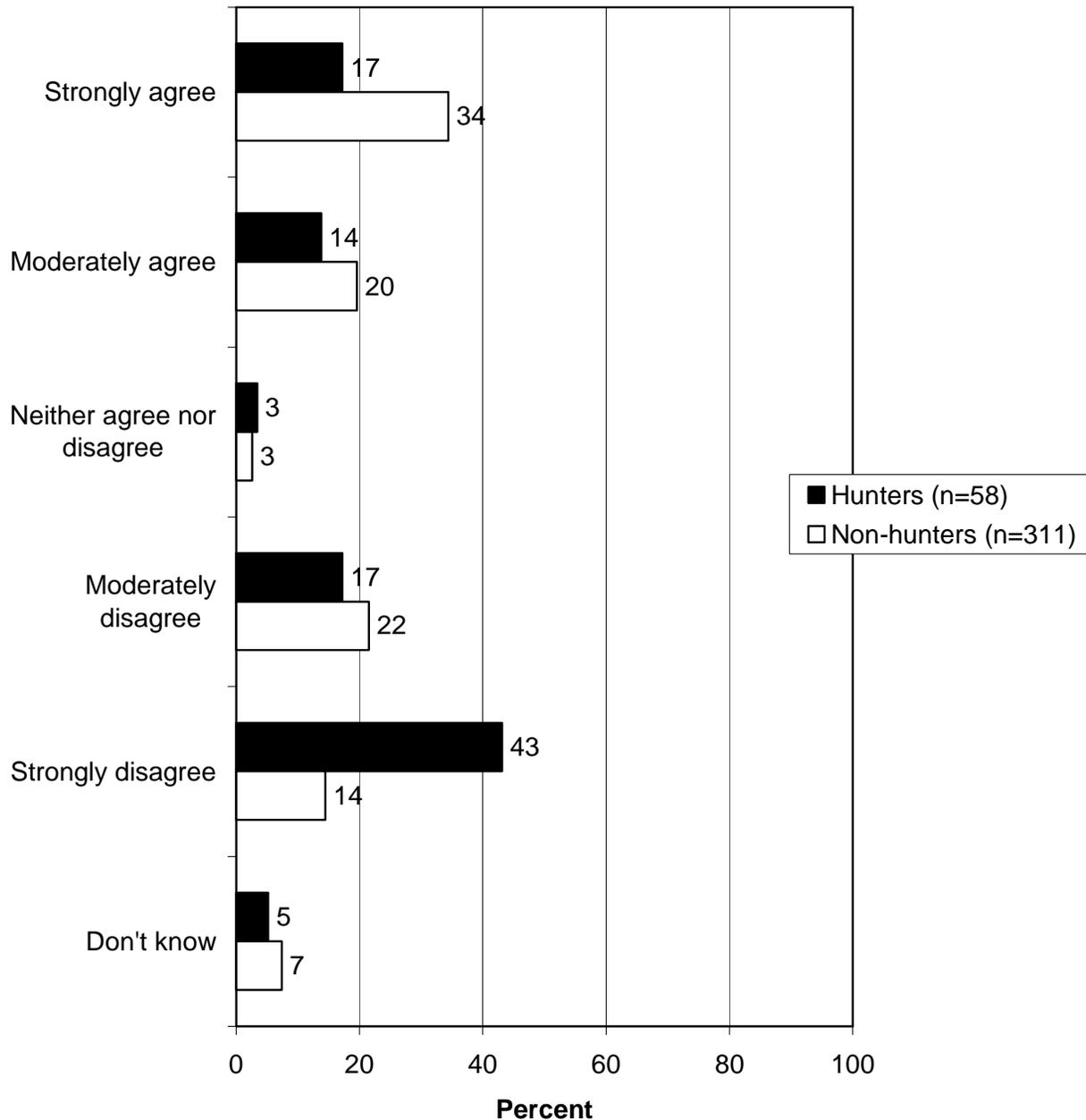
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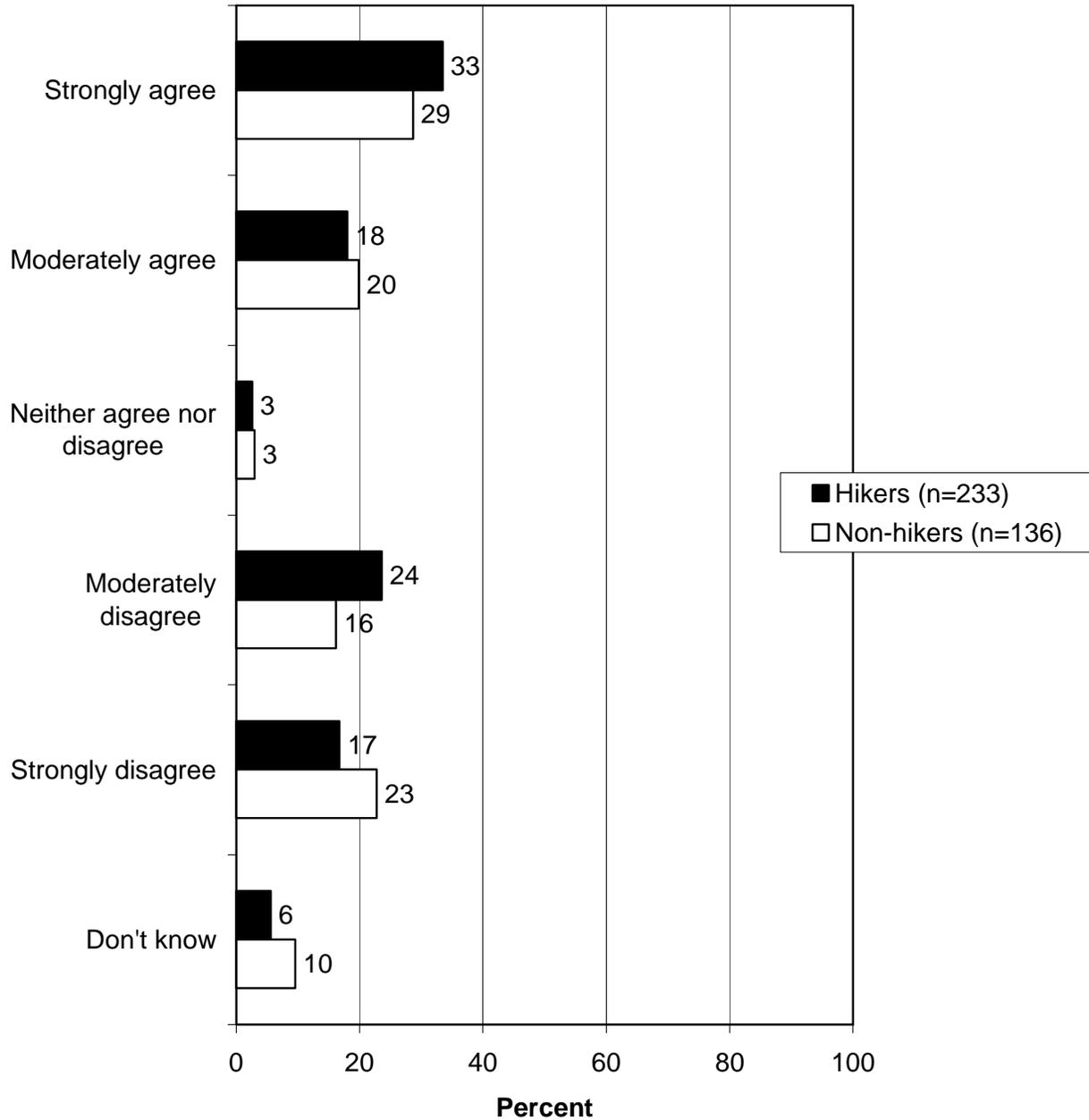
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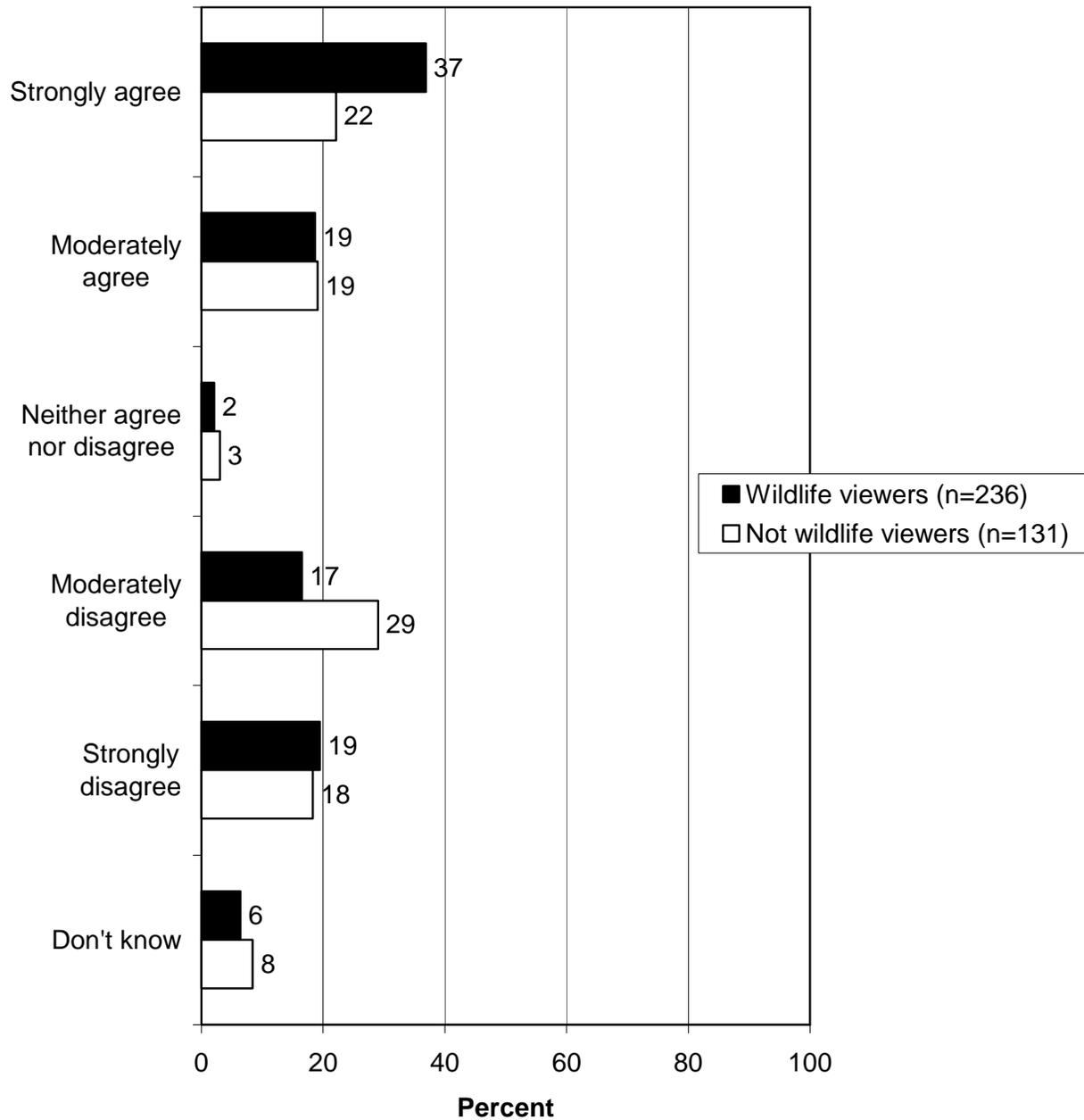
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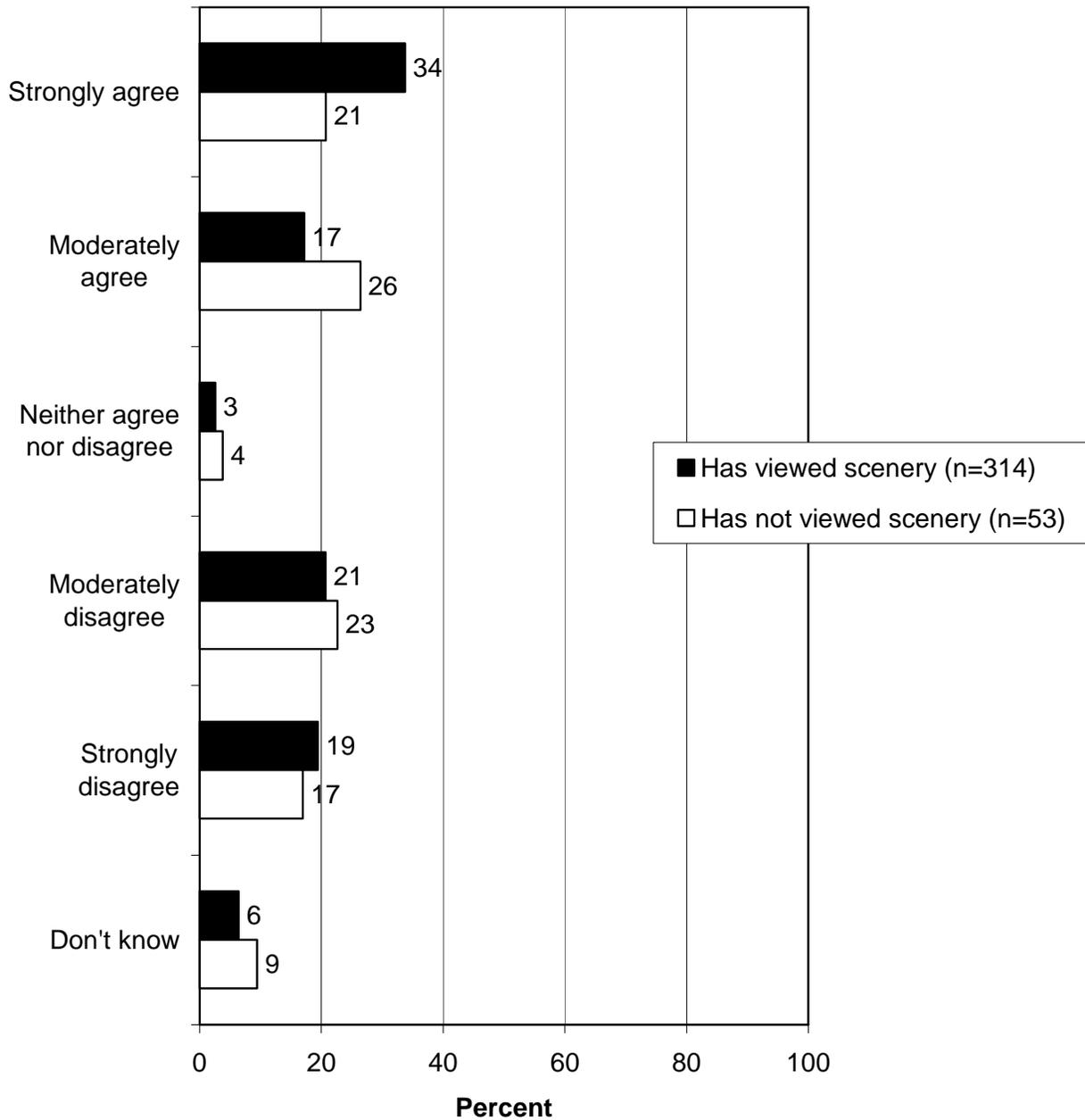
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OTHER FOREST MANAGEMENT TECHNIQUES

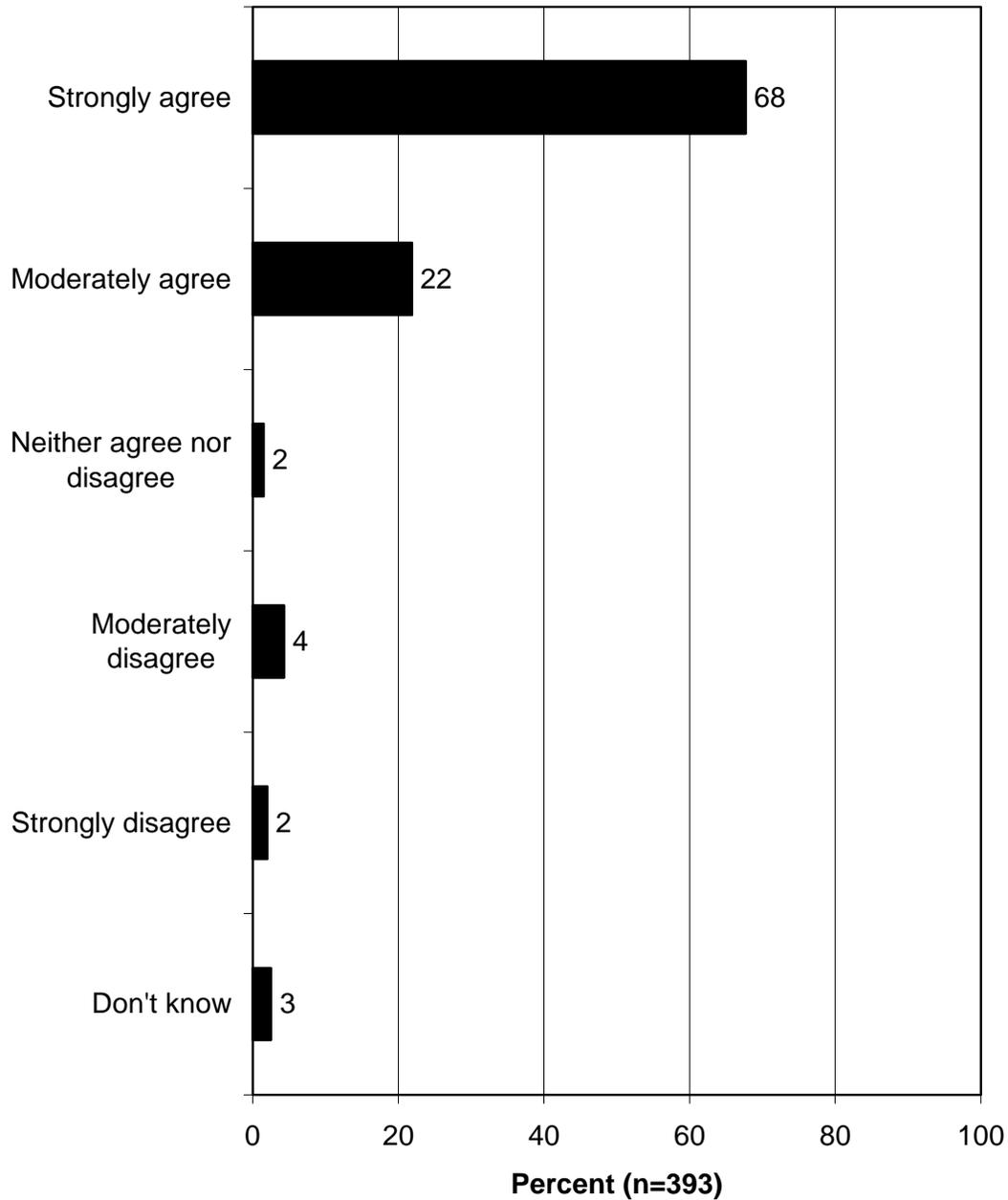
- **Oregonians, for the most part, accept and appear to understand thinning (unlike clear-cutting), particularly in the role it plays in moderating the risk of severe wildfires and in improving the health of forest stands.**

Clear-cutting, as discussed above, does not have the support of a majority of Oregonians. Thinning, on the other hand, is accepted: 79% of Oregonians agree that harvesting or thinning trees from dense, overcrowded stands helps prevent severe wildfires, and conversely, a large majority of Oregonians (70%) agree that lack of thinning or harvesting in dense, overcrowded forest stands can actually threaten wildlife habitat by making the stands vulnerable to unusually hot, destructive fires (Davis, Hibbitts & Midghall, Inc., 2006). Outside of Oregon, results regarding thinning are similar: 69% of New Hampshire residents support thinning as a land management technique, while only 18% oppose (Responsive Management, 2004i). Meanwhile, Brunson and Shindler in 2004 (as cited in Abrams and Lowe, 2005) found that 61% of Arizona residents and 58% of Colorado residents supported “wide use of mechanical thinning,” rather than “I support sparing use of mechanical thinning” or “I oppose mechanical thinning”; in Utah, support for wide use of mechanical thinning was lower, at 43%. Note that in this 2004 Brunson and Shindler study, very low percentages of residents of these three states opposed mechanical thinning (4% in Arizona, 6% in Colorado, and 9% in Utah).

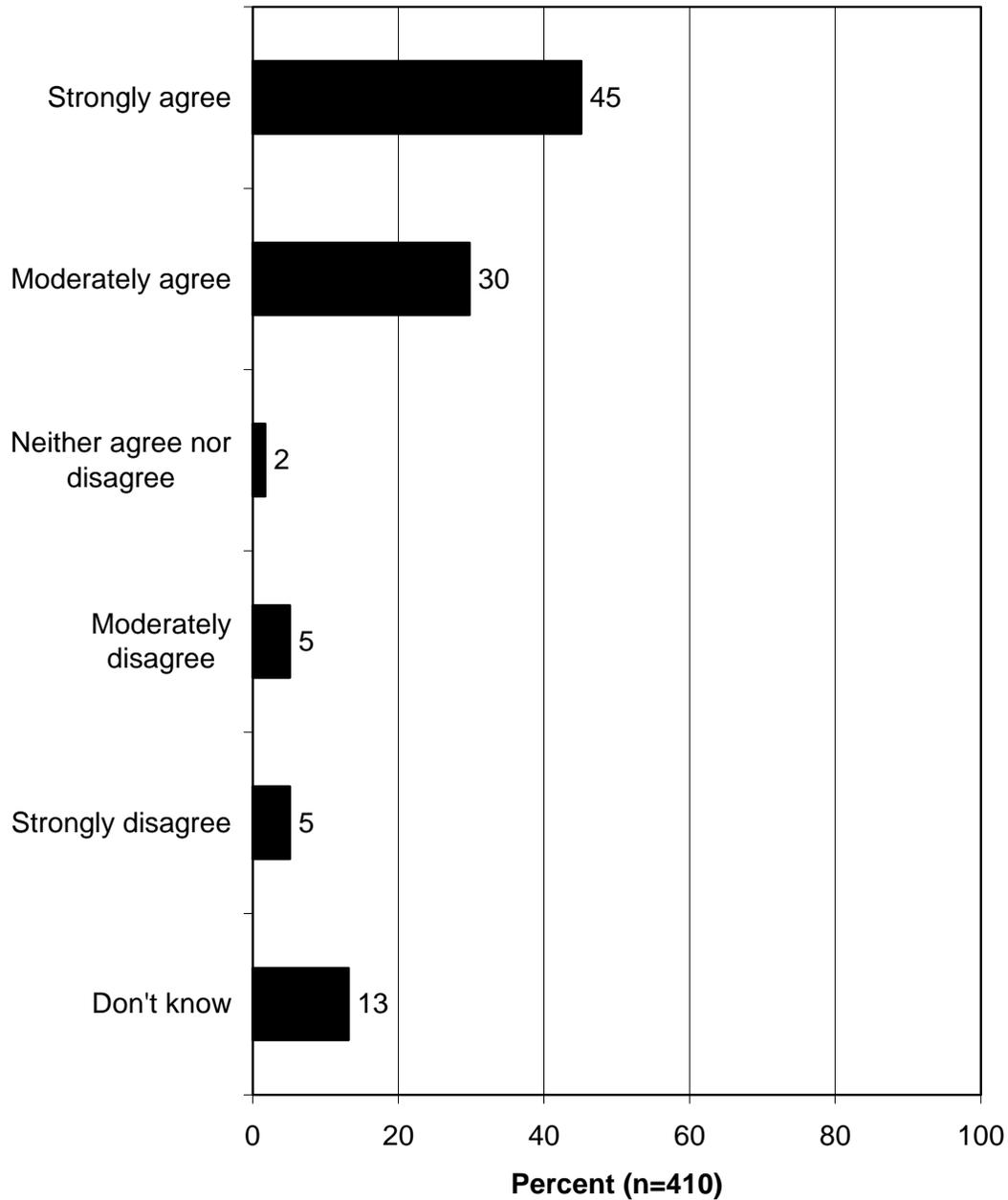
When asked about wildfire fuel management practices, 79% of residents of Jefferson and Deschutes Counties in central Oregon said that thinning of tree stands was a legitimate tool that resource managers should be able to use whenever they see fit (the other choices being that it is something that should be done only infrequently in carefully selected areas, that it is a practice that should not be considered, or that it is an unnecessary practice) (Shindler et al., 2002).

Oregonians overwhelmingly agree (90%) that thinning can improve forest health. Also, 75% of Oregonians agree that thinning increases the size of trees in a forest. Finally, a large majority of Oregonians (72%) agree that thinning enhances the biological diversity of a forest. The implication of these findings is that they support this management technique.

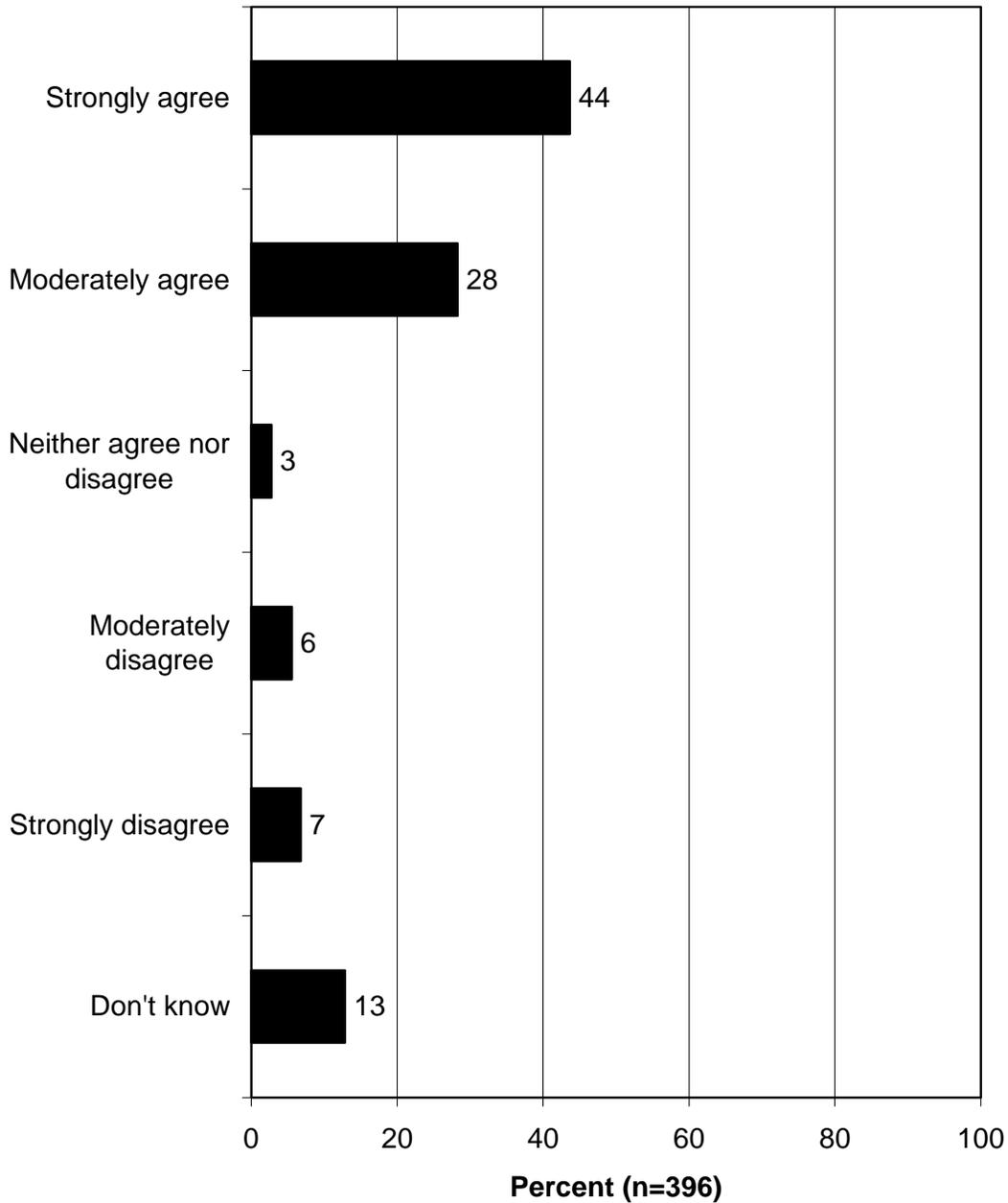
Q105. It is sometimes necessary to harvest or thin trees in a forest to improve forest health. (Do you agree or disagree with this statement?)



Q108. Thinning increases the size of trees in a forest. (Do you agree or disagree with this statement?)



Q110. Thinning enhances the biological diversity of a forest. (Do you agree or disagree with this statement?)



SOURCES OF INFORMATION ABOUT FOREST MANAGEMENT

- **Overall, the ODF is not seen as doing well at providing information about forest management, as 37% of Oregonians disagree that the ODF keeps Oregonians informed about forest management practices. Nor are people getting their information from the ODF. These findings are despite the fact that the ODF enjoys high credibility.**

Oregonians are split on whether the ODF keeps them well informed about the state's forest management practices: although 48% agree (but mostly *moderately* agree) that the ODF keeps them well informed, 37% disagree, and another 10% answered that they do not know, and 4% answered neutrally. In total, then, a majority of Oregon residents did *not* answer that they agree that the ODF keeps them well informed about the state's forest management practices. In a similar question, 35% of Oregon residents rank the ODF as excellent or good in educating and informing Oregonians about forest management practices, but 56% rate the ODF as fair or poor (fortunately fair over poor by 2:1). (These graphs are shown in the section of the report titled, "Opinions on Education and Outreach by the Oregon Department of Forestry and the Department as a Source of Information.")

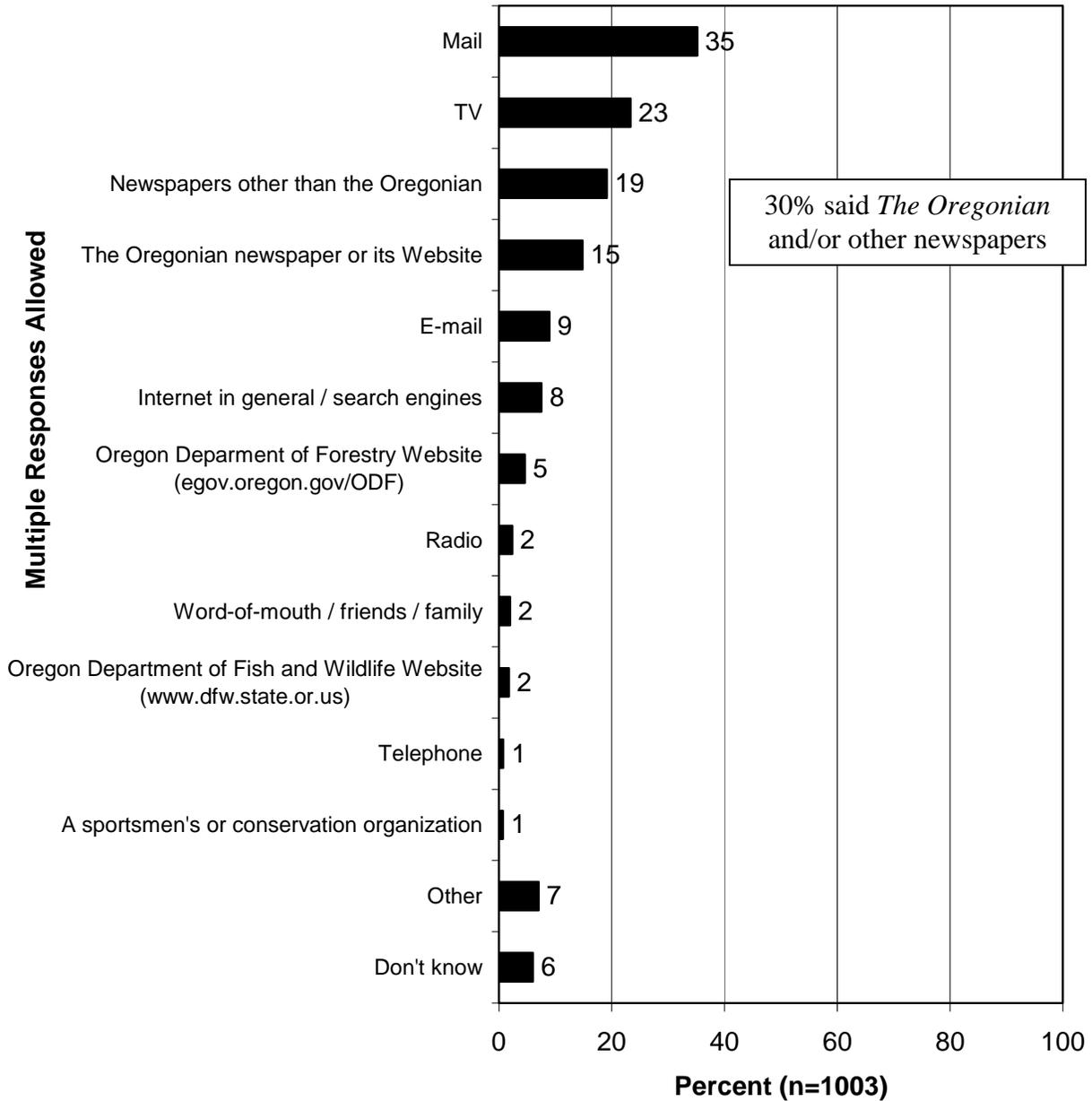
Recall that the ODF is perceived as highly credible as a source of information on forests and forest management. The ODF was ranked just behind forestry scientists from Oregon State University as the most credible source of information. Also, the aforementioned Davis, Hibbitts & Midghall, Inc. (2006) survey found that "forestry officials from the State of Oregon" were ranked high in trustworthiness.

Oregon residents say that the best way that the ODF could provide them with information would be via mail (35%), television (23%), or newspapers (30%, with 15% saying the *Oregonian*).

Oregonians also most commonly (33%) said that mail would be their preferred way to receive information about forest management in the aforementioned survey by Davis, Hibbitts & Midghall, Inc. (2006), followed by newspapers (14%) and the Internet (11%).

Newspapers is the most commonly named source, when Oregonians were asked about how they actually receive information about forest management in Oregon (39%), followed by news media in general (21%), television (16%), friends and family (13%), and the Internet (8%) (Davis, Hibbitts & Midghall, Inc., 2006).

Q188. If the Oregon Department of Forestry wished to provide information to you, what would be the best way to provide you with information?



MISCELLANY ABOUT FOREST MANAGEMENT

- **As stated previously, the finding below is important in showing that State Forests are, in general, distinguished from other types of forest, such as private and federal forests.**

As discussed previously, in a question that has implications for management of Oregon State Forests, a majority of Oregonians (61%) agree that Oregon State Forests are well marked, while 23% disagree.

OREGON RESIDENTS' UNDERSTANDING OF MANAGEMENT STRATEGIES

UNDERSTANDING FOREST MANAGEMENT STRATEGIES IN GENERAL AND THE DEVELOPMENT OF FOREST MANAGEMENT PLANS

- **Oregonians' understanding of forest management strategies is inconsistent, as is their simple understanding of what a healthy forest looks like. For instance, many Oregonians associate dead trees and snags with an unhealthy forest, although a healthy forest actually contains many dead trees and snags (which, incidentally, provide a necessary habitat niche as part of a complete forest ecosystem). Furthermore, many Oregonians do not appear to understand forest managers' needs for and use of clear-cutting in forest management, nor do some Oregonians have a complete understanding of the role of wildfires in a forest ecosystem and forest management techniques that address the risk of severe wildfires.**

The survey read nine statements to respondents regarding management strategies to gauge their understanding of forest management. The results show that Oregon residents as a whole have spotty understanding of forest management, as well as what constitutes a healthy forest. For instance, while 90% agree that it is sometimes necessary to harvest or thin trees in a forest to improve overall forest health (which is an accepted forest management strategy), almost a third of residents (30%) agree that snags and downed trees are signs of an *unhealthy* forest (when in actuality, a healthy forest *would* contain snags and downed trees). Furthermore, clear-cutting is seen as unsound management by many, as 50% agree that ecologically sound forestry practices would prohibit *all* clear cutting (although most forestry scientists would disagree with this statement, and natural processes, such as landslides and avalanches, actually create areas in which all trees are downed). Overall, however, a majority of Oregon residents agree with the statements that are true, while agreement with the false statements is at 50% or less.

Focus groups mirrored this spotty understanding by Oregon residents about forest management and what constitutes a healthy forest.

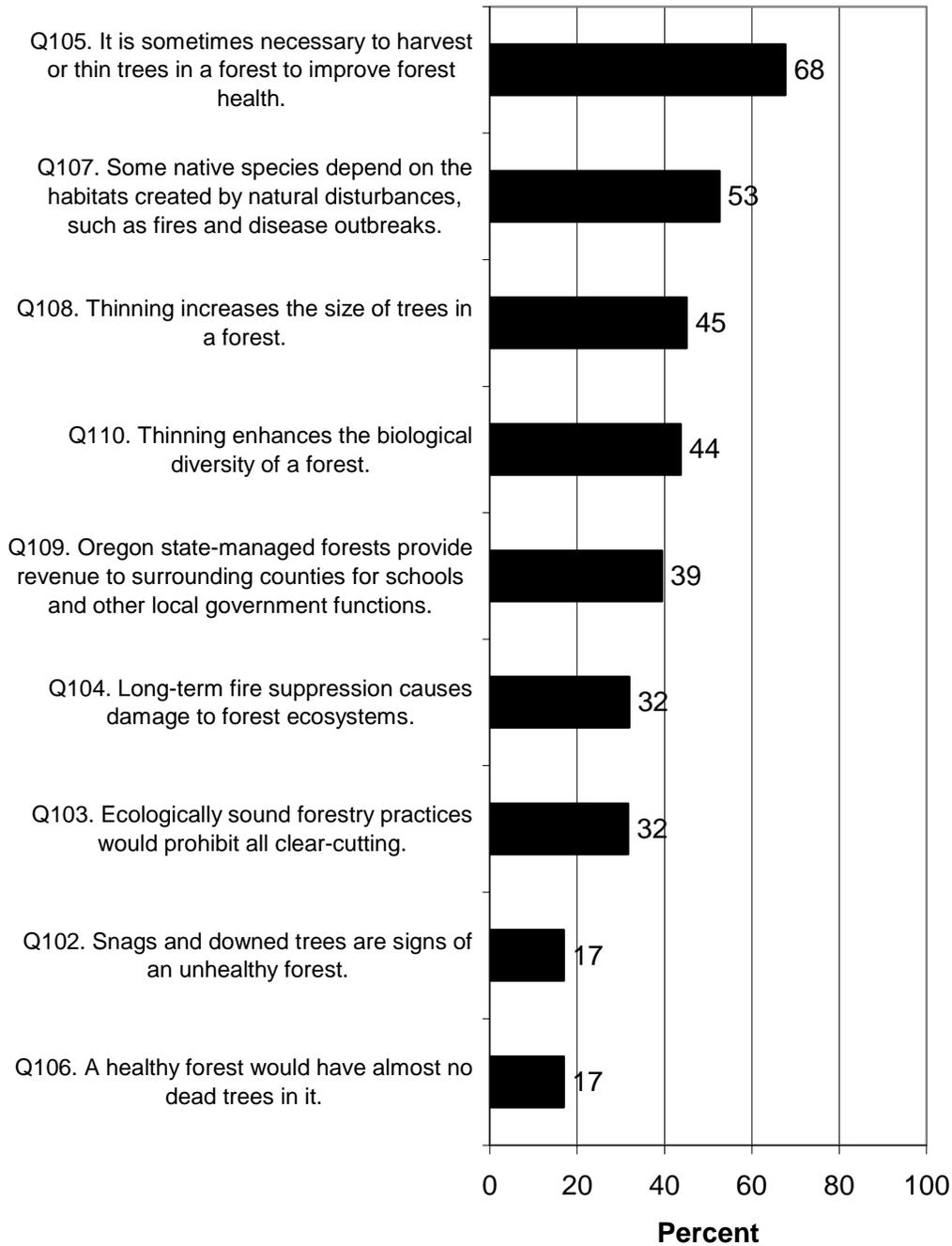
Many focus group participants thought that dead trees are *not* part of a healthy forest: “*That [the presence of dead trees] is a sign that they need to get in there and take care of what needs to be taken out.*” In direct response to the question, “Does it have dead trees in it, a healthy forest?”, a participant said, “*Well, the way they used to select log here, they'd take the dead trees out.*” On the other hand, others saw dead trees as part of a healthy forest: “*The rotten trees are part of the food chain. ... An old rotten snag with the top out of it is a habitat for something.*”

–focus group participants, Coos Bay

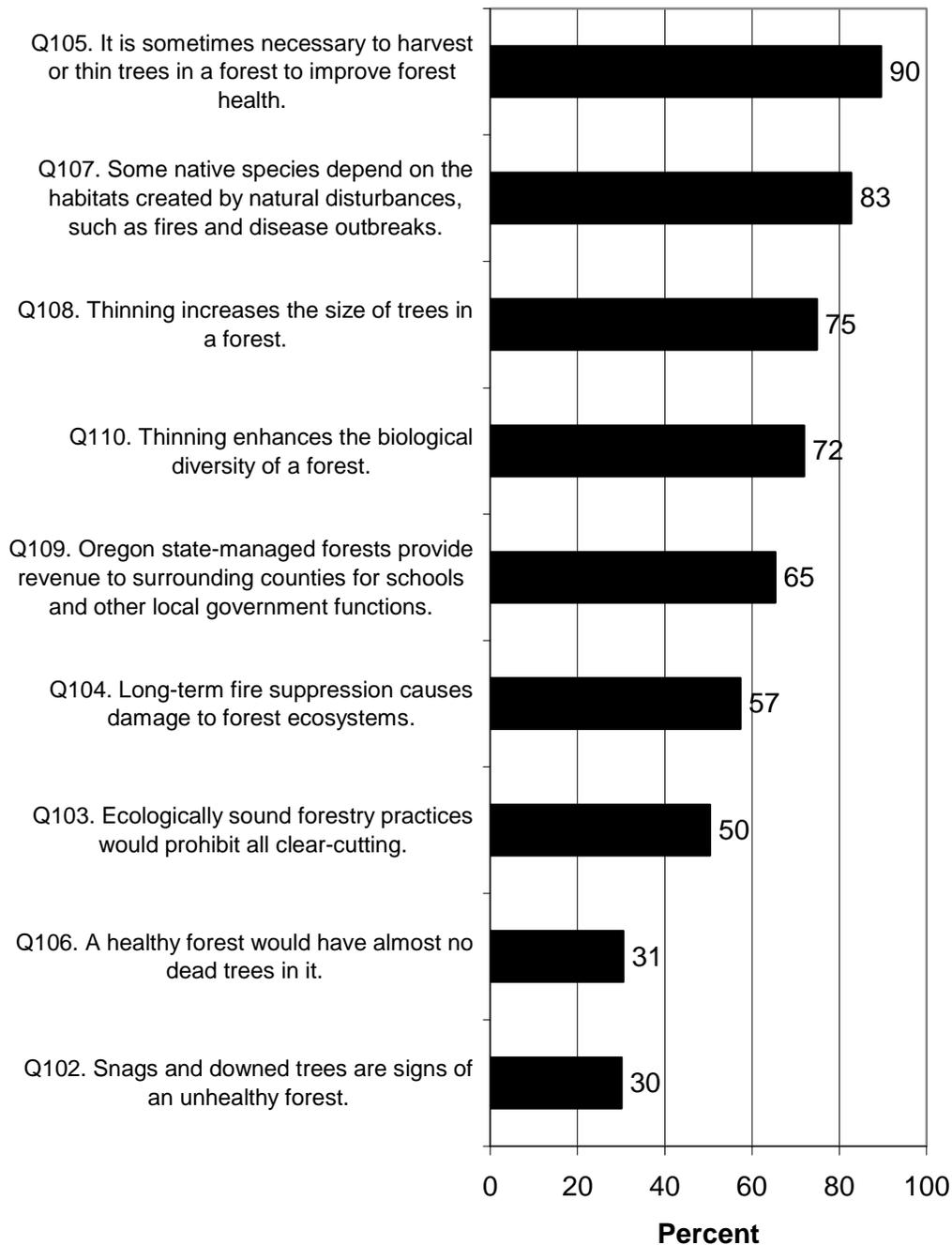
Two areas in particular have high levels of misunderstanding among Oregon residents: fire suppression and clear-cutting. A substantial percentage of Oregon residents (28%) disagree that long-term fire suppression causes damage to forest ecosystems, when in actuality forestry scientists, for the most part, agree and have documented evidence showing that wildfires play a role in maintaining a healthy forest. Likewise, as discussed above, a fairly large percentage of Oregon residents (50%) agree that clear-cutting has no role in ecologically sound forestry practices, although forestry science does not support this viewpoint.

A reflection of Oregonians' lack of knowledge about the planning process for developing forest management plans is manifested in that they most commonly say (41%) that they do not know if the planning process for developing forest management plans in Oregon has gotten better or worse over the past 10 years. (Otherwise, they are evenly divided, with 19% saying it has gotten better, 18% saying it has stayed the same, and 21% saying it has gotten worse.) (This graph is shown in the section of the report titled, "Development of Forest Management Plans.")

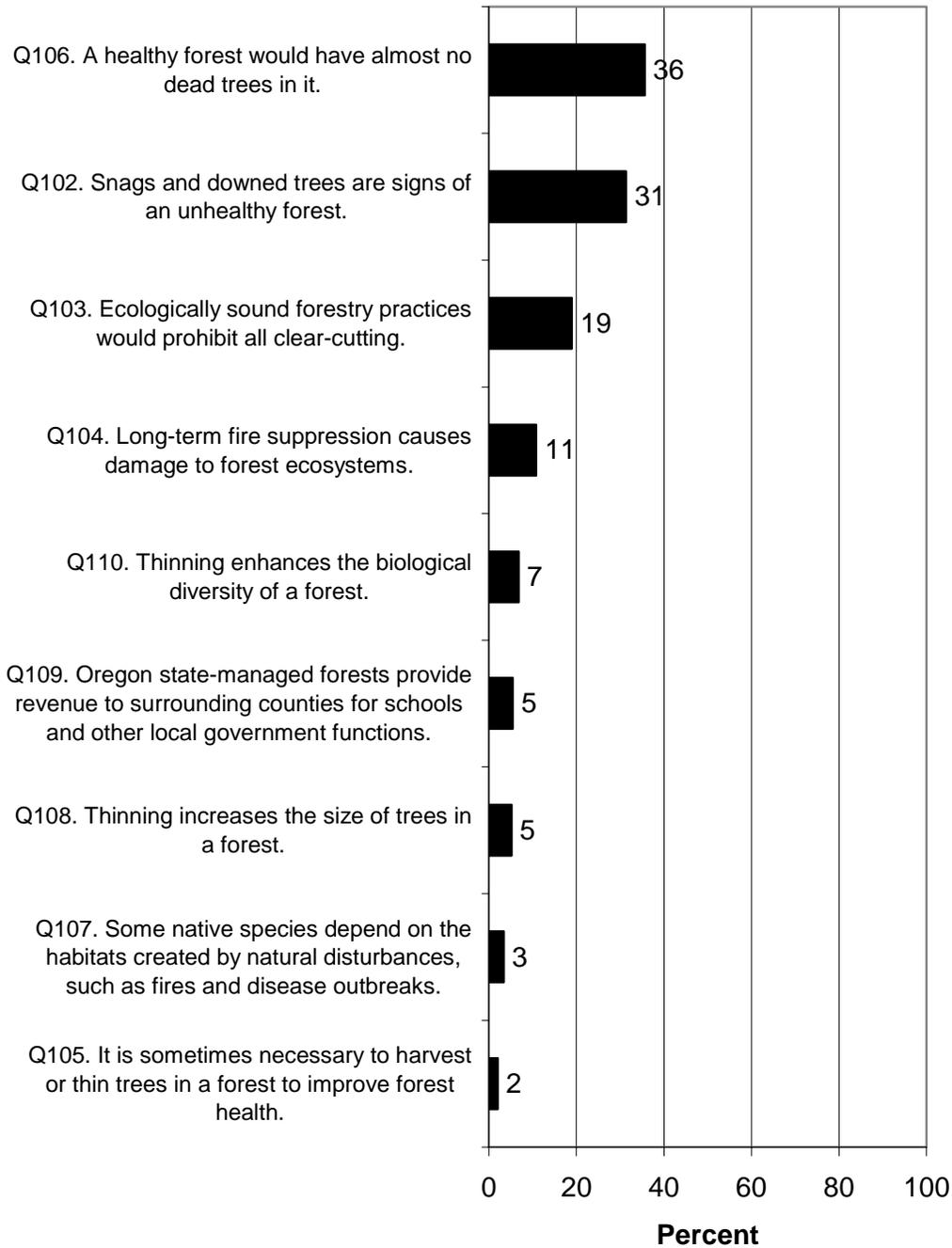
Q102-Q110. Percent who strongly agree with the following statements.



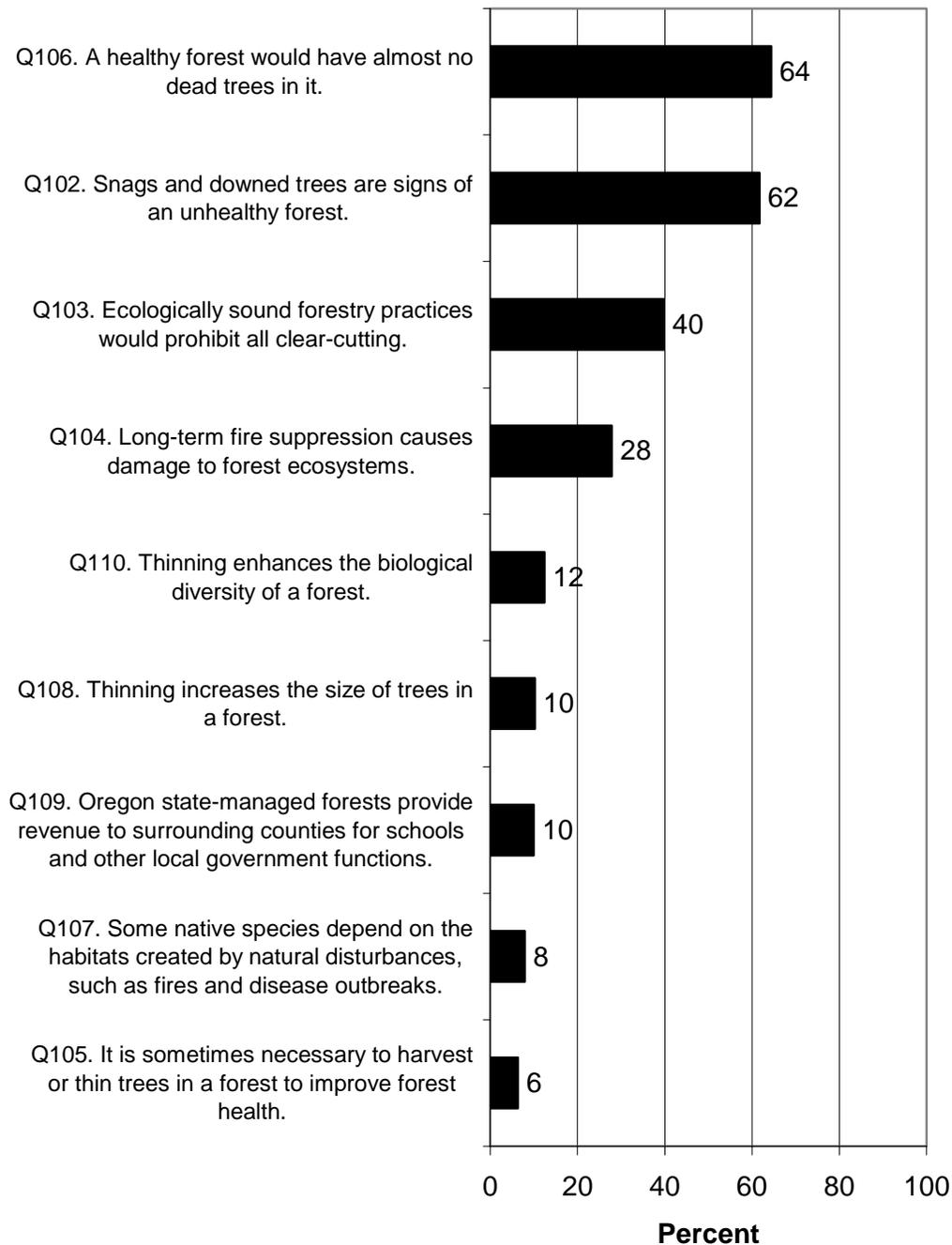
Q102-Q110. Percent who strongly or moderately agree with the following statements.



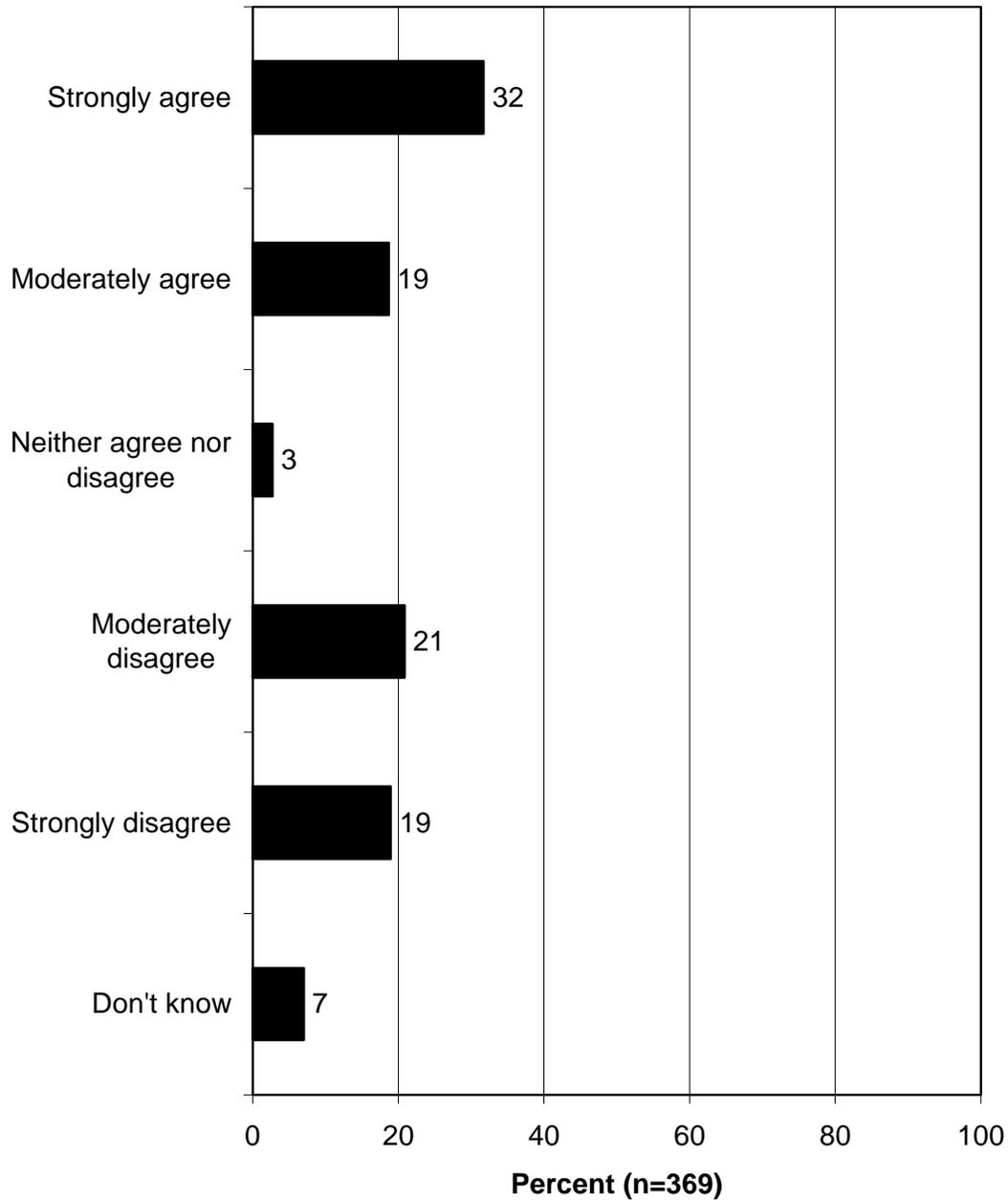
Q102-Q110. Percent who strongly disagree with the following statements.



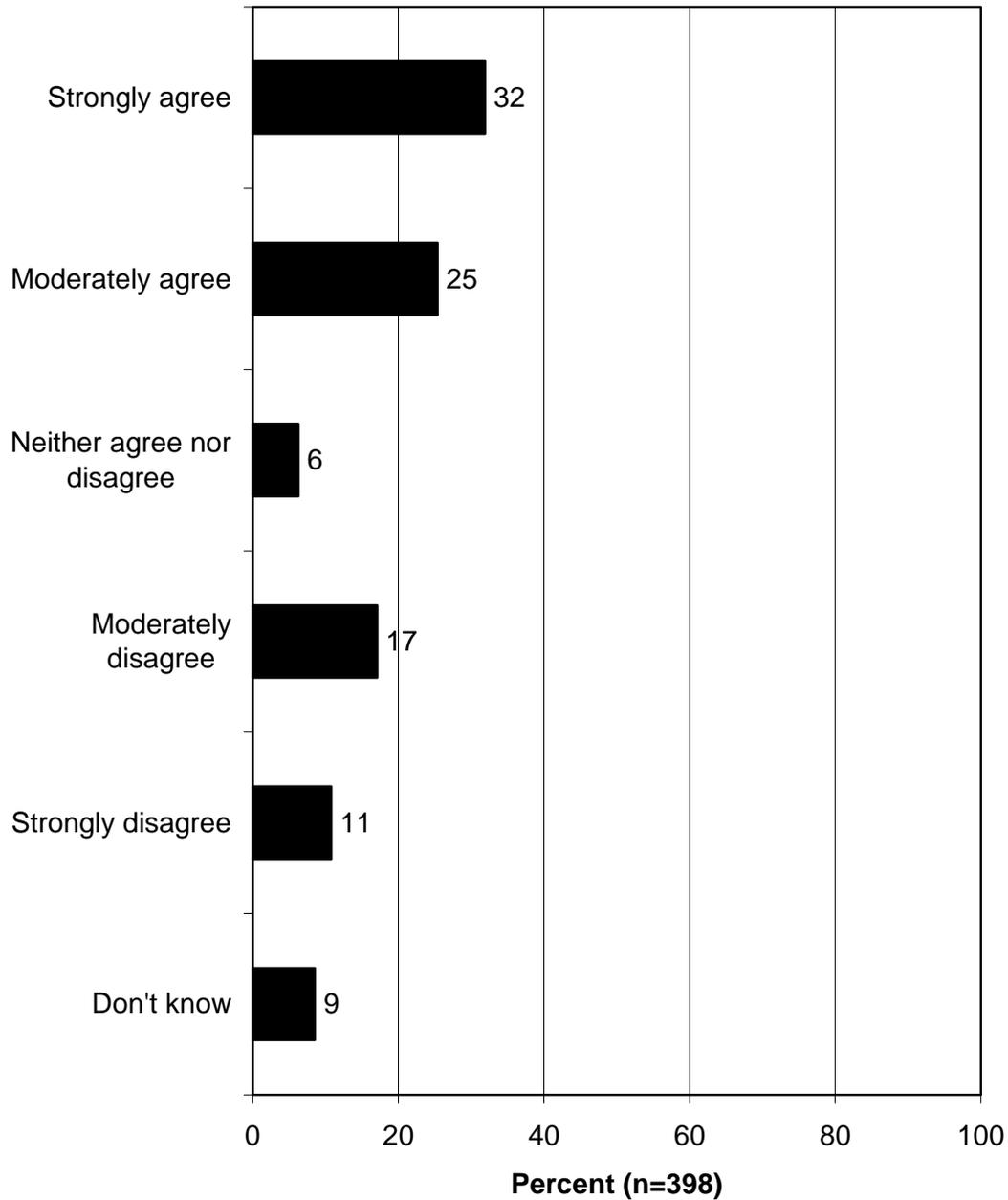
Q102-Q110. Percent who strongly or moderately disagree with the following statements.



Q103. Ecologically sound forestry practices would prohibit all clear-cutting. (Do you agree or disagree with this statement?)



Q104. Long-term fire suppression causes damage to forest ecosystems. (Do you agree or disagree with this statement?)



UNDERSTANDING SPECIFIC FOREST MANAGEMENT STRATEGIES

- **Although Oregonians' understanding of forest management strategies is inconsistent, as is their understanding of the composition of a healthy forest, many of them have fairly good understanding of fire prevention strategies and the role of thinning in fire prevention and in improving forest stand health.**

As discussed previously, wildfires and forest management is a topic about which there are misunderstandings. Nonetheless, a large majority of Oregonians understand and see the need for some of the actions necessary to prevent severe wildfires: 83% of Oregonians agree that removing dead and/or diseased trees helps prevent severe wildfires, 81% agree that removing thick, dry underbrush addresses wildfires, and 79% of Oregonians agree that harvesting or thinning trees from dense, overcrowded stands helps prevent severe wildfires (Davis, Hibbitts & Midghall, Inc., 2006). When asked directly whether the use of controlled fires is necessary to eliminate excess fuel on the forest floor to reduce the risk of severe wildfire, a large majority of Oregonians (82%) agree, and when asked directly if select harvesting or thinning of tree stands is necessary to reduce the risk of wildfires, the same percentage (82%) agree (Davis, Hibbitts & Midghall, Inc., 2006).

In another question about the utility of thinning tree stands, Davis, Hibbitts & Midghall, Inc. (2006) found that a large majority of Oregonians (70%) agreed that lack of thinning or harvesting in dense, overcrowded forest stands can actually threaten wildlife habitat by making the stands vulnerable to unusually hot, destructive fires.

In a finding that has implications for forest management, an overwhelming majority of residents of two central Oregon counties, Jefferson and Deschutes, thought it was likely that a wildfire would break out in the forests or rangelands near their home in the 5 years subsequent to the survey, which was conducted in 2002 (Shindler et al., 2002).

As discussed previously, most Oregonians agree that thinning can improve forest health, can increase the size of trees in a forest, and can enhance the biological diversity of a forest. In short, they appear to understand the role of thinning in forest management.

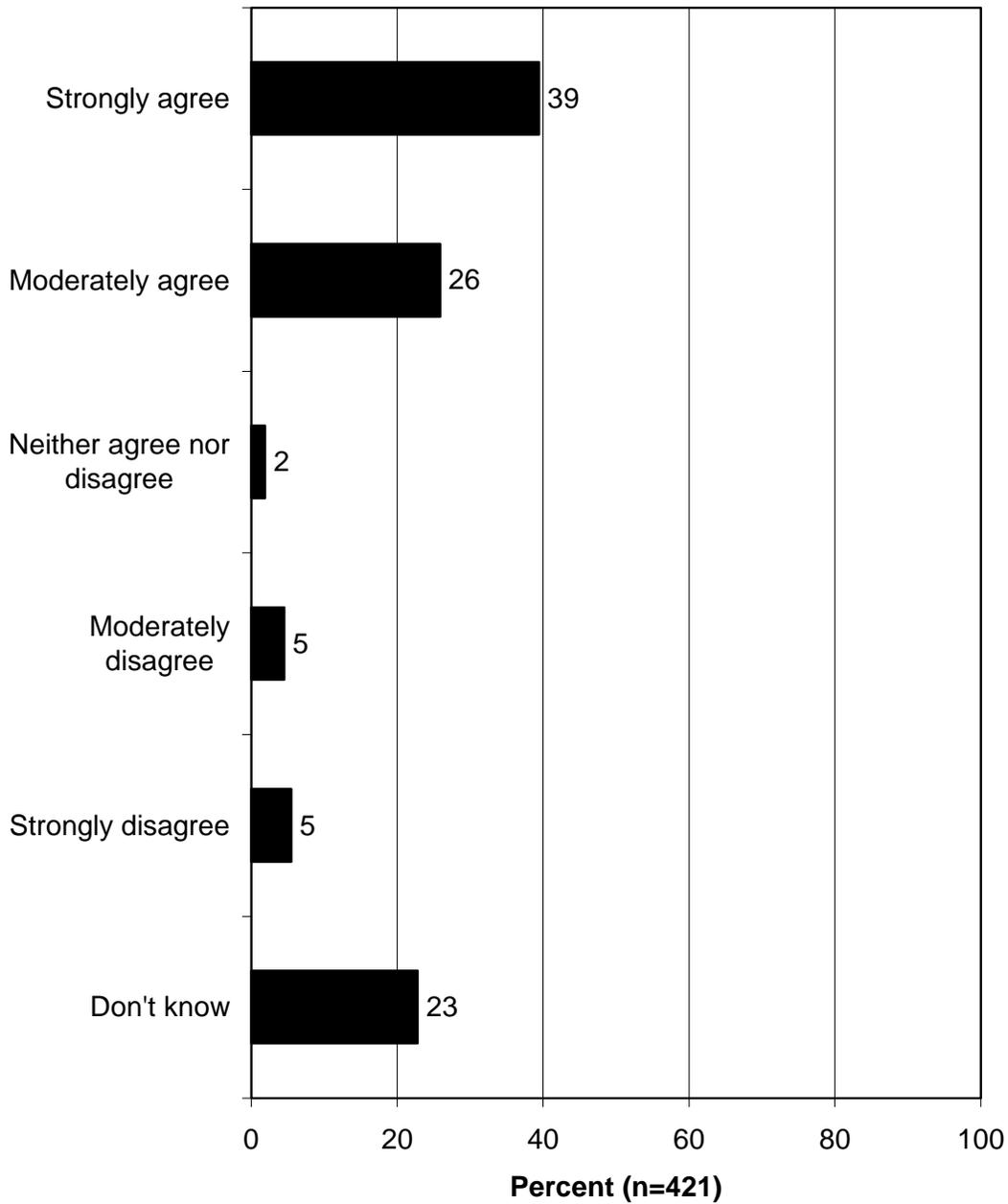
UNDERSTANDING THE RELATIONSHIP BETWEEN STATE FOREST MANAGEMENT AND THE TRUST COUNTIES

- **Oregonians' understanding of the relationship between the State Forests and the Trust Counties is not as high as it could be, as more than a third of Oregonians did not agree that revenue from timber sales from Oregon State Forests goes to the schools and local governments of the Trust Counties, and many of those who agree only *moderately* agree, indicating that they have doubts. Interestingly, residents of the Trust Counties do not show marked difference from the rest of the state regarding understanding of the relationship between the State Forests and the Trust Counties. (Note that some of the State Forest lands are Common School lands, the revenue from which goes to the general State fund rather than the counties; nonetheless, disagreement does not appear to be because of this distinction in type of State Forest land.)**

Regarding funding for schools and other local government functions, a majority of Oregonians (65%) appear to understand that timber sales from Oregon State Forests generate revenue for schools and local governments of surrounding counties; however, this leaves more than a third of Oregon residents (35%) who either gave an incorrect answer (they did not agree with the statement that Oregon State Forests provide the aforementioned revenue to surrounding counties) or they answered that they do not know. Furthermore, just less than half of those who agreed with the statement appear to harbor some doubt, as they answered *moderately* agree rather than *strongly* agree. Note that the ODF reports that from 2001 to 2005, the Trust Counties have received \$223.6 million from timber sales on Board of Forestry lands (Oregon Department of Forestry, 2005).

Agreement (70%) far exceeds disagreement (12%) that the State Forest Management Plans should acknowledge the interests of the counties from which most of the Board of Forestry lands were originally acquired. Nonetheless, the 12% who disagree, combined with the 2% who gave a neutral answer and the 16% who answered, "Don't know," means that nearly a third of Oregon residents (30%) do not indicate agreement with one of the main tenets of the Forest Acquisition Act of 1939 in which counties deeded land to the state in exchange for a share of future timber harvest revenues. (These graphs are shown in the section of the report titled, "Guiding Principles of Developing Forest Management Plans.") Interestingly, a crosstabulation of these results were run among residents of the Trust Counties, finding no marked difference in these results—despite the benefits of this guiding principle to those in the Trust Counties, they are no more likely to agree than are those from outside the Trust Counties. A further crosstabulation was run among only the four counties that received the largest share of revenue from Board of Forestry timber sales—Clatsop (receiving \$86 million from 2001 to 2005), Tillamook (receiving \$50 million from 2001 to 2005), Washington (receiving \$25 million from 2001 to 2005), and Linn (receiving \$20 million from 2001 to 2005): residents of these four counties were no more likely to agree than were residents from outside these counties (source for revenue figures: Oregon Department of Forestry, 2005). Agreement is slightly higher (82%) that the State Forest Management Plans should recognize that the State Forests are intended to be an important contributor to timber supply for present and future generations; only 11% disagree. (This latter graph is shown in the section of the report titled, "Guiding Principles of Developing Forest Management Plans.")

Q109. Oregon state-managed forests provide revenue to surrounding counties for schools and other local government functions. (Do you agree or disagree with this statement?)



DEMOGRAPHIC DATA

Ages of respondents are shown.

The respondents were 54% female, 46% male.

Just more than a third (37%) of the sample of Oregon residents were born in Oregon. Their lengths of residency in Oregon are fairly well distributed among categories, as shown.

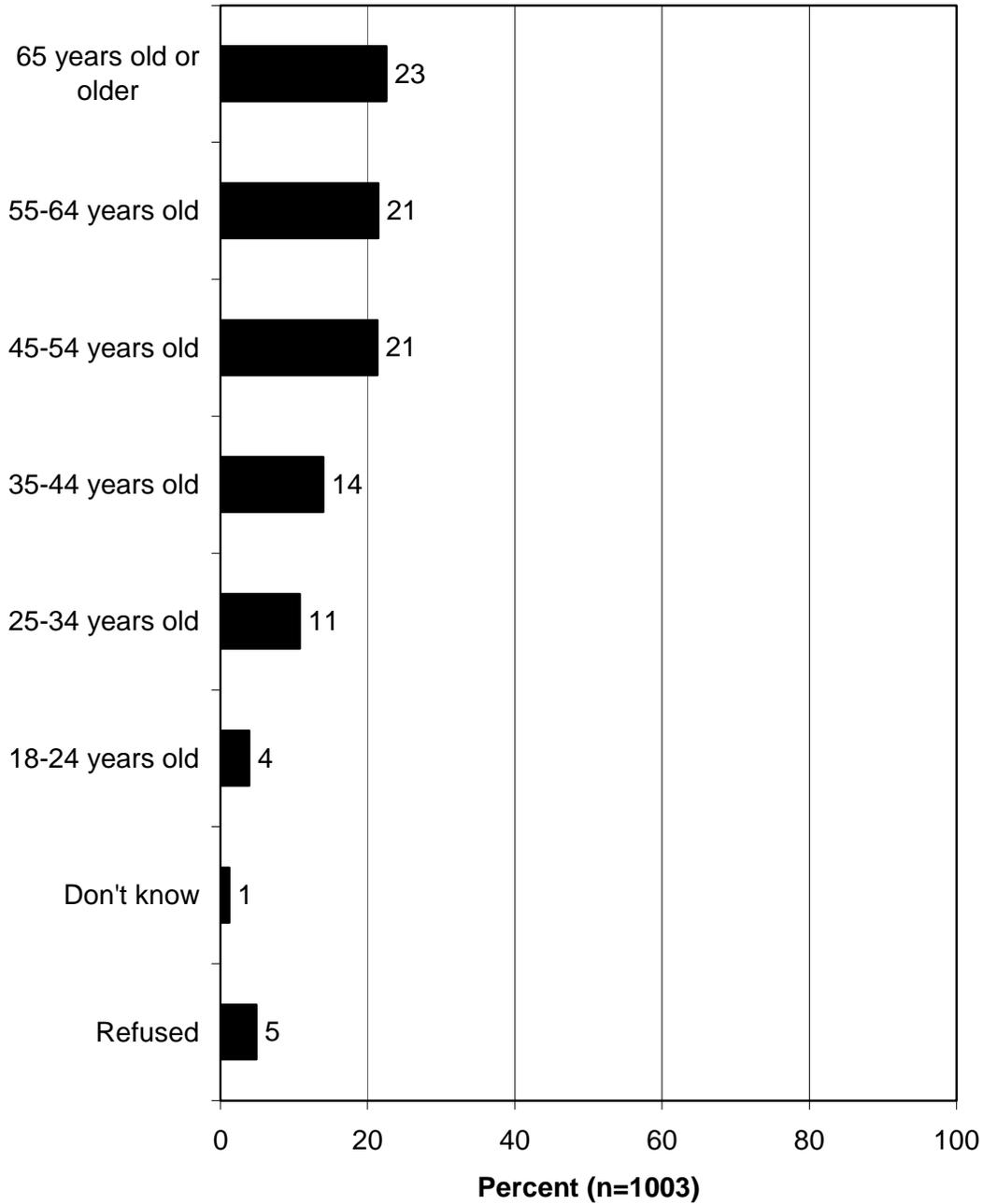
Just less than a quarter of Oregon residents (24%) live in a rural area, while 40% live in a large city/urban area or a suburban area, and 31% live in a small city or town.

Counties of residence are shown, with four counties at 10% or more: Multnomah, Lane, Washington, and Clackamas.

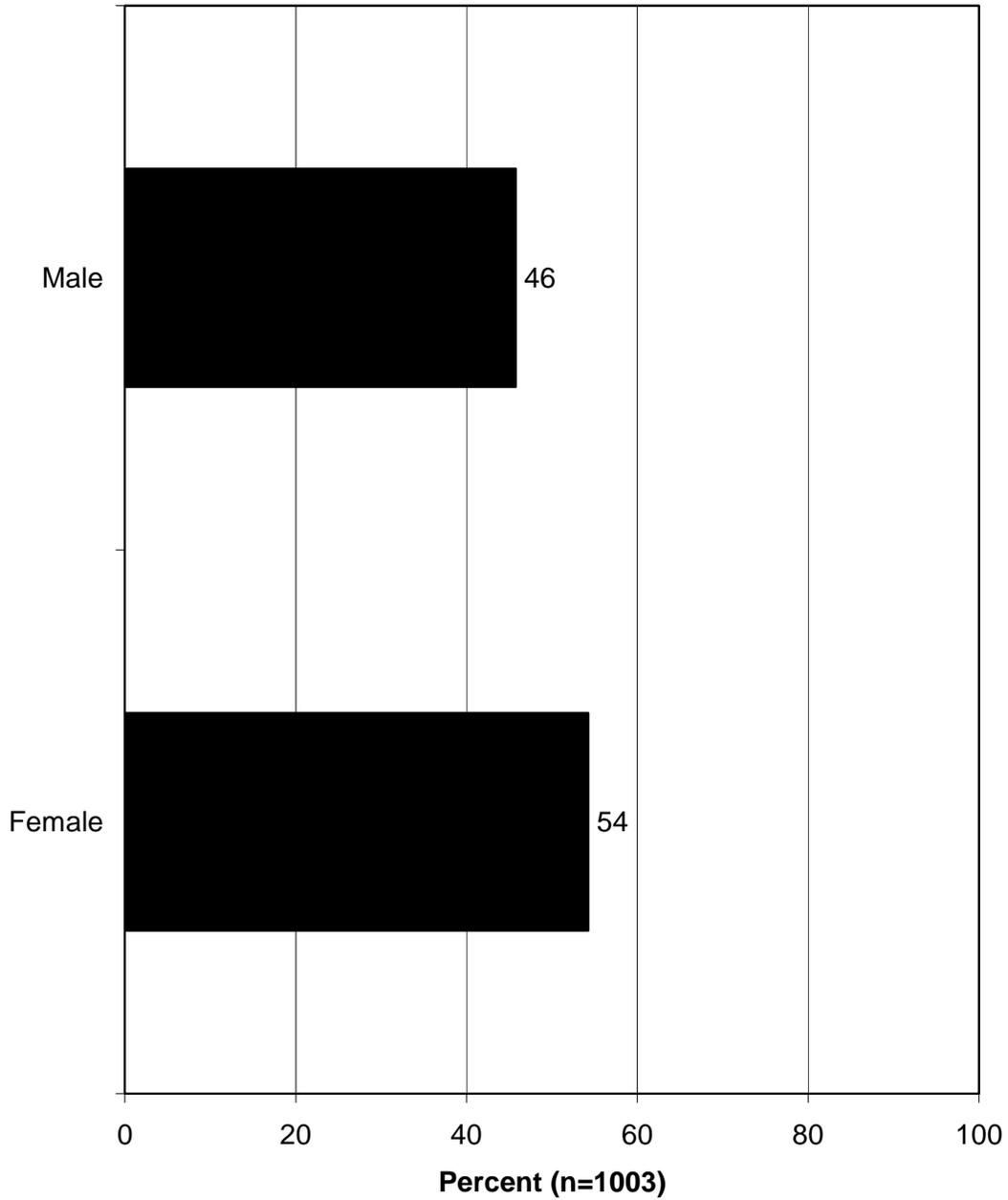
Educational attainment of Oregon residents is shown: 69% have at least some college coursework experience, 45% have an Associates/trade school or higher degree, 38% have a Bachelor's or higher degree, and 16% have a post-graduate degree.

One in five Oregon residents belongs or donates to a sportsmen's, conservation, or environmental organization. The most popular are the Nature Conservancy, the Sierra Club, and the National Rifle Association.

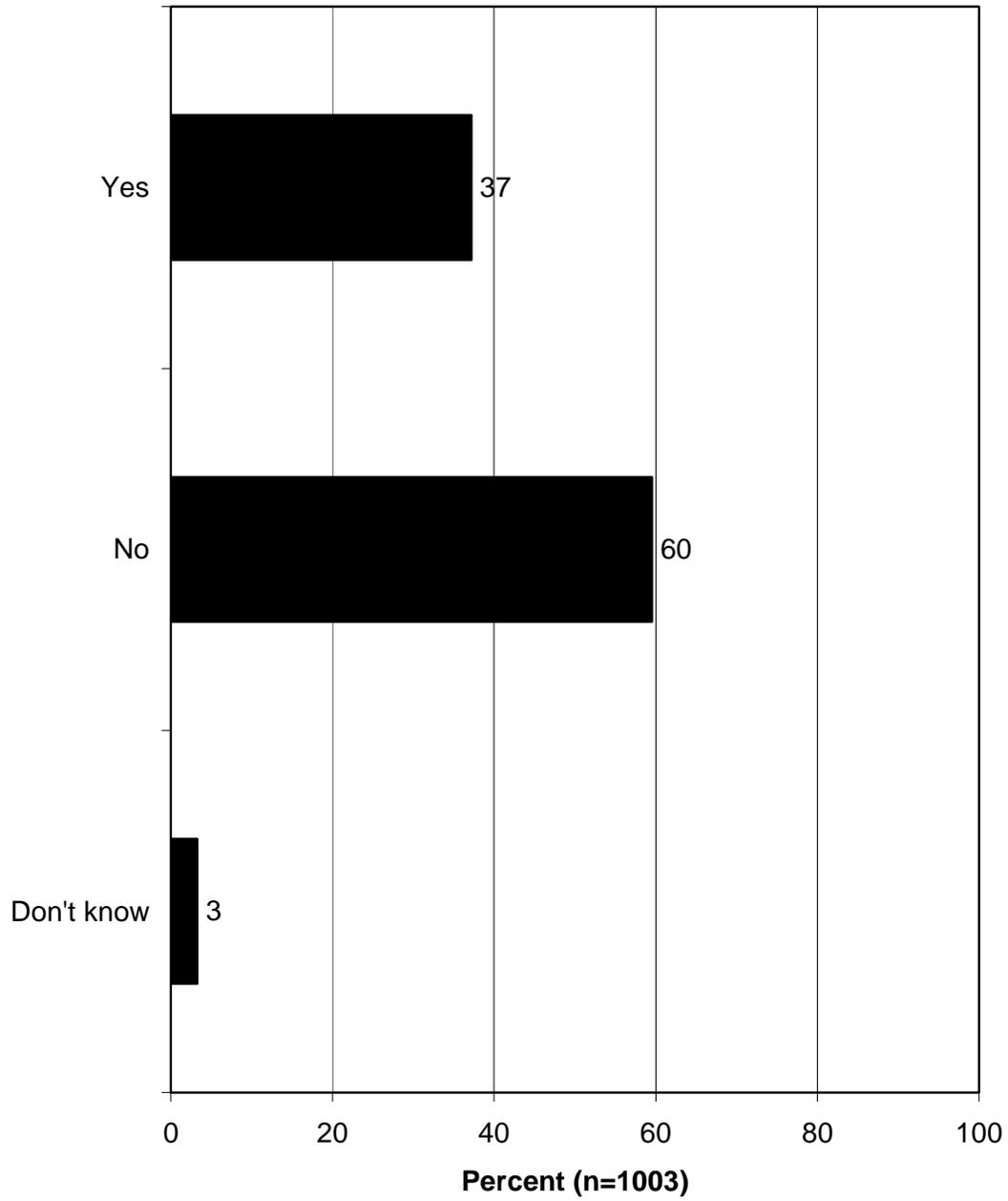
Q208. May I ask your age?

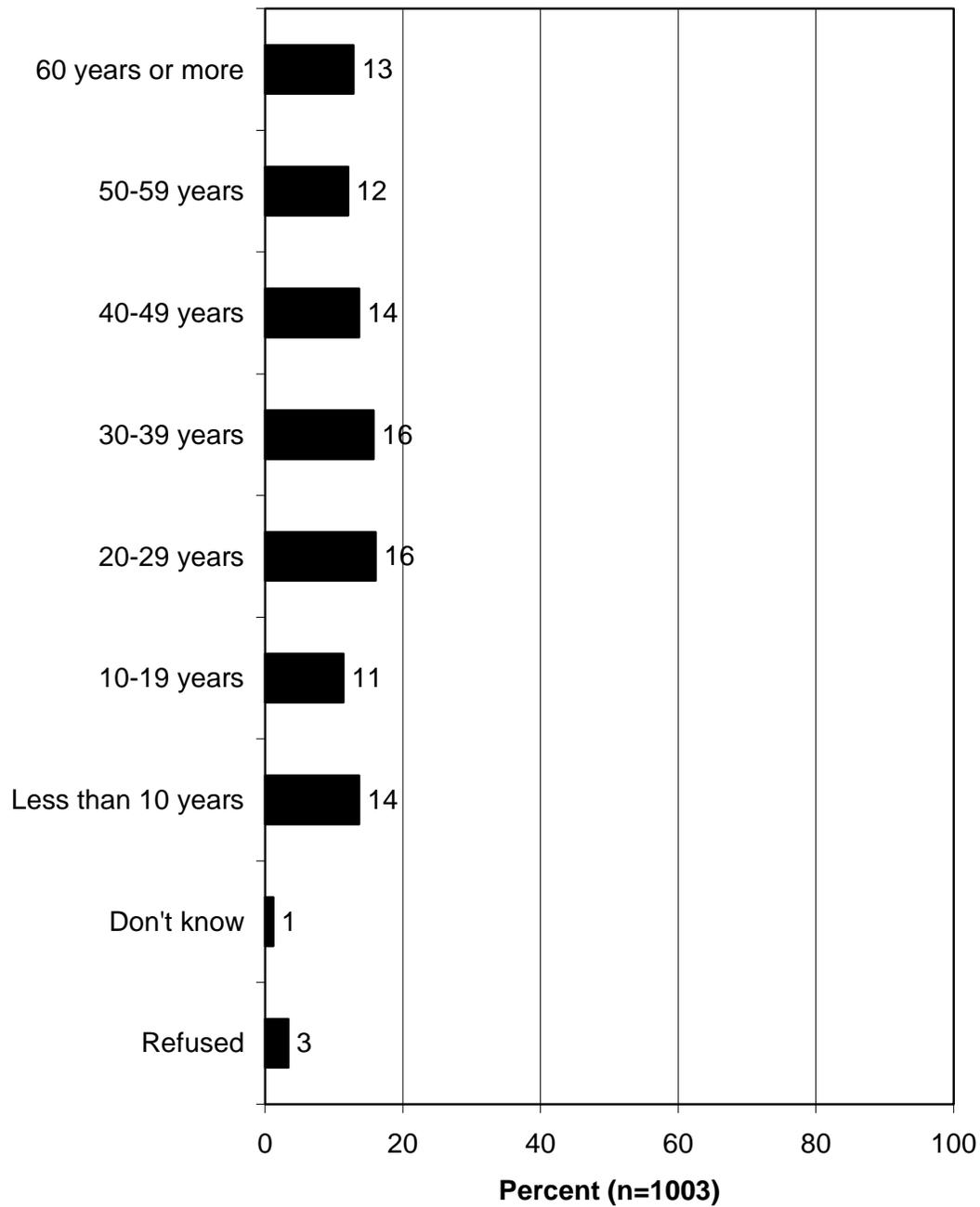


Q213. Respondent's gender (not asked, but observed by interviewer).

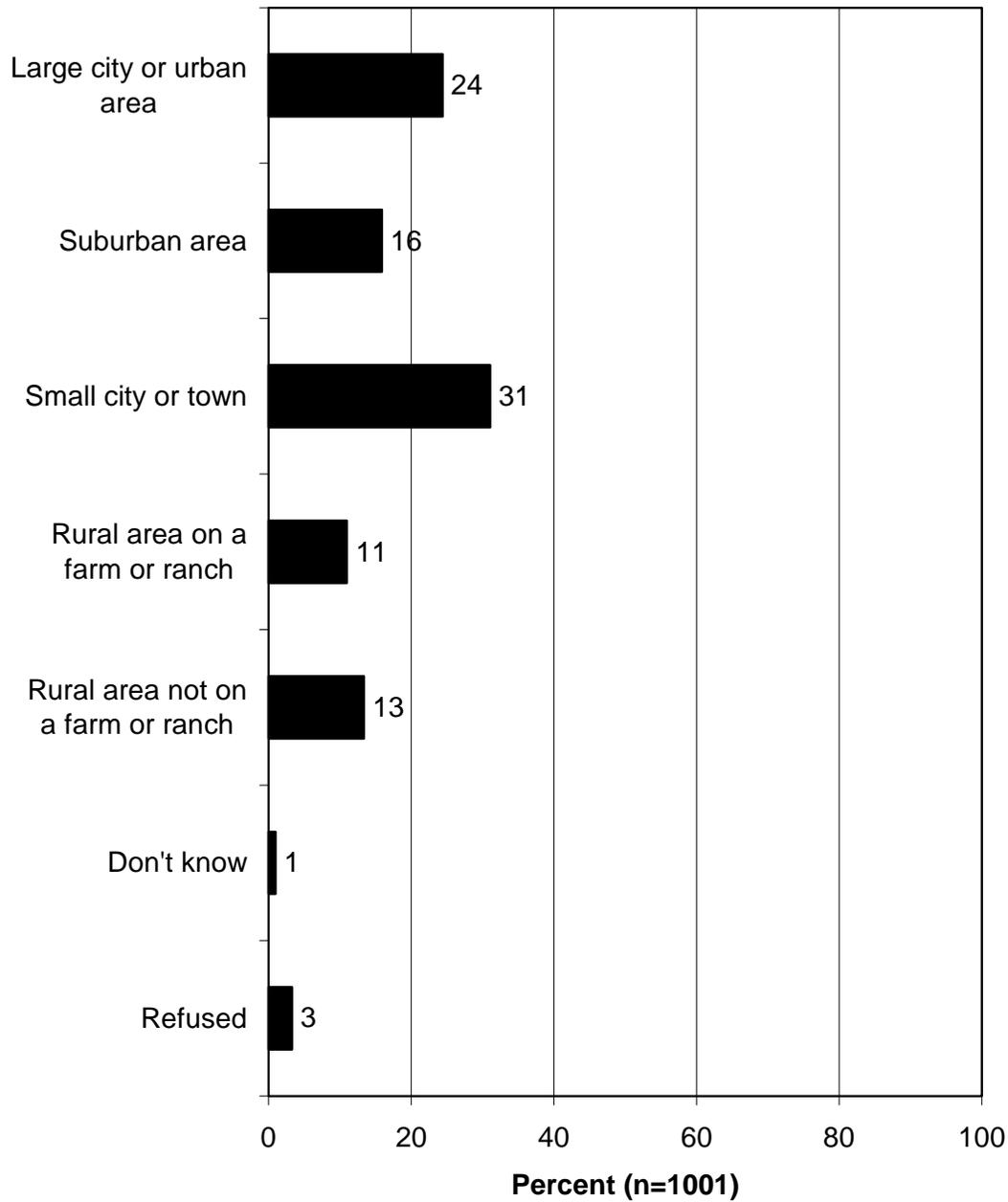


Q192. Were you born in Oregon?

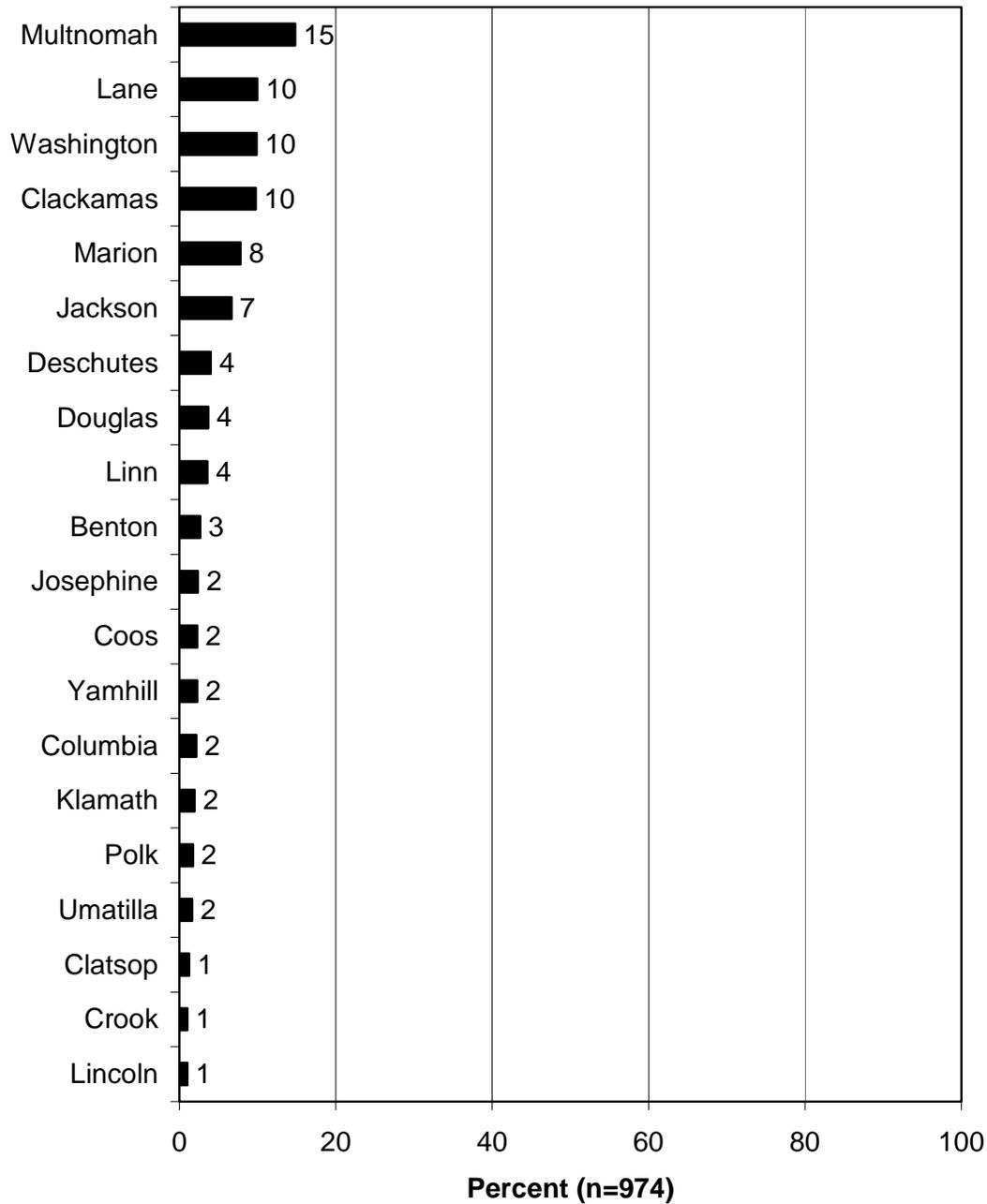


Q193. How many years have you lived in Oregon?

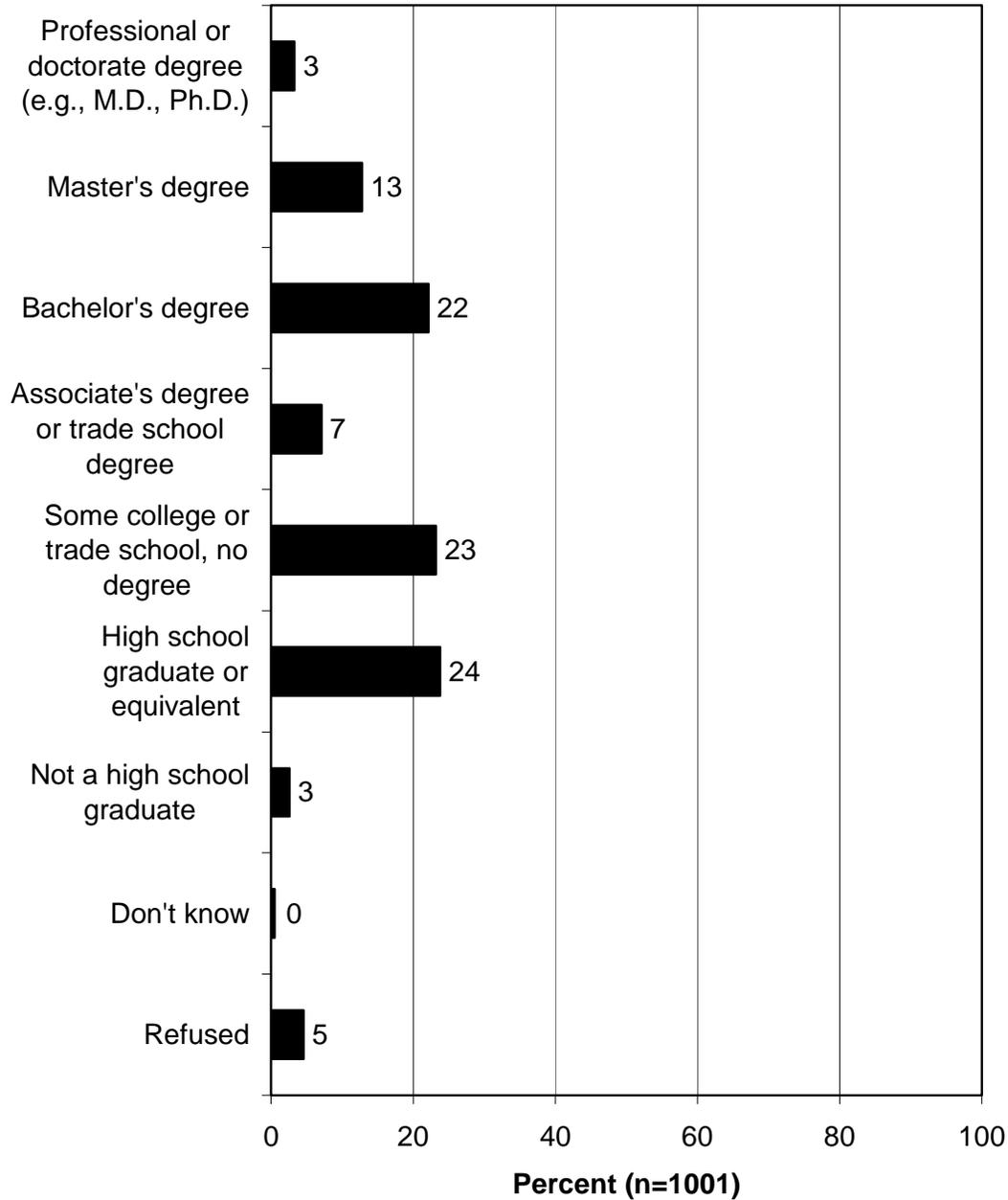
Q203. Do you consider your place of residence to be a large city or urban area, a suburban area, a small city or town, a rural area on a farm or ranch, or a rural area not on a farm or ranch?



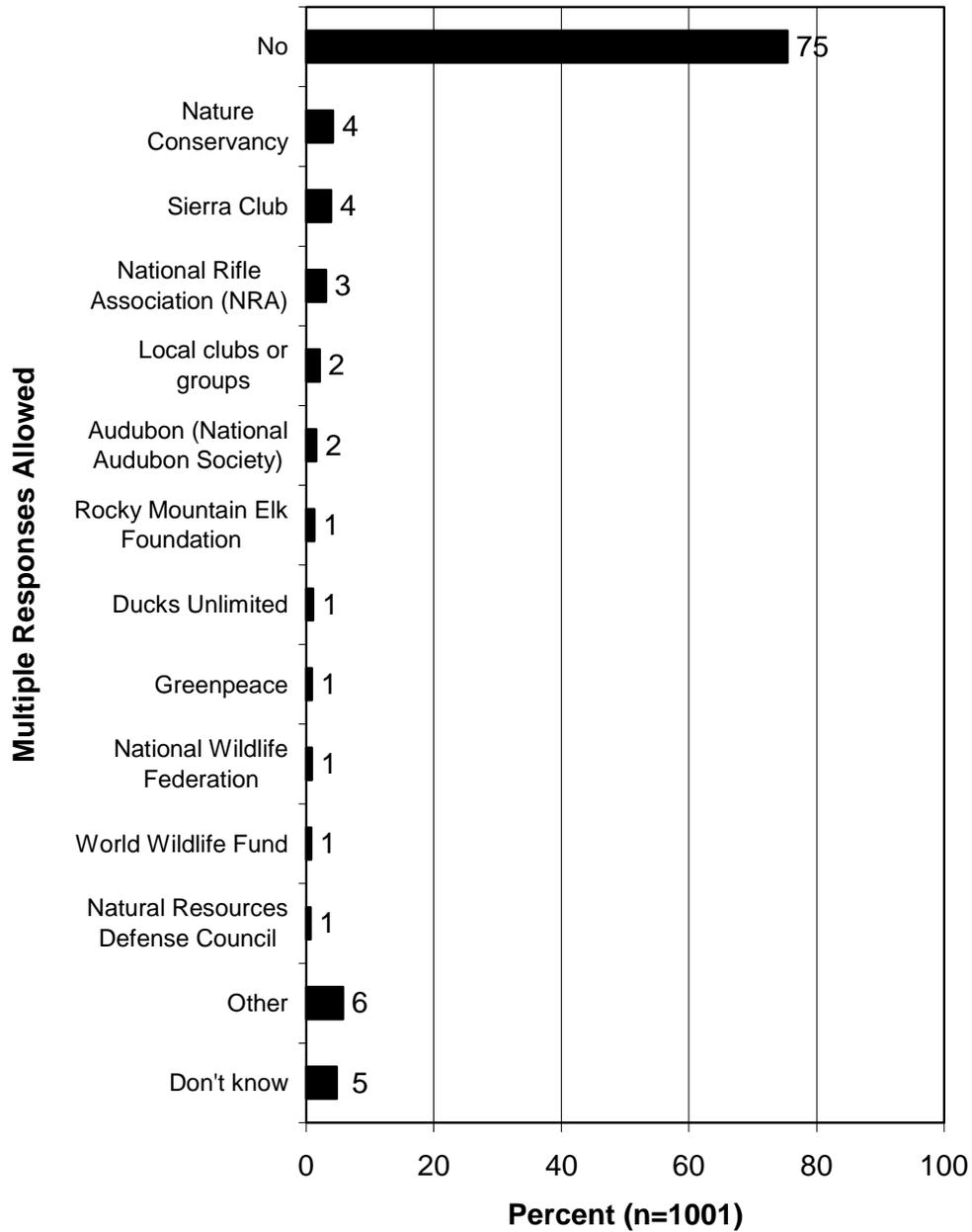
Q196. In what county do you reside? (Counties with response rates less than 1% not shown.)



Q204. What is the highest level of education you have completed?



Q199. Do you belong to or donate to any sportsmen, conservation, or environmental organizations?



CHAPTER 3. IMPLICATIONS AND RECOMMENDATIONS

- Oregonians' levels of knowledge about the ODF and about forest management should be raised through outreach, particularly because the ODF is perceived as credible and is thought to be doing a good job in managing Oregon's State Forests. The ODF is seen as better than private forest owners and the federal government at managing forests, so the ODF should attempt to distinguish itself from those entities, especially because many Oregonians lump together various forest-related agencies. The reasoning behind forest management strategies and decisions must be transmitted to the public, as well, thereby taking advantage of the high credibility.
 - The ODF must take advantage of the good publicity it can gain through its efforts to protect wildlife and fish habitat, especially its efforts at reversing damage to fish habitat that past forest activities, including road building, have done. Although not a quantitative finding, many of the focus group participants had no awareness that the ODF undertakes habitat protection and improvement activities. Water quality (including the coho salmon's habitat) is a hugely important issue, and any link that can be made between the ODF and protection and improvement of water quality will serve the ODF well.
- While some Oregonians do not think that Oregon's forests are well-managed and/or think that certain interests are given too much weight in management decisions, simply informing the public of the reasoning behind management activities will improve Oregonians' perceptions, again taking advantage of the ODF's high credibility. Regarding Oregonians' perceptions that some interests are given too much weight (some saying environmentalists, and others saying timber companies, are given too much weight), using the word, "balance," when discussing forest management will resonate with Oregonians. If Oregon residents understand the competing interests in forest management and the efforts at balancing those competing interests, they will view forest management more favorably. Also, where possible, inform Oregonians that seemingly competing interests may not, after all, be mutually exclusive.
 - The ODF may consider incorporating the word, "balance," into a unifying thematic message regarding what the ODF is, into a logo, and/or into other outreach materials. Both qualitative (focus groups) and quantitative (surveys) research found that "balance" resonates well. In this sense, "balance," would mean that social, environmental, and economic interests and values are all *considered* in management decisions.
- The guiding principles used in the development of State Forest Management Plans are, by and large, supported by the public. This is good news in that it shows that many of the underlying assumptions of forest management are valid. They are not always seen as being followed, however. The ODF must assure Oregonians that the guiding principles are followed in the development of State Forest Management Plans (as it must ensure that they *are* followed).
 - The guiding principle that states that the Plans must acknowledge the interests of the Trust Counties has the highest disagreement. As the basis for the agreement—the Trust Counties gave the land to the state in exchange for a share in revenues from timber

- sales—seems eminently fair, simply publicizing the agreement would likely reduce disagreement to this guiding principle.
- There was skepticism that the Trust Counties actually received the revenue due to them. Again, publicizing the amount of funding provided to the Trust Counties will counteract this erroneous perception.
- The importance of the wood products industry to Oregon will resonate well with Oregonians. For the most part, state residents are supportive of the wood products industry, and a substantial percentage have a personal stake in the industry, either directly working for it or having a family member who works for it. (This is not to say that the wood products industry is fully trusted, as its representatives did not rank highly in credibility, but the industry itself is seen in a favorable light.) Any ties the ODF can make with its actions and the health of the wood products industry, especially in the context of a *balanced* approach that also considers ecological concerns and recreation, will resonate well.
- The importance of forest-based recreation to Oregonians should not be underestimated. State Forest Management Plans will be more supported by Oregonians if they are assured that recreation needs were fully considered.
- The findings of the current telephone survey suggest that Oregonians participate in hiking at a higher rate than do residents of other states. For this reason, it is important that the Plans accommodate hikers (and other related recreationists, like campers).
- Oregonians want their forests to provide, in addition to economic and recreational benefits, ecological benefits. Indeed, for large numbers of Oregonians, the ecological values of forests are the most important. Again, the ODF must discuss its plans as being *balanced* and assure Oregonians that ecological (not environmental—see sub-bullet below) interests have been considered.
- The environment can be a highly divisive issue, particularly in light of environmental extremists. When discussing environmental values of forests, the ODF should avoid the term, “environment” or “environmentalist,” in favor of “conservation,” “conservationist,” and “ecological.”
 - Water quality will resonate well with Oregonians, and management efforts tied to water quality, even tangentially, will be supported, for the most part.
 - Oregonians perceived coho salmon as being very important and were highly protective of the species. Ecological efforts that directly mention coho salmon will be supported. The bald eagle is another species that can be mentioned in ecological efforts. On the other hand, the spotted owl and the marbled murrelet will not resonate well and can create a backlash—they are best not mentioned.
- Clear-cutting is highly controversial, and highly misunderstood. Because it is unlikely that forest managers, including the ODF’s State Forest managers, will stop using clear-cutting as a management and harvest tool, the ODF absolutely must explain its use and assure Oregonians that clear-cutting is not anathema to sound ecological management. To start with, there appears to be ignorance that a completely natural, untouched forest would have areas that are functionally like a clear-cut (a landslide area, for instance) and that a complete forest ecosystem would include such areas—that some wildlife depend on and thrive in such

areas. Furthermore, much of the opposition to clear-cuts is, at least in part, if not wholly, based on aesthetic considerations—recall that viewing scenery is the most popular recreational activity in Oregon. However, even this basis for opposition would be reduced if people understood the functional relationship of a clear-cut to a complete forest ecosystem. The aesthetic basis for opposing clear-cuts is certainly in part because people see clear-cuts *while simultaneously thinking to themselves that they are seeing a damaged ecosystem*. Also, the ODF may consider that high-visibility areas, where possible, not be clear-cut, because much opposition to clear-cutting is undoubtedly purely aesthetic—clear-cuts simply are not beautiful (e.g., the front side of a mountain visible from a beach should, if possible, not be clear-cut in favor of cutting the backside of the mountain that is more hidden). This is perhaps the biggest issue that has to be addressed. Until the public becomes more accepting of clear-cutting, the ODF risks losing its credibility, and State Forest Management Plans, as well as the wood products industry, will lose support.

- Finally, the study examined Oregonians’ acceptance and support of structure-based management. The results taken together show that structure-based management will not be *fully* supported because one of its elements (clear-cutting) has a high level of opposition. Note, however, that it receives more support than do previous practices—in short, the recommendation here is to keep structure-based management, but continue to attempt to gain wider acceptance of it. It is essential that this aspect of structure-based management—clear-cutting—be explained to gain wider acceptance of structure-based management overall. Furthermore, it appears that some Oregonians do not understand all of the “structures” in structure-based management, as demonstrated by the finding that a substantial percentage of Oregonians perceived dead trees and snags to be the sign of an unhealthy forest when these actually play an important role in structure-based management and in the working of a healthy forest ecosystem.
- Note that the telephone survey conducted as part of this study did not test Oregonians reactions to “adaptive management” because it simply is not seen as controversial. One of the common responses in the focus groups to whether the ODF should use adaptive management was, “Don’t they do that already?” or “How else would you manage forests?” In short, it was perceived in the focus groups as something that should be the standard way to manage forests—obtaining feedback about the effectiveness of a certain management strategy and then making adjustments based on that feedback—and participants were incredulous that a management strategy that was not working as expected would continue to be followed. For this reason, the research team considered that the survey should spend the limited interview time on other aspects of forest management.
- In summary, several important implications came from the research.
 - The ODF needs to separate itself in Oregonians’ minds from federal agencies and from private interests. The ODF also needs to ensure that its State Forests are clearly marked and differentiated from National Forests, from other conserved lands (such as refuges), and from privately owned forests.
 - The ODF is perceived as credible and should use that credibility as a platform to improve outreach and information efforts pertaining to management of State-managed forests.

- There are competing interests in the management of Oregon’s forests, but Oregonians recognize that fact and will, therefore, respond positively to *balance*, particularly coming from an agency with high credibility. Balance, in this sense, is taken to mean that long-term social, environmental, and economic forest values are all *considered* in management decisions; it is not meant to imply a complete evenness of immediate values or outputs in all management actions, this simply not being feasible in the short-term. Although this consideration of the competing interests in state forest management in achieving greatest permanent value is better described as an “integration” of social, environmental, and economic forest values rather than a true “balance,” it is unlikely that the term, “integration,” will resonate as well as “balance.”
 - Regarding balance, Oregonians care strongly about the wood products industry and support it, so part of the balance equation is forest management that protects the health of the wood products industry. Oregonians also care strongly about water quality and the coho salmon, a second important part of balanced management—in fact, ecological values are rated the most important by much of the population and came out on top in several measures. Finally, outdoor recreation is important in Oregon, and this is the final part of the balance.
 - A further recommendation regarding balance is that the State Forest Management Plans currently attempt to achieve a balance, particularly relative to the old Plans that were superceded, and so this information needs to be communicated to Oregonians. In short, it appears that the Plans are giving Oregonians what they want, and it would be a missed public relations opportunity if residents were not informed of this effort to strike a balance.
 - There is a reaction against “environmental” and “environmentalist”; better terms with similar meaning include “conservation,” “conservationist,” and “ecological.”
 - The guiding principles are supported, although not always perceived as being followed, and the ODF must assure Oregonians that the guiding principles are followed.
 - Finally, clear-cutting will continue to be a public relations problem unless it is fully explained and shown not to be ecologically damaging. Also, where possible, attempt to avoid clear-cutting in high-visibility, scenic areas.
- This report, and the data contained therein, should be used for goal setting and as a baseline against which to compare subsequent data for analyses of trends. For instance, currently 30% of Oregonians *strongly* agree that the ODF does a good job managing Oregon State Forests. A goal could be to raise this to 40% in the following 5 years. Regardless of the goals that are eventually set, these survey data are invaluable in both setting reasonable goals and in assessing subsequent efforts to reach those goals.

CHAPTER 4. METHODOLOGY

This study entailed a literature review, focus groups, and a telephone survey. The literature review entailed an examination of past research on forest issues, including a previous literature review conducted by Davis, Hibbitts & McCaig, Inc. (2001b) that was the starting point for the current literature review. The current literature review also entailed a complete review of all past Responsive Management research. The literature review was instrumental in developing focus group discussion guides and survey questions.

The research team conducted three focus groups: a focus group of forest stakeholders in Portland on Wednesday March 15, 2006; a focus group of the general public in Portland, also on March 15; and a final focus group of the general public in North Bend/Coos Bay on Thursday March 16. The findings of the focus groups were used in developing the survey instrument and are integrated into this final report, where appropriate.

The survey used 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 developed the telephone survey questionnaire cooperatively with the ODF. Responsive Management conducted a pre-test of the questionnaire and made revisions to the questionnaire, where appropriate, based on the pre-test.

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.

The survey center conducted 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. A five-callback design maintained the representativeness of the sample, avoided bias toward people easy to reach by telephone, and provided an equal opportunity for all Oregon residents in the sample 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 March and April 2006. Responsive Management obtained a total of 1,003 completed interviews among a random sample of Oregon residents 18 years old and older.

Note that the telephone survey did not ask directly about Oregon residents' knowledge of the ODF because the research team decided to use the name, "Oregon Department of Forestry," in the introduction of the survey, which did not allow awareness levels about the ODF to be measured in an open-ended question. This decision was made to get a better response rate to the survey. Past experience has shown that surveys in which no entity is named in the introduction (or in which a research firm that is relatively unknown to the general population—i.e., "Responsive Management"—is named in the introduction instead of a government agency) have a poorer response rates than do surveys in which an agency is named in the introduction as the sponsor.

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 quantitative survey data using Statistical Package for the Social Sciences software as well as proprietary software developed by Responsive Management.

Throughout this report, findings of the telephone survey are reported at a 95% confidence interval. For the entire sample of Oregon residents 18 years of age and older, the sampling error is at most plus or minus 3.09 percentage points. This means that if the survey were conducted 100 times on different samples that were selected in the same way, the findings of 95 out of the 100 surveys would fall within plus or minus 3.09 percentage points of each other.

Because the survey was too long for a single respondent to answer all the questions, the sample was randomly split into thirds, and each respondent answered only some of the questions on the survey, thereby shortening the survey for any one respondent; therefore, some questions were asked only of a third of the sample. (For other questions, such as demographic questions, the entire sample was asked.) Questions that only a third of respondents were asked have a sampling error of plus or minus 5.36 percentage points.

Sampling error was calculated using the formula described below, with a sample size of 1,003 respondents (for questions asked of the entire sample) and an approximate sample size of 334 respondents (for questions asked of only a third of the sample) and a population size of 2,574,873 Oregon residents 18 years old and older.

Sampling error equation:

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

Where: B = maximum sampling error (as decimal)

N_p = population size (i.e., total number who could be surveyed)

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

(Derived from formula: p. 206 in Dillman, D. A. 2000.)

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

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).

For this project, nonparametric analyses examined how the various survey responses related to behavioral, participatory and demographic characteristics. These analyses are presented in a supplemental report titled, “Oregon Residents’ Knowledge of, Values Regarding, and Attitudes Toward Natural Resource Management in Oregon State Forests: Nonparametric Analyses.”

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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 Web sites 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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