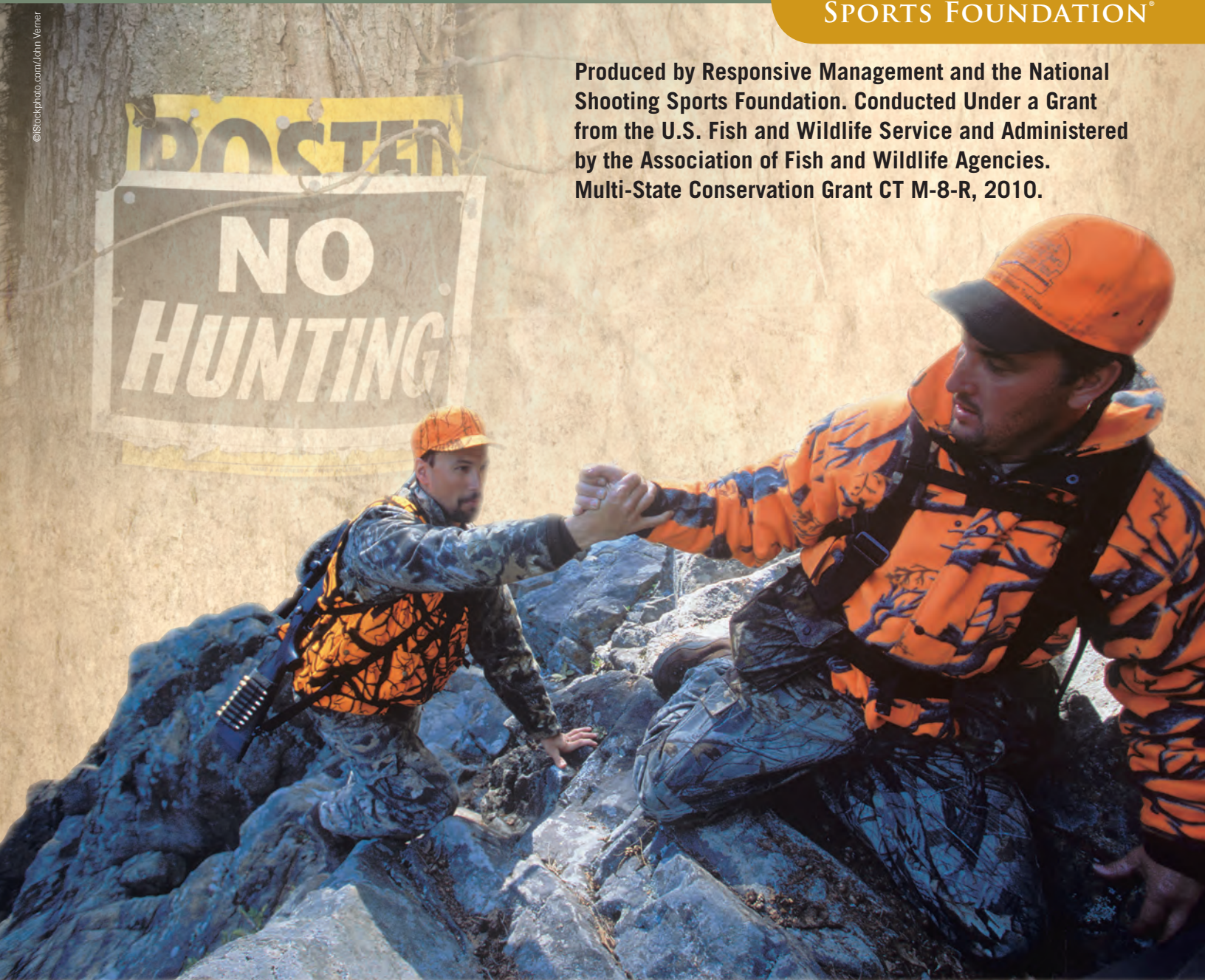


ISSUES RELATED TO HUNTING ACCESS IN THE UNITED STATES: FINAL REPORT

NATIONAL SHOOTING
SPORTS FOUNDATION®

Produced by Responsive Management and the National Shooting Sports Foundation. Conducted Under a Grant from the U.S. Fish and Wildlife Service and Administered by the Association of Fish and Wildlife Agencies. Multi-State Conservation Grant CT M-8-R, 2010.



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FINAL REPORT



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The views contained in this report do not necessarily represent the views of the U.S. Fish and Wildlife Service, the Association of Fish and Wildlife Agencies, or the views of the state fish and wildlife agencies.

Although numerous people assisted with this project, any errors, omissions, or typographical mistakes in the report are the sole responsibility of Responsive Management.

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ABOUT THIS STUDY AND READING THIS REPORT

METHODOLOGICAL OVERVIEW

Responsive Management and the National Shooting Sports Foundation (NSSF) completed this large-scale, national study to identify, quantify, and develop an in-depth understanding of the important issues affecting access to hunting lands and to assess the effectiveness of current access programs and resources. The study was conducted in cooperation with the NSSF under Multi-State Conservation Grant CT-M8-R from the U.S. Fish and Wildlife Service, administered by the Association of Fish and Wildlife Agencies. This project included the following components:

- **Literature Review**
 - A review of relevant research, including hunting reports, governmental publications, academic journals, agency websites, agency and organizational newsletters, and magazines
- **Two Focus Groups of Licensed Hunters**
 - Seattle, Washington
 - Macon, Georgia
- **Telephone Survey of Licensed Hunters Nationwide**
 - n = 14,336
 - Representative of licensed hunters nationwide
 - Worked with each state's agency to obtain samples of hunting license holders
 - Survey instrument developed cooperatively by Responsive Management and the NSSF; consulted access experts nationwide to identify issues and review survey instrument
 - Data analysis by region and by species
- **Assessment of Current Access Programs and Resources**
 - 16 states currently have access programs and resources for which state received Hunting Heritage Partnership (HHP) grant funding from the NSSF
 - 16 states were oversampled to obtain representative samples within the state for the purpose of reliably assessing the effectiveness of HHP funded access programs and resources
 - 1 additional state (Arkansas) was also oversampled for assessment of access in general without a direct assessment of any specific access programs or resources
 - Note: oversampled state data was appropriately weighted to match the distribution of licensed hunters nationwide for data analysis of nationwide results
- **20 Reports**
 - This final report with recommendations and strategies
 - National report of survey results, representative of licensed hunters nationwide
 - Focus group report

- Individual state reports of survey results
 - Alabama
 - Arizona
 - Arkansas
 - California
 - Hawaii
 - Idaho
 - Kansas
 - Michigan
 - Nebraska
 - Nevada
 - Ohio
 - Pennsylvania
 - South Dakota
 - Virginia
 - Washington
 - Wisconsin
 - Wyoming

Please see Chapter 4 of this report for detailed information regarding the methodologies used for this study.

IMPORTANT NOTES ABOUT READING THIS REPORT

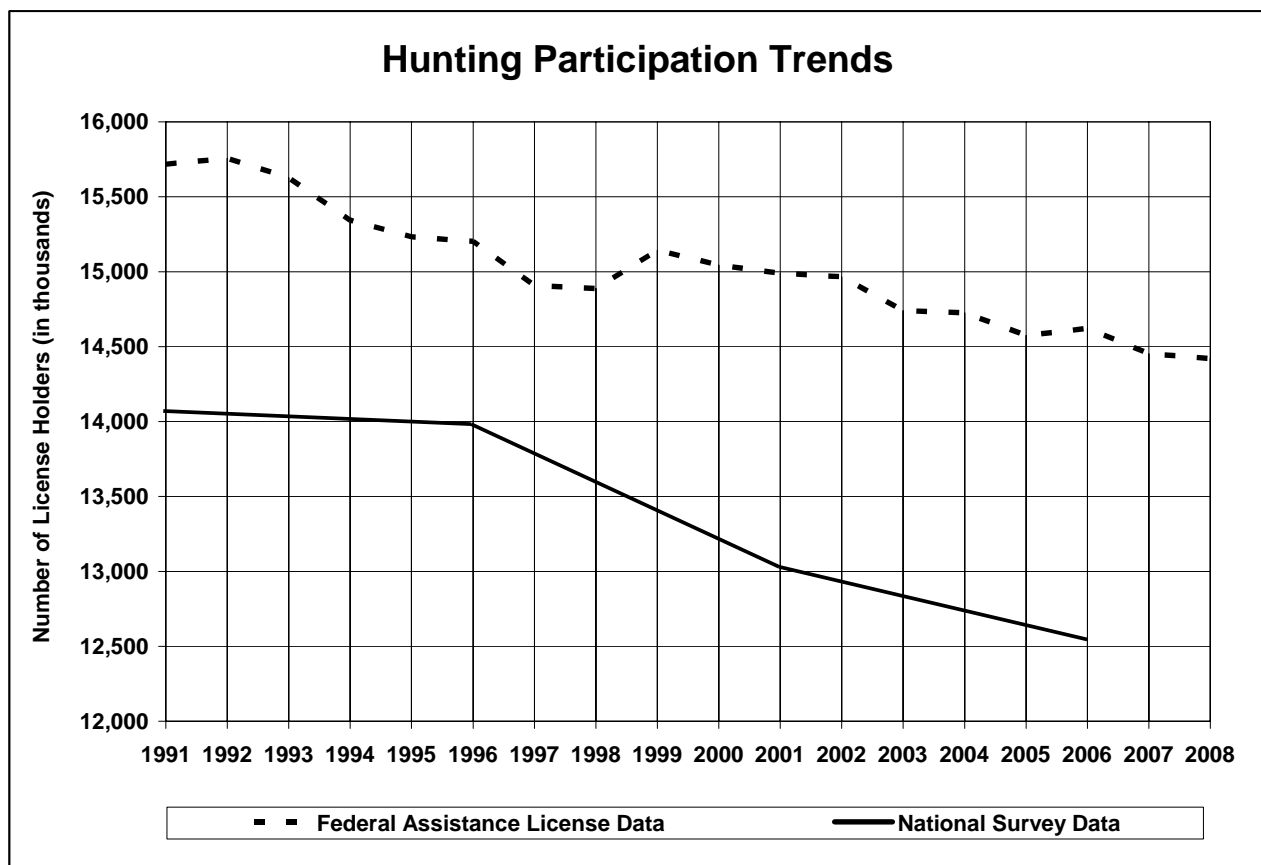
While reading this report and utilizing the information within, it is important to note the following:

- **Results are representative of the population of all licensed hunters in the U.S.**
 - The results of the nationwide telephone survey conducted for this study and shown in this report are representative of the population of all U.S. licensed hunters nationwide.
- **Oversampled states are NOT over-represented in the nationwide results shown in the nationwide report and this final report.**
 - The 16 individual state reports show survey results based on the representative sample of hunters within that state only. For nationwide data analysis, the telephone survey data was weighted appropriately to make the sample from each oversampled state proportionally correct to the population of licensed hunters nationwide. Therefore, for the national results and this final report, no state is over-represented and the results shown are representative of the population of U.S. licensed hunters nationwide.
- **To be able to further analyze and identify access issues, survey questions were asked specifically about the primary species hunted by respondents in the previous 12 months.**
- **For every survey interview conducted, the respondent's state of residence and/or primary species hunted were substituted where (STATE) and/or (SPECIES) appear in this report.**
 - The survey instrument was computer programmed so that the survey software substituted phrases where appropriate. Each survey interview was conducted using wording specific to the respondent, based on his/her previous responses to questions. Throughout this report, questions are shown asking about the respondent's (STATE) and/or (SPECIES); the words shown capitalized and in parentheses are placeholders for the respondent-specific substituted wording. For every survey interview conducted, the respondent's state of residence and/or primary species hunted were substituted where (STATE) and/or (SPECIES) appear.
 - For example, a question shown in the report as, "For (SPECIES) hunting, would you say you hunt mostly on public land, mostly on private land, or on both about equally, in (STATE)?" would have been read to a hunter in Georgia who primarily hunted deer in the past 12 months as, "For deer hunting, would you say you hunt mostly on public land, mostly on private land, or on both about equally, in Georgia?"

CHAPTER 1. INTRODUCTION AND BACKGROUND

Hunting is an important outdoor recreational activity in the United States. In 2006, 12.5 million Americans 16 years old and older hunted (USFWS/US Census, 2007), and this number grows when considering a longer timeframe, since many sportsmen do not hunt every year. In fact, the U.S. Fish and Wildlife Service estimates that 18.6 million Americans 16 years old and older hunted at least once in the 5-year period from 2002 to 2006. While hunting is an important historical, social, and cultural activity in the United States, it is also important to the economy and to conservation. Hunters are avid conservationists who donate more money to wildlife conservation, per capita, than do non-hunters or the general population as a whole in the United States (Responsive Management/NSSF, 2008a). Hunting license fees and the excise taxes paid on sporting goods and ammunition fund state fish and wildlife agency activities and provide Federal Aid monies. Hunters also contribute large amounts of money to the economy through the pursuit of their sport. In fact, hunters spend several billion dollars on their sport annually (USFWS/US Census, 2007). However, participation in hunting is declining (Figure 1.1). Research shows that there has been a general decline in hunting participation for the past two decades, and fewer young people are entering the sport (Responsive Management/NSSF, 2008a).

Figure 1.1. National trends in hunting participation.



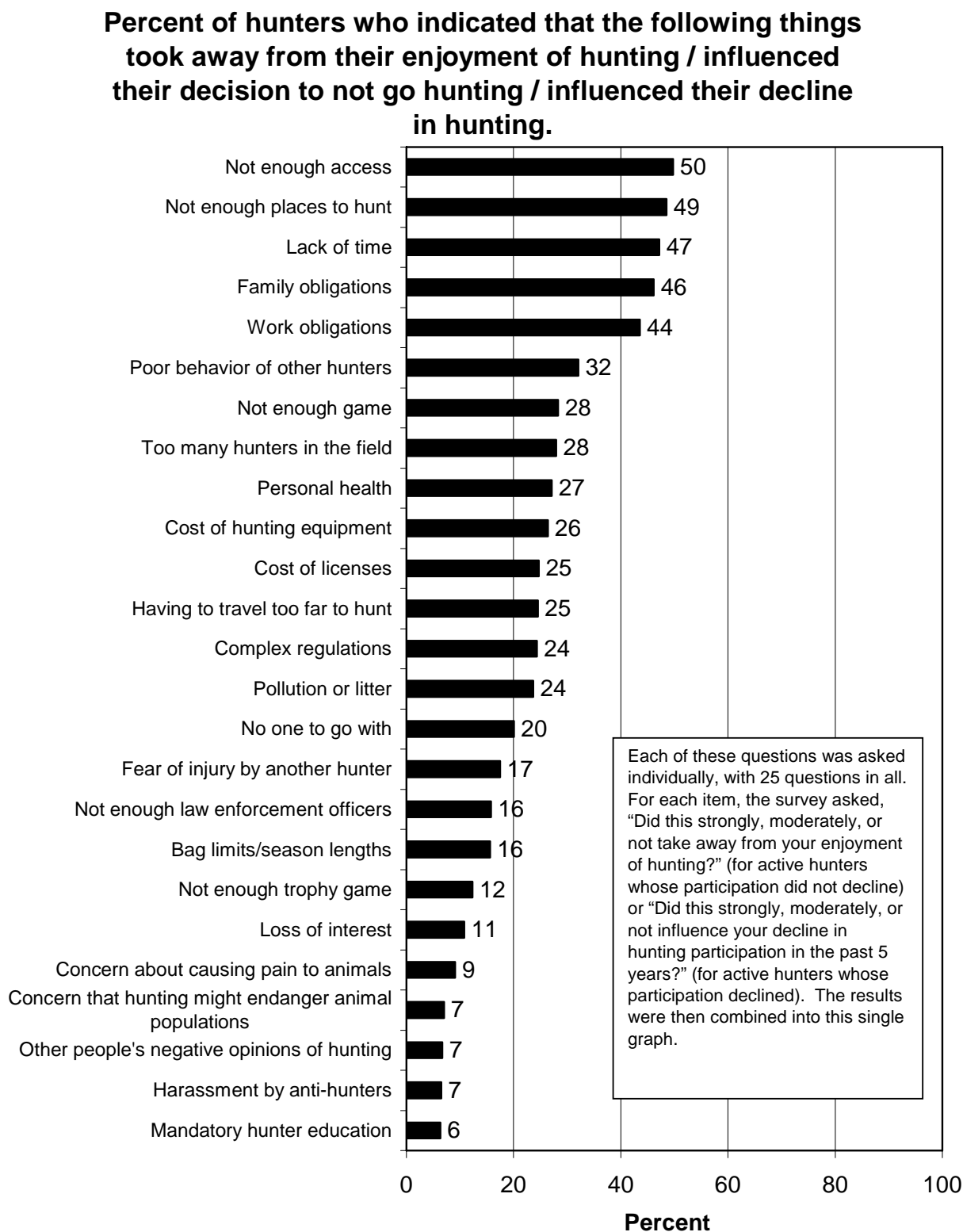
Source: USFWS/US Census 1992, 1997, 2002, 2007; USFWS 2007.

Declining numbers of hunters are a concern for several reasons. Declining hunting participation affects the budgets of many state fish and wildlife agencies and thousands of businesses that depend on hunting-related expenditures. However, perhaps most importantly, hunting-related expenditures and private donations have contributed to a long-standing history of wildlife conservation successes in the United States. In fact, sportsmen, as a collective group, remain the single most important funding source for wildlife conservation efforts. Consequently, decreased interest and participation in hunting activities may have the unintended effect of reduced funding for important wildlife and habitat conservation efforts. For all of these reasons, much research has been devoted to assessing hunter dissatisfactions and the decline in hunting participation.

Many of the factors causing dissatisfaction with hunting and contributing to its decline are outside of the control of wildlife agencies, including hunters' health and age, time obligations because of family and/or work, loss/lack of interest, and weather. That said, there are factors over which agencies have some influence, the most important being access, behavior of other hunters, and game populations (Responsive Management/NSSF, 2008a). This study examines in detail the first of those factors: access.

One reason that hunters increasingly report as a cause of dissatisfaction and that affects hunting participation is poor hunting access. Access problems negatively affect hunters by taking away from their enjoyment of hunting and/or causing them to hunt less often. In a study of licensed hunters nationwide that asked them in an open-ended question (meaning that no answer set was read to respondents, who could respond with anything that came to mind) to name the two most important issues facing hunting today, 22% of hunters reported access to public lands as one of those two issues, and 18% of hunters reported access to private lands as one of those issues (Responsive Management, 2002a). In another open-ended question, land access issues also ranked high in importance among hunters in a nationwide study of sportsmen in 2006: While hunters most commonly indicated that firearms rights/Second Amendment issues were among the most important issues that hunters face today (16% of hunters cited this issue), this was closely followed by lack of access to lands in general (15%), lack of access to public lands (10%), and lack of access to private lands (7%) (Responsive Management, 2006a). More recently, research has shown that access is a leading reason for hunter dissatisfaction (Figure 1.2) and that not enough available hunting access is an important factor that influences hunters' decisions to stop hunting (Figure 1.3) (Responsive Management/NSSF, 2008a).

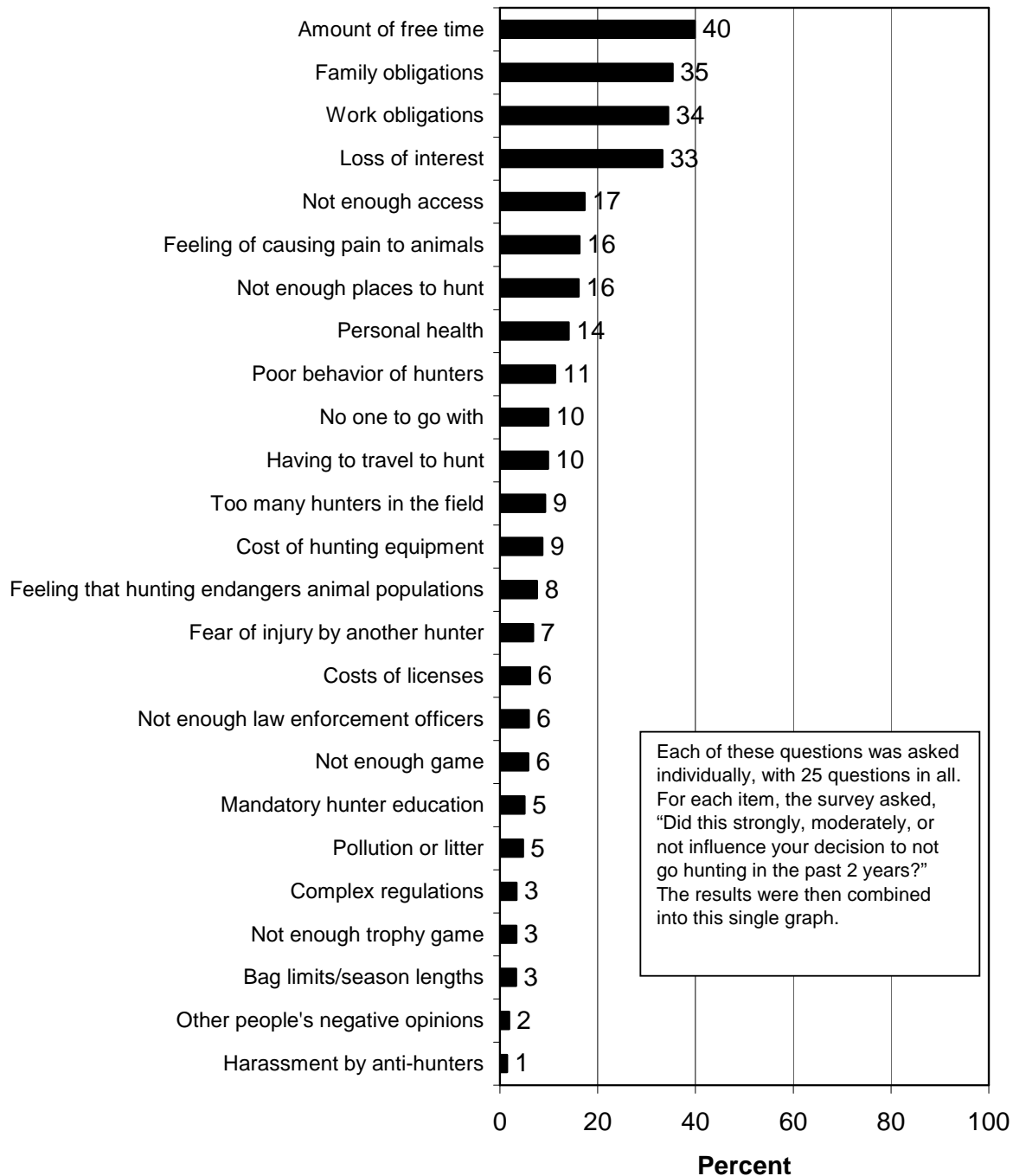
In addition to the national research, extensive research in various states shows that hunting access is an important concern among hunters. In fact, in a recent survey, active hunters in North Dakota were read a list of possible constraints to hunting participation or dissatisfactions that may have taken away from their enjoyment of hunting, and access was among the top constraints/dissatisfactions for hunting participation. In looking at the results, three tiers of constraints/dissatisfactions emerged. Two of the top six factors related to access; the top tier factors negatively influencing hunting participation were lack of time in general (54% said this factor *strongly* or *moderately* caused them not to hunt or took away from enjoyment), work obligations (54%), family obligations (46%), not enough access to places to hunt (43%), other interests being more important (35%), and not enough places to hunt (34%) (Responsive Management, 2008c). In Kentucky, lack of access was again found to be a problem: The top

Figure 1.2. Dissatisfactions with hunting.

Source: Responsive Management/NSSF, 2008a.

Figure 1.3. Constraints to participation among inactive hunters.

Percent of inactive hunters who indicated that the following things strongly influenced them to not hunt in recent years. (Among inactive hunters.)



Note. Inactive refers to hunters who participated in hunting at some time in their life but not within the past 2 years.
Source: Responsive Management/NSSF, 2008a.

reasons for being *dissatisfied* with hunting on Wildlife Management Areas in Kentucky were lack of game, crowding, and access problems (Responsive Management, 2009). In a survey of adult hunting license holders in Vermont, Responsive Management (2007a) found that, even if they did not prevent hunting participation, lack of access and lack of game were the top dissatisfactions that detracted from hunting enjoyment. Similarly, in a survey of deer hunters in Delaware, access was again identified as one of the top constraints to hunting participation and hunting enjoyment, with the most commonly named constraints being lack of time (generally because of work), lack of access to places to hunt, and lack of places to hunt (Responsive Management, 2005b).

Research shows that access is also commonly cited by ex-hunters as a reason for cessation. The majority of ex-hunters in Pennsylvania (52%) cited a lack of access as a reason contributing to their decision to stop hunting (Responsive Management, 2004a). In a study of ex- and decreased-activity New Jersey hunters (ex- or decreased-activity hunters were defined as those respondents who had not hunted in the previous 5 years and those who had been hunting in the previous 5 years but whose level of hunting in that time had decreased), the top three reasons that strongly influenced their decision not to hunt or to hunt less were not having enough access to places to hunt (33%), not having enough private lands on which to hunt (33%), and not having enough public lands on which to hunt (32%). Also, having more places to hunt (22%) was the second most common response given when ex- and decreased-activity hunters were asked what it would take to get them to hunt more often in New Jersey (Responsive Management, 1998).

Difficulty with access to lands for hunting has become not just a point of frustration, but a very real barrier to recruiting and retaining sportsmen. Indeed, access is the *most* important factor associated with hunting participation that is not a time-related or demographic factor—in other words, the most important factor over which agencies and organizations can have an important influence (Responsive Management/NSSF, 2008a). Access plays a key role in hunting participation for several target markets critical to hunter recruitment and retention efforts: active hunters who are hunting less frequently, active hunters who are at high risk of desertion, and inactive hunters who may be persuaded to start again (Responsive Management/NSSF, 2008a). Among active hunters who are at high risk of desertion, not having enough places to hunt was one of the top two constraints identified as strongly taking away from their hunting enjoyment. This group also identified not having enough access to places to hunt as a reason for decreased hunting participation (Responsive Management/NSSF, 2008a). Similarly, inactive hunters reported that poor access to land and not enough land to hunt on were factors that strongly influenced their decisions not to hunt. Given that land access is consistently identified as a key factor in hunter dissatisfaction, decreased participation, and desertion, it is important for fish and wildlife agencies to have a better understanding of the extent and nature of access issues and their impact on hunting participation.

FACTORS RELATED TO ACCESS

To understand how access affects hunting participation, it is important to fully understand access itself, including the factors related to access. One of the most important factors is urbanization. Population change in combination with urbanization and concomitant rural land loss remain a critical obstacle for access to outdoor recreation as a whole. While the demand for outdoor

recreation opportunities increases with population growth, the ability to meet this demand is becoming more challenging because the supply of natural resources (particularly open land) is diminishing. This trend is even more evident in wildlife-dependent recreation, such as hunting and fishing, where population growth and increasing urbanization result in a loss of wildlife habitat appropriate for providing these opportunities (Jensen & Guthrie, 2006). Other research examining state-by-state data throughout the United States has shown that the percent change in total hunters in a state is statistically correlated with housing units per square mile in the state (Responsive Management/NSSF, 2008a). Urbanization reduces land available for hunting and also reduces access to available lands. In addition to the actual land being developed, there is also a buffer zone around residential areas in which hunting is prohibited.

In addition to limiting the availability and accessibility of hunting lands, urbanization and land development have profound effects on the hunting culture as well. Urbanization changes the social environment and the groups in which hunting flourishes. Given the important relationship between rural residency and hunting participation, demographic trends toward urbanization are an emerging challenge to hunter recruitment and retention efforts. With less rural land, there are fewer people growing up in a rural, hunter-friendly environment. Further, as a smaller proportion of youth grow up in rural areas where participation in hunting is a more typical occurrence, efforts to maintain the participation rate will become more difficult. There are also fewer people growing up in an environment that fosters being comfortable around firearms, a prerequisite to participation in hunting. Additionally, urbanization and the concomitant mobility of society contribute to a deterioration of a hunter's social group for hunting as people move from place to place (Responsive Management/NSSF, 2008a).

The factors that affect hunting participation include physical factors and social/psychological factors—the perceptions of hunters. It is important to note that access involves the physical opportunities and locations to hunt as well as hunters' awareness, perceptions, and attitudes regarding hunting access issues. The practical reality of whether fewer hunting opportunities exist and the perception that access is becoming a greater problem represent two separate, albeit related, issues. The reality of less hunting access is a physical constraint to hunting, whereas the perception that access is becoming more difficult is a psychological constraint (Responsive Management, 2004b).

Another important factor is whether the land in question is public land or private land because the ways to access the land can vary greatly depending on this factor.

In understanding access, it is helpful to consider a typology of factors. This study considers access factors to relate to availability, accessibility, accommodation, awareness, and assumptions. The interplay between these various factors makes addressing access issues complex and challenging. Note that while these factors are somewhat subjective and interchangeable, they can be used as the basis for examining access issues.

Physical Aspects of Access

- **Availability** pertains to the actual land available to hunt.
- **Accessibility** pertains to the ability to get to the land. For example, problems of accessibility may include public lands blocked by intervening private lands, public lands that are distant from roads and difficult to access, or roads and trails that are gated or restricted.
- **Accommodation** pertains to the ease of mobility and the experience once hunters are on the land. For example, crowding may be a concern for hunters who are seeking isolated areas for hunting and prefer not to encounter others on their hunt. As another example, hunters may be able to access the land, but the conditions of roads and trails may make maneuverability difficult, or prohibitions on ATVs may make access to public lands inconvenient and may make removing harvested game challenging.

Social/Psychological Aspects of Access

- **Awareness** pertains to information and knowledge—to hunters' awareness of the access options open to them. Lack of *knowledge* of a place to hunt can be just as effective as an actual lack of places to hunt in preventing hunting. Awareness also pertains to knowing where information can be found and how to use it.
- **Assumptions** pertain to hunters' perceptions about hunting opportunities. These include prevalent ideas that hunting opportunities are being threatened or other perceived barriers, regardless of whether they actually exist.

Availability

"With all the subdivisions and whatnot, all the people—I mean, there's no land anymore."

— Macon, Georgia, hunter (Responsive Management/NSSF, 2008b)

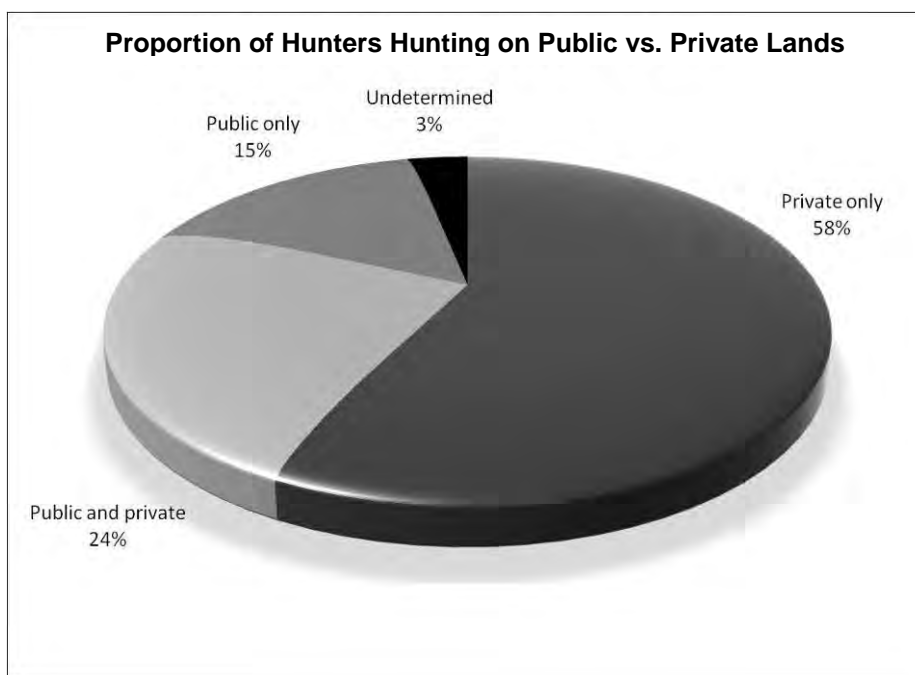
Research has shown that the capacity for providing quality outdoor recreation opportunities is threatened by urban growth and development. Although the majority of U.S. residents participate in recreational activities on rural lands and this demand is expected to rise, the land base will likely remain stable or shrink (Cordell, English, & Randall, 1993). Changes in land use, including land conversion, subdivision, and development, continue to limit the amount of land available for recreational activities. In fact, research indicates that between 1982 and 1997, there was a 34% increase in the amount of land devoted to urban uses in the United States, primarily due to the conversion (i.e., development) of croplands and forests into urban/suburban and industrial land uses (Alig, Kline, & Lichtenstein, 2004). As a result of anticipated urban expansion and population growth, researchers project that developed land areas will increase by 79% in the next 25 years, resulting in an increase from 5.2% to 9.2% of the proportion of the total land base in the United States that is developed (Alig, Kline, & Lichtenstein, 2004).

Because of these trends in land use, sustainable land management efforts are imperative for preserving land availability to provide outdoor recreation opportunities in the future.

The reality of the physical limitations of access to hunting lands will always be contingent on both state-specific regulations as well as local conditions. Some states possess more public lands than other states and can more easily provide hunting access. Conversely, other states must depend more on private lands, which require different methods of providing hunting access. Although there are numerous state-specific factors that affect the availability of hunting lands, there are some general commonalities; for example, urbanization and development have a substantial impact on the availability of private hunting lands in all the states.

While studies to determine if physical (i.e., actual) access to hunting is declining have found mixed results, research does agree that access to private lands is clearly a greater problem than access to public lands. Moreover, problems with access to private lands are amplified because more hunters hunt private lands than public lands. According to the U.S. Fish and Wildlife Service, 82% of hunters hunted on privately owned land at least some of the time, more than double the percentage of hunters who hunted on public land at least some of the time (39%). And, while only 15% of all hunters hunted public land *exclusively*, over half (58%) hunted private land *exclusively* (Figure 1.4) (USFWS/US Census, 2007). When asked about access problems specifically, 20% of hunters indicated that they had experienced an access problem while hunting or trying to hunt at some time (Responsive Management/NSSF, 2008a). In a follow-up question asked of those hunters who had experienced access problems, 60% reported that they had encountered problems while trying to access *private* lands, while 38% reported that they had encountered problems attempting to access *public* lands (Responsive Management/NSSF, 2008a).

Figure 1.4. Hunting on public and private lands.



Source: USFWS/US Census, 2007

The fact that most hunters hunt either exclusively on private land or on both public and private land complicates the issue of hunting access due to the fact that state regulatory agencies can be limited in their management of hunting opportunities on private lands. Further, the percentages of hunters who hunt on public versus private land varies by state. For example, in Colorado, where there is an abundance of public land, just under half of hunters (45%) had hunted on private lands at some time in the 10 years prior to the study, while most hunters (92%) had hunted on public lands at some time (Responsive Management/EMRI, 2003). By contrast, in Texas, only 3% of the state is public land; thus, most hunting in Texas takes place on private lands (Duda & Brown, 2001).

According to previous studies, access to public lands is perceived to be better than access to private lands. Nearly half of hunters (48%) rate access to public lands for hunting in their state as excellent or good, while 40% of hunters rate access to private lands as excellent or good (Responsive Management/NSSF, 2008a). Similarly, in a study conducted for the Virginia Department of Game and Inland Fisheries, only 16% of Virginia hunters rated access to public lands as poor, while 35% of them rated access to private lands as poor (Responsive Management, 2000). In a study conducted for the Minnesota Department of Natural Resources, Minnesota deer hunters were about three times more likely to say hunting access on private lands is poor for deer hunting compared to hunting access on public lands for deer hunting (23% rated private land access as poor; 7% rated public land access as poor) (Responsive Management, 2002c). As use of public lands is stretched to capacity, access to private lands becomes an increasingly important component for meeting public demand for outdoor recreation activities (Wright, Cordell, & Brown, 1988; Cordell, English, & Randall, 1993; Teasley et al., 1999).

Fish and wildlife agencies depend on recreational hunting as an integral component in the effective management and regulation of wildlife populations; in effect, recreational hunting “serves as an artificial means of predation now that natural predators no longer keep wildlife populations in balance” (Backman & Wright, 1993, p. 2). Thus, although the availability of hunting lands is certainly important to hunter recruitment and retention, research also suggests that access for hunting is an important component in effective game management on these lands; that is, lack of access for hunting not only contributes to hunter cessation, but it also impacts wildlife managers’ capacity to manage wildlife (Stedman et al., 2008). In fact, lack of access specifically to private lands may affect capacity to manage deer populations effectively for several reasons. Private land hunters are more likely than public land hunters to (1) have harvest success, (2) have a strong commitment to hunting, (3) demonstrate willingness to hunt antlerless deer, (4) spend more than the median amount of time hunting, and (5) continue hunting (i.e., private land hunters are *less* likely to desert the sport of hunting) (Stedman et al., 2008). Accordingly, Stedman et al. (2008) have suggested that “decreasing access to private lands may exacerbate already-recognized deficiencies in hunter capacity to manage deer” (p. 230). As the aforementioned findings show, then, land availability and access issues are not only a concern for hunter recruitment and retention but for effective wildlife management.

Accessibility

“I’ve talked to Bureau of Land Management people, and we know there’s a section of land there open to the public—but how do you get into it? There’s houses on it by the road, so the only way to get through to that public land is to go through somebody’s yard. And we’re talking about a pretty good section of land. But there’s no road.”

— Seattle, Washington, hunter (Responsive Management/NSSF, 2008b)

According to previous research, problems with access are more often related to accessibility rather than availability. In a recent study, hunters who had experienced access problems were asked whether the access problem was a lack of land (i.e., availability) on which to hunt or a situation where land existed that the hunter could not get to (i.e., accessibility). The majority of hunters with access problems (60%) indicated that land existed but they could not get to it, while 29% indicated that there was a lack of land. In fact, among active hunters, 68% reported that land existed but they were unable to get to it (Responsive Management/NSSF, 2008a). As another example, in Colorado, hunters who hunted on private lands and rated private land access as fair or poor said that their low rating was because of limited access rather than because too few hunting lands exist (Responsive Management/EMRI, 2003). In other words, these Colorado hunters felt that private land existed for hunting but that they were blocked from using it and/or it was becoming increasingly more difficult to obtain permission to hunt on these private lands. In this case, then, the land existed but was difficult to access. Research shows that hunters have even encountered instances where private landowners had *illegally* blocked access to public lands by posting no trespassing signs on public lands (Responsive Management/EMRI, 2003; Responsive Management, 2005a).

Lack of accessibility to land also occurs when private lands are leased to hunting clubs, which limits public access to that land. Hunting clubs that arrange for their members to hunt on private lands take those private lands out of the “public” realm. Furthermore, those clubs can drive up leasing costs of other hunting lands, the result of which is increases in hunting club fees and fees for hunting land leases. This presents a problematic financial aspect of hunting access.

To summarize, accessibility issues include real and/or perceived “landlocked” hunting areas (e.g., public lands surrounded by private lands or public lands only accessible by remote access points), posted lands, closed lands, gated entries, illegally blocked access to public lands, and road closures. Accessibility issues differ on public versus private lands, as well. Fish and wildlife agencies often have more options available for managing public land under their jurisdiction, meaning that they can work to improve roads and reduce road closures into and on public lands. Conversely, working with private landowners to ensure hunting access is more complicated.

Accommodation

“All the management land has strict rules about four-wheelers. And if you’re far back into the land, it’s rough. I mean, I don’t want to hunt somewhere I can’t take my four-wheeler.”

— Macon, Georgia, hunter (Responsive Management/NSSF, 2008b)

Access also pertains to the ease of mobility and the hunting experience once hunters are on the land. Issues related to accommodation include, but are not limited to, road and trail conditions, prohibitions on vehicles, distance traveled afoot for hunting, and crowding. All of these factors limit hunting opportunities in some way. In some instances, the distance—though open to foot access—is too far for *feasible* access. Further, restrictions on ATVs and other vehicles can result in difficulties in trying to remove game harvested from woods and forests. Areas that fail to provide hunters with an opportunity to feasibly remove game are commonly viewed as lacking access.

Crowding is also a concern for providing positive hunting experiences and is related to access. Although access, in this case, is not actually blocked, it is, nonetheless, limited by crowding. As urbanization continues to limit land access, it is possible that crowding issues may become more prominent in the future.

Awareness

“Access to me is the knowledge of where you’re going to go. I talk to these guys who spend hours and hours just finding where the heck to go. A lot of us are full-time and work eighty hours a week, and it’s kind of hard to do all the research and find a place, so there’s a lot of logistic stuff [involved in access issues].”

— Seattle, Washington, hunter (Responsive Management/NSSF, 2008b)

To further complicate access issues, there is sometimes a disconnect between the amount of land actually available and a hunter’s awareness of this land. In 2003, for example, Responsive Management initiated a detailed evaluation of hunting access in Colorado for the Congressional Sportsmen’s Foundation (Responsive Management/EMRI, 2003). Colorado was identified as a state that had a high but declining level of hunting participation and possessed a diversity of (and large amounts of) federal public lands. In this study, the Geographic Information System (GIS) component showed that most public lands in Colorado were generally accessible to the public, as no more than 12% of federal lands in Colorado were landlocked by private land. Further, the study found that most public lands in Colorado were within one mile of a road. However, because large portions of public land were surrounded by private lands and were often accessible only by a secondary road, hunters reported frustration regarding “landlocked” public lands. In truth, few public lands in Colorado were landlocked by private lands.

The results in Colorado illustrate the complexity of psychological constraints to hunting access. Although there was clearly land available for hunting in Colorado, hunters’ lack of awareness of remote access points and alternative routes to hunting lands as well as their perception that public lands were landlocked resulted in situations where hunters cited access issues. The Colorado study shows that despite the increased reporting of hunting access as a problem, the physical on-the-ground reality does not always correspond with these problems.

In short, access issues are not always simply a lack of access points, roads, or trails, but a lack of good information as well. Lack of information about hunting lands, road closures, access points, alternate roads and trails, and state programs to increase access are issues commonly cited by hunters (Responsive Management, 2004b). Research has found that there is a statistically

significant positive correlation between hunters who indicate having difficulty getting information on federal public lands in Colorado and hunters who indicate having access problems. A hunter may find a road closed to his favorite hunting spot on the morning of his hunt but not know that an alternative route to the same hunting area is only a few miles away (Responsive Management/ EMRI, 2003). Similarly, research suggests that hunters have a low level of awareness regarding hunting locations or programs designed to improve access. In a study of Kansas residents' opinions on and ratings of the Kansas Department of Wildlife's programs, a majority of respondents did not know anything about the Department's programs related to hunting access. For example, 67% of Kansas residents knew nothing about the "Walk-in Hunter Access" program (Responsive Management, 2002b). Similarly, in a study conducted for the Pennsylvania Game Commission, the majority of hunting license holders (74%) knew a little or nothing about the Commission's Public Access Program (Responsive Management, 2004a).

Many states lack a reliable, centralized location for the distribution of up-to-date information on the availability of and access to public and private hunting lands. Many hunters simply do not know where to find information on access and areas for hunting. At other times, maps are available but the information is not easily transferred to the ground—a map shows an available plot, but the plot cannot be located on the ground. In other instances, hunters are able to locate hunting lands shown as open on a map, only to discover that, in reality, such lands are either blocked, closed to the public, or have in some way been made inaccessible. Websites of state fish and wildlife agencies may represent the best locations for centralized, comprehensive listings of access locations and public and private hunting lands. The key is for state agencies to be able to provide consistently updated information regarding the availability of access and the status of hunting lands.

Assumptions

"All the people are moving out and building more houses, more property. More land is being sold."

— Macon, Georgia, hunter (Responsive Management/NSSF, 2008b)

Access pertains to hunters' assumptions and perceptions about hunting opportunities. These include prevalent ideas that hunting opportunities are being threatened or the perception of other barriers, regardless of whether they actually exist. Changes in land use from agriculturally zoned to residentially zoned and development of land have made more prevalent the idea that hunting opportunities are being threatened and have increased hunters' perception that hunting access is becoming worse. As hunters increasingly see the encroachment of development in their communities, they may assume that access is being threatened, even if they themselves have not experienced access problems. If a hunter passes land that has been developed on the way to his favorite hunting spot, even though he may not have an access problem to the location of his choice, he may worry about the future encroachment or development of those lands. Other perceptions or fears may also contribute to access issues. For example, if a hunter is hesitant to obtain permission from a landowner, access can be, for all practical purposes, blocked by this hesitancy.

LANDOWNER ISSUES

A comprehensive review of research on land access issues necessitates a look into landowners' issues and opinions on the use of their lands. Wright, Kaiser, and Fletcher (1988) categorized landowners into five distinct groups, based on the level of access they permit on their land: prohibitive, exclusive, restrictive, fee, and open. Prohibitive landowners do not allow hunting access on their lands, while exclusive landowners use their land for their own personal enjoyment and for their family. Restrictionists allow hunting on their land, but limit the use of their lands to individuals they know well, such as family, friends, coworkers, and employees. Fee landowners offer public access to their lands for a fee. Finally, open landowners allow public access to their lands, including acquaintances and strangers (Wright, Kaiser, & Fletcher, 1988). According to the National Private Landowners Survey, 29% of landowners who own at least 10 acres or more close at least part or all of their lands to all outsiders (individuals residing outside their household), while approximately half of all landowners (48%) allow people outside their family to access their lands for recreation. Of landowners who open access to outsiders, 49% allow access to family members who do not live with them, 49% allow access to people outside of their family but whom they know personally, 12% allow access to outsiders whom they may or may not know personally, and 5% allow access to individuals or members of hunting clubs who lease their lands (results do not sum to 100% because options are not mutually exclusive) (Teasley et al., 1999).

Research shows that the reasons that landowners allow or disallow access to their lands are complex and multifaceted. Wright, Cordell, Brown, and Rowell (1988) identified five common factors that influence landowners' decisions regarding access to their lands: (1) opinion of users, (2) land use objectives, (3) economic incentives, (4) concerns regarding liability, and (5) attitudes toward certain uses.

Opinion of Users

Landowners' opinions of recreational users are typically based on their encounters and experiences with those users. According to previous research, landowners are more concerned about allowing hunting on their land than they are about other types of recreational activities (Responsive Management, 2004b). In a study on deer management issues in Delaware, small percentages of landowners had problems with the behavior of legal deer hunters on their land. However, substantial percentages of landowners (5% of the general population, 9% of hunters who own land, but 25% of farmers who own their land) said that they knew that somebody had hunted deer illegally on their land. Nearly half of those who knew of illegal deer hunting on their land said that the deer hunters had caused problems in addition to simply hunting illegally. Typical problems included trespassing, unsafe behavior, damaging structures, littering, and being rude or discourteous. More than half of those who had experienced problems with illegal deer hunters described the problems as major (Responsive Management, 2005b).

Similarly, in a study in Georgia, landowners who had allowed deer hunting on their land at one time but later closed their land cited poor behavior of hunters, trespassing, crowding, and legal liability as reasons that they stopped allowing deer hunting on the tract. Landowners were asked if they experienced problems with legal and illegal hunters, with and without dogs, on their land. A substantial percentage (22%) had experienced problems with illegal hunters hunting without

dogs. The most common problems with hunters were trespassing, violating game laws, and damaging fences and/or leaving gates open. Lesser problems were unsafe behavior, littering, damaging structures, and discourteous behavior. The problems caused by illegal hunters, with or without dogs, were considered major problems by a majority of landowners who had experienced problems. On the other hand, the problems caused by *legal* hunters, with or without dogs, were considered minor problems by a majority of landowners who had experienced problems (Responsive Management, 2004c). While this research suggests that the problems that landowners have encountered with hunters tend to be more prevalent with *illegal* hunters, other studies, nonetheless, show that landowners have encountered problems with *legal* hunters, as well.

In Texas, poor behavior of hunters and damage to property (other than to agriculture or livestock) were two of the top three reasons that landowners gave for no longer allowing hunting on their property (Duda & Brown, 2001). Similar results were found in a study of West Virginia landowners: 35% said they had experienced problems with the behavior of hunters on their property. Of those landowners who had experienced problems, the types of problems they typically experienced were trespassing (71%), hunters being rude or discourteous (29%), littering (19%), and hunters being unsafe (11%) (Responsive Management, 1999).

Land Use Objectives

Research suggests that there are many reasons landowners give for owning rural lands. Some of the top reasons include personal enjoyment of outdoor space, rural living, and estate planning for future heirs (Teasley et al., 1999). Because of these varied reasons for owning lands, landowners may have very different opinions regarding land management strategies and public access to their lands. For example, because landowners value their personal green space, they may be unwilling to share it with others. Further, if they appreciate rural living, quiet, and solitude, opening their land for access may result in crowding, noise, and unwanted disturbance.

Property rights and opinions on the environment also color landowners' opinions regarding recreational activities on and access to their land. In one study, the majority of landowners who own at least 10 acres or more (75%) agree that private property rights are important but only if those rights do not harm the environment, and 70% believe that the balance of nature is delicate and that people have a responsibility to limit economic growth that exploits nature (Teasley et al., 1999). It is not surprising, then, that one of the primary reasons that landowners participate in access programs for outdoor recreation activities is to conserve wildlife and habitat. For example, in Pennsylvania, the most common reasons landowners gave for participating in the Commonwealth's public access program were to share land/make land available for hunting, for the free benefits (magnolia, seed mix, etc.), and for conservation of habitat and wildlife (Responsive Management, 2007b).

In Texas, the relative importance or unimportance of land use activities was asked of large landowners (landowners who own more than 640 acres) for the following land uses: ranching, farming, hunting, fishing, wildlife viewing, nature study, and providing habitat for fish and wildlife. Ranking highest in overall statewide importance to most large landowners for their land was ranching, with 72% of large landowners stating that ranching was a *very* important

activity for their property. However, second and third in the ranking, with a majority of landowners statewide rating them *very* important, were hunting (55%) and providing habitat for fish and wildlife (52%). Smaller percentages rated farming (30%), wildlife viewing and nature study (29%), and fishing (15%) as *very* important land uses on their land (Duda & Brown, 2001).

Economic Incentives

Landowners who open their lands for outdoor recreation activities can also collect fees for allowing access to their property. One study found that landowners who lease their lands to others most commonly report the following reasons for leasing their lands: to help pay property taxes (75%), to control trespassing and/or misuse of land (61%), to help maintain and conserve land (52%), and to provide additional income (39%) (Teasley et al., 1999).

In Texas, one out of three landowners agreed that, if they received incentives, they would be very likely to open their land. Over a third (36%) of landowners agreed that cash benefits, such as tax breaks or cash payments, would increase the likelihood that they would open their lands for more outdoor recreation opportunities. Still, 44% disagreed, indicating that tax breaks and cash were not incentives that would make them more likely to open their land for outdoor recreation opportunities for others (Duda & Brown, 2001). In Delaware, 28% of landowners agreed with the following statement: If I could receive financial benefits such as tax breaks or cash payments, I would be very likely to allow [more deer hunting/deer hunting] opportunities on my land (Responsive Management, 2005b). For these reasons, fish and wildlife agencies often encourage landowners to increase access to their lands by providing incentives to landowners who open their lands to hunting. Often these incentives are financial, but incentives may include other services, such as posting of areas around lands, increased law enforcement, assistance with conservation and habitat management, and free seedlings.

Liability Issues

Although research suggests that landowners agree that they should be compensated for allowing access to their lands, many landowners indicate that this is not enough of an incentive to encourage them to open their lands. This may be because landowner liability appears to be one of the major considerations in landowners' decisions whether to allow access to their land. Studies continue to show that liability remains a major deterrent to allowing access to lands: Despite the fact that many states have limited liability laws for landowners who do not receive fees or considerations for allowing access to their lands, liability remains a major deterrent in allowing access to lands (Wright, Kaiser, & Nicholls, 2002; Brown & Messmer, 2009).

In Texas, the majority of large landowners (those who own more than 640 acres) had major concerns about allowing access to their land for outdoor recreation in general (67%) and for hunting in particular (66%) (Duda & Brown, 2001). When asked about the importance of eight specific factors in the decision whether to allow access onto their property, 50% of all Washington landowners said liability was an extremely important factor (Responsive Management, 2003c). In Delaware, 50% of farmers agree that they would allow hunting access if they did not have to worry about legal liability (Responsive Management, 2005b). In Georgia, a majority (53%) of owners of tracts of at least 20 acres said that legal liability is a major

concern when considering whether to allow hunting access, and an additional 25% said it is a minor concern (78% in total said legal liability is a concern) (Responsive Management, 2004c).

Wright, Kaiser, and Nicholls (2002) have suggested that landowners' fears and perceptions of liability risks are greater than the actual risks. Because many states have enacted legislation to protect landowners, particularly those who offer free access, the greater issue at hand may be increasing landowner awareness of liability protections and laws. As Wright, Kaiser, and Nicholls (2002) wrote: "Perpetuation of the liability myth exacerbates the access crisis" (p. 189).

Attitudes Toward Certain Uses

Finally, landowners' attitudes toward certain uses may influence their land access decisions. In other words, landowners' opinions on the appropriateness or morality of hunting influence their decision on whether to open their lands to hunters. Landowners who fundamentally oppose hunting will close their lands to hunters.

TRENDS IN ACCESS TO HUNTING LANDS

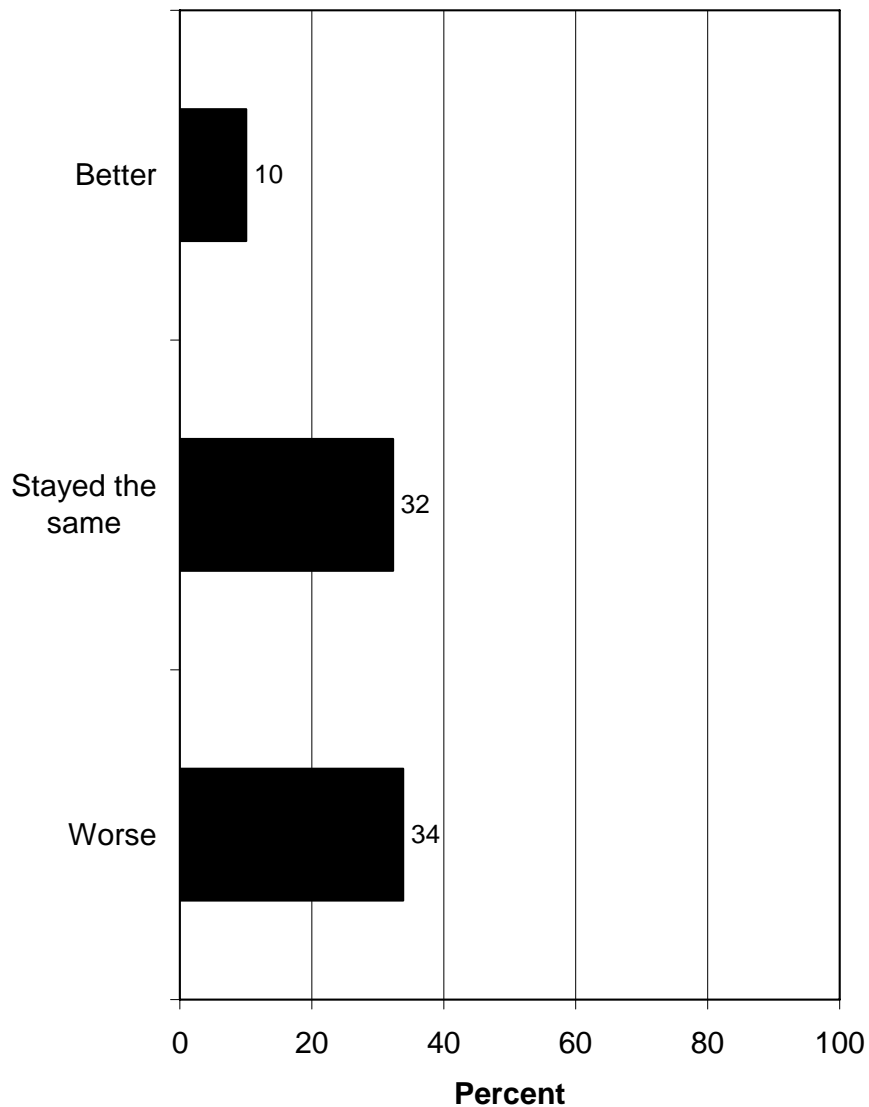
Although efforts are being made to increase access and opportunities to hunt, hunters perceive that overall access to hunting lands has gotten worse over the past few years. In fact, previous research shows that hunters are more likely to say that access to hunting has gotten worse over the past 5 years than to say it has gotten better (Figure 1.5) (Responsive Management/NSSF, 2008a). When hunters who had said that access has gotten worse were asked to name the reasons that access has gotten worse, the top two reasons given were that hunters cannot get permission to hunt private lands and the loss of land because of urbanization (Responsive Management/ NSSF, 2008a).

Regarding differences in access to public and private hunting lands, more hunters reported that access to *private* lands (36%) has gotten worse than said that access to *public* lands (21%) has gotten worse (Figure 1.6) (Responsive Management/NSSF, 2008a).

Future demographic trends may have a significant impact on hunting participation rates. As previous research has shown, hunting is largely a pursuit of rural, white males. A third of hunters (33%) describe their place of residence as rural, in comparison to just 23% of the general population as a whole (Responsive Management/NSSF, 2008a). Recent demographic trends show an increase in urban and suburban development. In their projections regarding future participation in hunting, Bowker, English, and Cordell (1999) report: "Hunting model parameter estimates suggest that the factors most closely related to hunting behavior are sex, race, and population density. ... [T]he increase in population density will decrease the number of people living rural lifestyles and reduce available hunting venues" (p. 335). These trends will invariably continue to affect hunting access and, subsequently, hunter satisfaction. The data suggest, then, that access issues have serious implications for maintaining and increasing hunting participation rates.

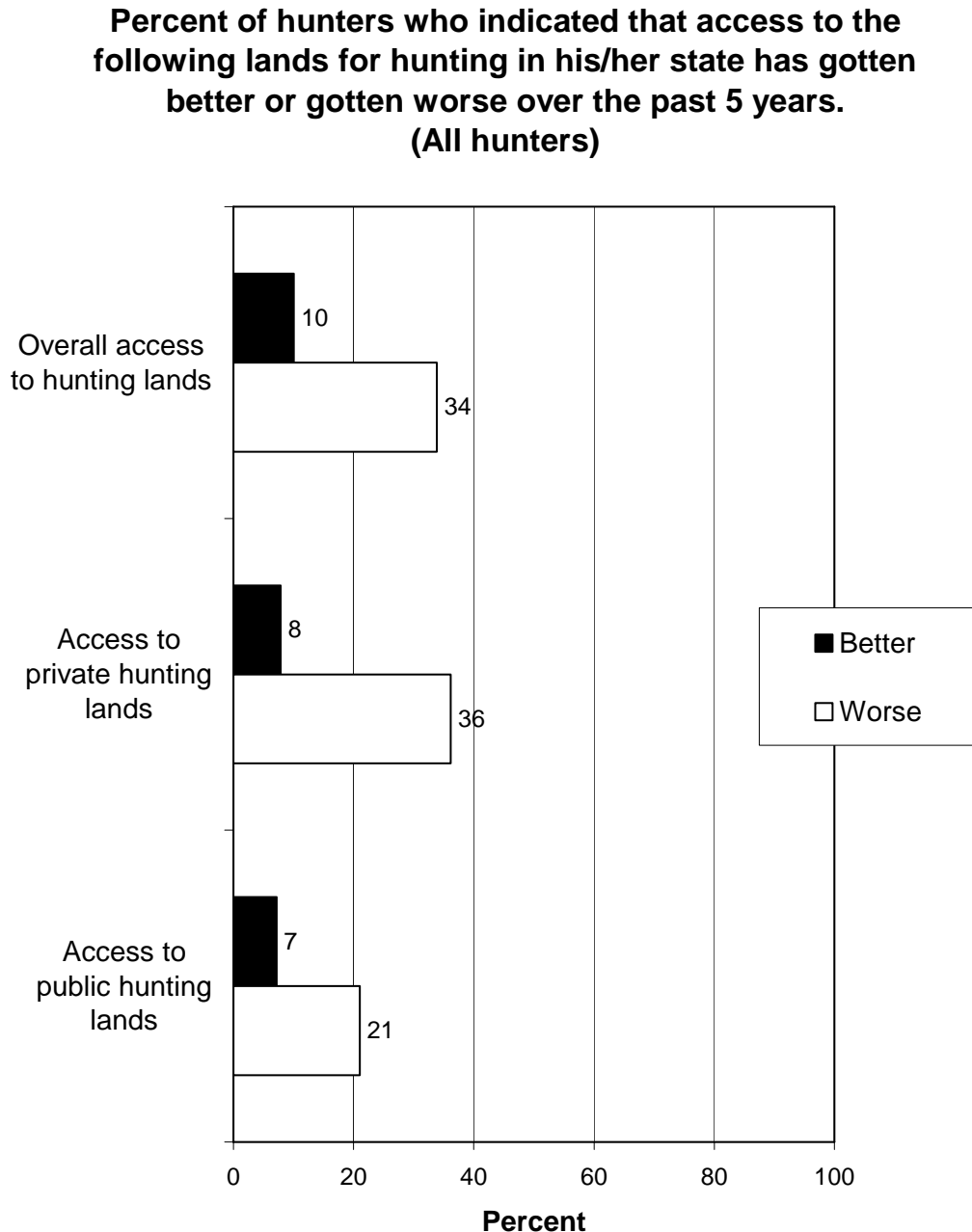
Figure 1.5. Trends in access to hunting lands.

Q326. Would you say that overall access to hunting lands/places to go target or sport shooting in your state has gotten better, stayed the same, or gotten worse over the past 5 years? (All hunters)



Source: Responsive Management/NSSF, 2008a.

Figure 1.6. Trends in access to hunting for different types of lands.



Source: Responsive Management/NSSF, 2008a.

PROGRAMS/RESOURCES ADDRESSING ACCESS ISSUES

As access to land decreases and the need for additional lands increases, more programs and efforts will be necessary to provide adequate hunting opportunities. To address access issues, there is a strong need for information and strategies upon which to build hunting programs and resources designed to create, improve, and facilitate access to lands for hunting, which will

ultimately impact hunting participation as well. For this project, national hunting land access programs and awareness campaigns as well as state-specific efforts were assessed to determine which programs and program elements are having the greatest impact.

Access to public lands is managed by various agencies and organizations, including federal, state, county, and municipal governments. Most of the federal lands available to the public for hunting are managed by the U.S. Forest Service or the Bureau of Land Management (BLM). The U.S. Forest Service manages over 193 million acres of forest and grasslands, most of which are available to the public for hunting. State hunting fees, regulations, and restrictions apply.

The BLM manages more than 256 million acres of public land available for a wide variety of outdoor recreation activities, including hunting. Through the National System of Public Lands, the BLM provides opportunities for big game, small game, and bird hunting. Fees, license requirements, and seasonal restrictions vary from site to site and state regulations apply. The BLM has a comprehensive website that offers hunters interactive mapping and trip planning tools that provide helpful information regarding hunting locations, access points, and restrictions. Public lands are also managed by the U.S. Fish and Wildlife Service, the U.S. Bureau of Reclamation, and individual state agencies. Often, state agencies also manage Wildlife Management Areas (WMAs), which provide additional public land hunting opportunities. These lands may be owned and managed independently by the state or through agreements with other agencies or organizations. In addition to government-owned lands, many nongovernmental conservation organizations own and manage land open to hunting.

With approximately 60% of land in the U.S. being privately owned (Cordell et al., 1999), land managers and fish and wildlife agencies are seeking ways to tap into privately owned resources to ensure the future of outdoor recreation activities. In response to increasing pressures and demand for access to land for outdoor recreation, many states have invested in access programs/resources to open more private lands. These programs/resources are designed to facilitate partnerships between agencies, sportsmen, and landowners and often provide incentives to landowners for opening their lands to hunters and anglers. In general, landowners are compensated for hunting access to their property through three primary methods: hunting leases, fee-based permits, and government-sponsored walk-in hunter access programs (Kilgore, Snyder, Schertz, & Taff, 2008).

Unlike private land leases in which individuals or hunting clubs are granted exclusive rights to hunt on the land, fee-based permit programs provide access to property that is not exclusive and must be shared with other permit holders. Studies have shown that fee-based permit programs are often a mutually beneficial arrangement between hunters and landowners. Fee hunting improves access to private lands while also providing positive economic benefits, as well as legal and liability protection to the landowner; further, hunters are often willing to pay more for the opportunity to use private lands (Mozumder, Starbuck, Berrens, & Alexander, 2007). Walk-in hunter access programs are state-sponsored programs that provide several options for landowner compensation, including funding from the state, access fees charged by the landowner for the use of property, or voluntary donations.

National Programs/Resources

The National Shooting Sports Foundation (NSSF) recognizes that the future of hunting is dependent on greater hunting access, increased hunting opportunities for current hunters, and the recruitment of next-generation hunters. Thus, in response to growing access issues, the NSSF has provided nearly \$1 million in funding since 2003 for on-the-ground access programs/resources in numerous states through Hunting Heritage Partnership (HHP) grants. This study is designed to assess the effectiveness of these and other programs/resources and determine program elements and strategies that work. Just as wildlife management programs/resources are based upon a solid foundation of biological research, so too should programs/resources designed to address hunting participation constraints, such as access, be based on a solid foundation of social science research. This project identifies the factors associated with hunting access but, perhaps even more importantly, this project measures hunters' perceptions of whether access issues have improved or worsened, especially in areas with programs/resources designed to create, improve, or facilitate access to lands. For this study, respondents in 50 states were asked about their awareness of, use of, and opinions on the effectiveness of the following national programs/resources:

Open Fields. Through the "Open Fields" legislation, developed by the Theodore Roosevelt Conservation Partnership (TRCP) and its partner organizations, millions of dollars will fund access programs designed to increase private land availability for hunting and fishing. Through this program, which recently received full funding, landowners receive per-acre compensation for opening their land to sportsmen. The TRCP is working closely with the U.S. Department of Agriculture to increase the program's reach and provide the resources for all states. (<http://www.trcp.org/newsroom/pressreleases/17-pressreleases/41-pr2008-05-12.html>)

The Conservation Reserve Program (CRP). The CRP is implemented by the Farm Service Agency in cooperation with the Natural Resources Conservation Service. The CRP provides technical and financial assistance to farmers to take environmentally sensitive agricultural lands out of production to achieve conservation objectives, including reduced soil erosion and provision of wildlife habitat. This program is purely a habitat enhancement program rather than an access program—there are no requirements that landowners provide access; nevertheless, hunters may and do use these lands subject to landowners' permission. According to recent research, 57% of landowners enrolled in this program allow some portion of their land to be used by outdoor recreationists, and the most common use of this land is for hunting: 89% of CRP landowners whose lands were used for outdoor recreation allowed hunting on their property (Southwick Associates & D. J. Case and Associates, 2008). (<http://www.nrcs.usda.gov/programs/CRP/>)



The Wheretohunt Website / Huntinfo Website. Both of these refer to the same website, which is maintained by the NSSF and provides a central clearinghouse for information on hunting in all 50 states. The site provides links to each state's fish and wildlife agency. The site is designed to increase hunter awareness of hunting opportunities and information in each state, including hunting license application fees and deadlines, season lengths, regulations, access points and locations, education opportunities, and other information related to hunting in each state. (<http://www.huntinfo.org>; <http://www.wheretohunt.org>)

Hunt and Shoot.org

A One-Stop Resource For New Or Experienced Hunters and Shooters

The Huntandshoot Website. This site was also developed by the NSSF to provide access to resources for hunting and shooting

activities. The website is designed to increase hunter and shooter awareness of available opportunities and serves as a one-stop resource for information about hunting and shooting opportunities in each state, outfitters and retailers, safety education courses, and hunting and shooting organizations, as well as programs offerings and events. (<http://huntandshoot.org/>)

State-Specific Programs/Resources

For this project, although all 50 states were asked about the aforementioned national programs, state-specific programs/resources were only assessed in the 16 oversampled states where HHP access programs/resources are currently underway: Alabama, Arizona, California, Hawaii, Idaho, Kansas, Michigan, Nebraska, Nevada, Ohio, Pennsylvania, South Dakota, Virginia, Washington, Wisconsin, and Wyoming. All of these states except for Arizona feature access-related programs/resources funded by the NSSF's HHP program. Arizona's programs were also selected for this study because, although they are not HHP funded, Arizona has developed other access programs that merit evaluation. Below is a list of the state-specific programs/resources assessed in this study.

The Outdoor Alabama Interactive Map. This online tool on the Alabama Department of Conservation and Natural Resources website allows visitors to search for a variety of outdoor landmarks, trails, and outdoor recreation locations. This includes hunting areas, as well as public fishing lakes, hunting trails, birding locations, and wildlife preserves. The map user can easily navigate through the interactive map by using zoom and map scroll tools.

(<http://www.outdooralabama.com/statemap/>)



Alabama's Forever Wild Land Trust Program. Alabama's Forever Wild Program was established by state constitutional amendment in 1992. The purpose of the program is to provide funding for the purchase of public recreational lands. Since its inception, the program has purchased lands for general recreation, nature preserves, and additions to Wildlife Management Areas and state parks. Thus far, at least 74 tracts totaling 212,792 acres located throughout the state have been acquired. One way Alabamans can support the program is through the purchase of a Forever Wild vehicle license plate.

(<http://www.outdooralabama.com/public-lands/stateLands/foreverWild/>)



The Hunt Outdoor Alabama Program. The purpose of this program was to share the hunting heritage with future generations and promote hunting within families. This was a mentoring program that encouraged experienced hunters to provide meaningful hunting opportunities to newcomers and former hunters. The program provided incentives—prizes

and awards—to mentors to encourage them to participate. Note that this program was discontinued after the start of the survey but prior to the completion of the study.

Alabama's Youth Dove Hunts. As a collaborative initiative between the Alabama Department of Conservation and Natural Resources and the NSSF's STEP OUTSIDE® program, this program allows licensed hunters (at least 25 years old) to take youth (no older than 16 years old) hunting for doves in select locations. The locations are chosen and permission is secured from landowners by the Alabama Department of Conservation and Natural Resources. The agency also provides on-site support, such as rides to and from the dove fields.
(<http://www.outdooralabama.com/hunting/youth-hunts/youthdove.cfm>)

Alabama's Physically Disabled Hunting Areas. These areas are reserved for exclusive use by hunters with disabilities. The sites have accessible shooting houses on wildlife openings and roads accessible throughout the hunting season by 2-wheel drive vehicles.
(<http://www.outdooralabama.com/hunting/physically-disabled/>)

Arizona's Heritage Access Program. This program is a cost-share program funded through the state's Heritage Funds (which are supported by the state lottery and are used to help conserve and protect the state's wildlife and natural areas and to provide recreation opportunities). The main objective of this program is to work with private landowners across the state to create and maintain public access. The Landowner Relation Program, which is under the umbrella of the Heritage Access Program, uses Heritage funds to finance and complete projects for private landowners in exchange for short-term or perpetual access agreements. These projects vary in scale depending on the importance of the access point as well as the length of the access agreement. Heritage funds can also be used to purchase perpetual public access easements on privately owned roads that can provide public access to federal lands.
(http://www.azgfd.gov/outdoor_recreation/landowner_access.shtml)

Arizona's Adopt-A-Ranch Program. Under the Adopt-A-Ranch Program, interested public groups (e.g., sportsmen's groups, Boy Scouts, 4-wheeling clubs) "adopt" a ranch. In a similar design to typical adopt-a-highway programs, these groups work directly with the Arizona Game and Fish Department and private landowners to mitigate problems associated with public recreational access. The volunteer group visits the ranch one or two times a year to perform regular maintenance, such as rebuilding fences, hanging gates, picking up litter, or helping with various ranch improvement projects. The Department uses two lists to match program participants: one list of ranchers and landowners who are interested in allowing their ranches to be adopted and the other list of organized groups desiring to adopt a ranch. By linking the landowner with a sportsman group, the Adopt-A-Ranch Program helps establish a mutually beneficial relationship between landowners and sportsmen. Nearly 30 Adopt-A-Ranch projects are completed every year to help maintain access on about 2 million acres of land.
(http://www.azgfd.gov/outdoor_recreation/landowner_adopt.shtml)

California's Private Lands Management Program. This program was established to assist landowners in managing their lands for the benefit of wildlife. The California Department of Fish and Game provides technical expertise and assistance to landowners enrolled in this "ranching for wildlife" program. Through this program, landowners consult with biologists to make biologically sound habitat improvements, such as providing water sources, planting native plants for food, and making brush piles for cover. As an incentive for making these habitat

improvements, landowners can charge fees for wildlife viewing, hunting, and fishing on their property. (<http://www.dfg.ca.gov/wildlife/hunting/plm.html>)

California's Shared Habitat Alliance for Recreational Enhancement (SHARE) Program.

The SHARE Program provides California's public with recreational access to private lands that are enrolled. The program encourages private landowners to enroll their lands in SHARE by offering them a small payment per acre and by minimizing the liability concerns that currently keep many private lands closed to public use. This program is facilitated by the California Outdoor Heritage Alliance, in cooperation with California Waterfowl, the California Cattlemen's Association, the California Department of Fish and Game, and the California Farm Bureau Federation. (<http://www.cbhsaa.net/legislative/AB1423.pdf>)

California's Delta Island Hunting Program. The California Department of Fish and Game, in cooperation with the California Department of Water Resources, provides non-fee limited-permit public pheasant and waterfowl hunts. These hunts are held on public lands located in the Sacramento-San Joaquin Delta, which were purchased with State Water Project Contract Funds. These properties are open only to successful applicants during the respective seasons; otherwise, the properties are not open to the public for hunting. (<http://www.dfg.ca.gov/delta/hunts/>)



California's Game Bird Heritage Special Hunts Program. The purpose of these special hunts is to provide additional upland game bird hunting opportunities on public and private lands. This program provides hunting opportunities through a draw, and hunts are hosted at multiple locations throughout the state.

(<http://www.dfg.ca.gov/wildlife/hunting/uplandgame/gamebird/2009SpecialHunts/index.html>)

California's Game Bird Heritage Special Hunts Program Apprentice Hunts. This program also provides hunting opportunities through a draw but focuses on novice hunters. The purpose of these special hunts is to provide basic educational activities for beginning hunters, to offer events to beginning hunters, and to provide additional upland game bird hunting opportunities on public and private lands. This program provides hunting opportunities through a draw, and hunts are hosted at multiple locations throughout the state.

(<http://www.dfg.ca.gov/wildlife/hunting/uplandgame/gamebird/2009SpecialHunts/index.html>)



Hawaii Legacy Land Conservation Program (LLCP). The LLCP provides funding from the state's Land Conservation Fund for acquiring lands, including easements, for public use. The LLCP assists local organizations and agencies in the purchase and protection of land resources through grant funding. LLCP land acquisitions and easements are made for recreational and public hunting areas, habitat protection, and open space and scenic resources, to name only a few examples. (<http://hawaii.gov/dlnr/dofaw/llcp>)



Hawaii's Statewide Geographic Information System (GIS) Map Program.

The GIS Map Program is facilitated by the Office of Planning and is a multi-agency initiative to provide GIS to the public. The mapping system provides spatial data associated with attribute information to enhance decision-making. The GIS Map

Program shows public land holdings and can be used to identify hunting lands.

(<http://hawaii.gov/dbedt/gis/>)

Hawaii Lease Agreements. Hawaii facilitates lease agreements between landowners and sportsmen to grant access to agricultural lands for hunting.

Hawaii's Game Mammal and Game Bird Hunting Guides. Through these guides, the Hawaii Division of Forestry and Wildlife provides information on hunting opportunities on the six major islands in the State of Hawaii: Kauai, Oahu, Maui, Molokai, Lanai, and the big island of Hawaii. Each island has public and private lands that are open to the public for hunting during certain times each year. These guides include a map of public hunting areas (Hunting Units) as well as information regarding regulations, conditions, and restrictions.

(http://www.state.hi.us/dlnr/dofaw/hunting/MammalHuntingRegs_Chap123.pdf;
http://www.state.hi.us/dlnr/dofaw/hunting/BirdHuntingRegs_Chap122-02.pdf)



Idaho's Access Yes! Program. This program compensates landowners for allowing access to their land for hunting and/or for reaching hunting land. The goal of this program is to provide access to more than one million acres of land for sportsmen.

(<http://fishandgame.idaho.gov/ifwis/huntplanner/accessyesguide.aspx>)



Idaho's Accessible Idaho Program. This program seeks to improve access to hunting lands, as well as to fishing and wildlife viewing lands, for disabled persons. Through this program, the Idaho Fish and Game Department partners with private landowners to incorporate accessible designs into recreational facilities.

(<http://fishandgame.idaho.gov/apps/ada/>)

The Kansas Special Hunts on Public Lands Program. This program provides pre-season or high quality hunts on public lands for youth and adults.



The Kansas Walk-In Hunting Access (WIHA) Program. The Kansas WIHA program started in 1995 as an initiative to provide hunting access to private property. Landowners receive a modest incentive for allowing public use of their property for recreational activities, based on acreage and length of contract. Areas enrolled in the WIHA Program are posted and regularly patrolled by law

enforcement, and safety zones are marked. Further, liability is waived for property owners who lease land to the state for recreational use. Because the landowner receives funding from the state, hunters and anglers can access lands enrolled in the WIHA Program at no additional cost.

(<http://www.kdwp.state.ks.us/news/Other-Services/Private-Landowner-Assistance/Wildlife/Walk-in-Hunting>)

Kansas' Controlled Shooting Areas (CSAs). These areas are private lands on which hunters can pay to hunt with a CSA hunting permit. (<http://www.kdwp.state.ks.us/news/Hunting/Where-to-Hunt-in-Kansas/Controlled-Shooting-Areas>)



Michigan's Hunting Access Program. In this program, Michigan leases private lands for public hunting. In general, the lands are available on a first-come, first-served basis. Hunters register their hunting parties with the landowner.

(http://www.michigan.gov/documents/dnr/0607HAP_174892_7.pdf)

Michigan's Commercial Forest Lands Program. These are areas of privately owned forest lands that are open to hunting. The landowners are provided property tax incentives to manage their forest lands for long-term production of wildlife in exchange for providing public access.

(http://www.michigan.gov/dnr/0,1607,7-153-10366_34947-34016--,00.html)

Michigan's Conservation Reserve Enhancement Program (CREP). This program falls under the umbrella of the Conservation Reserve Program; it was asked about separately in the survey of Michigan hunters because some hunters know it as CREP rather than simply CRP.

(http://www.michigan.gov/mda/0,1607,7-125-1567_1599_1603-9735--,00.html)

Michigan's Disability Access for Recreation. This is a general effort that entails many separate actions/facilities that provide hunting access for disabled hunters.

(http://www.michigan.gov/dnr/0,1607,7-153-10366_41825---,00.html)

Nebraska's CRP Management Access Program (CRP-MAP). CRP-MAP improves habitat for pheasant and other wildlife on CRP lands and provides statewide public access for walk-in hunting. The Nebraska Game and Parks Commission, in partnership with Pheasants Forever, is offering the CRP-MAP to landowners enrolled in the Conservation Reserve Program with at least 2 years left on their contract. Landowners are paid between \$4.00 and \$5.00 per acre for the entire CRP tract for improving habitat on 10% of the CRP land and allowing public walk-in only access for hunting and trapping during the hunting season. The CRP-MAP Atlas is a comprehensive mapping system that identifies outdoor recreation opportunities by county.

(<http://www.ngpc.state.ne.us/hunting/programs/crp/crp.asp>)



Nebraska's Passing Along the Heritage (PATH) Program. This is a private land access program for mentored youth hunting. The PATH Program is designed to provide a means by which interested landowners can allow youth hunting on at least a limited basis on their land through an Internet-based registration process. To enroll land in this program, the landowner signs a contract allowing the Nebraska Game and Parks Commission to add the land to a database of PATH properties and available hunting dates on the Commission website. Mentors, who must

be at least 18 years old and have a Nebraska hunting permit, will be able to browse these properties, see descriptions of each one and the days it is available, and select property on which to take a youth hunting (youth must be age 17 or younger). Mentors will then be able to print a permission slip allowing them access to the property on the selected day. Once a site has been reserved, that particular day is no longer available to others when they view the website.

(<http://www.ngpc.state.ne.us/hunting/programs/youthhunt/>)

Nevada Department of Wildlife's Interactive Map Service. This is an online interactive mapping resource administered by the Nevada Department of Wildlife that allows users to create their own maps using Nevada resource information from a geo-referenced mapping database. This site was designed to inform outdoor recreationists of opportunities throughout the state and to help sportsmen scout specific destinations and areas.

(http://gis.ndow.nv.gov/imf/sites/ndow_public/jsp/launch.jsp)

Nevada Department of Wildlife's Hunt Information Sheets. These sheets describe specific hunting areas for specific species. The sheets contain data on the driving locations to the area, the elevation and terrain, the vegetation, the weather/climate, the land status and hunting access locations, and nearby facilities and services.

(<http://www.ndow.org/hunt/resources/infosheets/all-r0.htm>)

Ohio's Cooperative Hunting Program. This program enrolls private landowners who allow public hunting access on their lands. The Ohio Department of Natural Resources provides signs and permits for use of the lands.

Pennsylvania's Cooperative Farm-Game Program. The Farm-Game Program requires a landowner, or group of landowners, to place under lease a project area comprising at least 1,000 acres for five or more years. The Cooperative Farm-Game Program creates a partnership between the Game Commission and the landowner to improve public hunting opportunities and wildlife habitat on the enrolled property. Hunters and trappers help to manage game and furbearer populations through lawful hunting and trapping, and the Commission provides a variety of benefits to the cooperating landowner. Benefits include law enforcement patrols to deter unlawful hunting, illegal all-terrain vehicle use, and littering or dumping; free food and cover seedlings; and advice on soil conservation and habitat improvements.

(<http://www.portal.state.pa.us/portal/server.pt?open=514&objID=620379&mode=2>)

Pennsylvania's Cooperative Forest-Game Program. The Pennsylvania Game Commission's Cooperative Forest-Game Program was developed to provide increased protection to large forested tracts in Pennsylvania. It is available to interested landowners who own mostly forested properties in excess of 1,000 acres and who are willing to allow public hunting on the land that they enroll in the program. This program benefits participating landowners by providing enhanced property protection. Commission signs are provided to establish safety zones around occupied dwellings. As well, roads and trails that may be damaged or misused during certain periods of the year are considered officially closed when posted with signs provided by the agency. Protection through the posting of other official signs and through patrolling and enforcement of the Game and Wildlife Code by Commission personnel also is provided, especially when areas are being hunted.

(<http://www.portal.state.pa.us/portal/server.pt?open=514&objID=620382&mode=2>)

Pennsylvania's Cooperative Safety Zone Program. The Pennsylvania Game Commission's Cooperative Safety Zone Program is designed to provide a better landowner-hunter relationship and to improve hunting opportunities. The primary intent of the Cooperative Public Safety Zone Program is to heighten safety zone awareness and provide better protection to farm residents and their properties. Increased warning signage and added security are intended to encourage

landowners who currently close their lands to hunting and/or trapping to reconsider. To become a Safety Zone Program cooperator, the owner of a farm, containing a minimum of 50 acres, executes a simple agreement with the Commission. The cooperating farmer erects Safety Zone posters, which are supplied free of charge by the Game Commission. These signs must be erected not more than 150 yards from farm buildings. The farm, with the exception of the established Safety Zone, must be open to lawful public hunting. Game Commission law enforcement officers will occasionally patrol roads adjacent to the land to ensure that individuals who enter the property obey laws and regulations.

(<http://www.portal.state.pa.us/portal/server.pt?open=514&objID=620387&mode=2>)

Pennsylvania's Deer Management Assistance Program. The Deer Management Assistance Program (DMAP) helps land managers and landowners with deer management and deer population control consistent with their land use goals. Through DMAP, landowners can receive permits for hunters to take additional antlerless deer during antlerless deer seasons. Antlered deer may not be taken with a DMAP permit. Eligible properties include public lands, private lands where no fee is charged for hunting, and lands owned by private hunting clubs that were established prior to January 1, 2000. (<http://www.dcnr.state.pa.us/Forestry/dmap/index.aspx>)

South Dakota's Walk-In Hunting Areas. This program seeks to provide the public with added quality hunting opportunities, to improve the relationships between landowners and hunters, and to improve hunter ethics. The program provides incentives to landowners who sign a contract allowing public hunting access (foot traffic only). Sites are selected annually, and locations are published in the *South Dakota Hunting Atlas*. The agency provides signage to clearly mark boundaries. (<http://www.sdgifp.info/Wildlife/PrivateLands/HuntingAccess.htm>)

South Dakota's Controlled Hunting Access Program (CHAP). The program is a cooperative effort between private landowners and the Department of Game, Fish and Parks to open up private land to public big game hunting. Lands enrolled in CHAP do not function like those lands enrolled in the Walk-In Area Program. Hunters who use land enrolled in CHAP must check in with the landowner or at a self-serve check-in kiosk to obtain a permission slip. Many CHAP areas have additional restrictions. Another difference between the CHAP and the Walk-In Area Program is that payments to landowners are based on hunter use rather than acres enrolled. (<http://www.sdgifp.info/Wildlife/PrivateLands/FactSheetCHAP.htm>)

South Dakota's Volunteer Antlerless Deer Hunter Program. In this program, deer hunters who already hold antlerless licenses and are looking for private land on which to hunt antlerless deer add their names, contact information, and the counties in which they are interested in hunting to a web-based list. That list can then be accessed by landowners, who invite the hunters to their property. A landowner can choose which license types he or she is willing to host and can search by county, thus producing a list of hunters that match the landowner's specifications. (<http://www.state.sd.us/applications/GF75VolHuntersAntlerless/Intro.aspx>)

South Dakota's Lower Oahe Waterfowl Access Program. This program entails allowing public access for waterfowl hunting on private land. The Department of Game, Fish and Parks issues restricted nonresident waterfowl licenses that are valid only on private land in three counties adjacent to Lake Oahe for three consecutive days. The program provides pass shooting

opportunities, decoy hunting opportunities, and other waterfowl hunting opportunities. The access areas also provide some small game hunting opportunities prior to the fall arrival of the geese.

South Dakota's Game Production Areas (GPAs). The Department of Game, Fish and Parks has purchased various land tracts called Game Production Areas (GPAs) across the state that are open to public access for hunting or wildlife viewing. The areas entail management actions that maintain or improve habitat and that allow game (as well as nongame) species to propagate. Special restrictions for vehicle access are posted at the entrances to these areas.

South Dakota's Interactive South Dakota Public Lands Maps and Information System.

This interactive tool is hosted on the Department of Game, Fish, and Parks' website. This resource allows users to view maps and other information about public lands in South Dakota. Various layers in the mapping allow specific features or types of land to be shown. It also allows GPS data to be downloaded into GPS units.

(<http://www.sdgifp.info/Wildlife/PublicLands/PubLand.htm>)

South Dakota Office of School and Public Lands Program. When South Dakota became a state in 1889, the federal government granted the state more than 3.5 million acres of land. In each township, sections 16 and 36 were to be used for schools and other public purposes. These are known as common school lands. To manage these lands and the money they generate, the state constitution established the Office of the Commissioner of School and Public Lands. Common school lands were either sold or leased, and the proceeds were deposited in a permanent trust fund for education. The money is generated from grazing, mineral, and oil and gas leases, interest on the Common School Permanent Fund, and interest on land sales contracts. School lands that were not sold are available to the public for hunting and fishing.

(<http://www.sdpubliclands.com/News/index.shtm>)

The Printed *South Dakota Hunting Atlas*. The *South Dakota Hunting Atlas* contains maps and information on South Dakota's Walk-In Areas, Game Production Areas, Waterfowl Production Areas, some School Lands, and some BLM lands. A new atlas is made available in late August of each year.

The *South Dakota Hunting Atlas* on the South Dakota Department of Game, Fish, and Parks' Website. The above atlas is also on the agency website. The map is in PDF format, divided into 73 mapping units. (<http://www.sdgifp.info/publications/atlas/index.htm>)

Virginia's Quota and Managed Hunts. This program allows access to lands through a random drawing among hunters who apply for the hunts (there is a fee for entering the random drawing). The Virginia Department of Game and Inland Fisheries (VDGIF) provides some supplies for some of the hunts (e.g., hunting parties are provided a blind, boat, and decoys for the Hog Island Wildlife Management Area waterfowl hunt in Surrey County).

(<http://www.dgif.virginia.gov/hunting/quotahunts/>)

Virginia's Public Access Lands for Sportsmen (PALS). PALS is a program that opens private lands for public use. Through this cooperative private/public program, the VDGIF has opened

more than 19,000 acres of private land. The VDGIF manages access for hunting, fishing, and trapping. PALS permits are sold through license agents.

(<http://www.dgif.virginia.gov/hunting/regulations/publiclands.asp#pals>)

Virginia's Special Youth Hunts. These hunts allow youth to hunt when accompanied by a licensed adult hunter; the adult cannot carry or discharge a firearm.

Virginia's Find Game GIS Mapping System (FindGame.org). This site includes an interactive mapping program that provides information on hunting locations, game species information, historic harvest data, hunter regulations in certain areas, aerial photographs, and topographic and road maps. Lands included in the maps include Wildlife Management Areas, leased lands, State Parks, State Forests, military installations, National Forests, U.S. Army Corps of Engineers lands, and National Wildlife Refuges. (<http://www.findgame.org/>)

Virginia Department of Game and Inland Fisheries' Outdoor Report. This is an online newsletter that discusses hunting issues, including access and hunting opportunities. (<http://www.dgif.virginia.gov/outdoor-report/2009/06/10/index.html>)

Washington's Feel Free to Hunt Program. The Feel Free to Hunt program is a voluntary public/private partnership under which the Washington Department of Fish and Wildlife reaches agreements with private landowners who are willing to allow hunting on their land. The landowner then allows people to go into an area without receiving further permission from the landowner. Land in the program is indicated by signs.

Washington's Register to Hunt Program. In the Register to Hunt Program, private landowners grant permission for hunters to hunt on their lands through an agreement with the Washington Department of Fish and Wildlife. The program features a centralized parking area for each property with a requirement to sign in and sign out.

Washington's Hunt by Written Permission Program. Similar to the above two programs, this access program allows landowners to receive signs from the Washington Department of Fish and Wildlife and put them up. Hunters then contact the landowners to get written permission for hunting on their lands.

Washington's Landowner Hunting Permit Program. Landowner Hunting Permits are issued by the Washington Department of Fish and Wildlife to individuals or corporations that provide a hunting opportunity for the public that otherwise would not exist and/or which helps resolve crop damage problems. Those receiving Landowner Hunting Permits make provisions for public benefit and participation, with a general hunting season opportunity being encouraged, as well as special accommodation for disabled hunters, youth, seniors, and Advanced Hunter Education designated Master Hunters.

Washington's GoHunt GIS Mapping System. This program is an Internet application created by the Washington Department of Fish and Wildlife to provide hunters with multi-layered maps displaying game management unit boundaries, deer and elk management areas, pheasant-release sites, and private lands hunting opportunities, as well as roads, topographical features, and

county lines. In addition, harvest statistics and hunting regulations are available by specific locale and species.

Washington's Quality Hunting Areas Program. Quality Hunting Areas are established by the Washington Department of Fish and Wildlife to provide large acreage with high-quality habitat and low pressure. These areas require special management emphasis and have tailored seasons. Quality Hunting Areas are created for the overall benefit of species management, not to serve individual hunters.



Accessing Washington's Outdoors Program. This program provides disabled individuals with hunting access to lands behind locked gates. Hunters must have a Disabled Hunter Permit (as well as permits from the land managers) in order to access hunting areas behind locked gates on the roads that are normally open only to walk-ins. Most sites in the program are selected for the quality experience they provide and are available because of agreements with many different land managers. (<http://wdfw.wa.gov/outreach/access/accessibility/index.htm>)

Washington's Disabled Hunter Road Access Entry Program. The Road Access Entry Program is a permit draw program open to hunters with disabilities. In addition to the road access entry permit received from the Department, those drawn for an area may also be issued a permit by the landowner/manager allowing them to drive a motor vehicle into a closed or gated area where other hunters are not allowed to drive a motor vehicle. (<http://wdfw.wa.gov/outreach/access/accessibility/roadaccess.htm>)

Wisconsin's Damage and Abatement Claims Program's Hunting Access During Open Seasons Program. This program and the one immediately below are both within the overall aegis of the Damage and Abatement Claims Program. In the "Open Seasons" Program, farmers are required to provide public hunting access in return for wildlife population control through hunting. The Wisconsin Department of Natural Resources makes a list of participating farmers available. (<http://dnr.wi.gov/org/land/wildlife/damage/twotypes.htm>)

Wisconsin's Agricultural Deer Damage Shooting Permit Program. As noted above, this program is within the overall aegis of the Damage and Abatement Claims Program. In the Damage Permit Program, farmers receive agricultural damage shooting permits (or tags) and can either use them themselves or provide them to licensed hunters who wish to hunt. The permits are valid both inside and outside of the regular hunting seasons. The WDNR makes a list available of participating farmers, although not all of the farmers allow *public* hunting. (<http://dnr.wi.gov/org/land/wildlife/damage/twotypes.htm>)

Wisconsin's Leased Public Hunting Grounds. The state leases land for public hunting. These lands are open to licensed hunters.



Wyoming's Hunter Management Area Program. As part of Wyoming's overall program to increase access to lands for outdoor recreation (Private Lands, Public Wildlife Access Program), this program allows hunters to apply for permission from the Wyoming Game and Fish Department to hunt on a Hunter Management Area. The area may be solely private land or may be a combination of private, state trust, and federal lands within ranch boundaries. Hunters obtain permission from the Wyoming Game and Fish Department, and there is no fee to hunt on these lands.

(<http://gf.state.wy.us/plpwhmprogram/frmHunterManagementHome.aspx>)

Wyoming's Walk-In Area Program. Also as part of its Private Lands, Public Wildlife Access Program, Wyoming offers walk-in hunting areas through its Walk-In Area Program. This program was established in 2001 and offers public hunting opportunities on private lands. Through this program, the Wyoming Game and Fish Department leases hunting rights on private land tracts. Participating landowners receive monetary compensation based on the amount of land enrolled. The program is designed to provide access to private lands for outdoor recreation. Access to private lands is limited, for the most part, to foot traffic only, although horseback access is allowed on some tracts.

(<http://gf.state.wy.us/plpwhmprogram/frmWalkinHuntingHome.aspx>)

Wyoming's Hunter/Landowner Assistance Program. Under the umbrella of its Private Lands, Public Wildlife Access Program, Wyoming also offers the Hunter/Landowner Assistance Program. Through this program, landowners who want help controlling wildlife populations on their land contact the Wyoming Game and Fish Department. The Department collects information on the tract location and the species that the landowner wants help controlling. The Department then provides a directory of these private landowners so hunters can contact the landowner directly to obtain permission to hunt on the land.

(<http://gf.state.wy.us/plpwhmprogram/frmHunterAssistanceHome.aspx>)

THE NEED FOR RESEARCH ON ACCESS ISSUES

Based on the research regarding the impact of hunting access on hunter dissatisfaction and the projections for future challenges in hunting access, it is clear that access issues are critical to continued hunting participation and, in turn, to future wildlife management efforts as a whole. With all of these impacts and concerns at play, the need for this research is evident: 1) access to lands for hunting has become a very real barrier to hunter recruitment and retention; 2) previous studies have shown that access is a leading reason for hunter dissatisfaction and that not enough available hunting access is a significant factor that influences hunters' decisions to stop hunting; 3) most previous studies were conducted on a single state rather than on a national basis and are not comparable across states; 4) the effectiveness of numerous initiatives and programs/resources related to access that have already been implemented on the ground needs to be evaluated; and 5) the results will help ensure the most effective utilization of funding for access programs/resources in the future.

This project has been designed to meet the following objectives:

- To identify the full array of access issues that hunters face today.
- To provide baseline data with which to compare conditions in the future.
- To assess the effectiveness of access programs/resources in place in 16 oversampled states to develop strategies and recommendations for access programs/resources, as well as the future use of funding for these programs/resources. This includes the following 16 states: Alabama, Arizona, California, Hawaii, Idaho, Kansas, Michigan, Nebraska, Nevada, Ohio, Pennsylvania, South Dakota, Virginia, Washington, Wisconsin, and Wyoming.

Ultimately, the findings from this study will help fish and wildlife agencies more effectively utilize the millions of dollars of funding for implementing access programs/resources by indicating which programs/resources and program elements are having the greatest impact and by providing data to guide new and improve current programs.

READING THE TEXT

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

- Open-ended questions are those in which no answer set is read to the respondents; rather, they can respond with anything that comes to mind from the question.
- Closed-ended questions have an answer set from which to choose.
- Some questions allow only a single response, while other questions allow respondents to give more than one response or choose all that apply. Those that allow more than a single response are indicated on the graphs with the label, "Multiple Responses Allowed."
- Many closed-ended questions (but not all) are in a scale, such as excellent-good-fair-poor. Questions using a scale allow only a single response.

- Many questions are part of a series, all with the same answer set, and the results are primarily intended to be examined relative to the other questions in that series (although results of the questions individually can also be valuable). Typically, results of questions in a series are shown on a single graph.

As discussed previously, each interview was conducted using wording specific to that respondent, based on his/her previous responses to questions. For instance, the respondent's specific primary species hunted was used in the interview. Each respondent was also asked about his/her specific state in many questions. These places where specific wording was used are indicated by parentheses in the graphs; for example, a question about hunters' ratings of overall access follows:

Overall, how would you rate access to hunting lands in (STATE) for hunting (SPECIES)?

Because access problems differ depending on the species hunted, the survey asked respondents to answer select questions about *the species they primarily hunt*. As a result, many questions, such as ratings of access, are specific to a particular species rather than to hunting overall.

Note that some results discussed in the report 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 agree" and "moderately agree" are summed to determine the total percentage in agreement).

Where results vary by region, graphs of regional differences are often shown. For this report, the regional breakdowns are the same as those used in the U.S. Fish and Wildlife Service's *National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*. Figure 1.7 shows the regions used in this report.

Figure 1.7. Regional map of the United States.

REGIONAL BREAKDOWN OF THE UNITED STATES USED IN ANALYSES



CHAPTER 2. MAJOR FINDINGS

To fully understand issues related to hunting access and their overall effect on program participation, it is important to understand hunter behaviors and characteristics, as well as the full array of access issues that hunters face today. This study explores how access issues affect hunting participation, hunters' decisions in choosing areas to hunt, and hunters' enjoyment and satisfaction. Additionally, this study assessed hunter awareness of, participation in, and ratings of various programs/resources designed to address hunting access issues.

Responsive Management and the NSSF completed this large-scale, national study to identify, quantify, and develop an in-depth understanding of the important issues affecting access to hunting lands. This project included a literature review of available source material regarding hunting access issues, focus groups of hunters in both Georgia and Washington, and a nationwide telephone survey of hunters. Responsive Management completed 14,336 surveys of U.S. hunters, and the results in this report are representative of licensed U.S. hunters as a whole.

The extensive telephone questionnaire was developed cooperatively by Responsive Management, the NSSF, and the participating state agencies and was reviewed by numerous university professors, staff, and fish and wildlife agency personnel with knowledge regarding survey methods and hunting access issues. Respondents consisted of individuals ages 18 and older who had hunted at least once in the five years that preceded the study. The sample was carefully constructed to reflect the proportion of hunters in each state. Responsive Management and the NSSF worked with each state fish and wildlife agency over a 12-month period to achieve a meticulously constructed and randomly selected sample of hunters. The sample was obtained from each state's agency; for the states where this was not possible, the sample was obtained from a research firm that had valid samples of hunters for those states.

Additionally, although hunters in all 50 states were asked about their awareness of, use of, and opinions on the effectiveness of national programs/resources, state-specific programs/resources were also assessed in 16 oversampled states. In addition to all questions included in the national survey, hunters in the following oversampled states were also asked specific questions regarding access programs/resources are currently underway in their state: Alabama, Arizona, California, Hawaii, Idaho, Kansas, Michigan, Nebraska, Nevada, Ohio, Pennsylvania, South Dakota, Virginia, Washington, Wisconsin, and Wyoming.

For nationwide data analysis, the telephone survey data was weighted appropriately to make the sample from each oversampled state proportionally correct to the population of licensed hunters nationwide. In other words, the results were weighted to ensure that the proportions of the sample in each state matched population density nationally: Oversampled states were weighted down to maintain the representativeness of the sample. Therefore, for the national results and this final report, no state is over-represented and the results shown are representative of the population of U.S. licensed hunters nationwide.

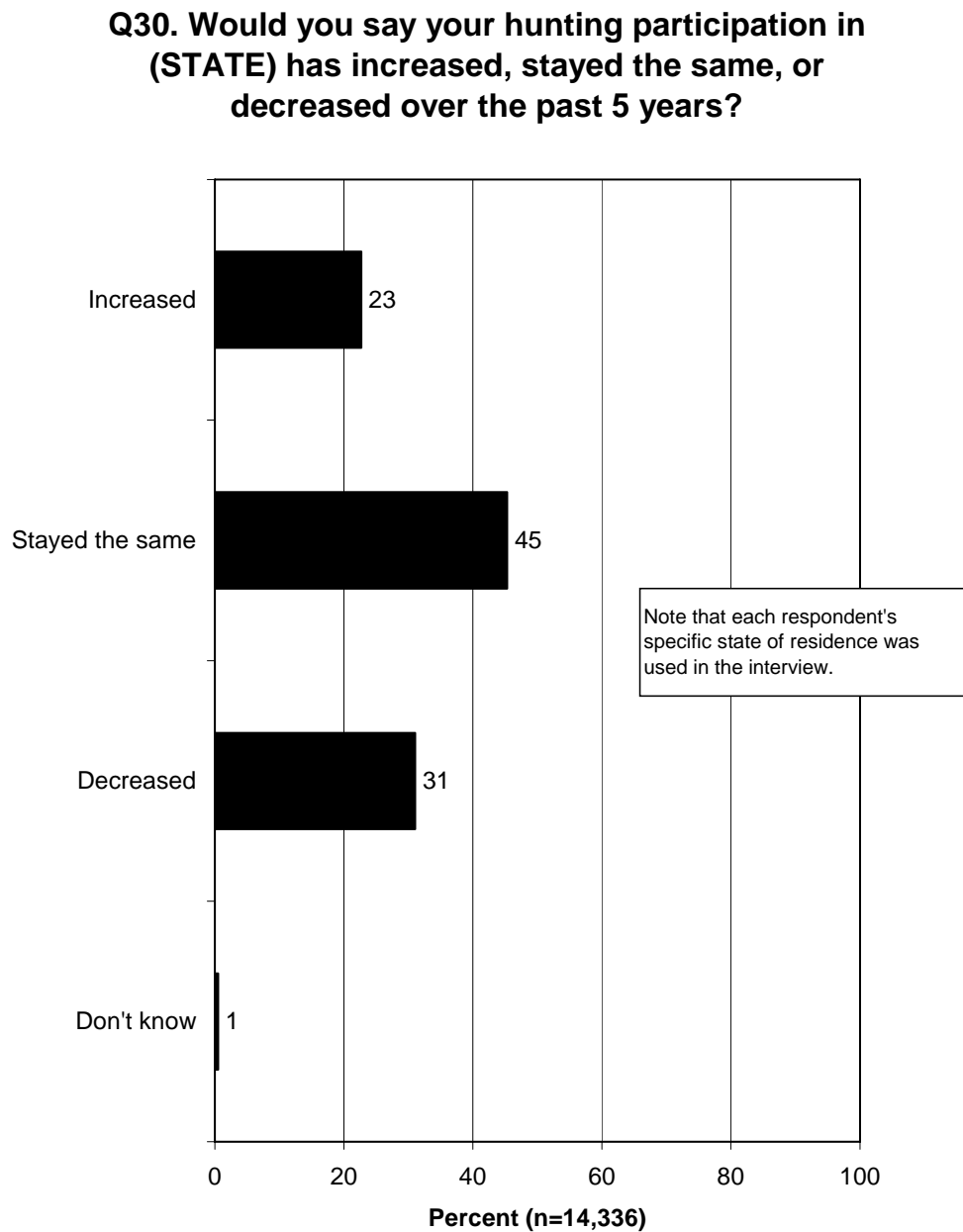
HUNTING PARTICIPATION

- **The researchers wished to examine access issues that *currently* exist. For this reason, the survey sample included only those who had hunted at least once in the previous 5 years—those who did not meet this criterion were screened out of the survey. The large majority of hunters in the resulting sample are quite avid, most having hunted all 5 of the past 5 years.**

Hunters in the survey were asked to indicate how many of the past 5 years they had hunted (among those who hunted at least *once* in the previous 5 years): 84% hunted all 5 of the previous 5 years. This produces a “churn” rate of approximately 16%; that is, 16% of hunters in the sample indicated that they had hunted within the previous 5 years but had not done so every year. This churn rate is not markedly different from churn rates determined in other research. The National Shooting Sports Foundation (1986) conducted a survey that showed that 95% of hunters had participated each year in the previous 4 years. More recently, past research conducted by Responsive Management on factors related to hunting participation in the U.S. found that 71% of hunters had hunted every year during the previous 5 years (Responsive Management, 1995).

- **Regarding changes in participation over the past 5 years, almost half of all hunters report that their participation has remained the same. However, the percentage of hunters who indicate their participation has decreased exceeds the percentage of hunters who say their participation has increased.**

When asked to indicate whether their hunting participation has increased, remained the same, or decreased over the past 5 years, hunters nationwide most commonly say that it has stayed the same (45%). With that said, the percentage of hunters who say their participation has decreased (31%) exceeds the percentage of hunters who say it has increased (23%) (Figure 2.1).

Figure 2.1. Self-reported trend in participation over the past 5 years.

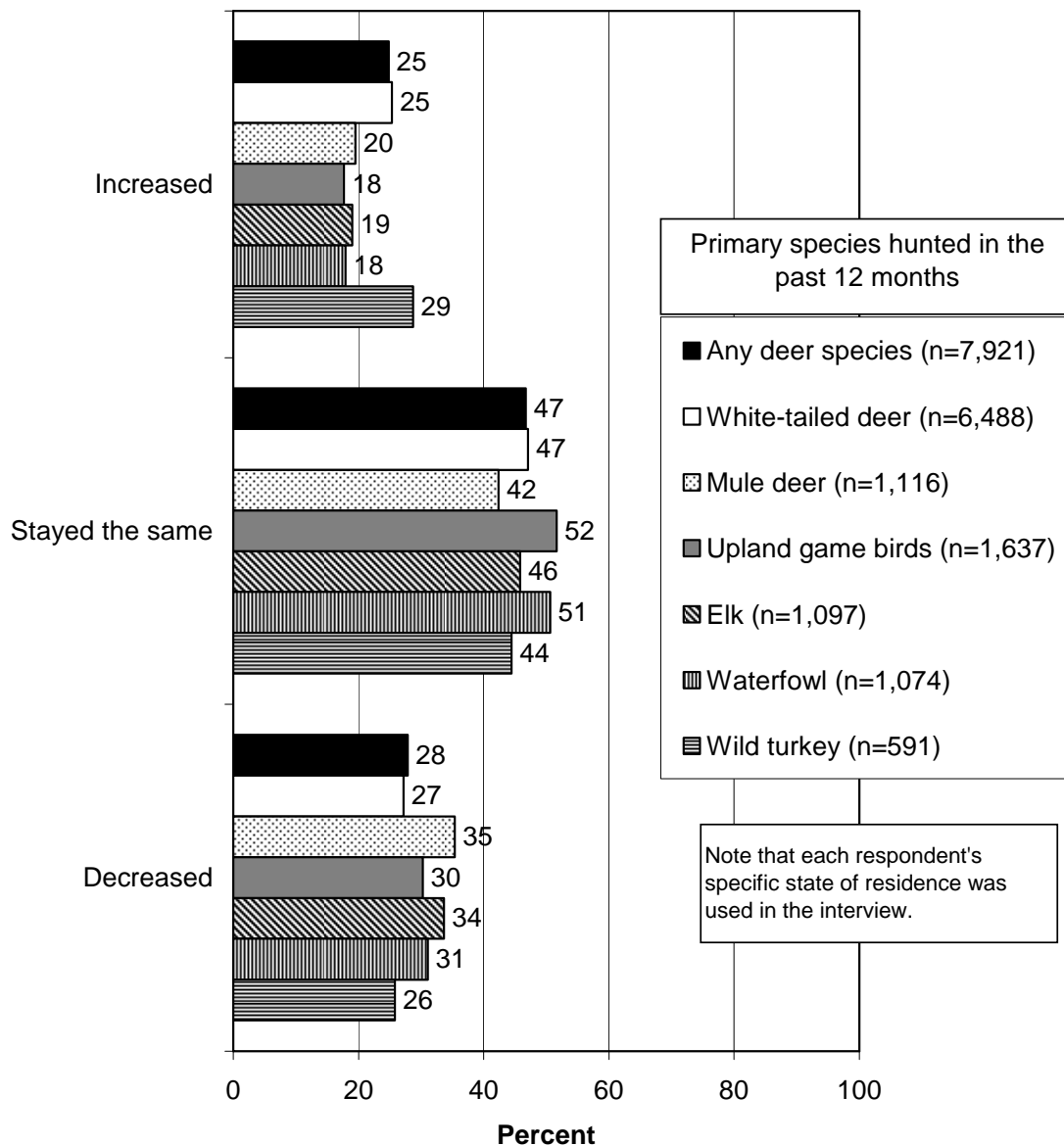
➤ **Changes in hunting participation vary based on species hunted.**

A crosstabulation was completed on hunting participation by primary species hunted for the six most commonly hunted species: white-tailed deer, mule deer, upland game birds, elk, waterfowl, and wild turkey. Crosstabulations also include results for hunters hunting any deer species. These species were selected for crosstabulations because the number of hunters who hunted these species was large enough to allow for comparisons. According to these

results, wild turkey hunters are statistically more likely, relative to hunters of the other species, to report an increase in their hunting participation ($p \leq 0.001$), while mule deer hunters are more likely than other hunters to report a decrease ($p \leq 0.05$) (Figure 2.2).

Figure 2.2. Crosstabulation of self-reported trend in participation over the past 5 years by primary species hunted.

Q30. Would you say your hunting participation in (STATE) has increased, stayed the same, or decreased over the past 5 years?

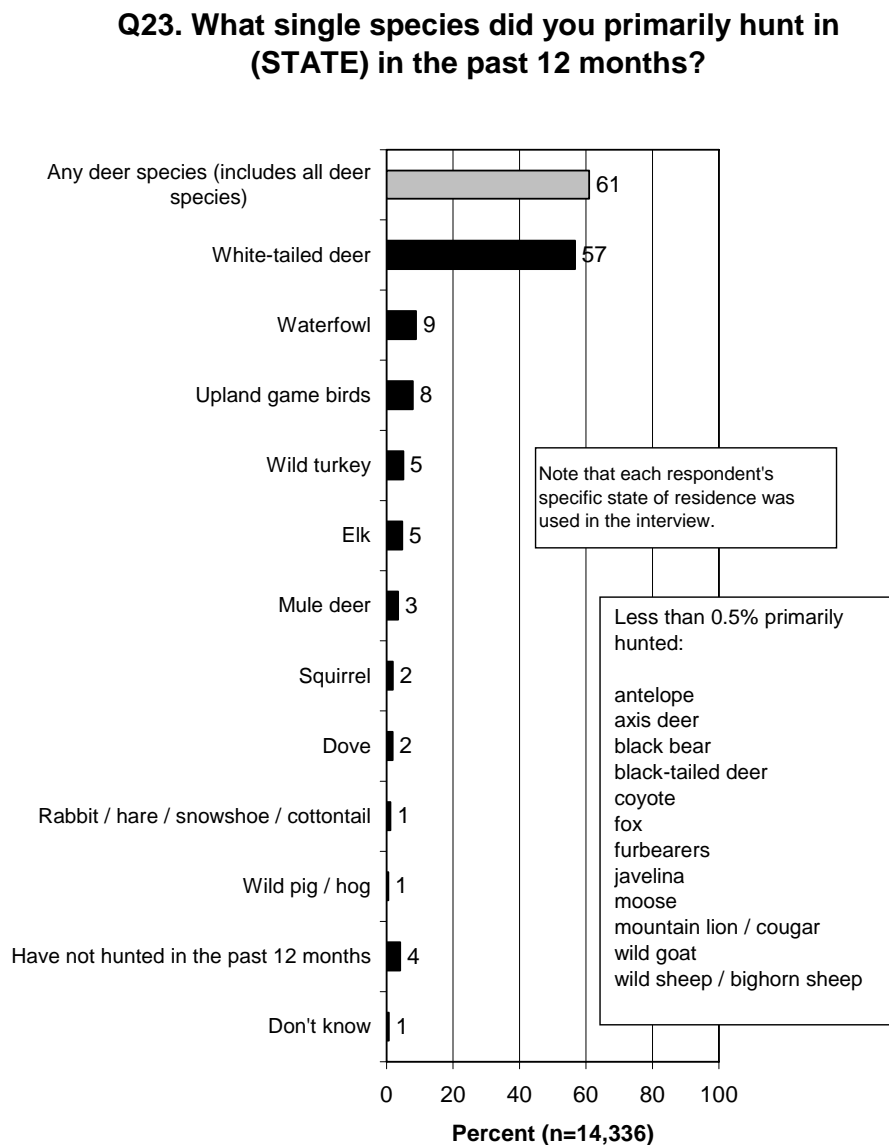


SPECIES PRIMARILY HUNTED

- **The most commonly hunted primary species is white-tailed deer, distantly followed by waterfowl, upland game birds, wild turkey, and elk.**

The majority of licensed hunters nationwide primarily hunted white-tailed deer (57%) in the past 12 months, distantly followed in popularity by waterfowl (9%), upland game birds (8%), wild turkey (5%), and elk (5%) (Figure 2.3). Note that respondents were asked to name the *single* species they *primarily* hunted, not all species they hunted. When considering any type of deer (white-tailed, mule, black-tailed, and axis), 61% primarily hunted some type of deer, consisting of the sum of the following: 57% hunted white-tailed deer, 3% hunted mule deer, less than 1% hunted black-tailed deer, and less than 1% hunted axis deer.

Figure 2.3. Species primarily hunted.



There was some state-by-state variation in the results, as shown in Figure 2.4. In general, white-tailed deer is the top choice in the eastern part of the U.S., while elk and mule deer are most popular in the western part of the U.S. Figure 2.5 shows the state-by-state results in the percentage of hunters who hunt any deer.

Figure 2.4. Map of most common species hunted by state.

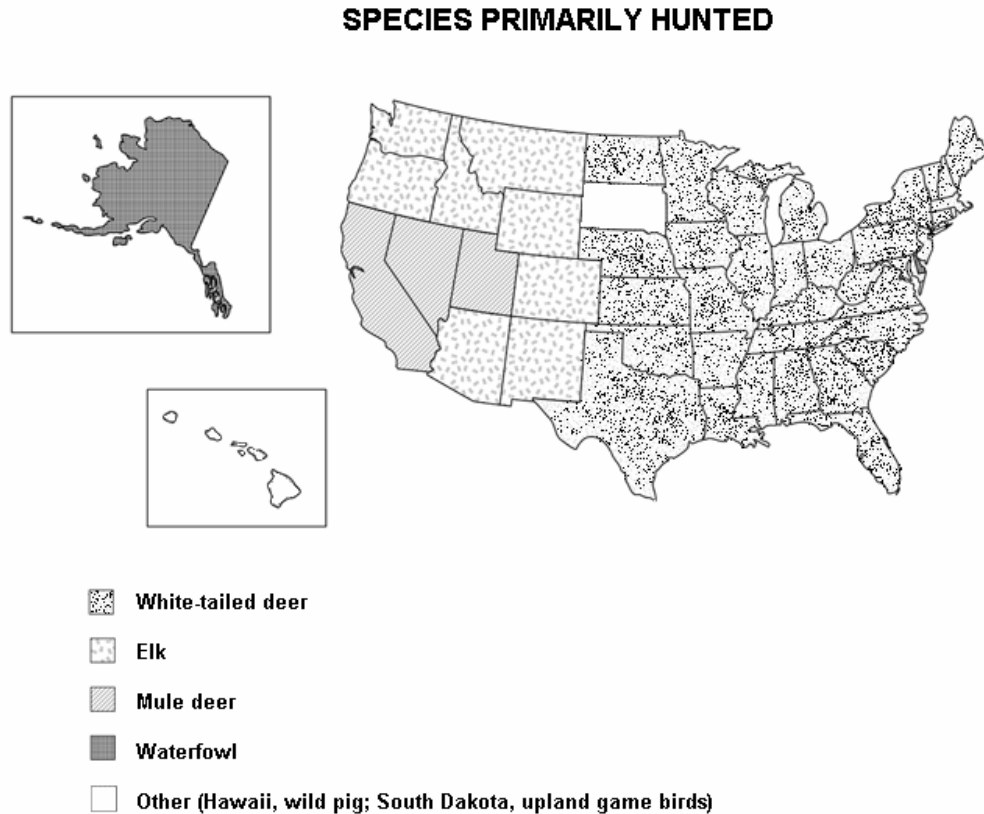
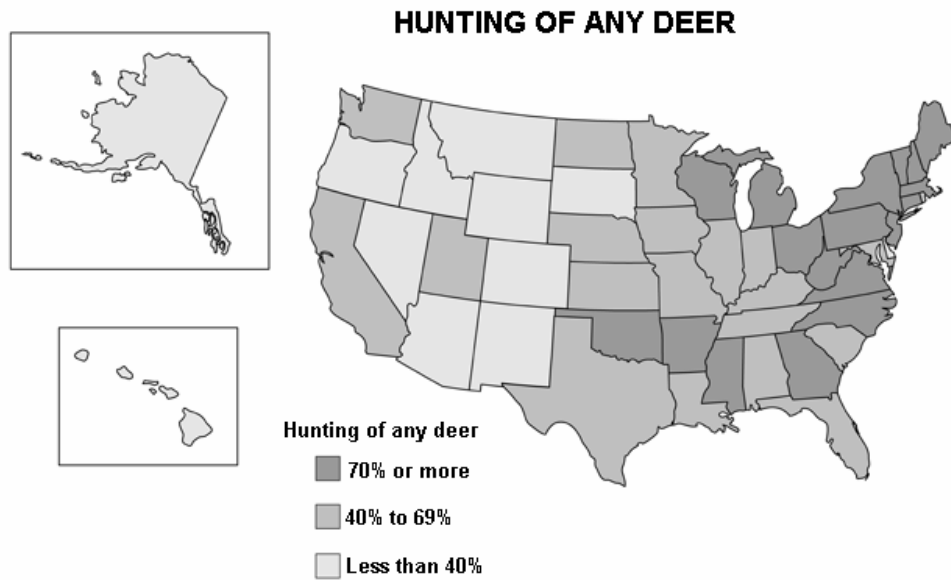


Figure 2.5. Map of percentage of hunters hunting deer by state.



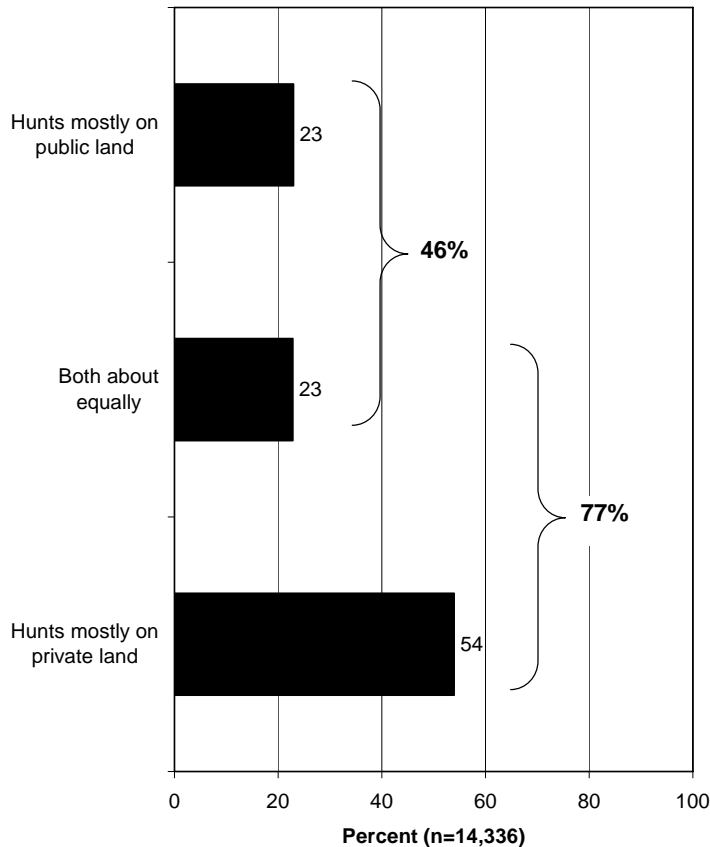
LOCATIONS OF HUNTING ACTIVITIES

- **Hunting on private versus public land varies regionally as well as by species hunted. However, in general, hunters nationwide more often hunt their primary species on private land than public land.**

According to the U.S. Fish and Wildlife Service, 82% of hunters hunted on privately owned land, more than double the percentage of hunters who hunted on public lands (39%) (note that results sum to more than 100% because some hunters hunted on both types of land), and while over half (58%) hunted private lands *exclusively*, only 15% of hunters hunted public land *exclusively* (USFWS/US Census, 2007). Similar results were found in this study: 77% of all hunters hunt their primary species on private land at least half the time, compared to 46% who hunt on public land at least half the time (Figure 2.6). Likewise, 54% hunt mostly on private land, compared to only 23% who hunt mostly on public land. Note that the U.S. Fish and Wildlife Service survey asks questions about all hunting, while this survey only asks questions regarding hunting of the respondent's primary species.

Figure 2.6. Use of public/private land for hunting.

Q58. For (SPECIES) hunting, would you say you hunt mostly on public land, mostly on private land, or on both about equally in (STATE)?



The results vary regionally and from state to state. In general, hunters who live in the Mountain and Pacific regions are more likely to hunt mostly on public lands, while hunters in other regions are more likely to hunt mostly on private lands (Figure 2.7). Figures 2.8 and 2.9 show maps of state-by-state results in hunting on public versus private land.

Figure 2.7. Crosstabulation of use of public/private land for hunting by region of residence.

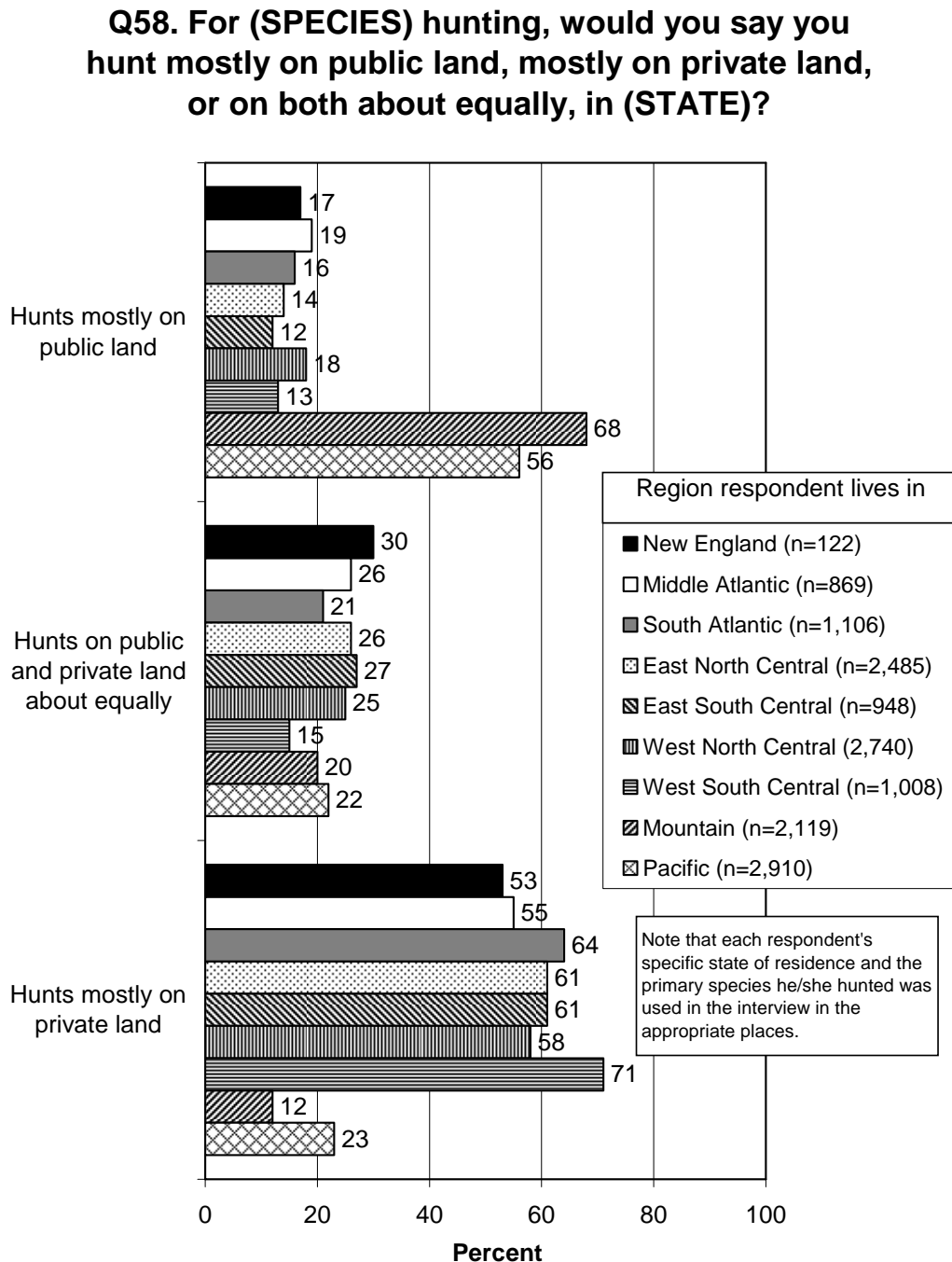


Figure 2.8. Map of use of public/private land for hunting by state.

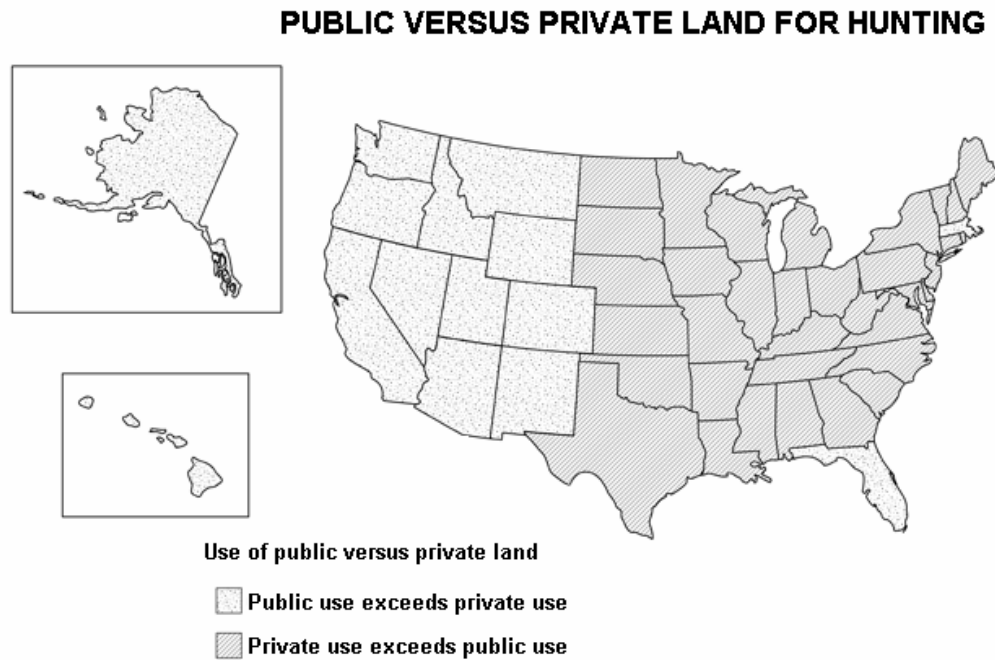
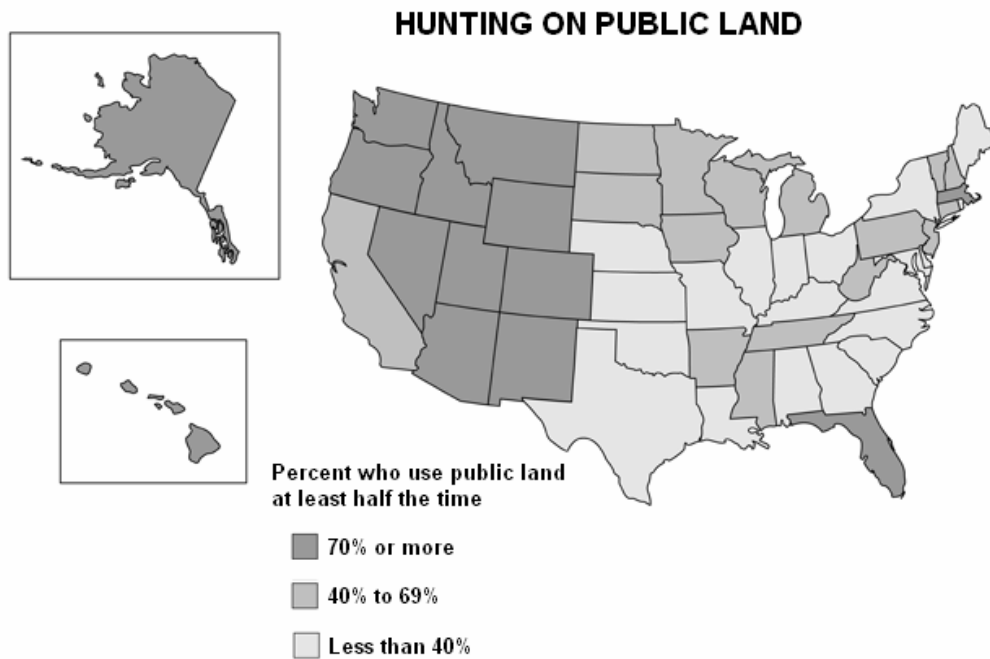
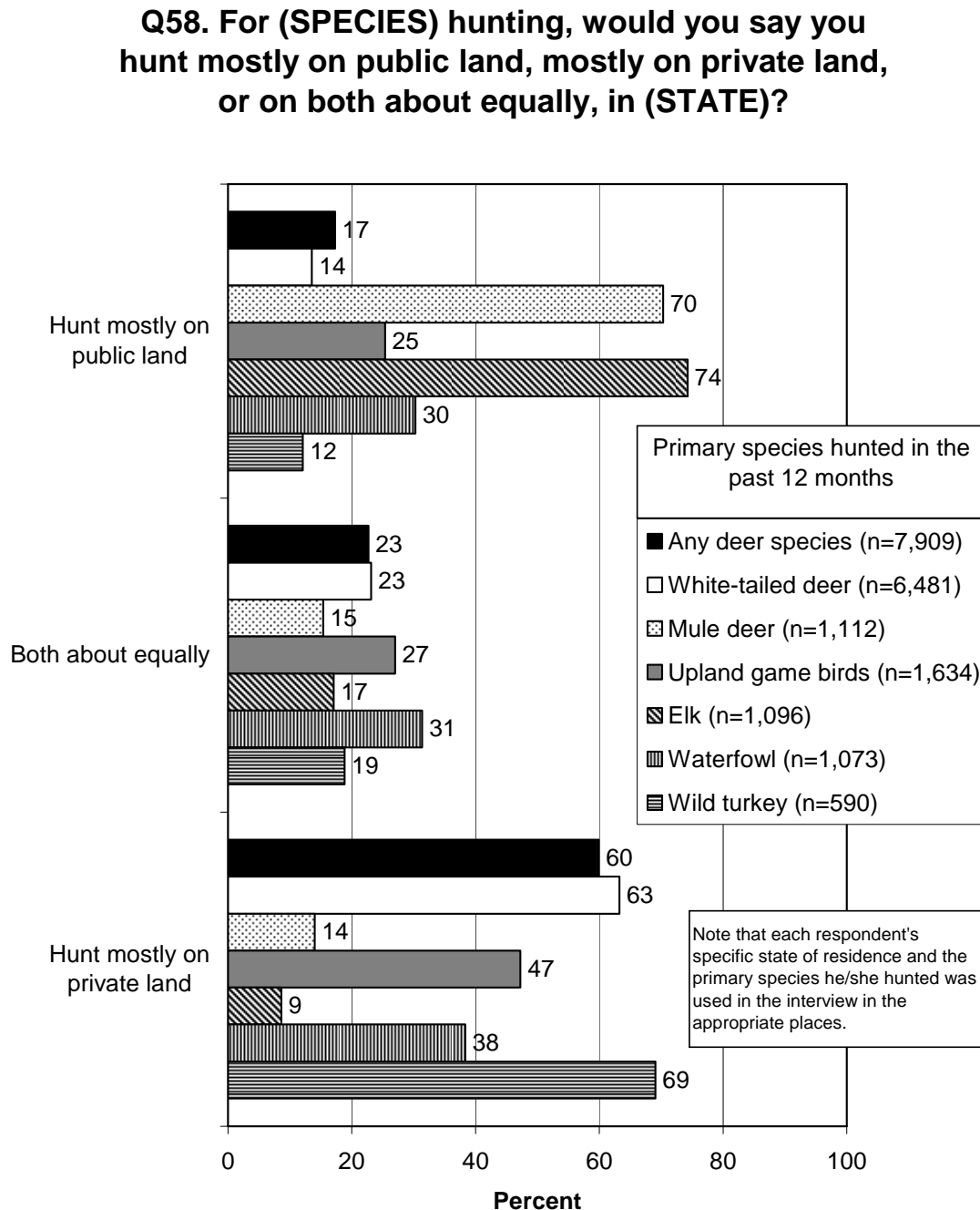


Figure 2.9. Map of level of use of public land for hunting by state.



As Figure 2.10 illustrates, among hunters of the six most commonly hunted primary species, elk and mule deer hunters have the greatest propensity to hunt mostly on public land ($p \leq 0.001$). On the other hand, those with the greatest propensity to hunt mostly on private land are white-tailed deer and wild turkey hunters ($p \leq 0.001$).

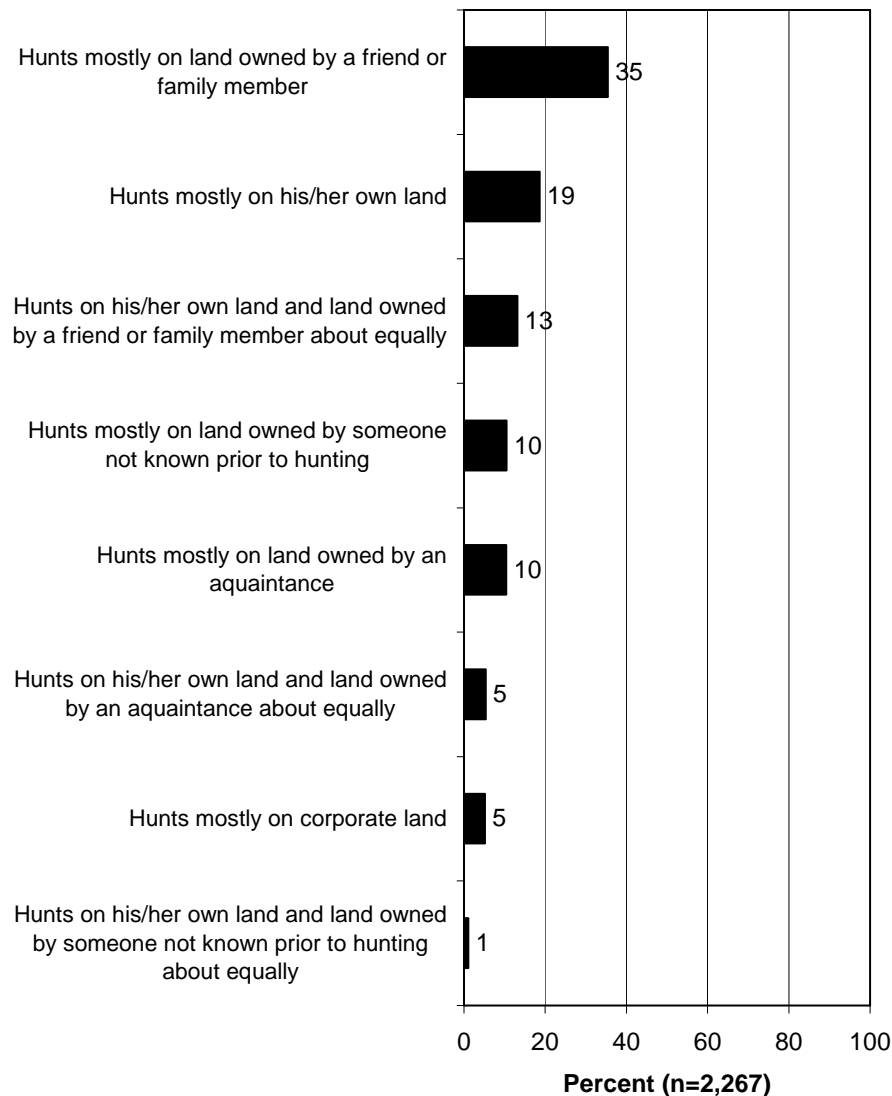
Figure 2.10. Crosstabulation of hunting on public/private land by primary species hunted.



Two questions asked those who hunt their primary species at least half the time on private land about the ownership of that land. Most commonly, private land hunters indicate that they hunt mostly on land owned by someone else (60%), including friends or family members, acquaintances, strangers, or corporations. In looking at the results of the two questions together, hunters most commonly indicate that they hunt mostly on land owned by a friend or family member (35%) or on their own land (19%) (Figure 2.11).

Figure 2.11. Private land most often hunted.

Q78/79. Hunts mostly on... (Among those who hunted their primary species at least half the time on private lands.)



Note: "Don't know" responses were removed.

- **The majority of hunters hunt on the same land each year, whether they hunt public or private land.**

Hunters more commonly say that they hunt their primary species mostly on the same land each year (66%) than say that they hunt it mostly on different lands each year (9%). In a crosstabulation of hunting on public/private lands and hunting on the same/different lands, the sample could be divided into 9 groups (Table 2.1), with the largest portion being those who primarily hunt on private/same land (42.6%), followed by public/same land (13.3%). For readability, the data presented Table 2.1 are also shown in Figure 2.12, with the size of the bars representing their proportion of the whole sample.

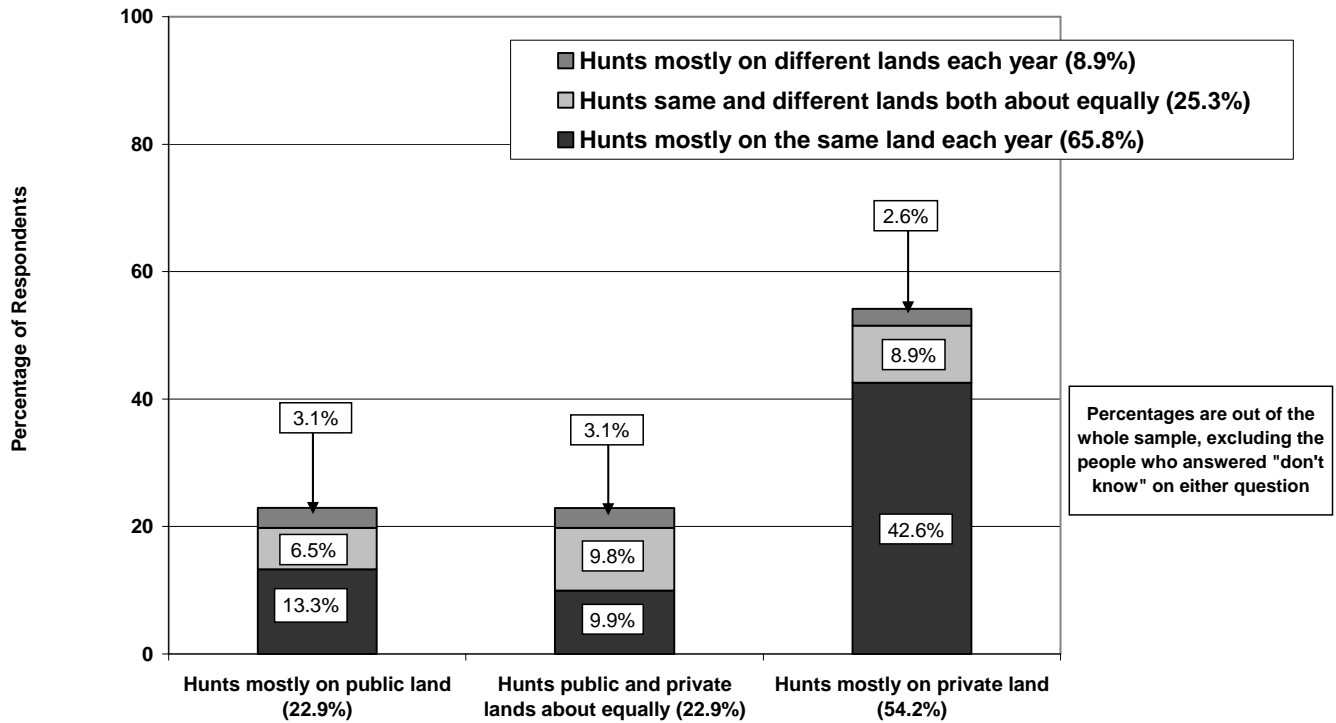
Table 2.1. Percentage of hunters hunting on public/private lands and hunting on the same/different lands.

	Hunts mostly on <i>public</i> land (22.9%)	Hunts public and private lands both about <i>equally</i> (22.9%)	Hunts mostly on <i>private</i> land (54.2%)
Hunts mostly on <i>different</i> lands each year (8.9%)	Public/Different 3.1%	Both/Different 3.1%	Private/Different 2.6%
Hunts same and different lands both about <i>equally</i> (25.3%)	Public/Both 6.5%	Both/Both 9.8%	Private/Both 8.9%
Hunts mostly on the <i>same</i> land each year (65.8%)	Public/Same 13.3%	Both/Same 9.9%	Private/Same 42.6%

Note. For this analysis, those who answered “don’t know” on either question were excluded.

Figure 2.12. Crosstabulation of hunting on public/private lands by hunting on the same/different lands.

Q57/58. Hunting on public versus private lands and hunting on same versus different lands.



- **The majority of hunters stay fairly close to home to hunt, and car/truck or walking are the top modes of transportation hunters use to access the land on which they hunt.**

The majority of hunters stay within 50 miles of home to hunt. Specifically, 62% of hunters typically travel no more than 50 miles from home to hunt their primary species, and 40% travel 20 miles or less to hunt. Nonetheless, about a fifth typically travel more than 100 miles (Figure 2.13). The median travel distance is 30 miles. Note, however, that there is much state-by-state variation (Table 2.2).

Figure 2.13. Distance typically traveled to hunt.

Q85. How far do you usually travel from home, one way, in miles, to hunt in (STATE)?

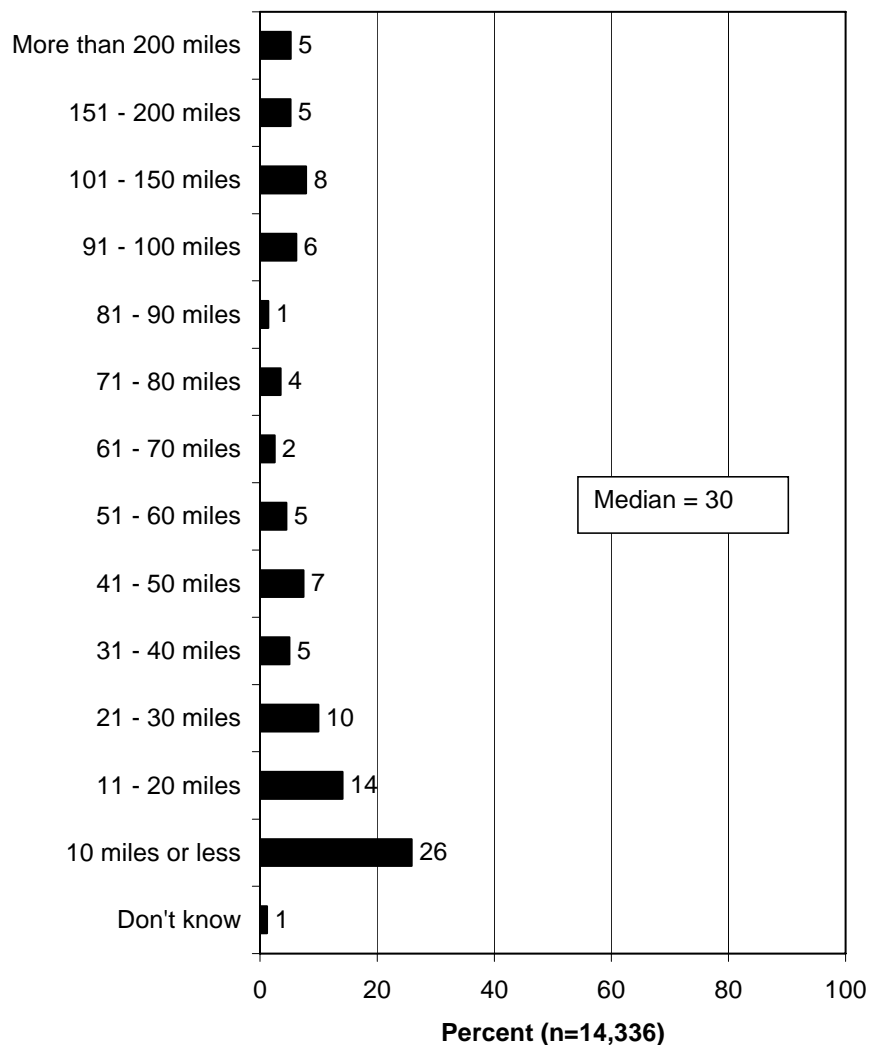


Table 2.2. Percentage of hunters traveling varying distances to hunt their primary species in their state.

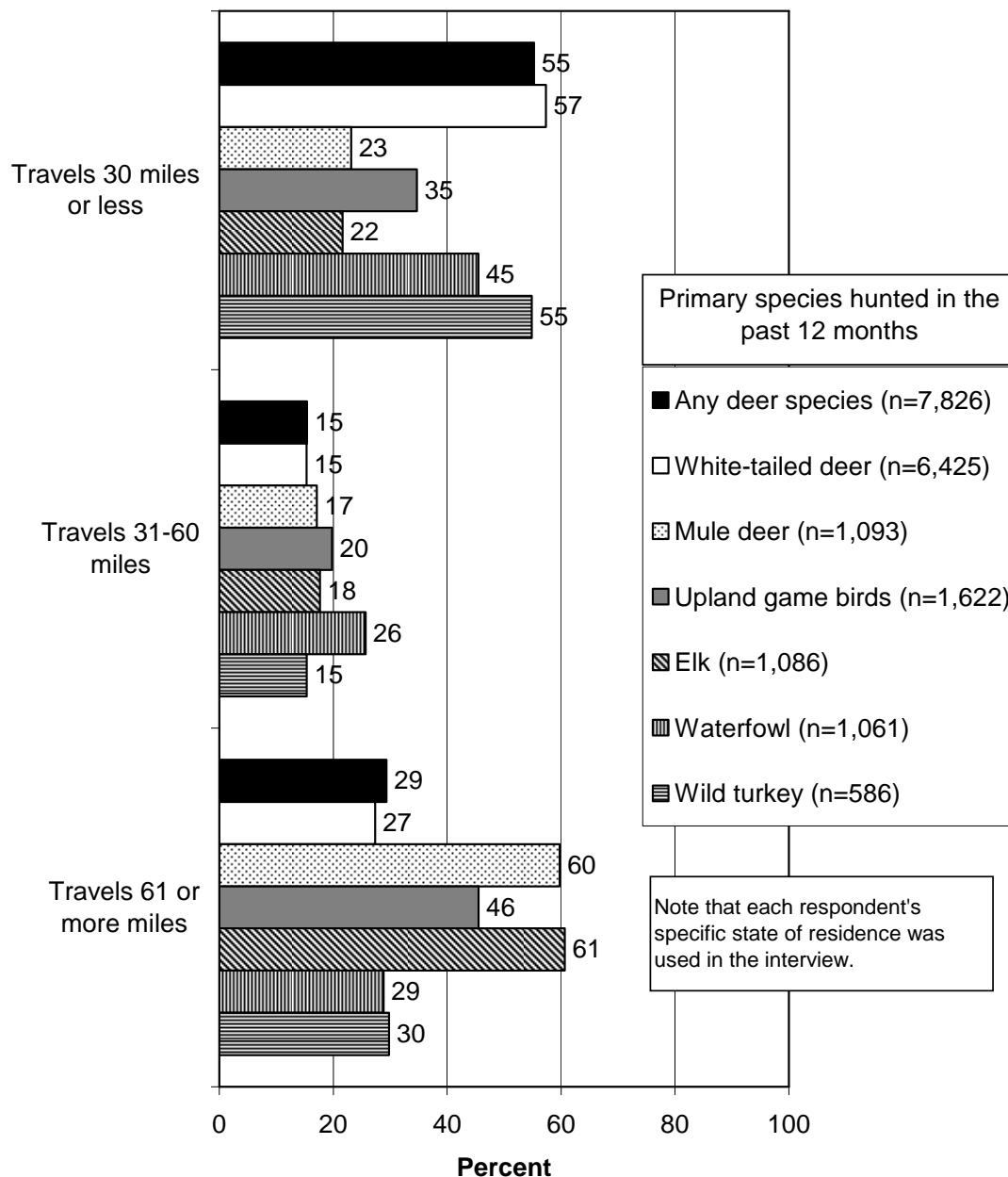
State	Percent who travel 30 miles or less	Percent who travel 31 to 60 miles	Percent who travel more than 60 miles
Alabama	46	24	30
Alaska	56	11	33
Arizona	18	20	62
Arkansas	59	21	19
California	24	22	54
Colorado	18	7	75
Connecticut	94	6	0
Delaware	75	25	0
Florida	50	23	28
Georgia	56	21	23
Hawaii	54	26	20
Idaho	30	21	49
Illinois	60	22	17
Indiana	36	18	45
Iowa	65	20	15
Kansas	62	15	24
Kentucky	58	23	20
Louisiana	48	27	25
Maine	72	6	22
Maryland	50	25	25
Massachusetts	93	7	0
Michigan	54	16	30
Minnesota	40	13	47
Mississippi	62	21	17
Missouri	66	16	18
Montana	28	15	58
Nebraska	60	16	24
Nevada	11	14	75
New Hampshire	91	9	0
New Jersey	62	21	17
New Mexico	12	16	72
New York	84	3	13
North Carolina	61	15	24
North Dakota	36	18	45
Ohio	65	14	21
Oklahoma	40	19	40
Oregon	26	21	53
Pennsylvania	63	14	23
Rhode Island	90	10	0
South Carolina	62	26	13
South Dakota	49	15	36

State	Percent who travel 30 miles or less	Percent who travel 31 to 60 miles	Percent who travel more than 60 miles
Tennessee	42	33	25
Texas	28	13	59
Utah	30	19	52
Vermont	88	12	0
Virginia	65	20	15
Washington	33	20	47
West Virginia	65	21	14
Wisconsin	55	13	32
Wyoming	31	22	47

There is variation in the distance traveled based on whether hunters hunt mostly on public lands or private lands. In general, hunters hunting mostly on private lands are more likely to stay closer to home than those hunting mostly on public lands ($p \leq 0.001$) (Figure 2.14).

Figure 2.14. Crosstabulation of distance traveled by hunting on private/public lands.

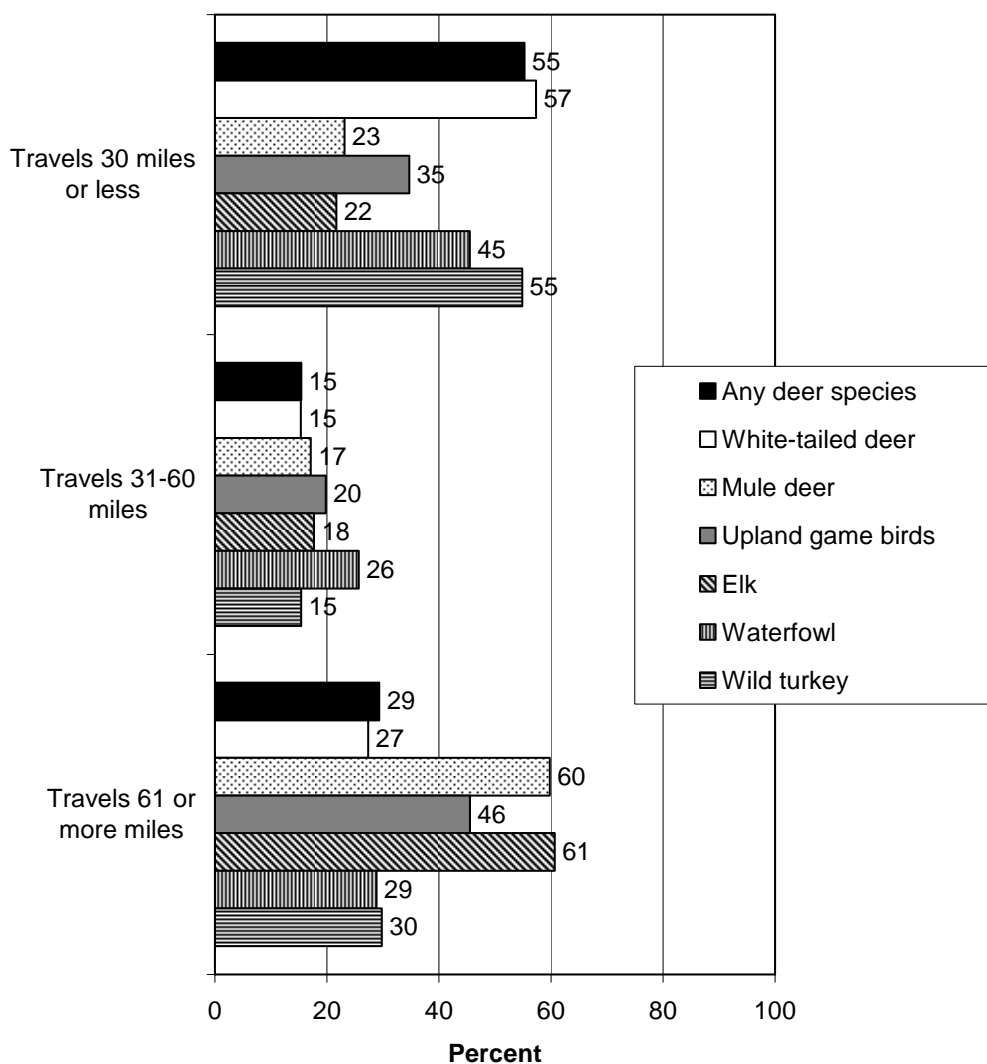
Q85. How far do you usually travel from home, one way, in miles, to hunt in (STATE)?



There is also variation in typical travel distance based on species hunted (Figure 2.15). In general, elk and mule deer hunters travel farther to hunt when compared to hunters of other species ($p \leq 0.001$).

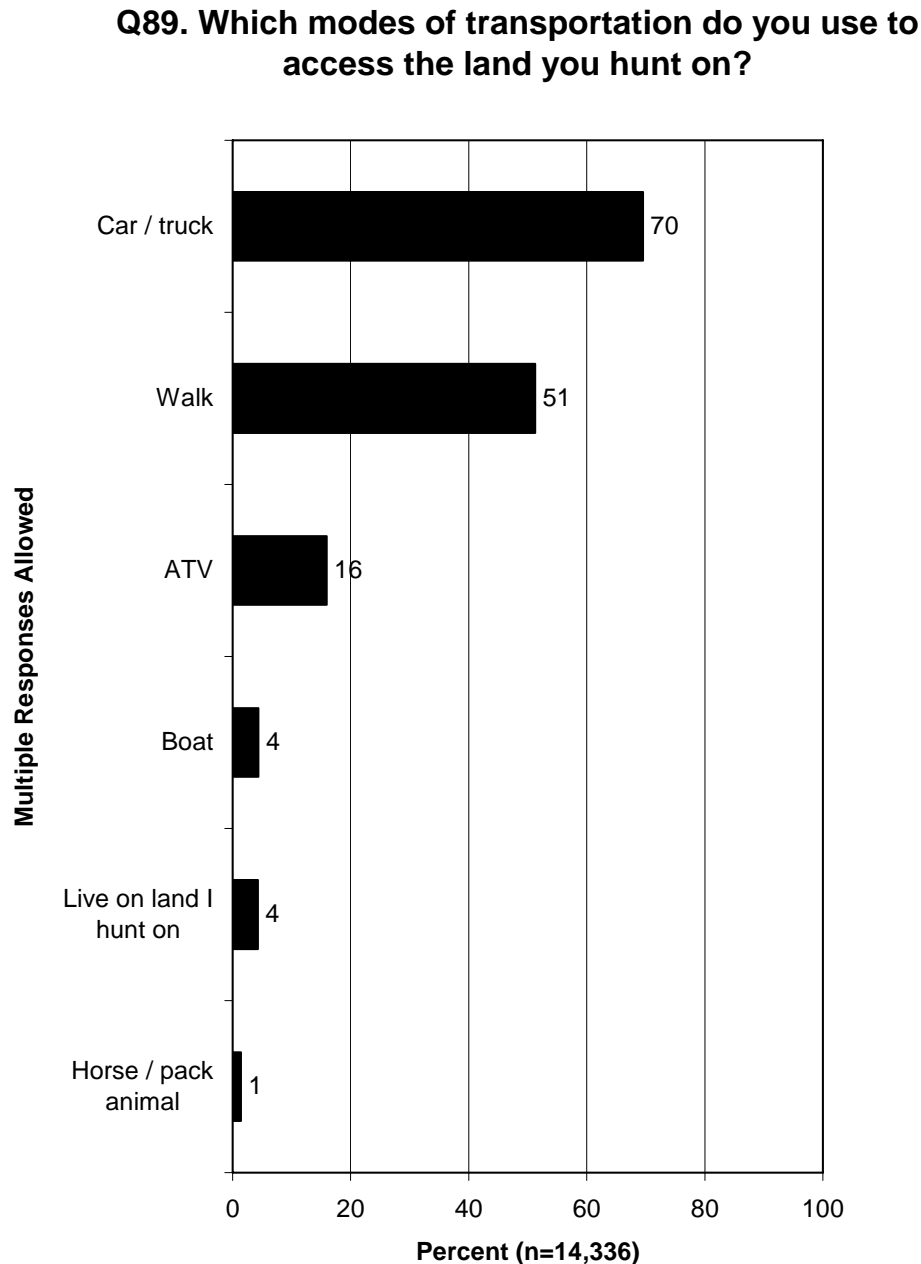
Figure 2.15. Crosstabulation of distance traveled by primary species hunted.

Q85. How far do you usually travel from home, one way, in miles, to hunt in (STATE)?



Data show that hunters use many different modes of transportation to access the land on which they hunt: 70% use a car or truck (by far the top mode of transportation), followed by walking (51%) and ATV (16%) (Figure 2.16). Note that hunters could name more than one mode of transportation.

Figure 2.16. Mode of transportation.



TOP CONSIDERATIONS IN A HUNTER'S DECISION WHETHER TO HUNT A GIVEN AREA

➤ **Crowding is considered one of the most important issues affecting choices regarding which land to hunt.**

Studies conducted to determine the relationship between hunter density and hunting satisfaction have been mixed. For example, while increased hunter densities resulted in dissatisfaction for Colorado deer hunters (Miller, Prato, & Young, 1977), higher hunter densities did not negatively impact Maryland deer hunters' satisfaction with their hunting experiences (Kennedy, 1974). A study conducted by Heberlein and Keuntzel (2002) suggests that doe hunting satisfaction increased while buck hunting satisfaction decreased with increases in hunter density. The higher hunter density was associated with improved odds of success (seeing, shooting, and bagging more deer) for doe hunters, but not for buck hunters. According to more recent research, crowding does not appear to be as important a factor as others in the decline in hunting participation or in hunting cessation. In fact, only 1% of hunters said crowding had caused a decline in their participation or prevented them from hunting in recent years. Similarly, less than 1% of inactive hunters named crowding as a reason why they had not hunted in recent years (Responsive Management/NSSF, 2008a).

Nonetheless, despite the data showing that hunters rarely cite crowding as a reason for their decrease in hunting participation, crowding does appear to influence hunters' decisions in choosing lands on which to hunt. When hunters were asked about the importance of 11 factors in their decisions regarding where to hunt their primary species, a single factor stands out markedly more important than the rest in the ranking by the percentage saying the factor is *very* important: that the land is not crowded with other sportsmen (82% say this is *very* important). This is followed by a middle tier: that they are familiar with the land (58%), that the land is easy to access by foot (51%), and that the land is owned by somebody they personally know (47%). Of interest in these findings is that the land being private (43%) ranks above the land being public (29%) (Figure 2.17).

Figures 2.18 through Figure 2.26 show results of the percent of hunters who indicated that these 11 considerations are very important when deciding where to hunt their primary species in their state by region.

Figures 2.27 through Figure 2.33 show results of the percent of hunters who indicated that these 11 considerations are very important when deciding where to hunt their primary species in their state by primary species hunted.

Figures 2.34 through Figure 2.35 show the results of the percent of hunters who indicated that these 11 considerations are very important when deciding where to hunt their primary species in their state by whether the respondent hunts mostly on public lands or mostly on private lands.

Figure 2.17. Factors that are very important in choosing lands on which to hunt.

Percent who indicated that the following are very important when deciding where to hunt (SPECIES) in (STATE).

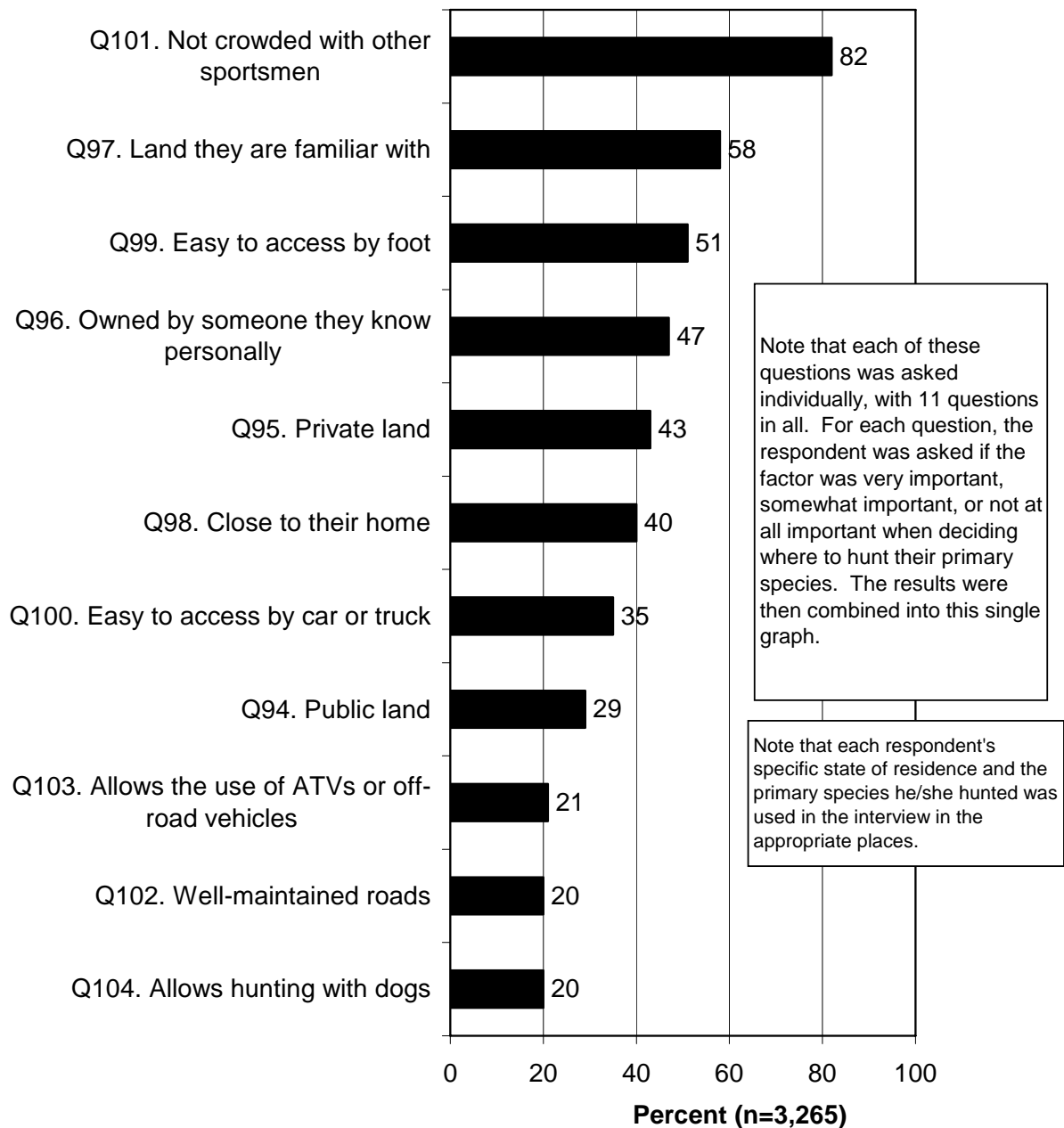


Figure 2.18. Factors that are very important in choosing lands on which to hunt in the New England Region.

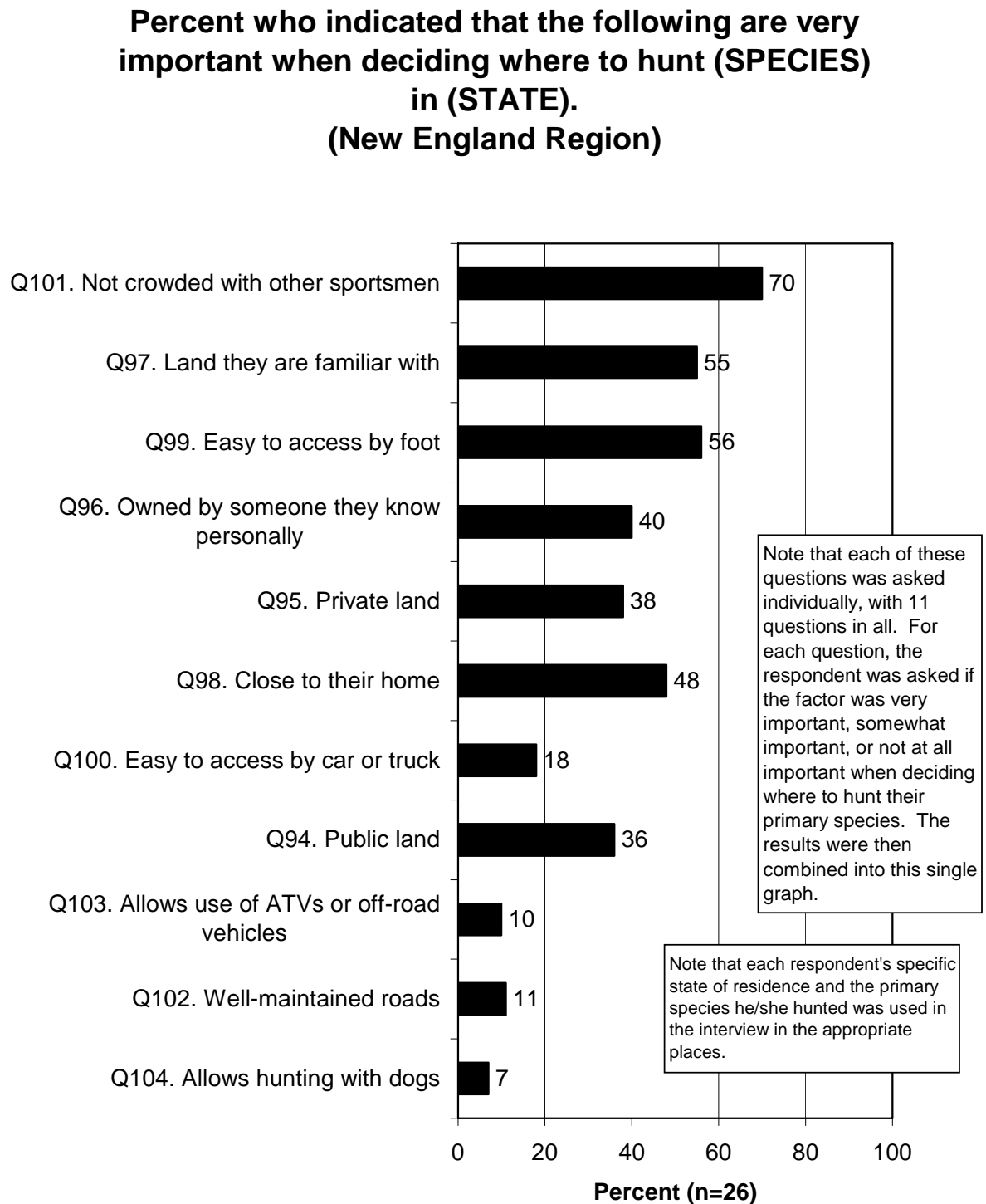


Figure 2.19. Factors that are very important in choosing lands on which to hunt in the Middle Atlantic Region.

**Percent who indicated that the following are very important when deciding where to hunt (SPECIES) in (STATE).
(Middle Atlantic Region)**

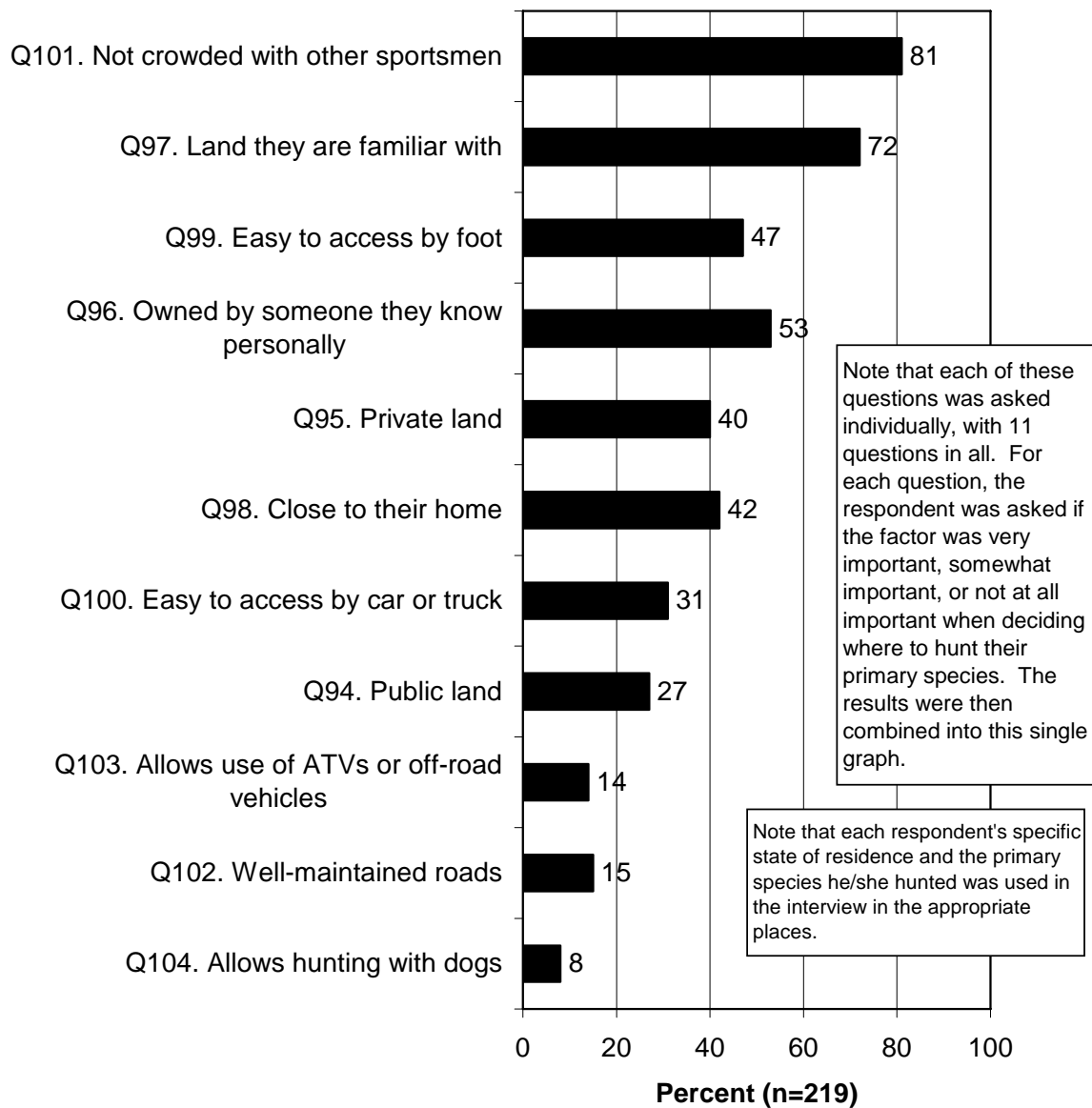


Figure 2.20. Factors that are very important in choosing lands on which to hunt in the South Atlantic Region.

**Percent who indicated that the following are very important when deciding where to hunt (SPECIES) in (STATE).
(South Atlantic Region)**

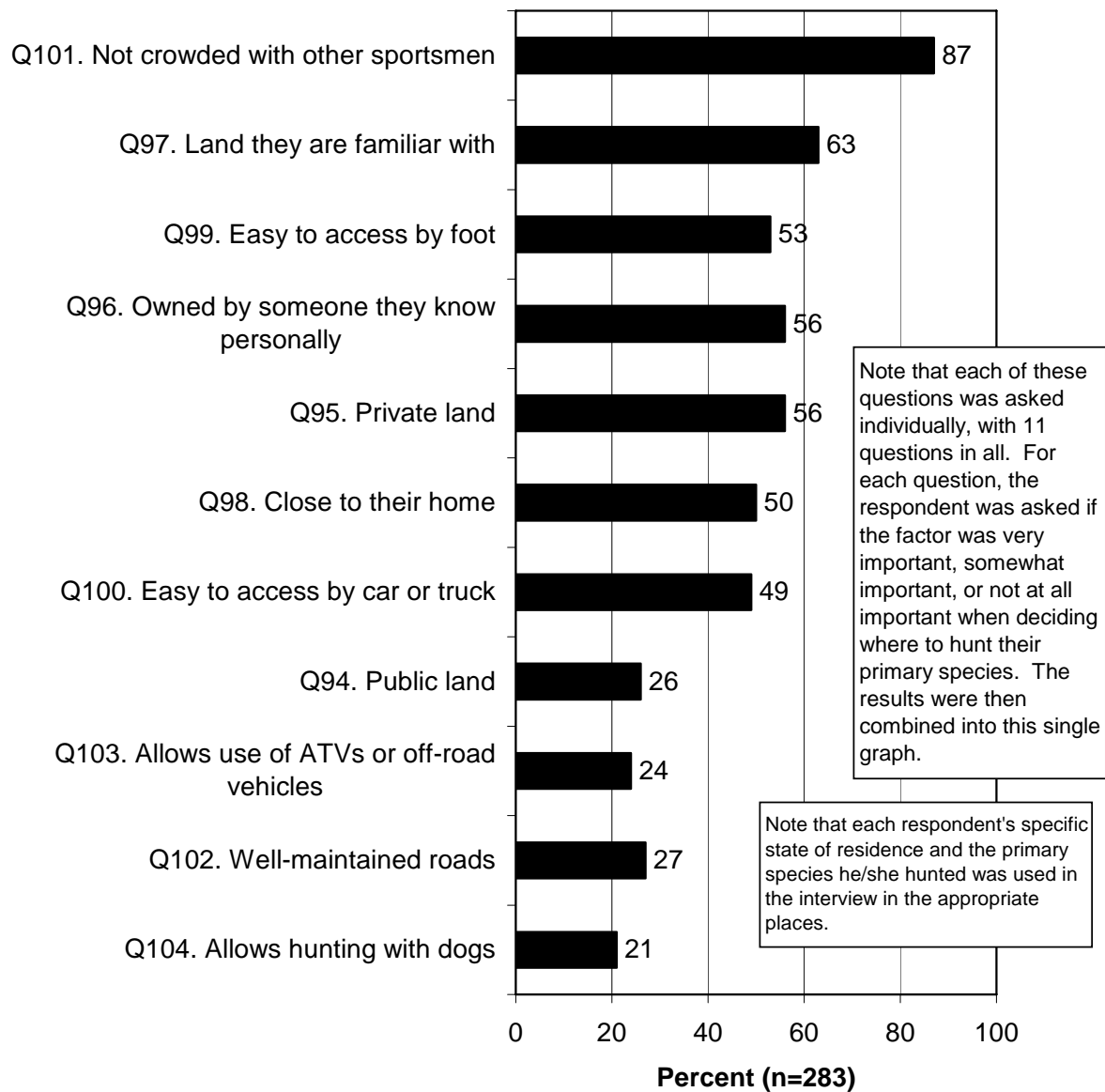


Figure 2.21. Factors that are very important in choosing lands on which to hunt in the East North Central Region.

**Percent who indicated that the following are very important when deciding where to hunt (SPECIES) in (STATE).
(East North Central Region)**

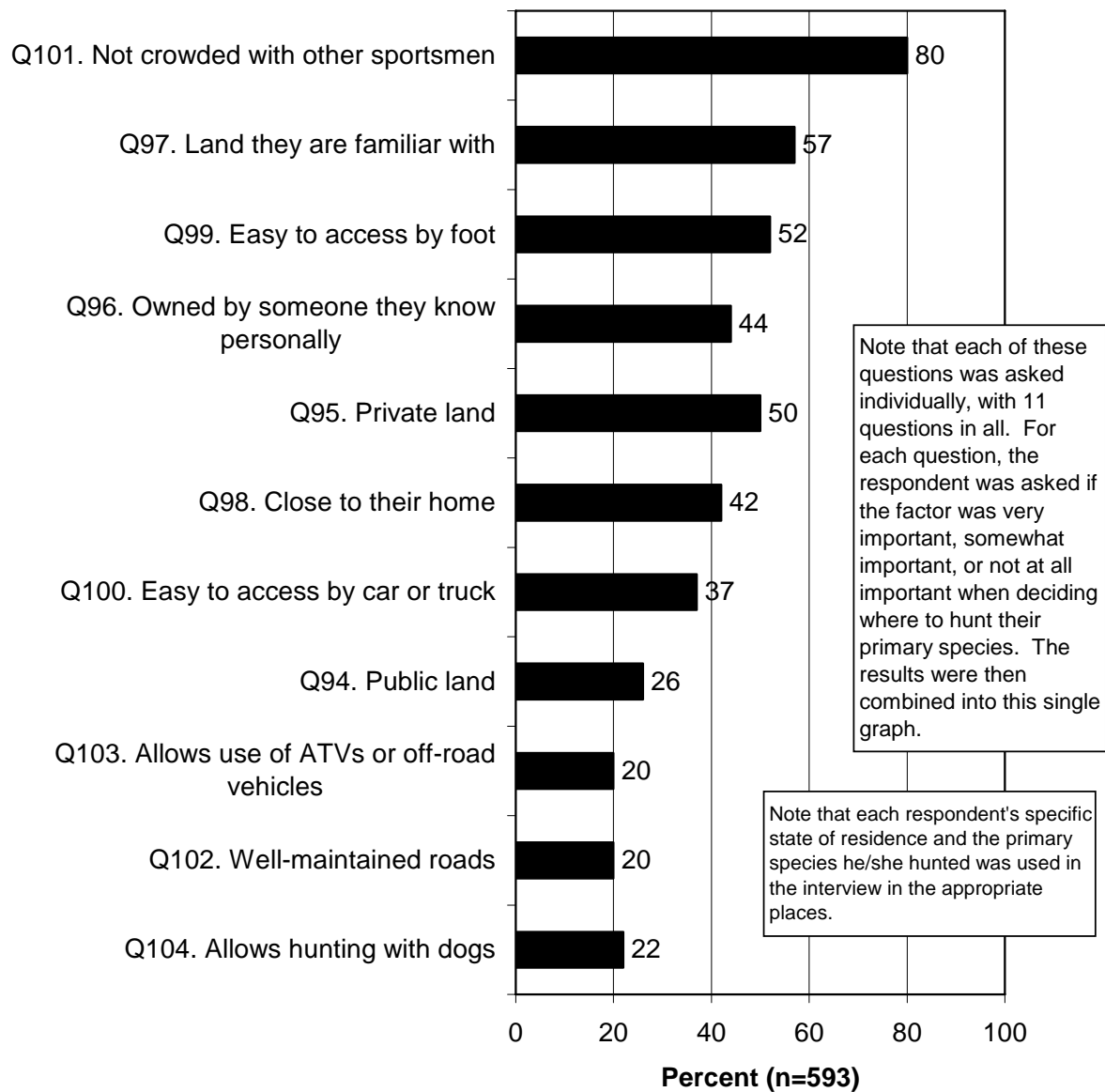


Figure 2.22. Factors that are very important in choosing lands on which to hunt in the East South Central Region.

**Percent who indicated that the following are very important when deciding where to hunt (SPECIES) in (STATE).
(East South Central Region)**

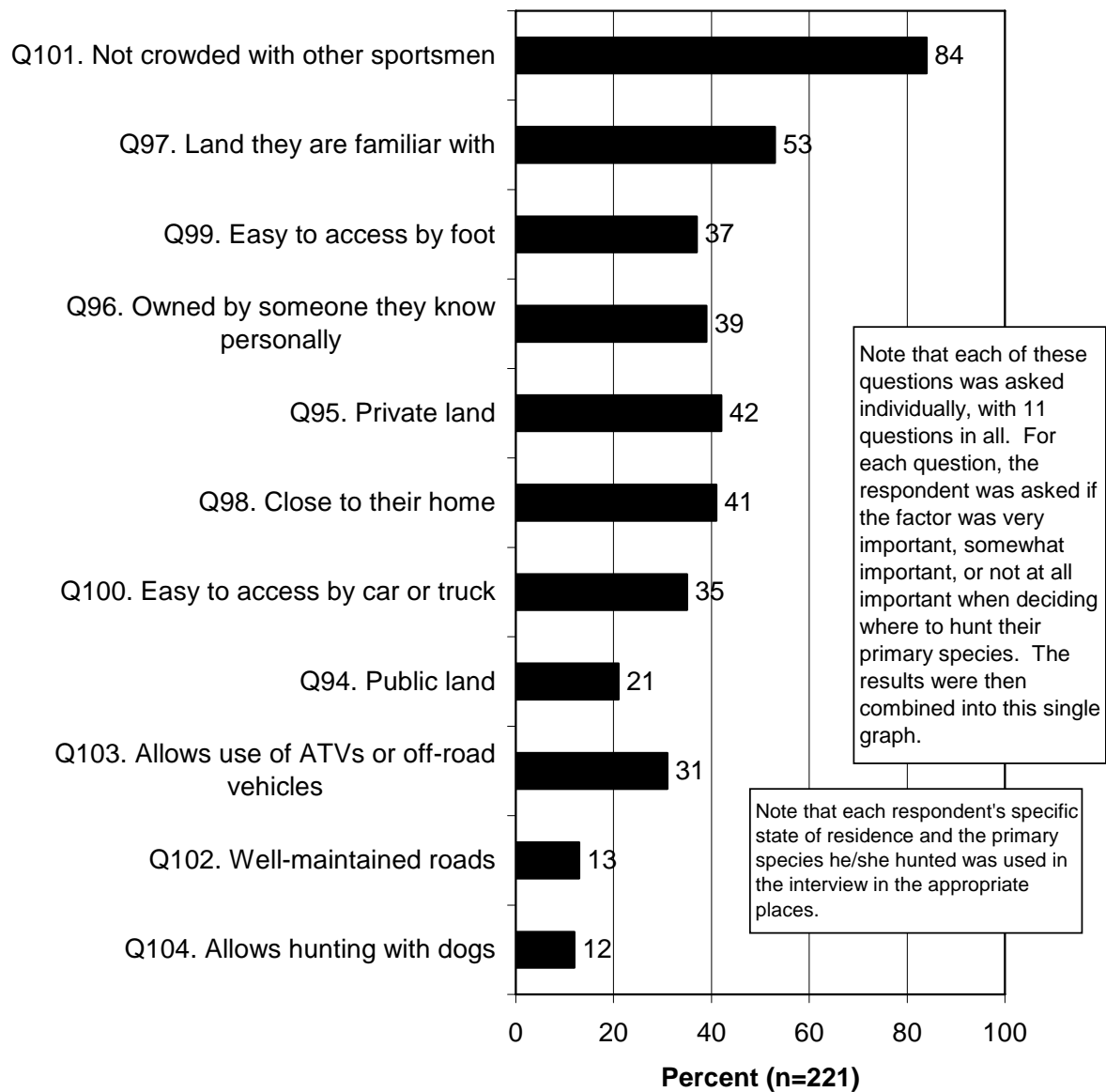


Figure 2.23. Factors that are very important in choosing lands on which to hunt in the West North Central Region.

**Percent who indicated that the following are very important when deciding where to hunt (SPECIES) in (STATE).
(West North Central Region)**

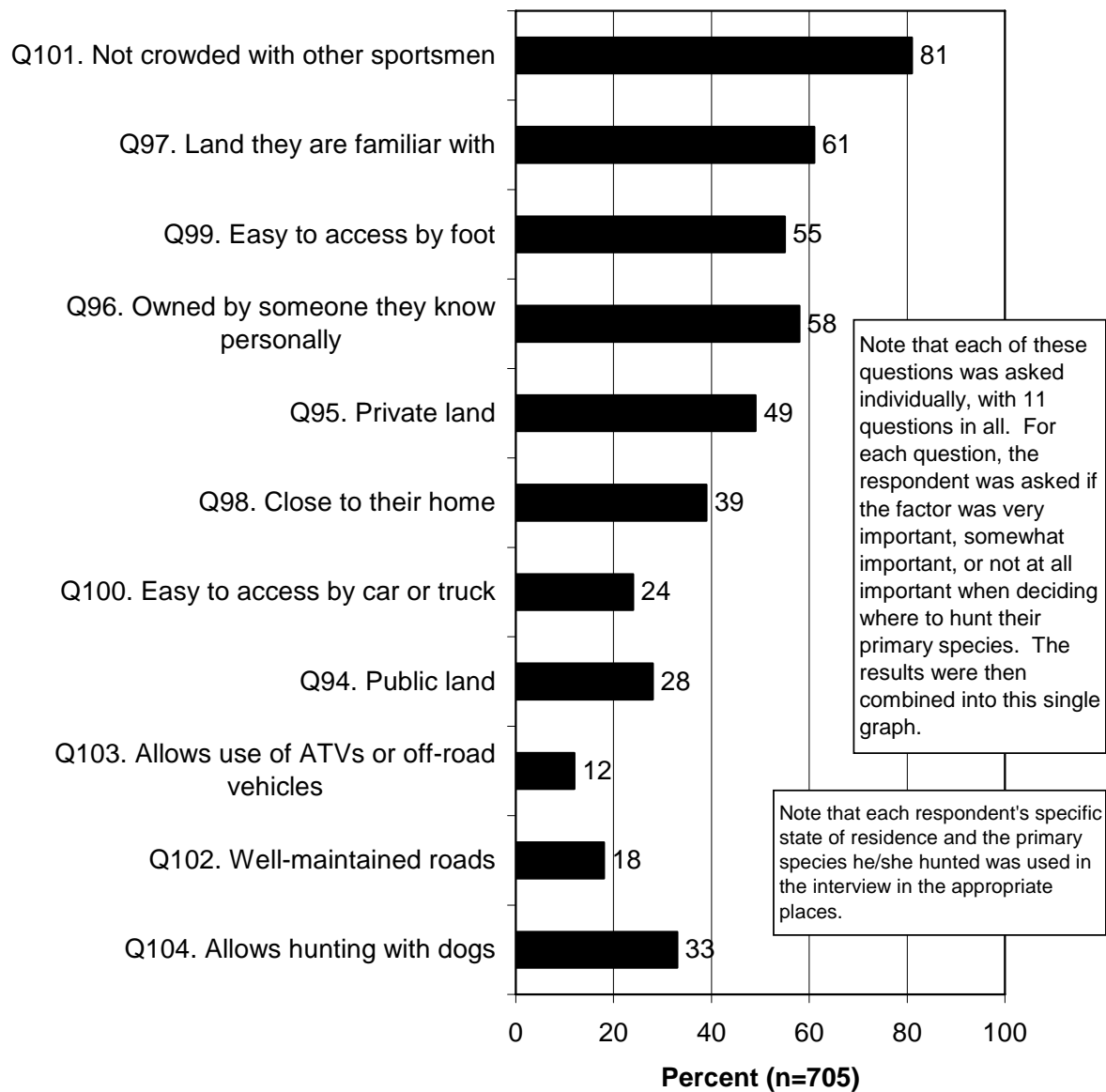


Figure 2.24. Factors that are very important in choosing lands on which to hunt in the West South Central Region.

**Percent who indicated that the following are very important when deciding where to hunt (SPECIES) in (STATE).
(West South Central Region)**

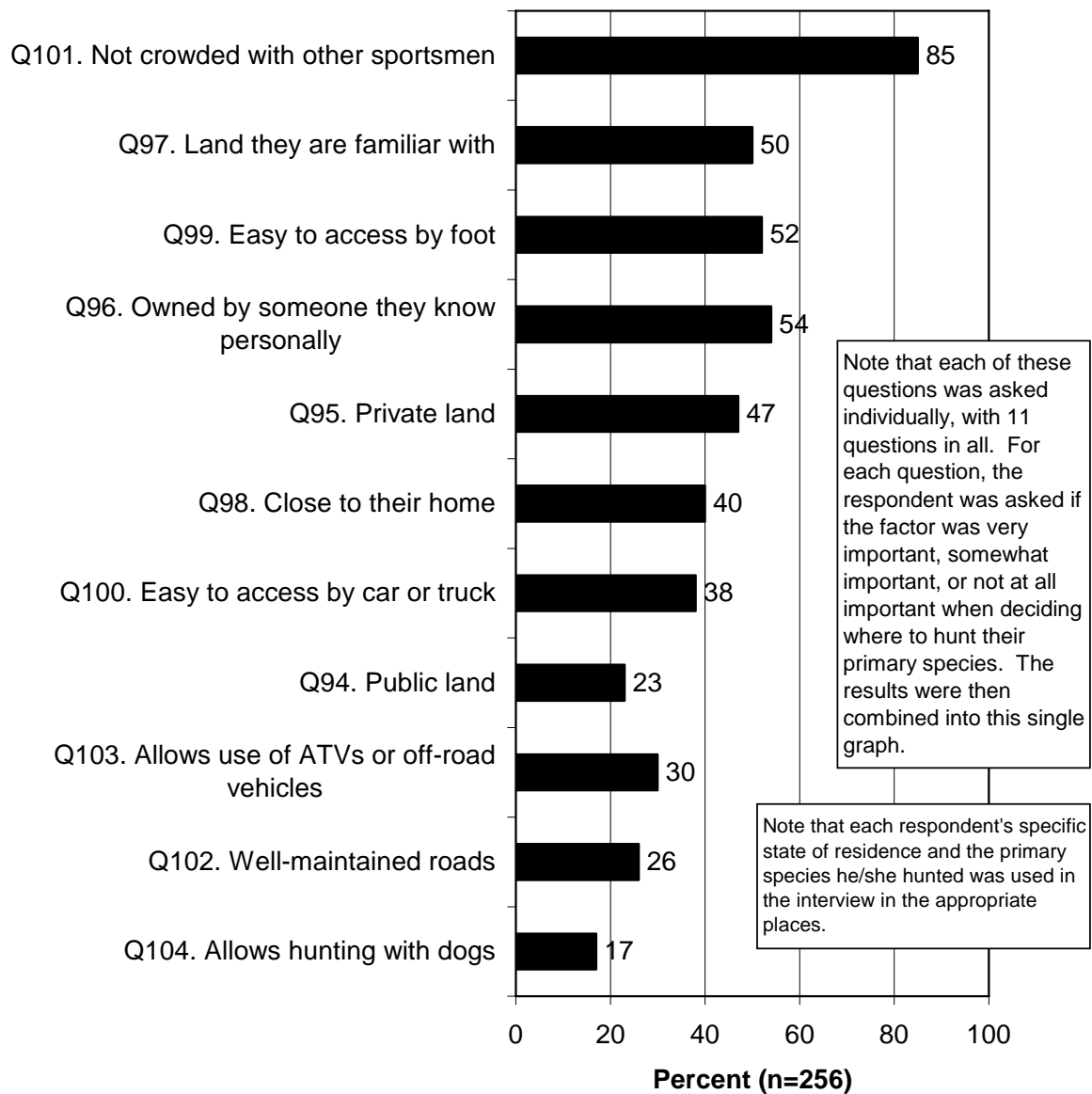


Figure 2.25. Factors that are very important in choosing lands on which to hunt in the Mountain Region.

**Percent who indicated that the following are very important when deciding where to hunt (SPECIES) in (STATE).
(Mountain Region)**

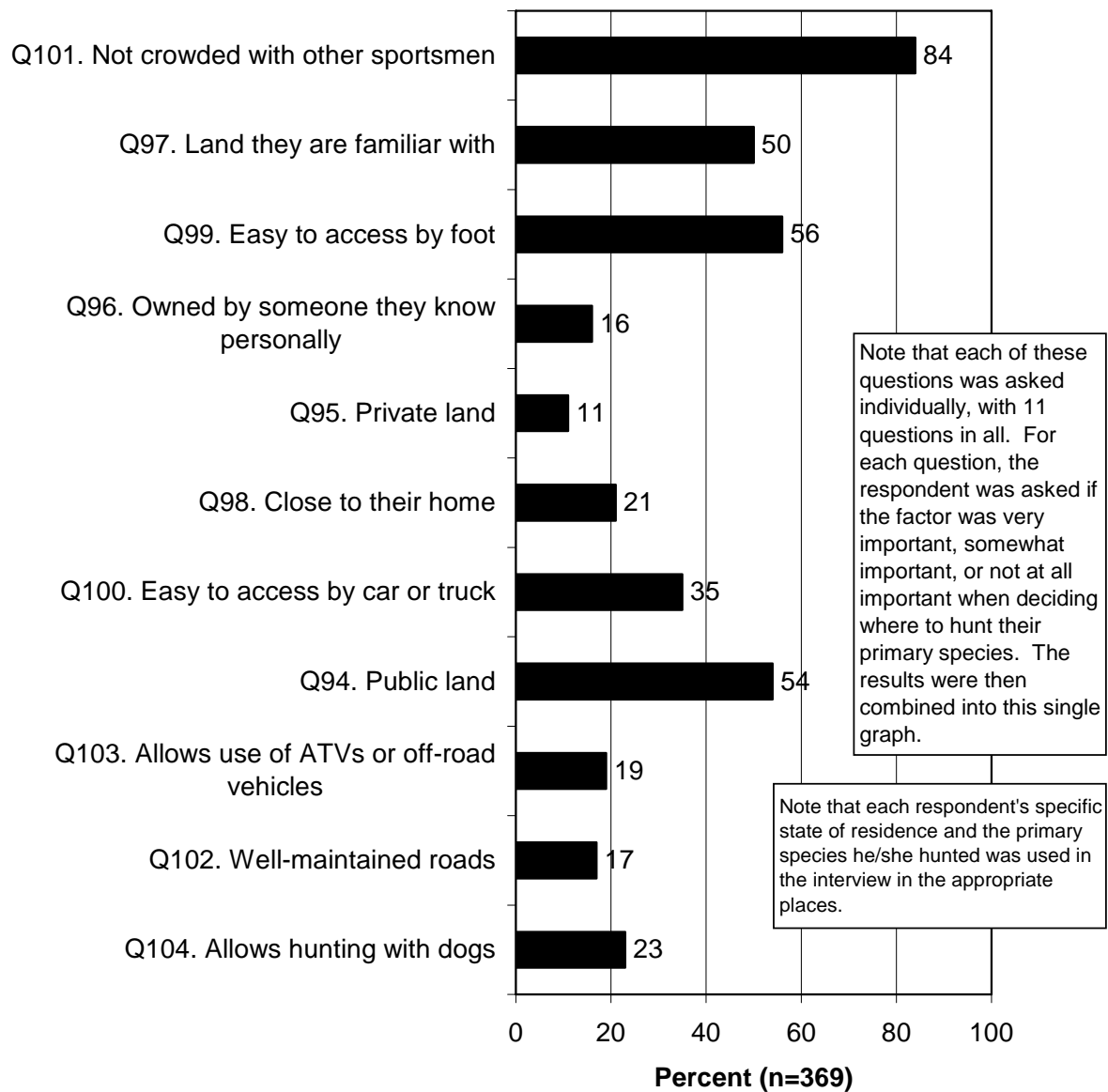


Figure 2.26. Factors that are very important in choosing lands on which to hunt in the Pacific Region.

**Percent who indicated that the following are very important when deciding where to hunt (SPECIES) in (STATE).
(Pacific Region)**

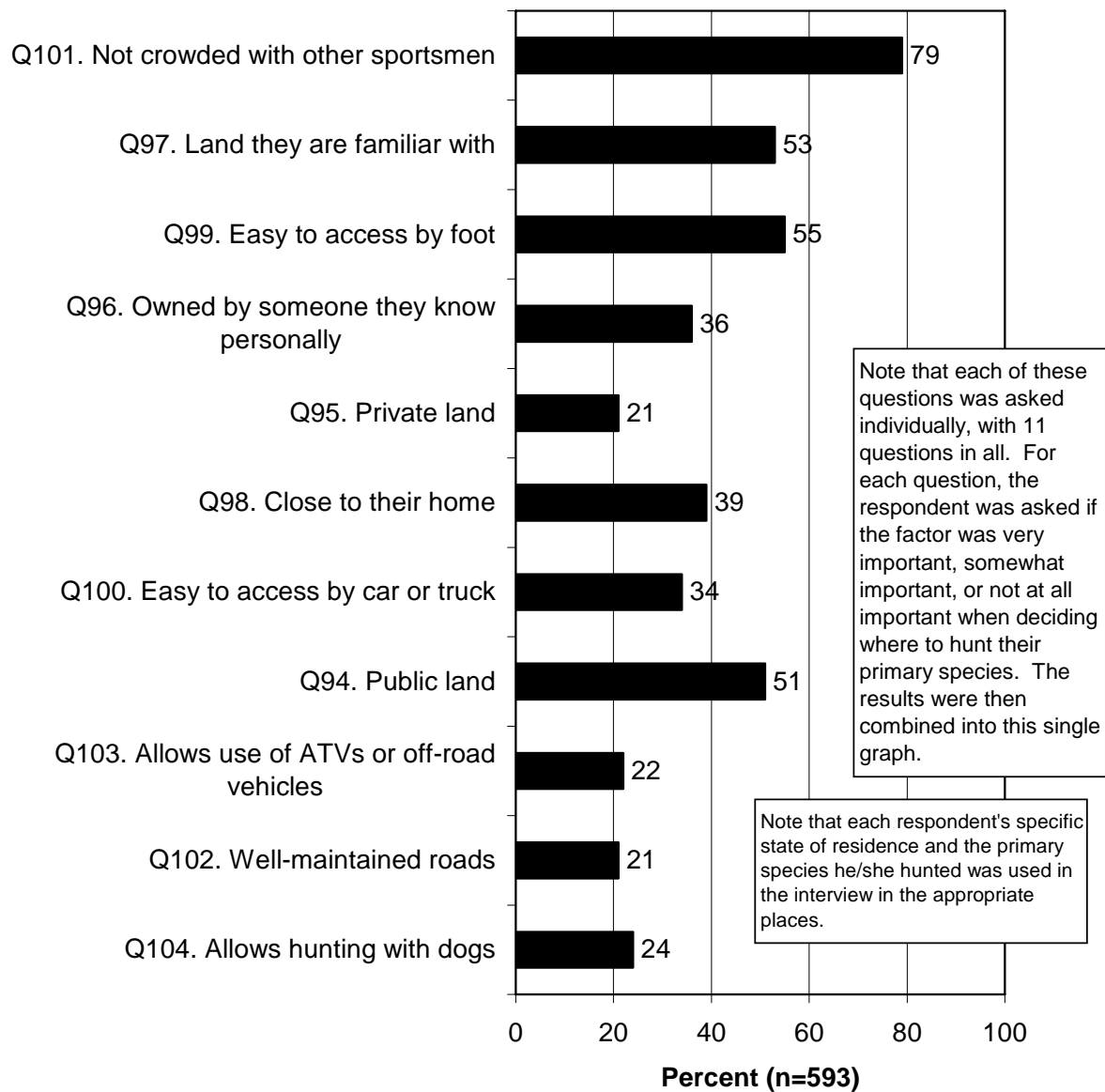


Figure 2.27. Factors that are very important in choosing lands on which to hunt any deer species.

Percent who indicated that the following are very important when deciding where to hunt any deer species in (STATE).

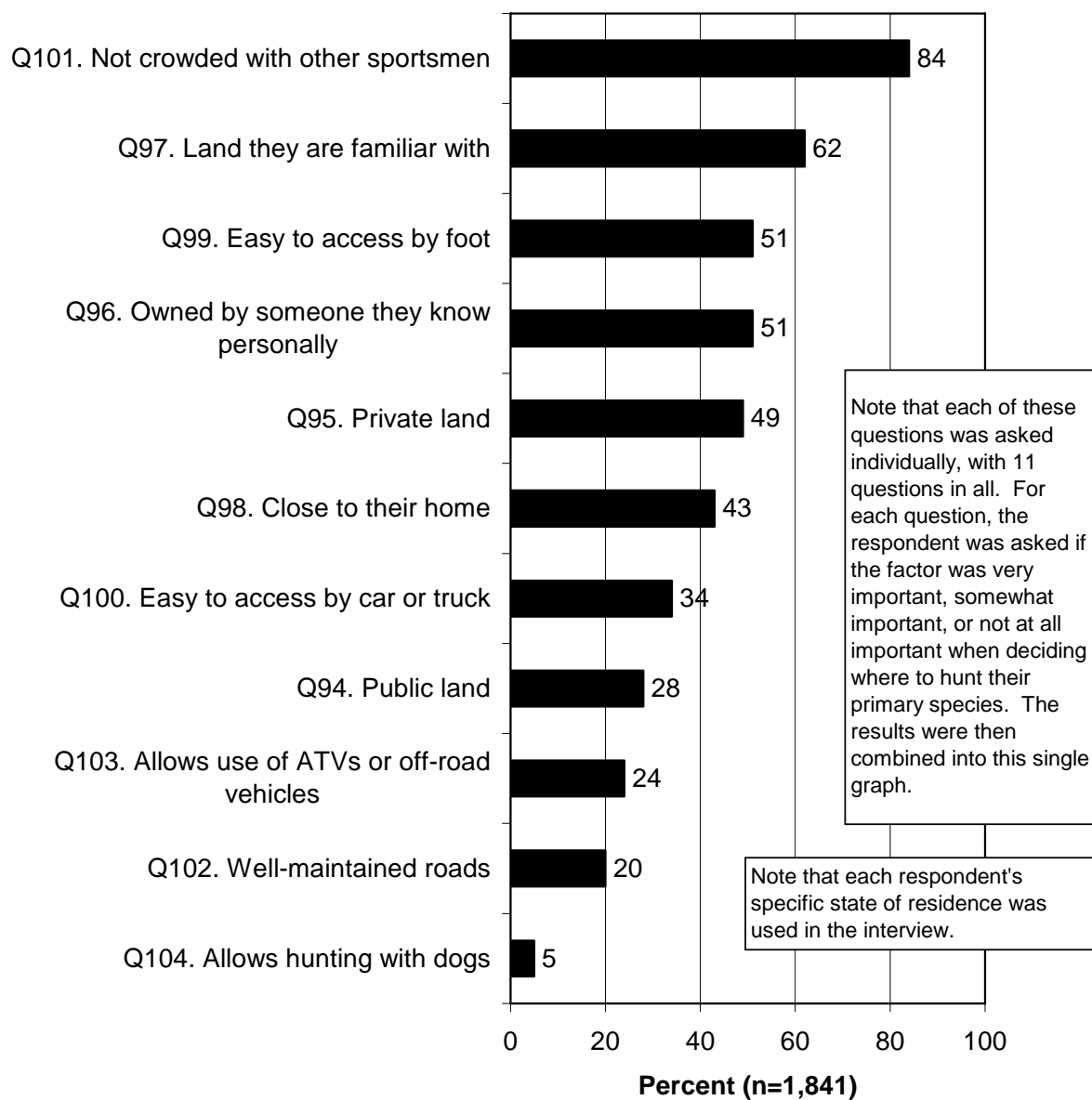


Figure 2.28. Factors that are very important in choosing lands on which to hunt white-tailed deer.

Percent who indicated that the following are very important when deciding where to hunt white-tailed deer in (STATE).

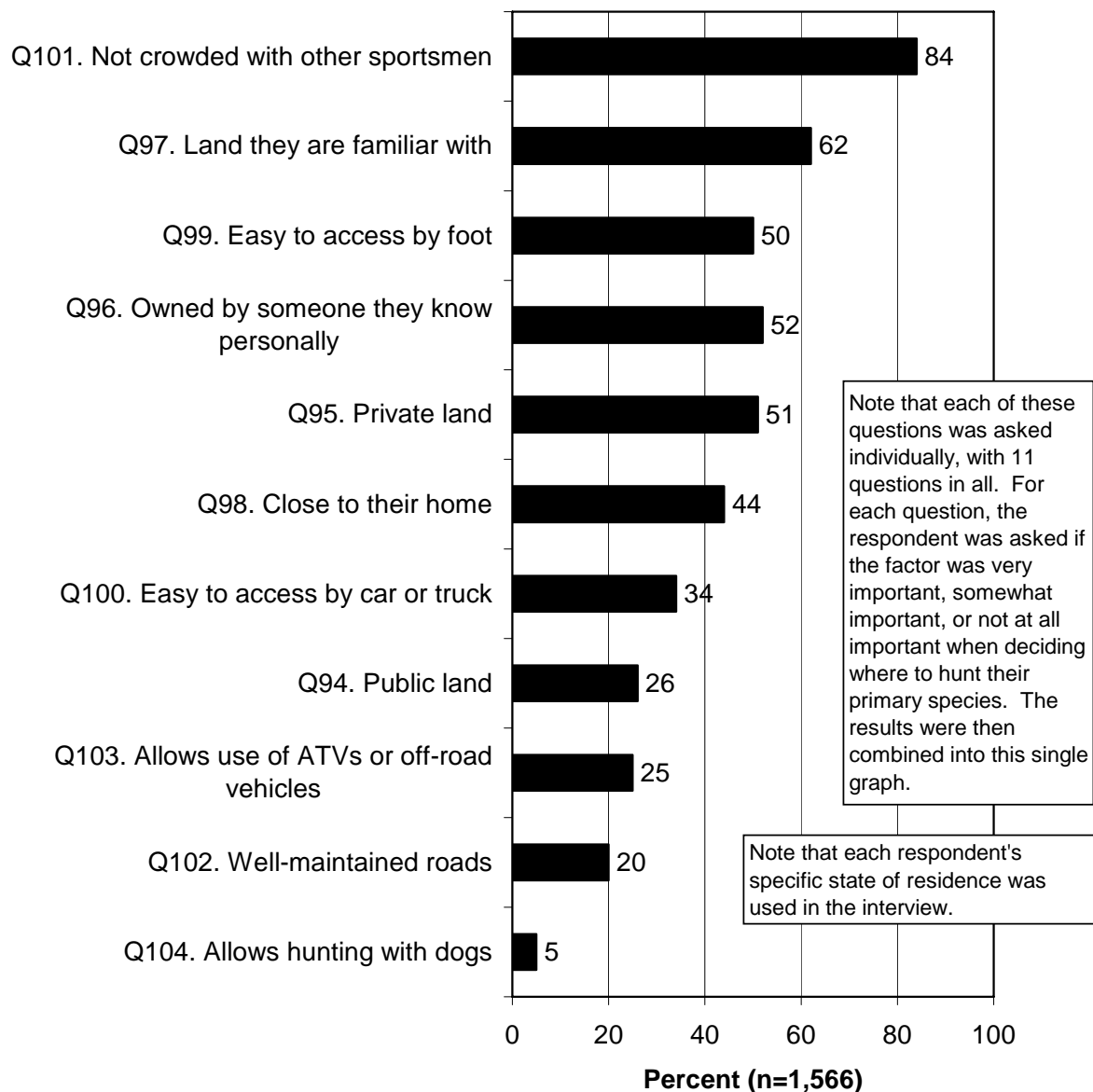


Figure 2.29. Factors that are very important in choosing lands on which to hunt mule deer.

Percent who indicated that the following are very important when deciding where to hunt mule deer in (STATE).

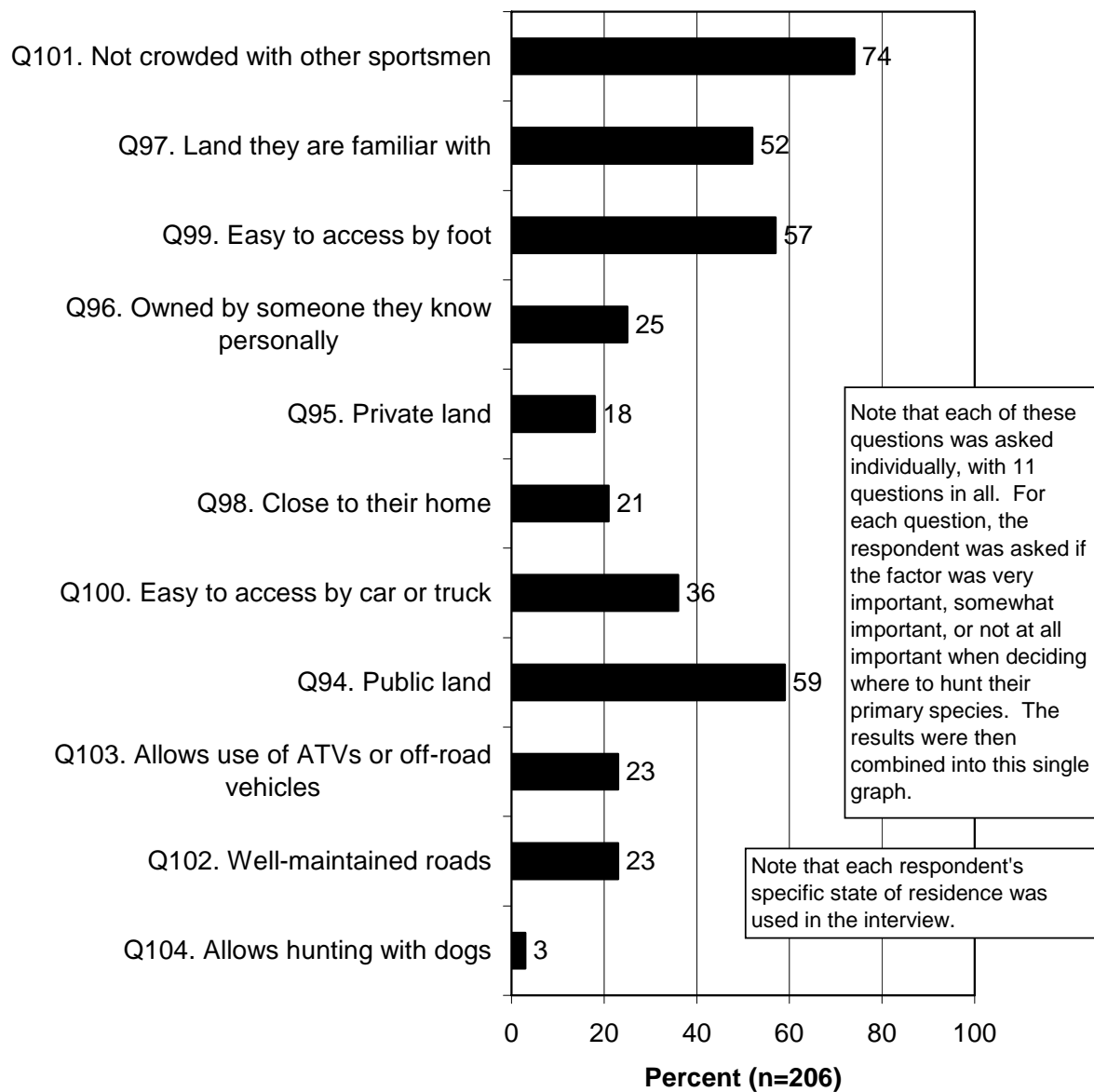


Figure 2.30. Factors that are very important in choosing lands on which to hunt upland game birds.

Percent who indicated that the following are very important when deciding where to hunt upland game birds in (STATE).

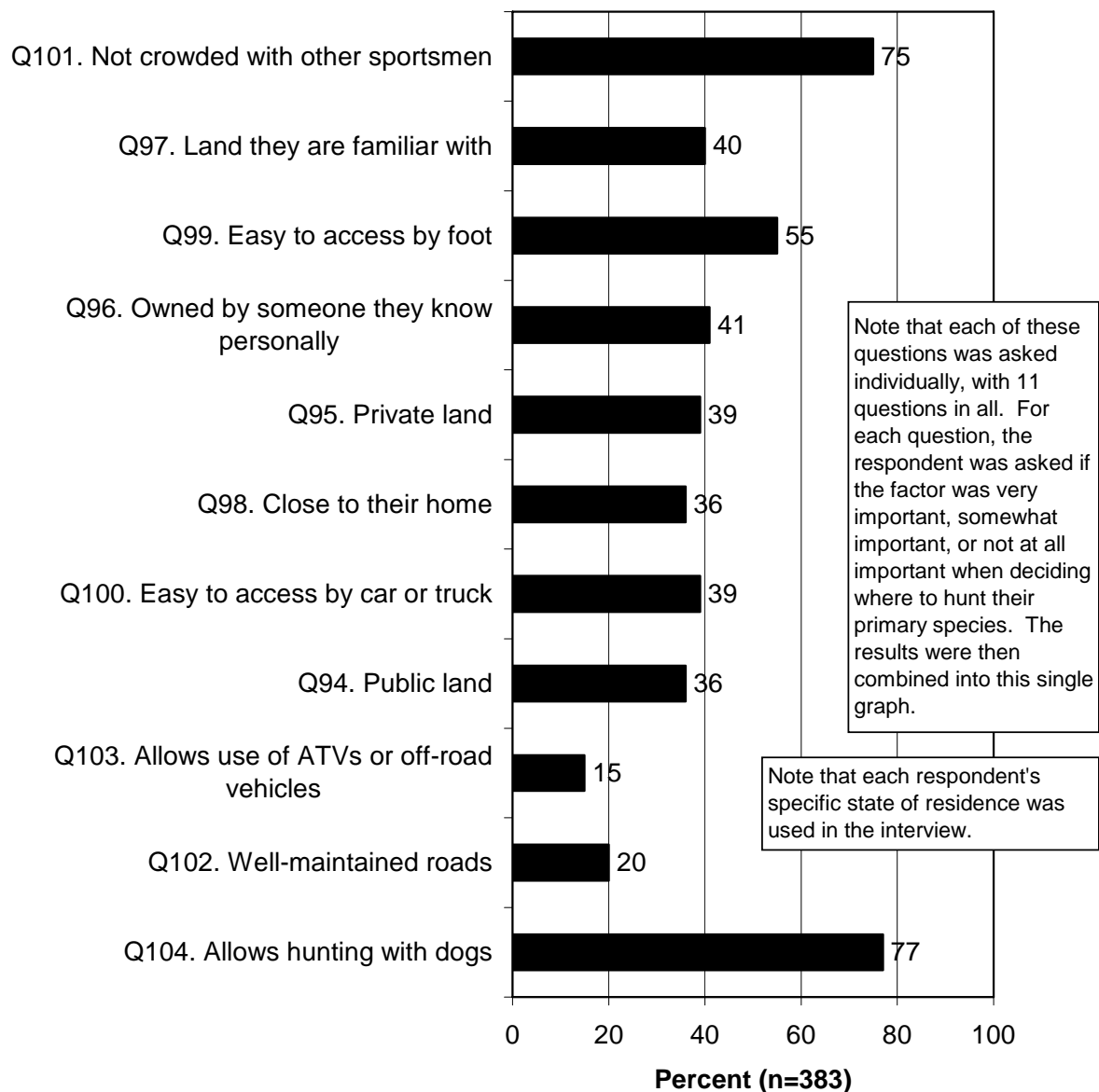


Figure 2.31. Factors that are very important in choosing lands on which to hunt elk.

Percent who indicated that the following are very important when deciding where to hunt elk in (STATE).

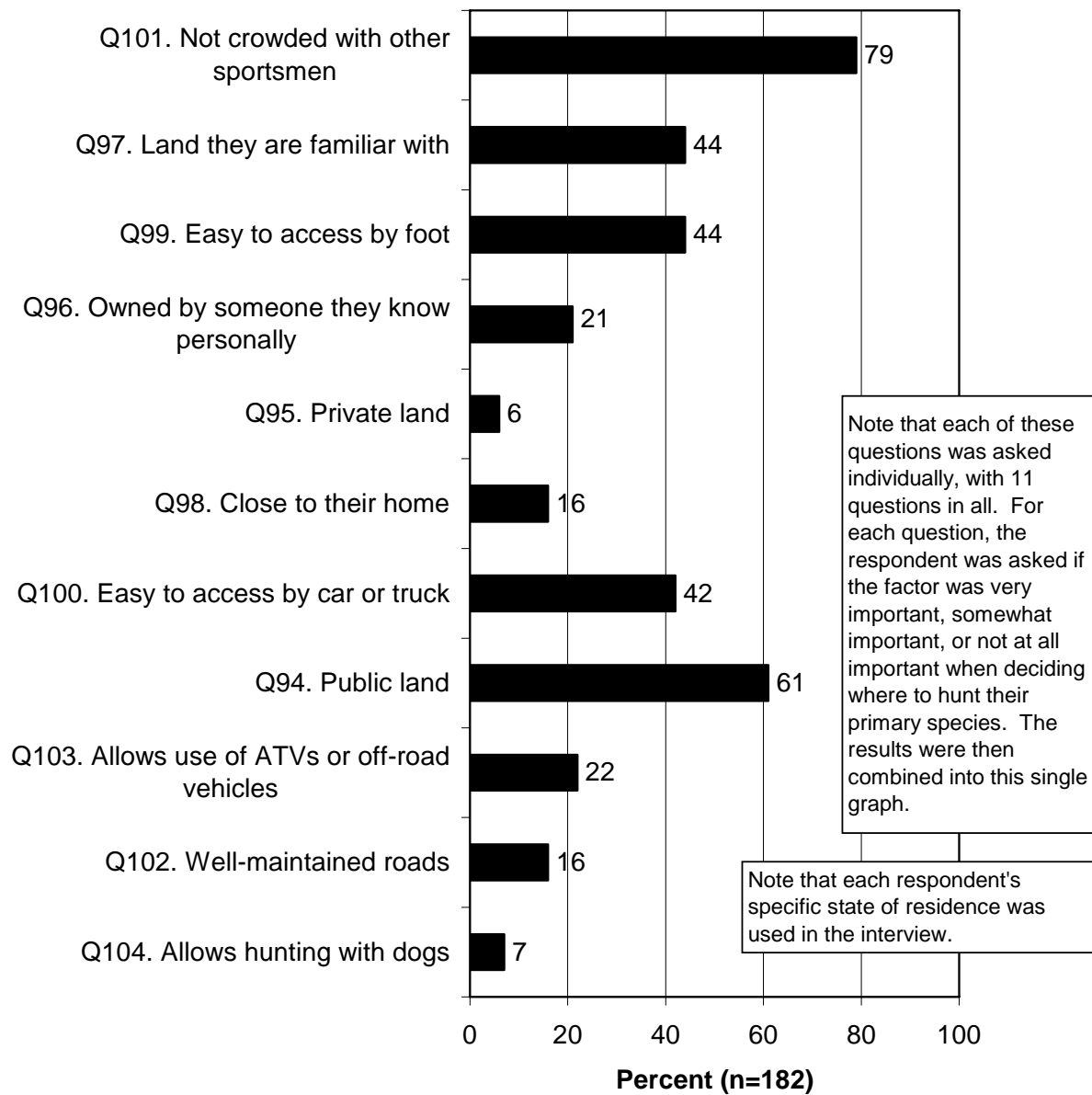


Figure 2.32. Factors that are very important in choosing lands on which to hunt waterfowl.

Percent who indicated that the following are very important when deciding where to hunt waterfowl in (STATE).

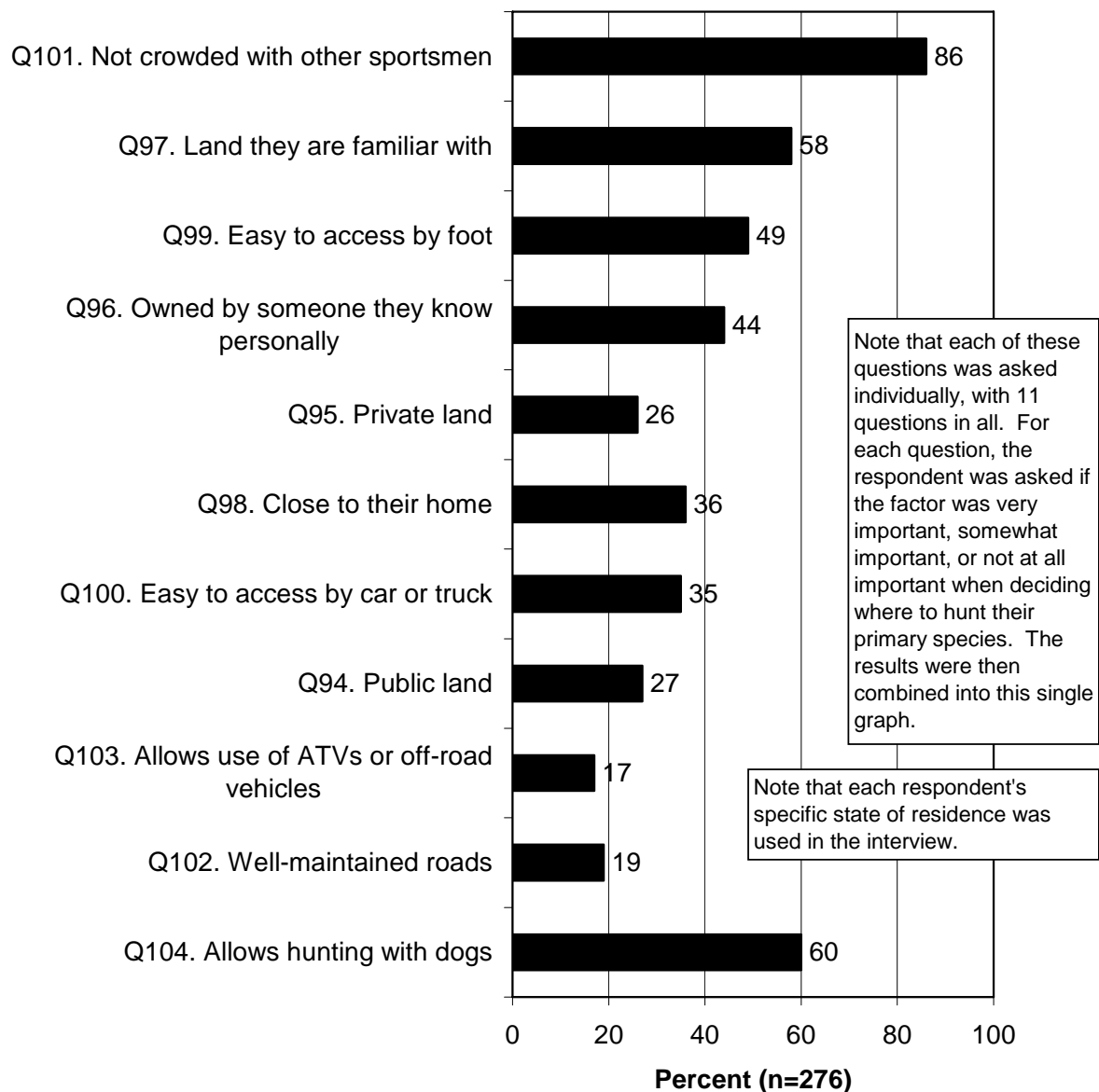


Figure 2.33. Factors that are very important in choosing lands on which to hunt wild turkey.

Percent who indicated that the following are very important when deciding where to hunt wild turkey in (STATE).

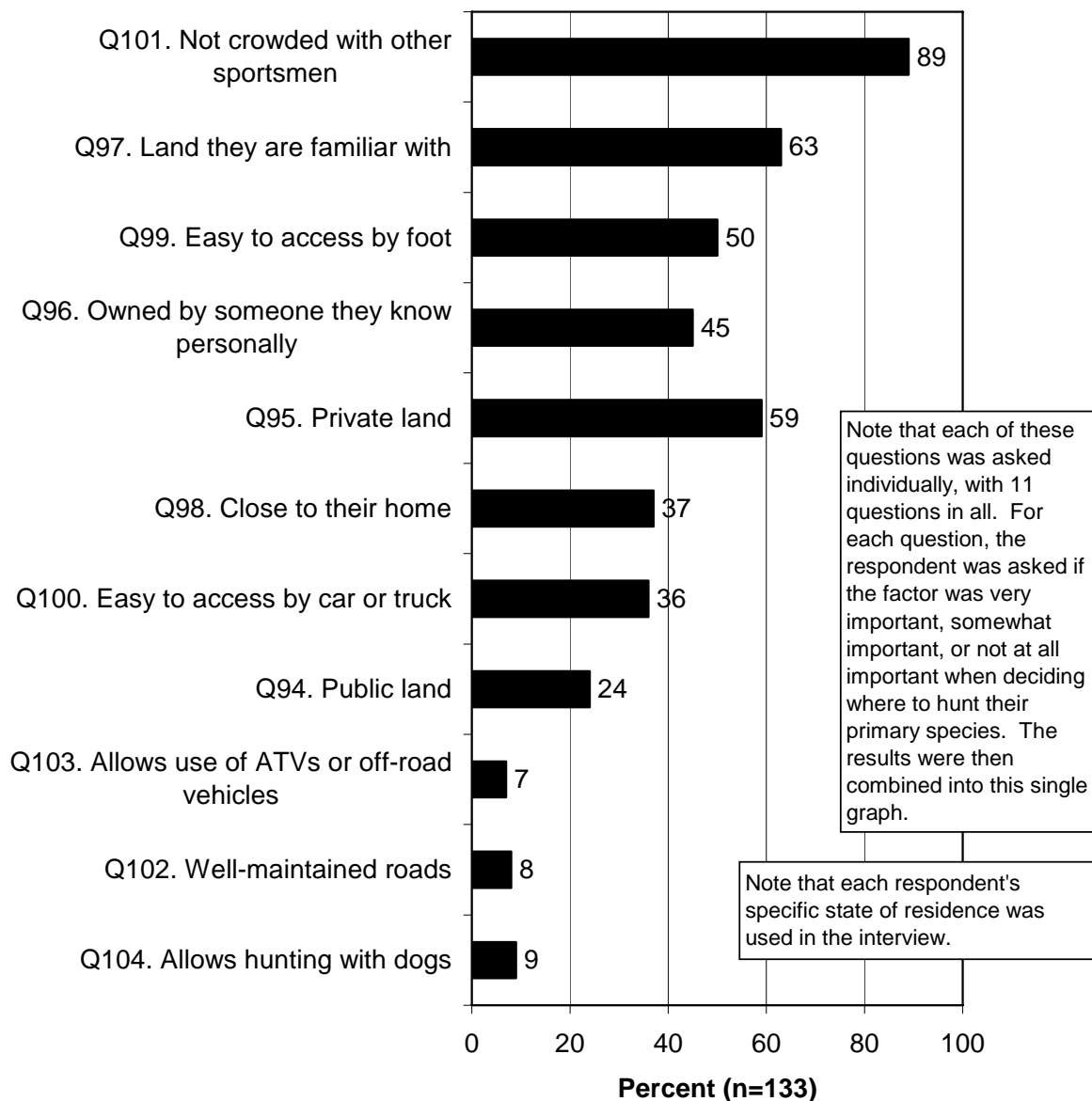


Figure 2.34. Factors that are very important in choosing lands for hunters who hunt mostly on public land.

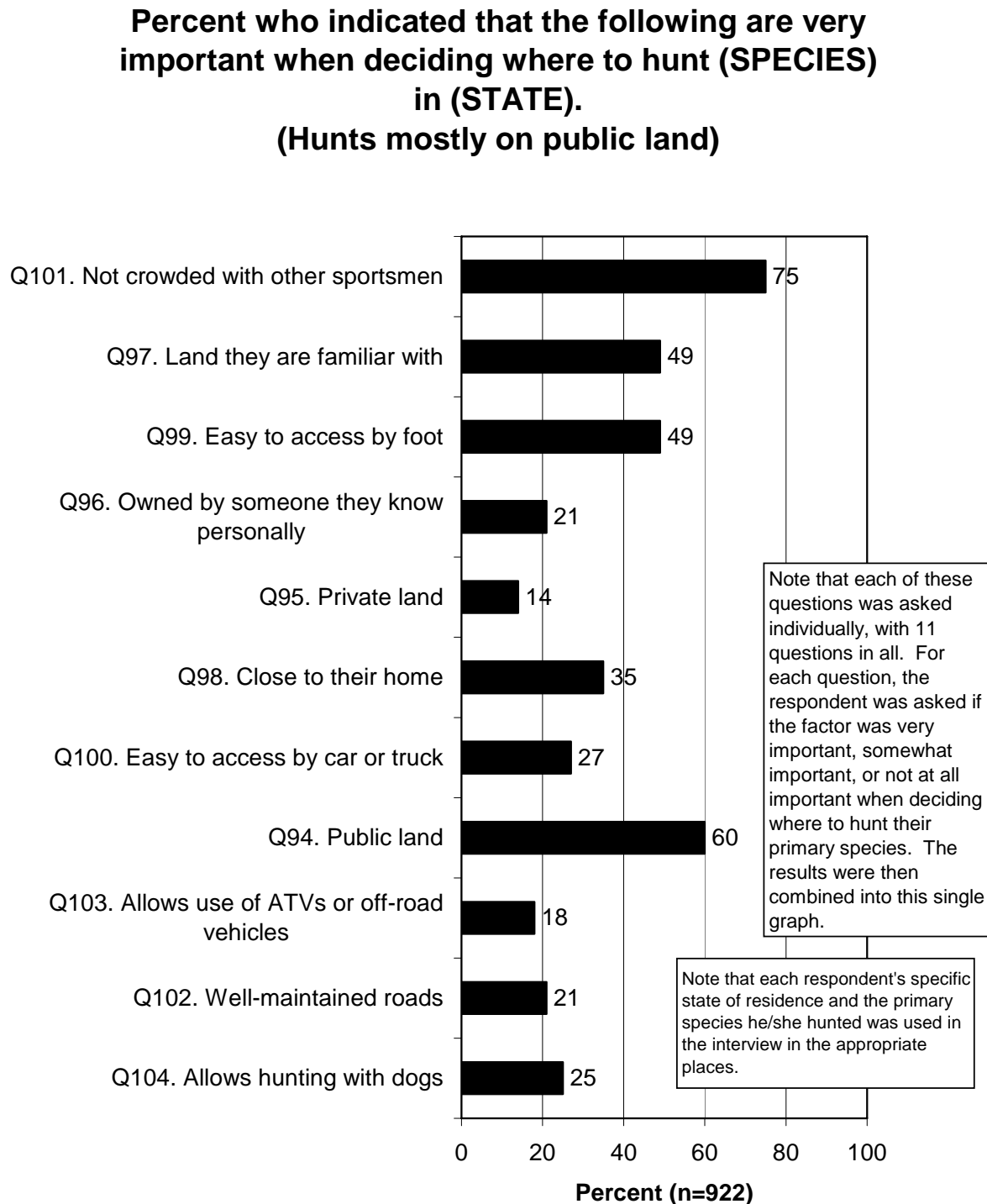
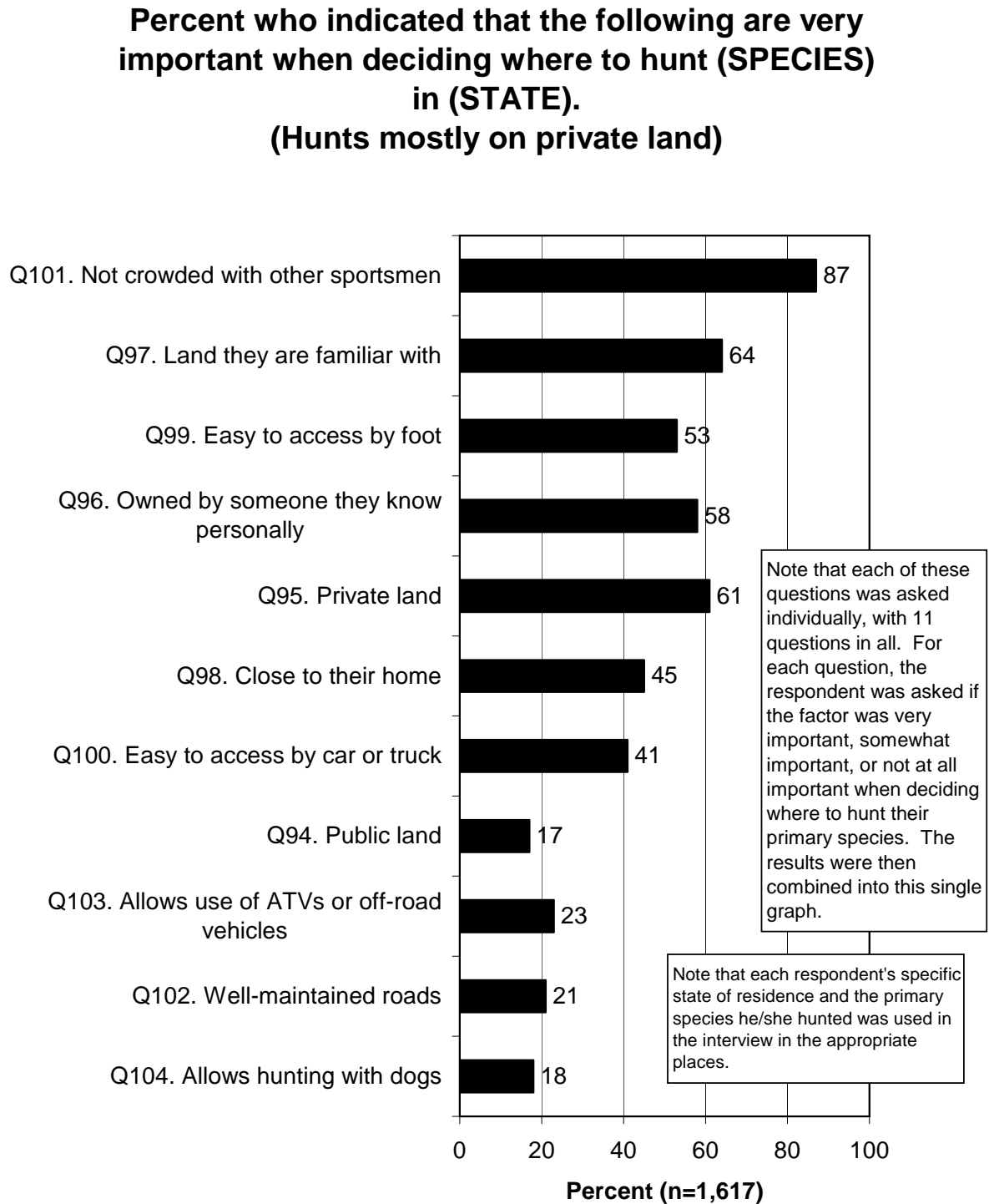


Figure 2.35. Factors that are very important in choosing lands for hunters who hunt mostly on private land.



- **The top three problems out of the 16 potential problems asked about in the survey with the associated consequences of the problem (an associated consequence being, for instance, having to leave a hunt area because of the problem) are: leaving an area because of crowding from other hunters, leaving an area because they felt unsafe because of other hunters, and leaving an area because of the irresponsible behavior of other hunters.**

Not only has crowding been identified as an important consideration in choosing a place to hunt, but it is also an important determinant in a hunter's decision to leave certain hunting locations. When presented the list of potential problems with associated consequences of the problem, 55% of hunters cite leaving an area because of crowding from other hunters (the top problem identified as being major, moderate, or minor). In a finding tangentially related to crowding, hunters also identified two other social issues in this line of questioning as top-named problems: leaving an area because they felt unsafe because of other hunters (40%) and leaving an area because of the irresponsible behavior of other hunters (35%) (Figure 2.36). Therefore, the top three problems pertain to other hunters' presence in an area in which the respondent wanted to hunt, and the fourth ranked problem is leaving an area because of crowding from other recreationists.

Figures 2.37 through Figure 2.45 show results of the percent of hunters who indicated that these 16 problems have been a major, moderate, or minor problem when hunting in the past five years by region.

Figures 2.46 through Figure 2.52 show results of the percent of hunters who indicated that these 16 problems have been a major, moderate, or minor problem when hunting in the past five years by primary species hunted.

Figures 2.53 through Figure 2.54 show the results of the percent of hunters who indicated that these 16 problems have been a major, moderate, or minor problem when hunting in the past five years by whether the respondent hunts mostly on public lands or mostly on private lands.

Figure 2.36. Problems influencing hunters' decisions and/or actions.

Percent who indicated that the following have been a major, moderate, or minor problem in the past 5 years when hunting (SPECIES).

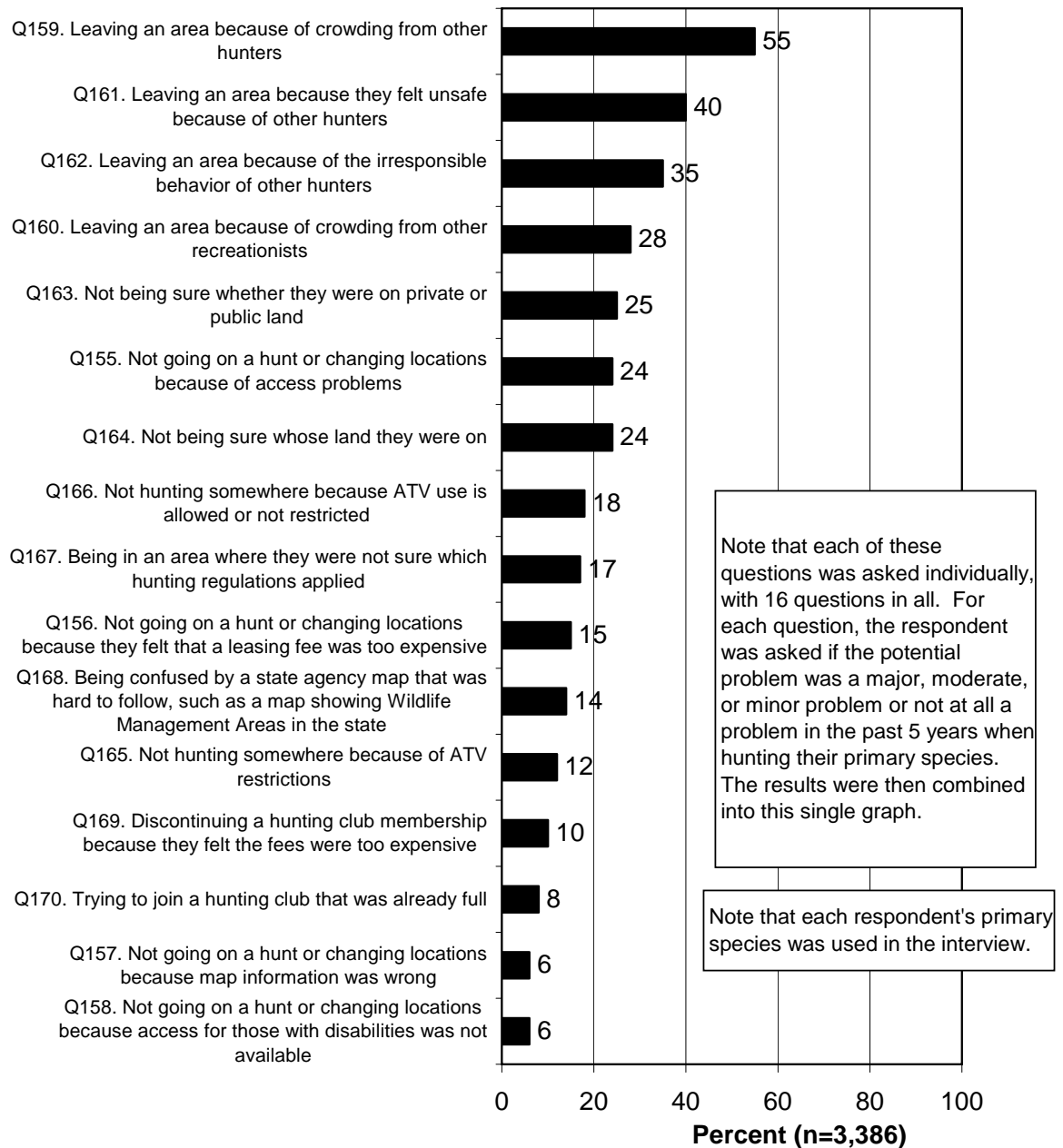


Figure 2.37. Problems influencing hunters' decisions and/or actions when hunting in the New England Region.

**Percent who indicated that the following have been a major, moderate, or minor problem in the past 5 years when hunting (SPECIES).
(New England Region)**

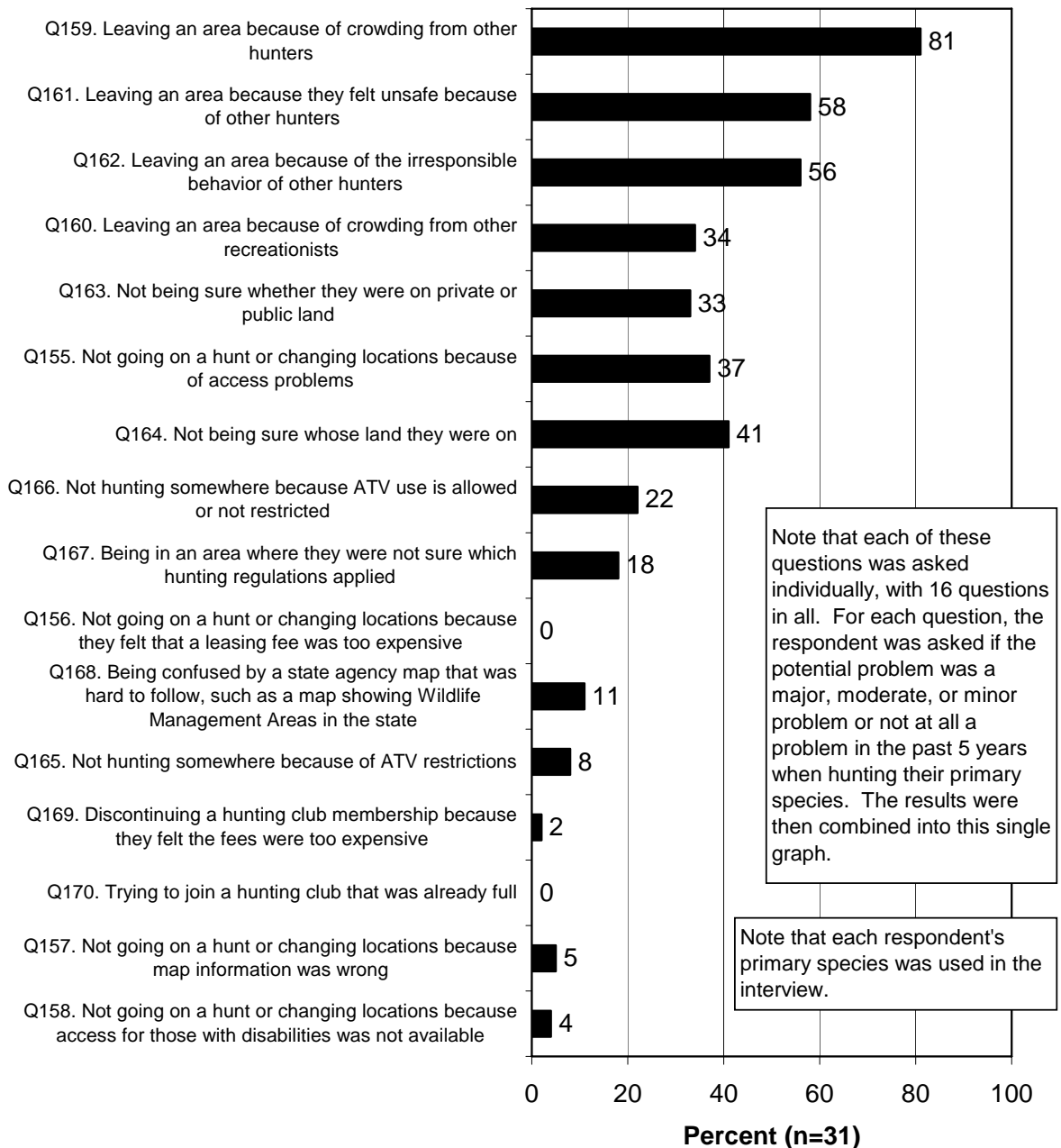


Figure 2.38. Problems influencing hunters' decisions and/or actions when hunting in the Middle Atlantic Region.

**Percent who indicated that the following have been
a major, moderate, or minor problem in the past 5
years when hunting (SPECIES).
(Middle Atlantic Region)**

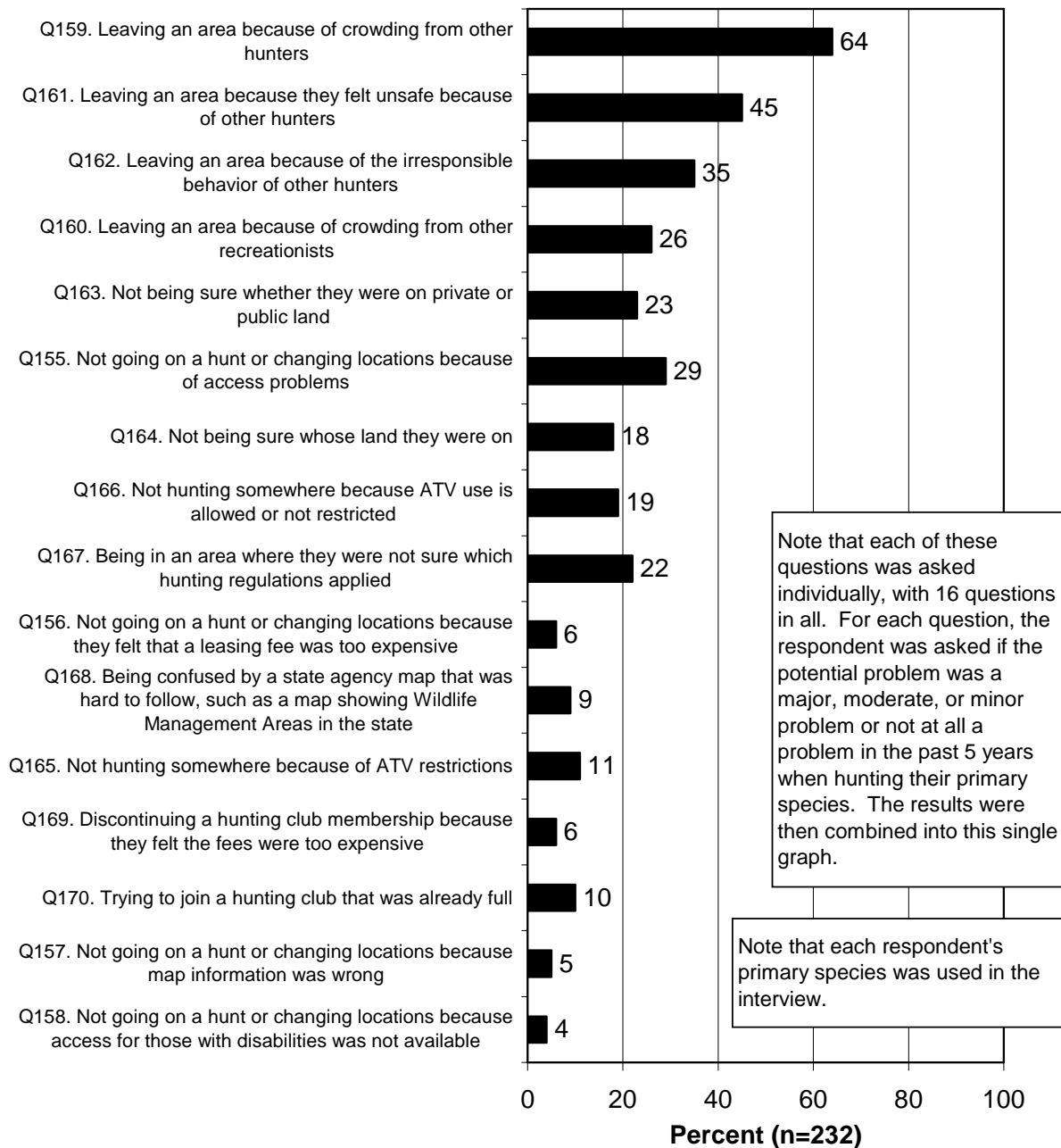


Figure 2.39. Problems influencing hunters' decisions and/or actions when hunting in the South Atlantic Region.

**Percent who indicated that the following have been
a major, moderate, or minor problem in the past 5
years when hunting (SPECIES).
(South Atlantic Region)**

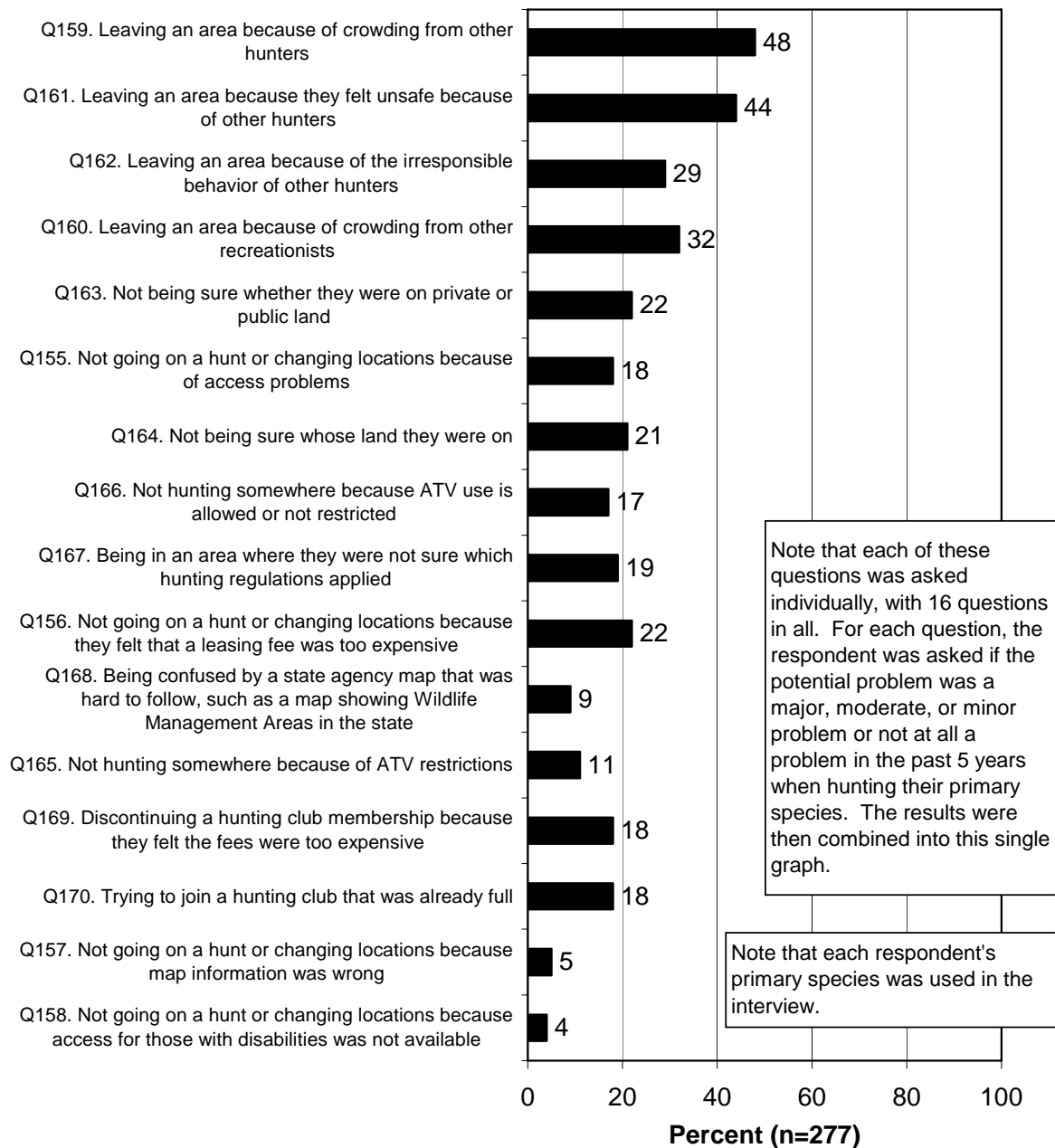


Figure 2.40. Problems influencing hunters' decisions and/or actions when hunting in the East North Central Region.

**Percent who indicated that the following have been
a major, moderate, or minor problem in the past 5
years when hunting (SPECIES).
(East North Central Region)**

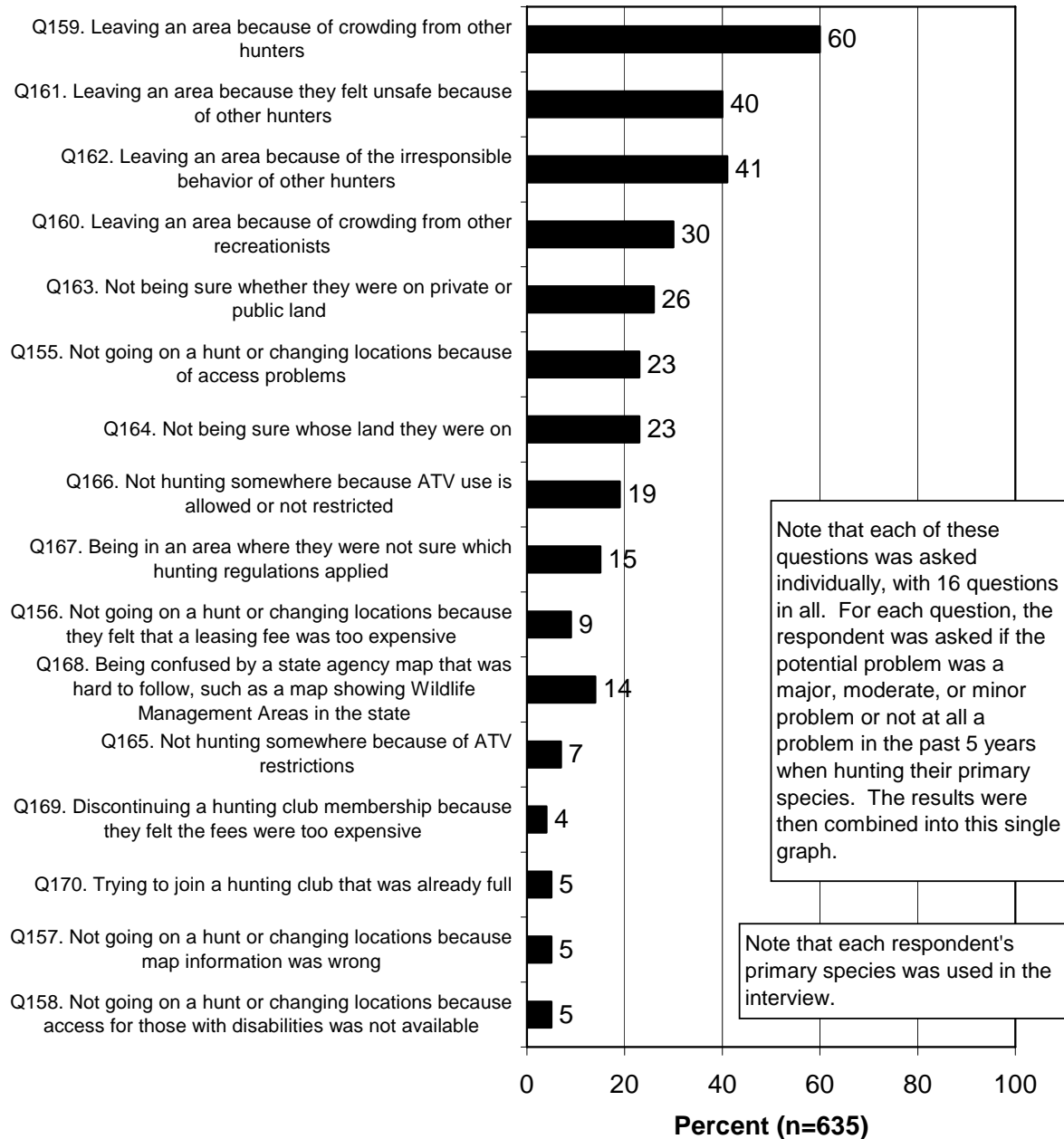


Figure 2.41. Problems influencing hunters' decisions and/or actions when hunting in the East South Central Region.

**Percent who indicated that the following have been a major, moderate, or minor problem in the past 5 years when hunting (SPECIES).
(East South Central Region)**

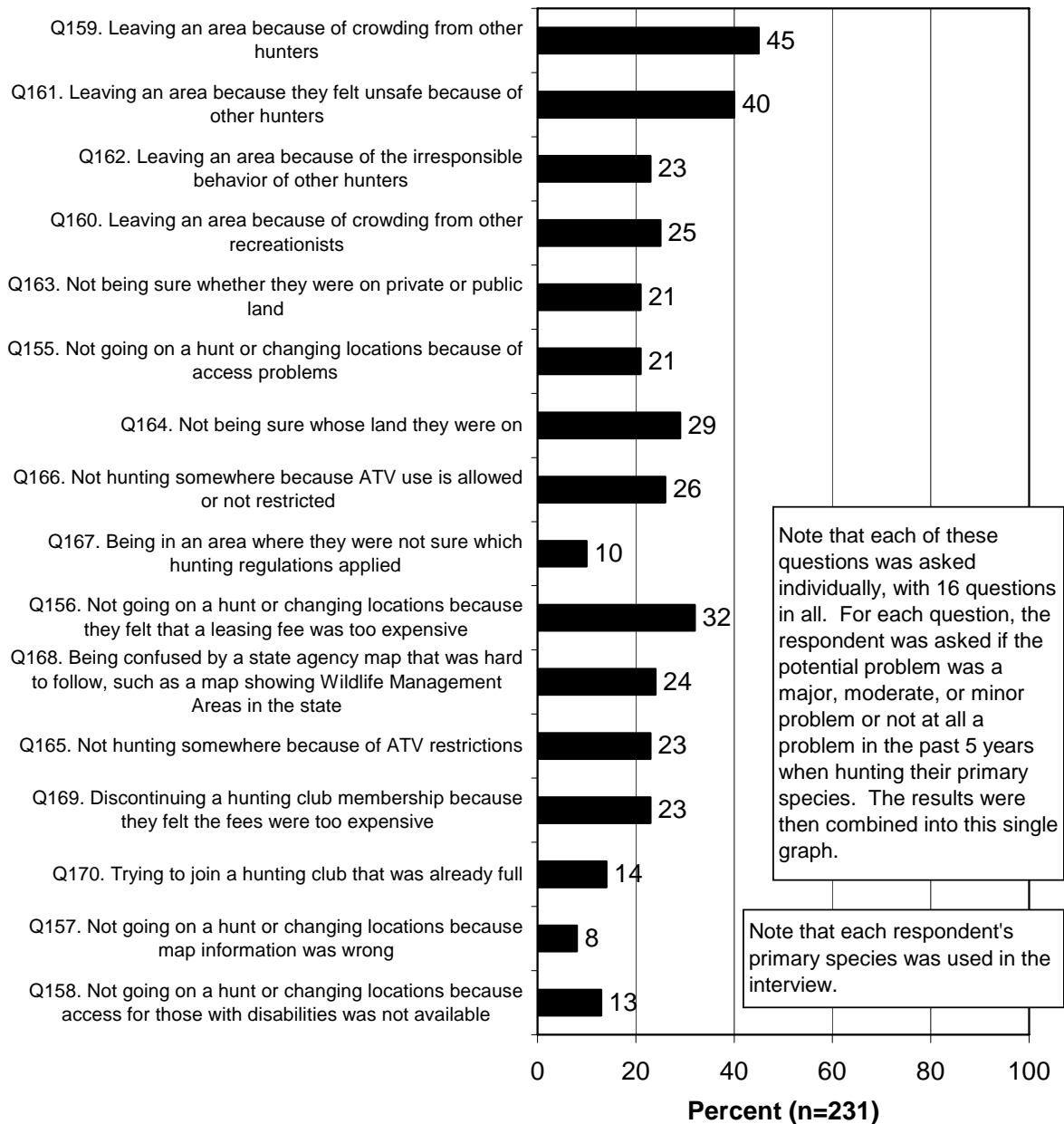


Figure 2.42. Problems influencing hunters' decisions and/or actions when hunting in the West North Central Region.

**Percent who indicated that the following have been a major, moderate, or minor problem in the past 5 years when hunting (SPECIES).
(West North Central Region)**

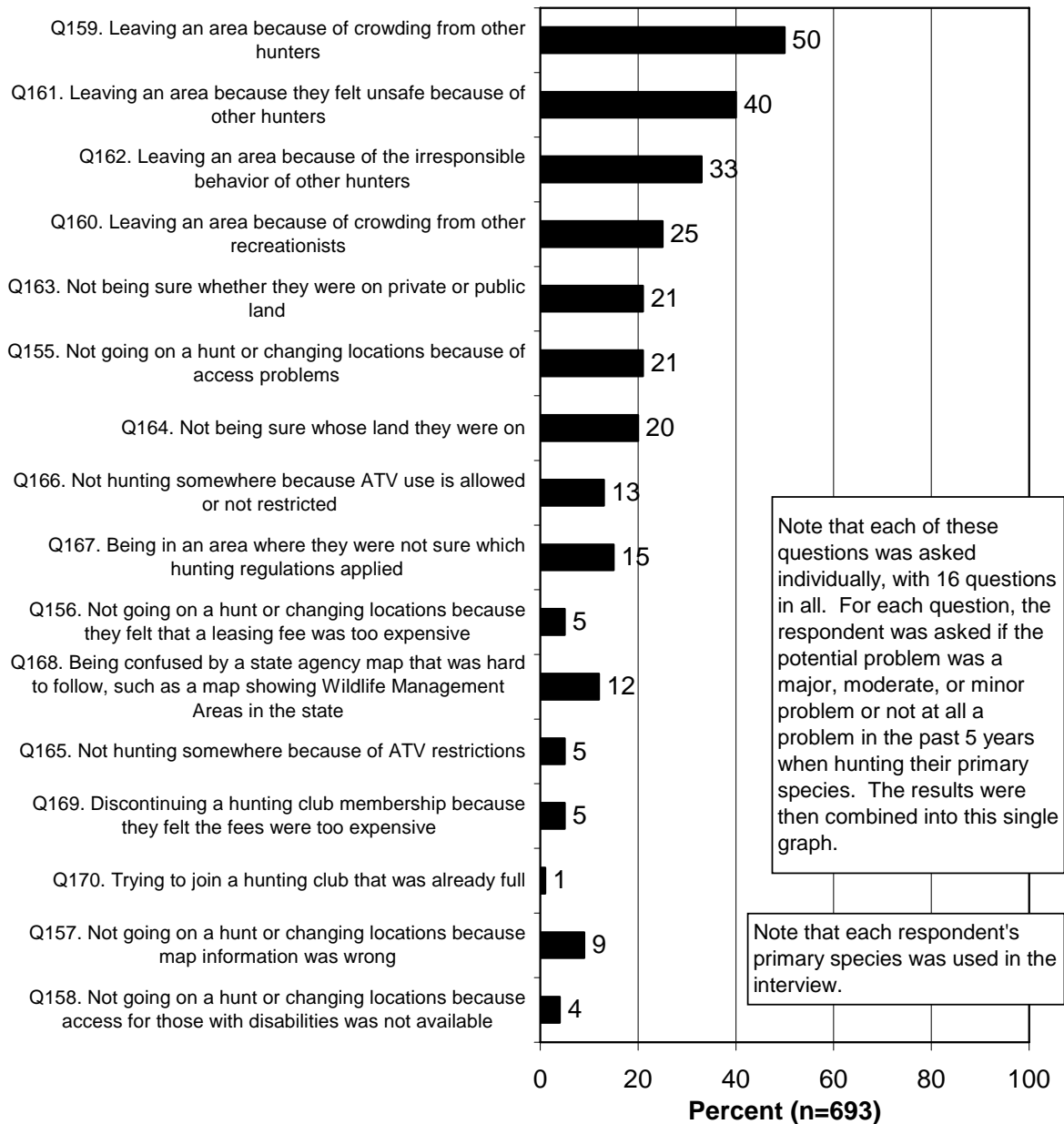


Figure 2.43. Problems influencing hunters' decisions and/or actions when hunting in the West South Central Region.

**Percent who indicated that the following have been a major, moderate, or minor problem in the past 5 years when hunting (SPECIES).
(West South Central Region)**

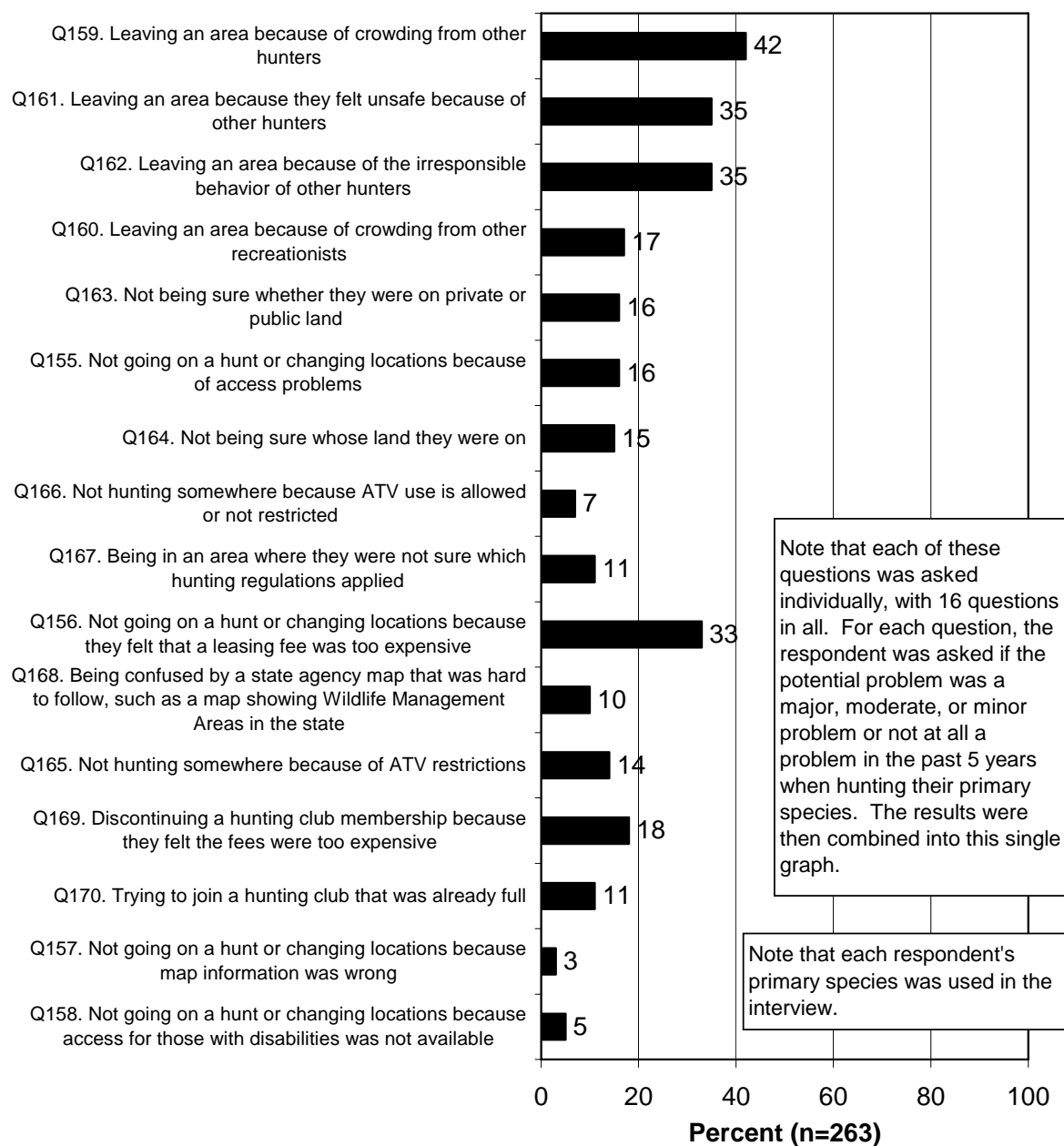


Figure 2.44. Problems influencing hunters' decisions and/or actions when hunting in the Mountain Region.

**Percent who indicated that the following have been
a major, moderate, or minor problem in the past 5
years when hunting (SPECIES).
(Mountain Region)**

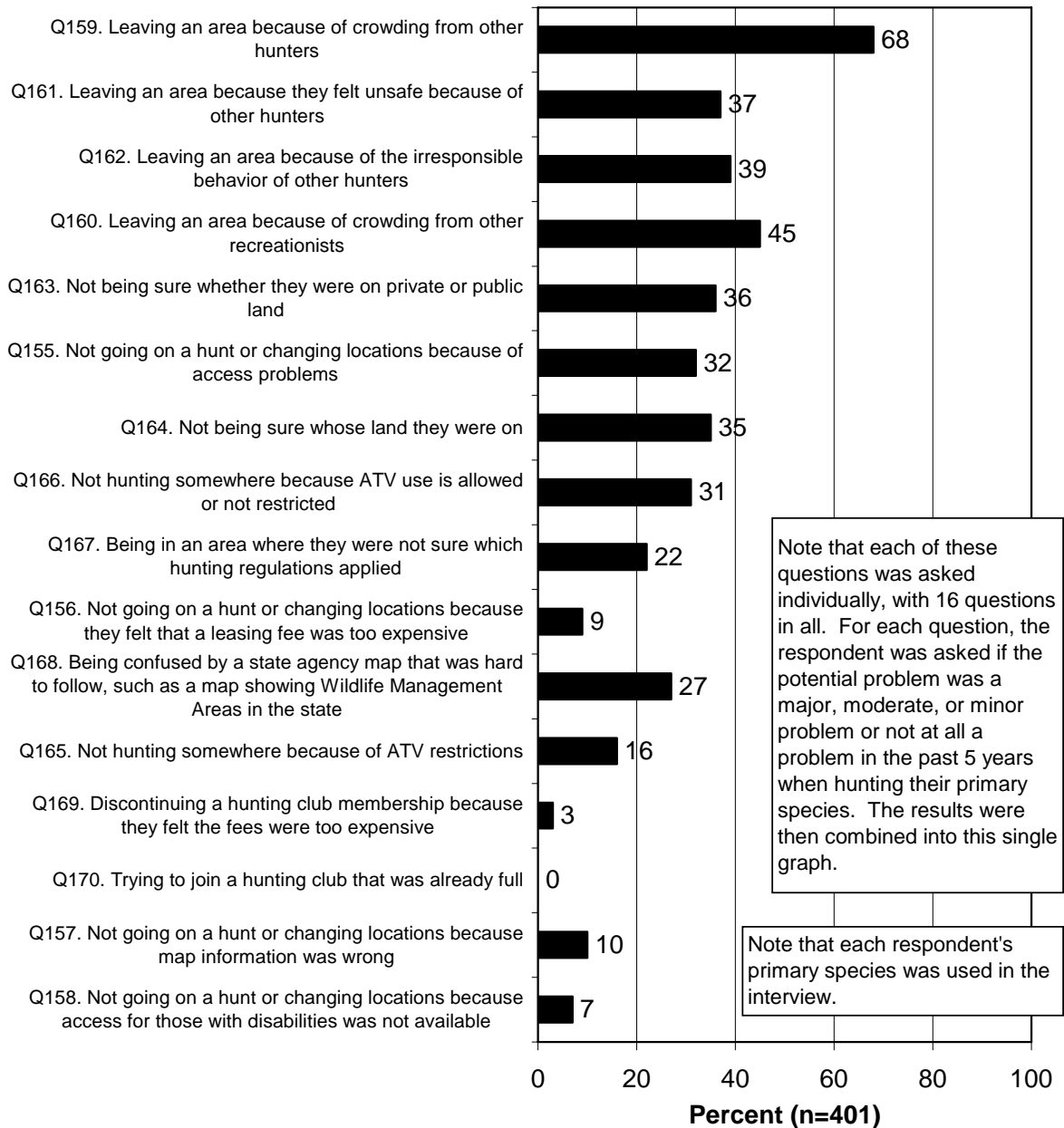


Figure 2.45. Problems influencing hunters' decisions and/or actions when hunting in the Pacific Region.

**Percent who indicated that the following have been a major, moderate, or minor problem in the past 5 years when hunting (SPECIES).
(Pacific Region)**

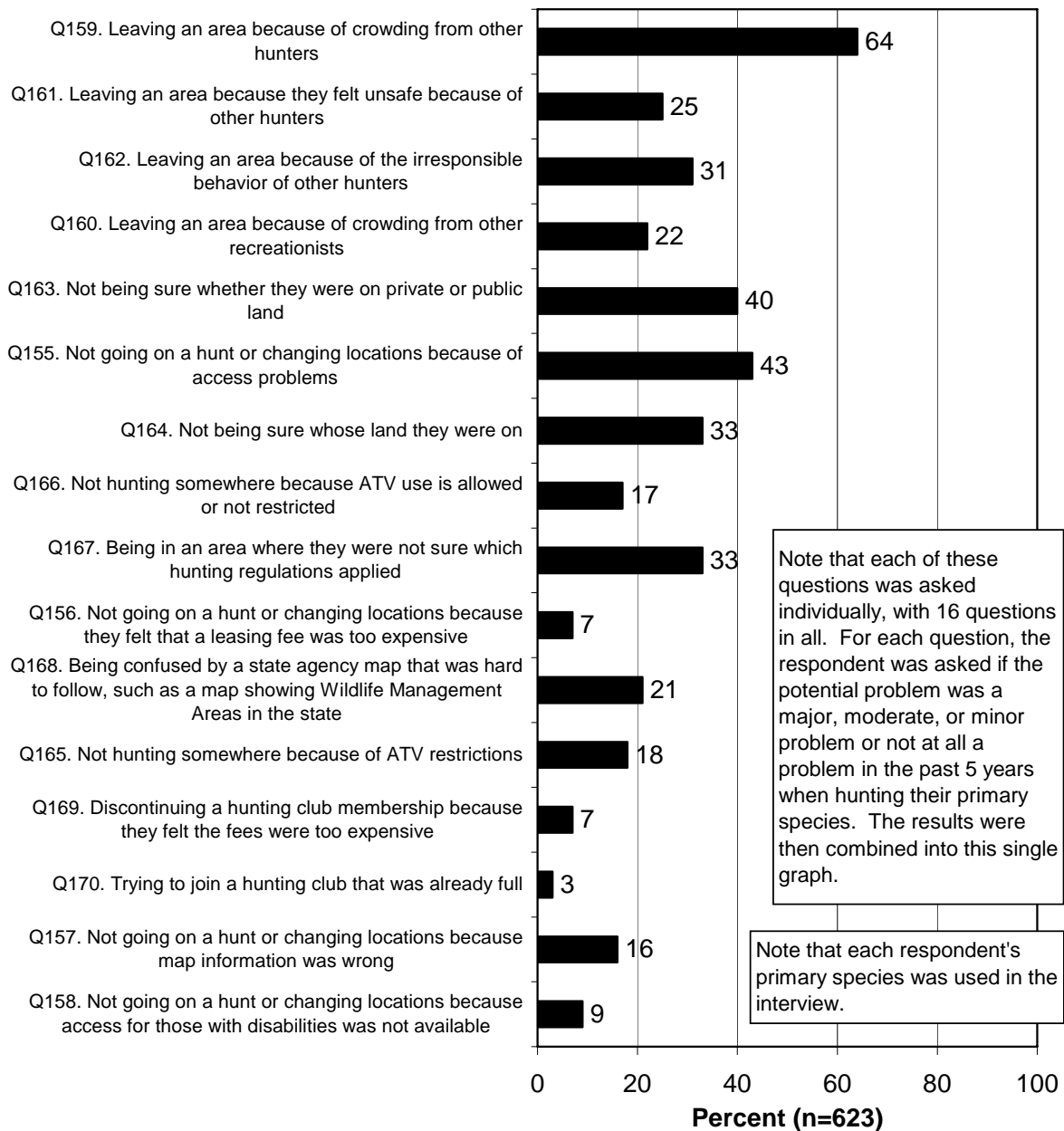


Figure 2.46. Problems influencing hunters' decisions and/or actions when hunting any deer species.

Percent who indicated that the following have been a major, moderate, or minor problem in the past 5 years when hunting any deer species.

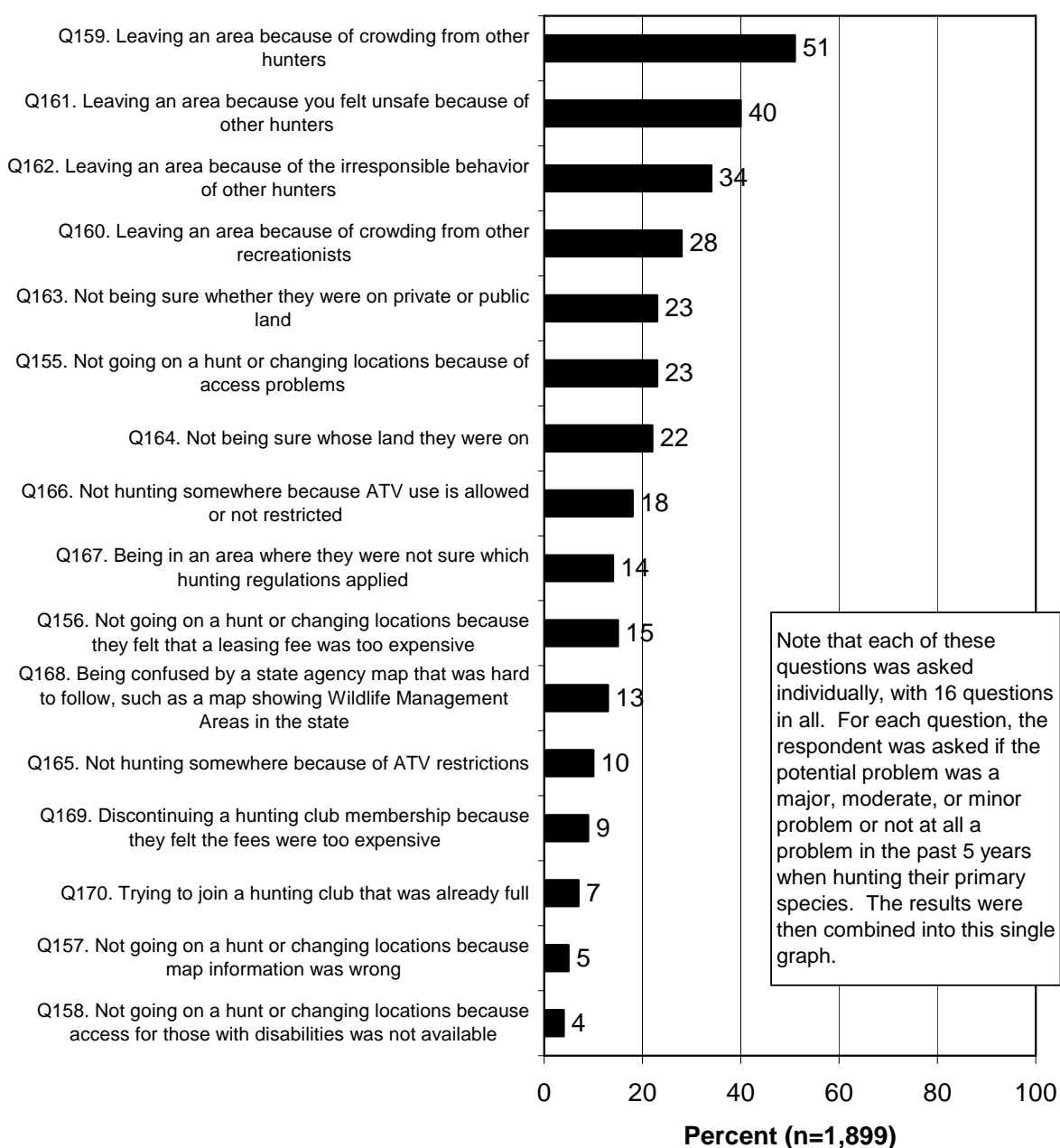


Figure 2.47. Problems influencing hunters' decisions and/or actions when hunting white-tailed deer.

Percent who indicated that the following have been a major, moderate, or minor problem in the past 5 years when hunting white-tailed deer.

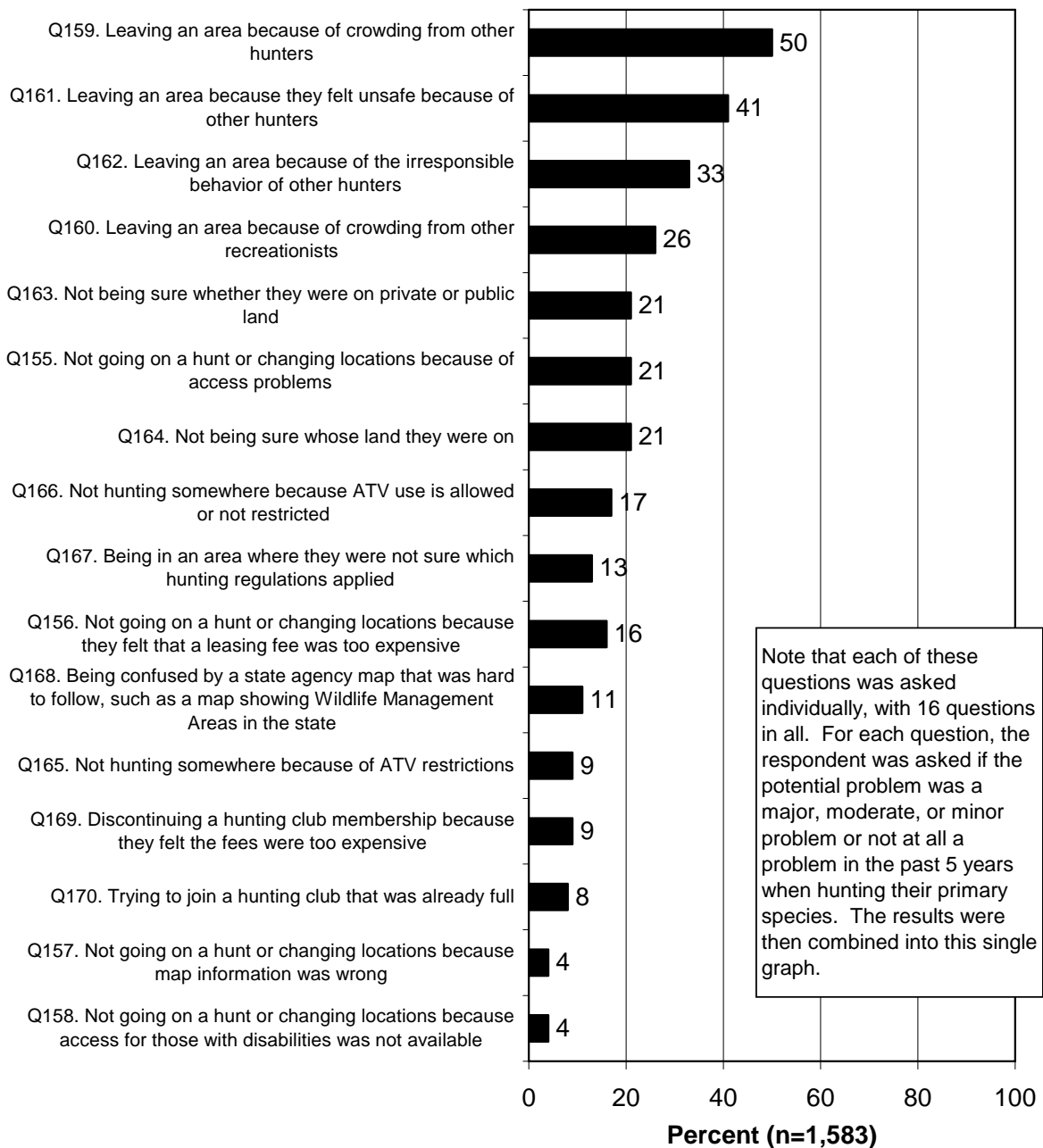


Figure 2.48. Problems influencing hunters' decisions and/or actions when hunting mule deer.

Percent who indicated that the following have been a major, moderate, or minor problem in the past 5 years when hunting mule deer.

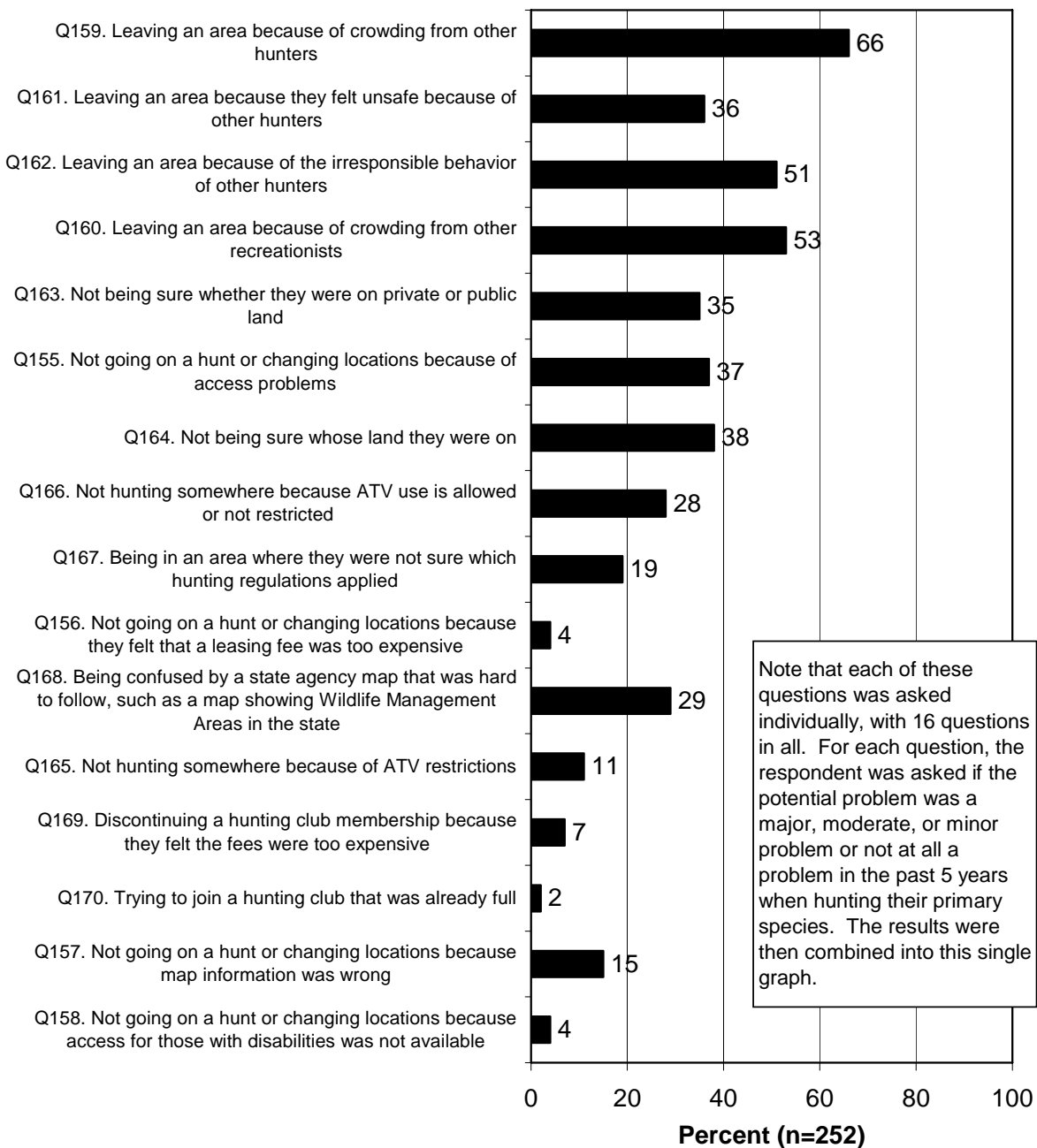


Figure 2.49. Problems influencing hunters' decisions and/or actions when hunting upland game birds.

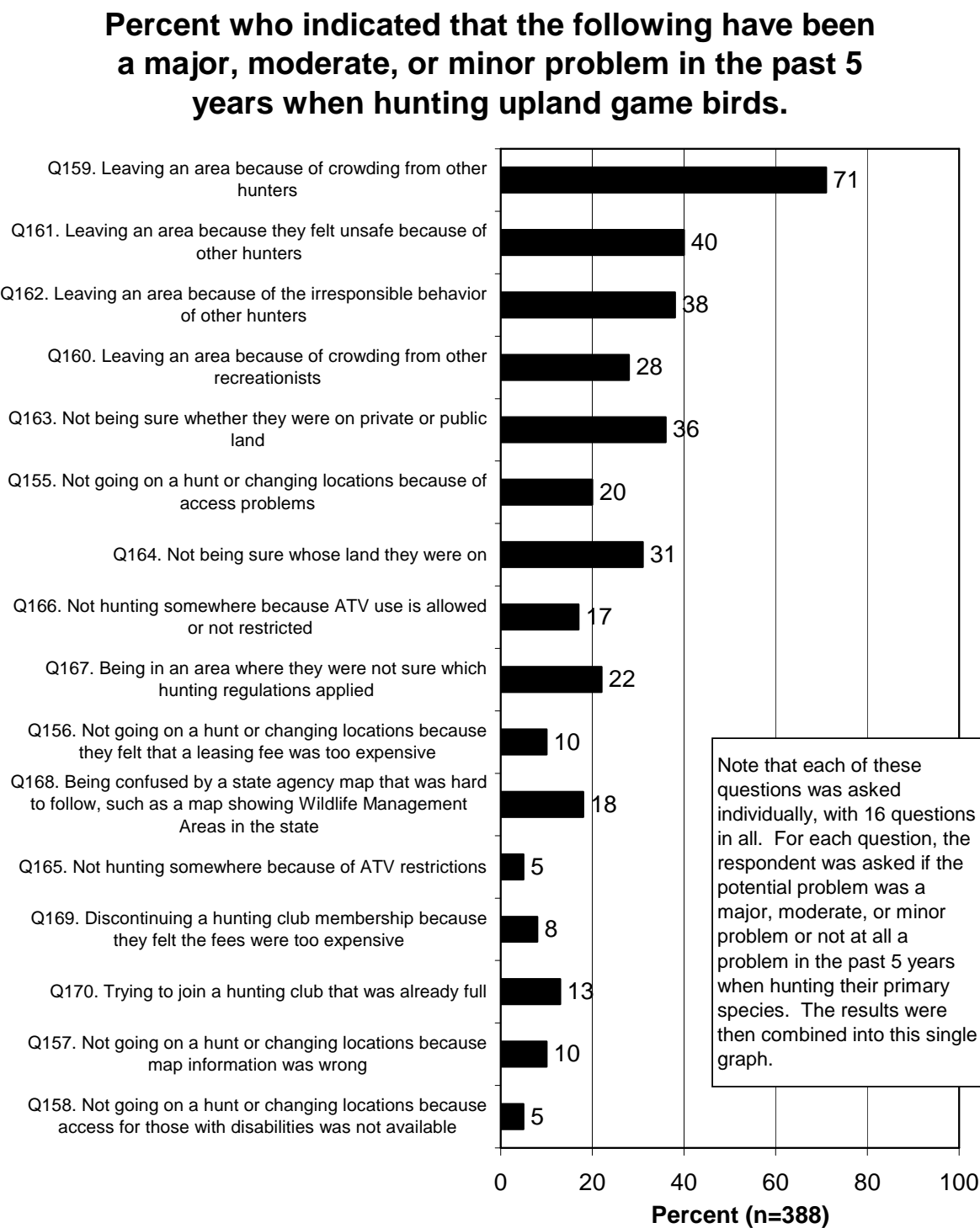


Figure 2.50. Problems influencing hunters' decisions and/or actions when hunting elk.

Percent who indicated that the following have been a major, moderate, or minor problem in the past 5 years when hunting elk.

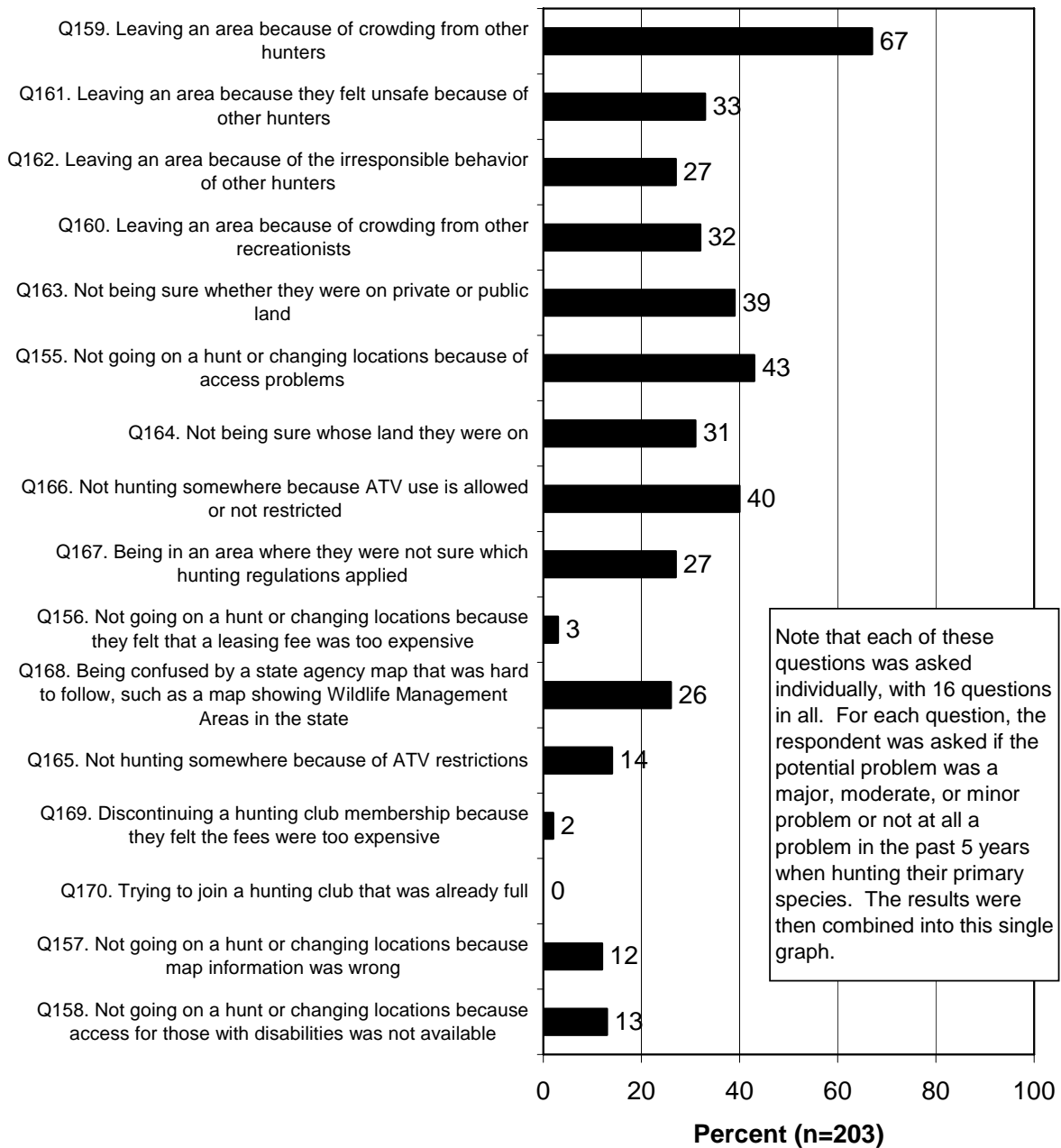


Figure 2.51. Problems influencing hunters' decisions and/or actions when hunting waterfowl.

Percent who indicated that the following have been a major, moderate, or minor problem in the past 5 years when hunting waterfowl.

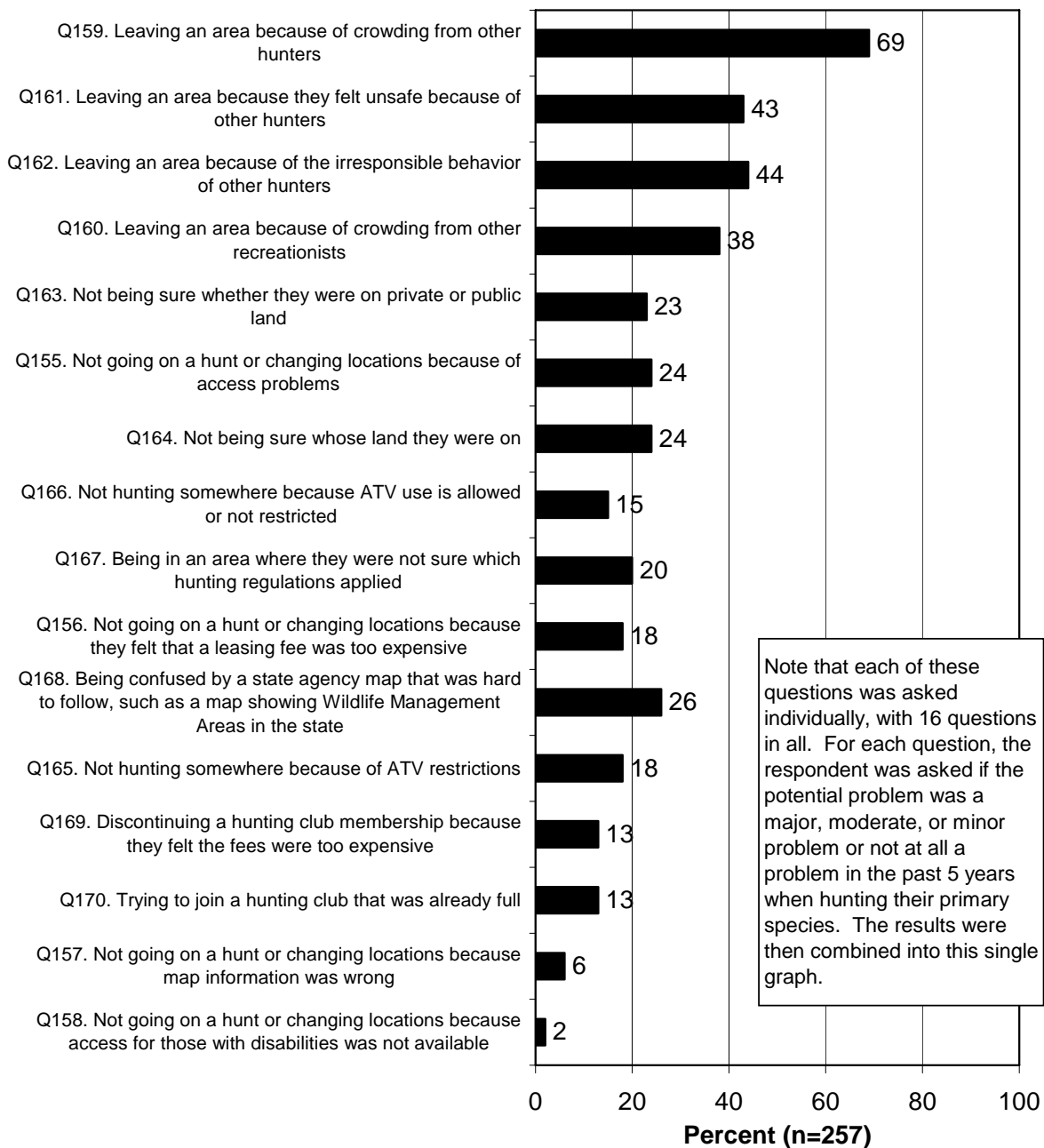


Figure 2.52. Problems influencing hunters' decisions and/or actions when hunting wild turkey.

Percent who indicated that the following have been a major, moderate, or minor problem in the past 5 years when hunting wild turkey.

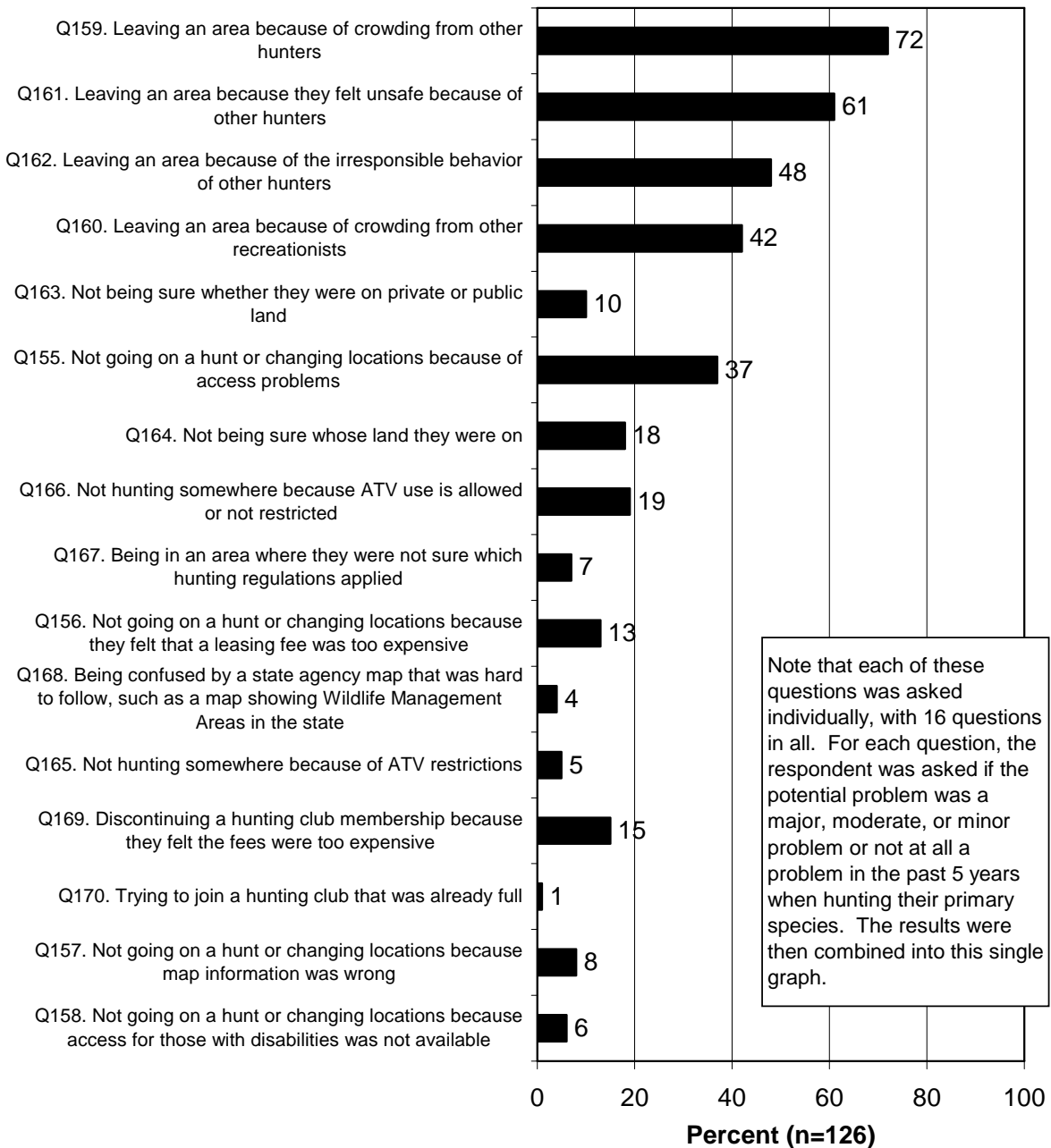


Figure 2.53. Problems influencing hunters' decisions and/or actions for hunters who hunt mostly on public land.

**Percent who indicated that the following have been a major, moderate, or minor problem in the past 5 years when hunting (SPECIES).
(Hunts mostly on public land)**

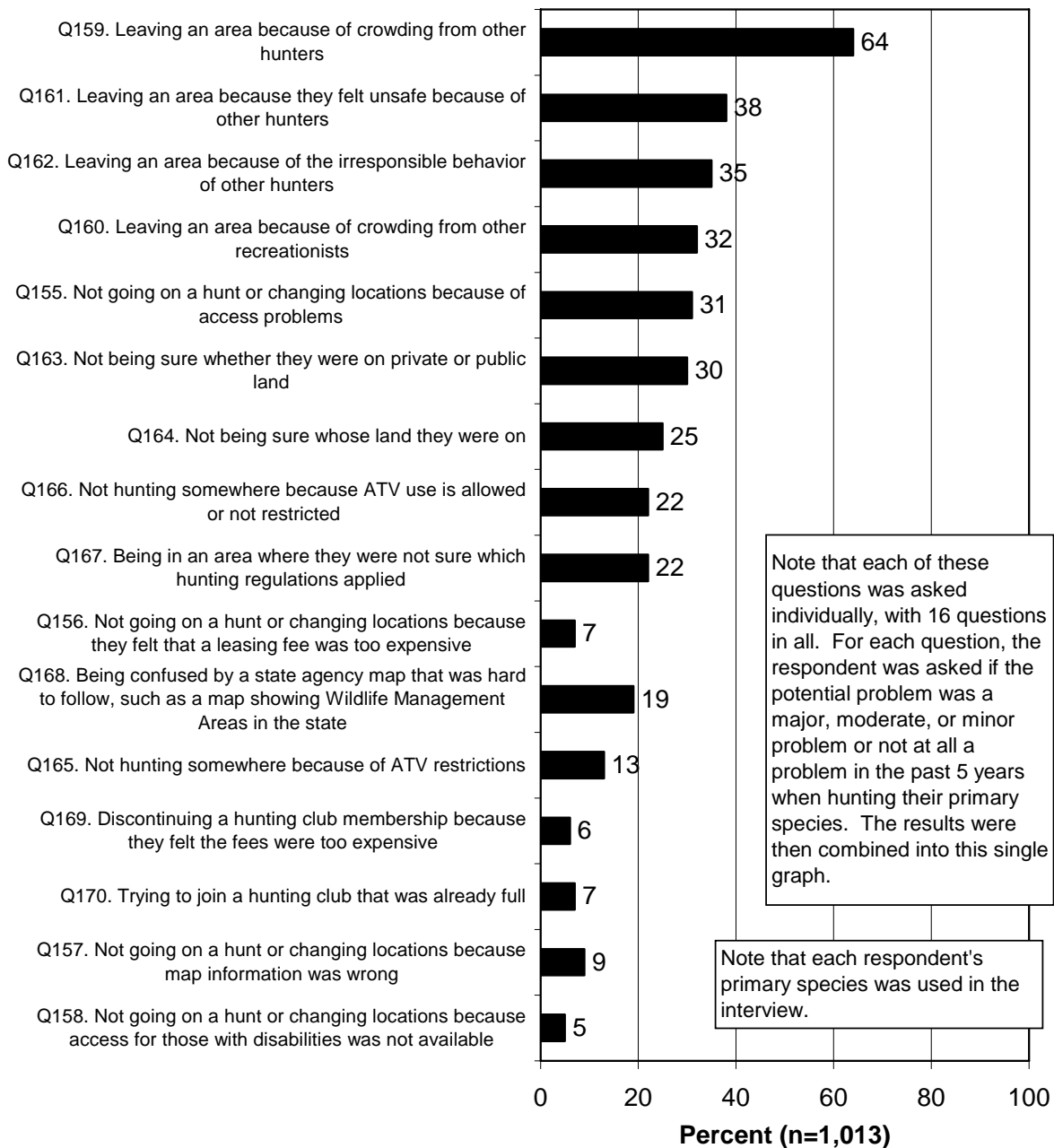
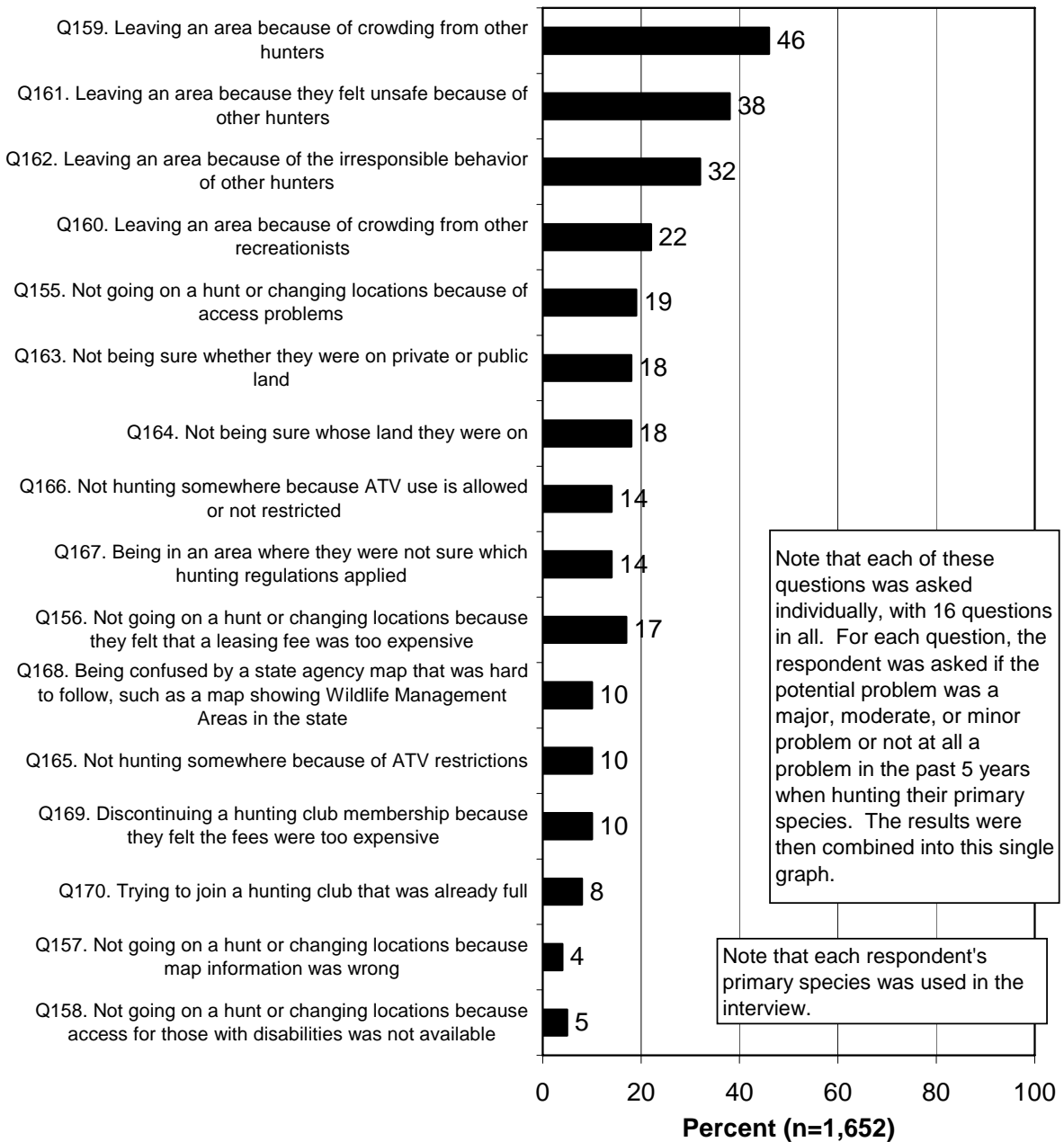


Figure 2.54. Problems influencing hunters' decisions and/or actions for hunters who hunt mostly on private land.

**Percent who indicated that the following have been a major, moderate, or minor problem in the past 5 years when hunting (SPECIES).
(Hunts on mostly private land)**



In focus group discussions with hunters in Macon, Georgia, and Seattle, Washington, crowding was also mentioned as an important access issue, particularly when hunting public lands (Responsive Management/NSSF, 2008b).

“If you get on public land that’s really popular, you have every Tom, Dick, and Harry out there.”

— Seattle, Washington, hunter (Responsive Management/NSSF, 2008b)

“I try to stay away from the management land because of the safety aspect: You don’t know who these [hunters] are or where they are. I went to a place years ago and climbed a tree and probably counted twelve guys [in the area].”

— Macon, Georgia, hunter (Responsive Management/NSSF, 2008b)

“You have public land, National Forests that are crowded....”

— Seattle, Washington, hunter (Responsive Management/NSSF, 2008b)

As a whole, the results of the focus groups and telephone survey suggest that access itself is not as great a problem as is access to *uncrowded* lands—the four top problems in the survey relate to other people being on the land on which the hunter wanted to hunt.

In an effort to better understand who is encountering crowding problems, crosstabulations were run to determine statistically significant relationships. The data suggest that responses vary regionally. In a crosstabulation of hunters who named “leaving an area because of crowding from other hunters” as a *major*, *moderate*, or *minor* problem, hunters in the New England region were statistically more likely than hunters in other regions to report this as a top problem (Figure 2.55).

Additionally, hunters who hunt private lands each year and hunters who hunt the same land each year were more likely to report that crowding was *not* a problem, when compared to hunters who hunt public lands each year and hunters who hunt different lands each year (Figures 2.56 and 2.57).

Figure 2.55. Crosstabulation of the rating of the severity of the given problem (leaving an area because of crowding from other hunters) by region of residence.

Q159. How much of a problem has leaving an area because of crowding from other hunters been for you in the past 5 years?

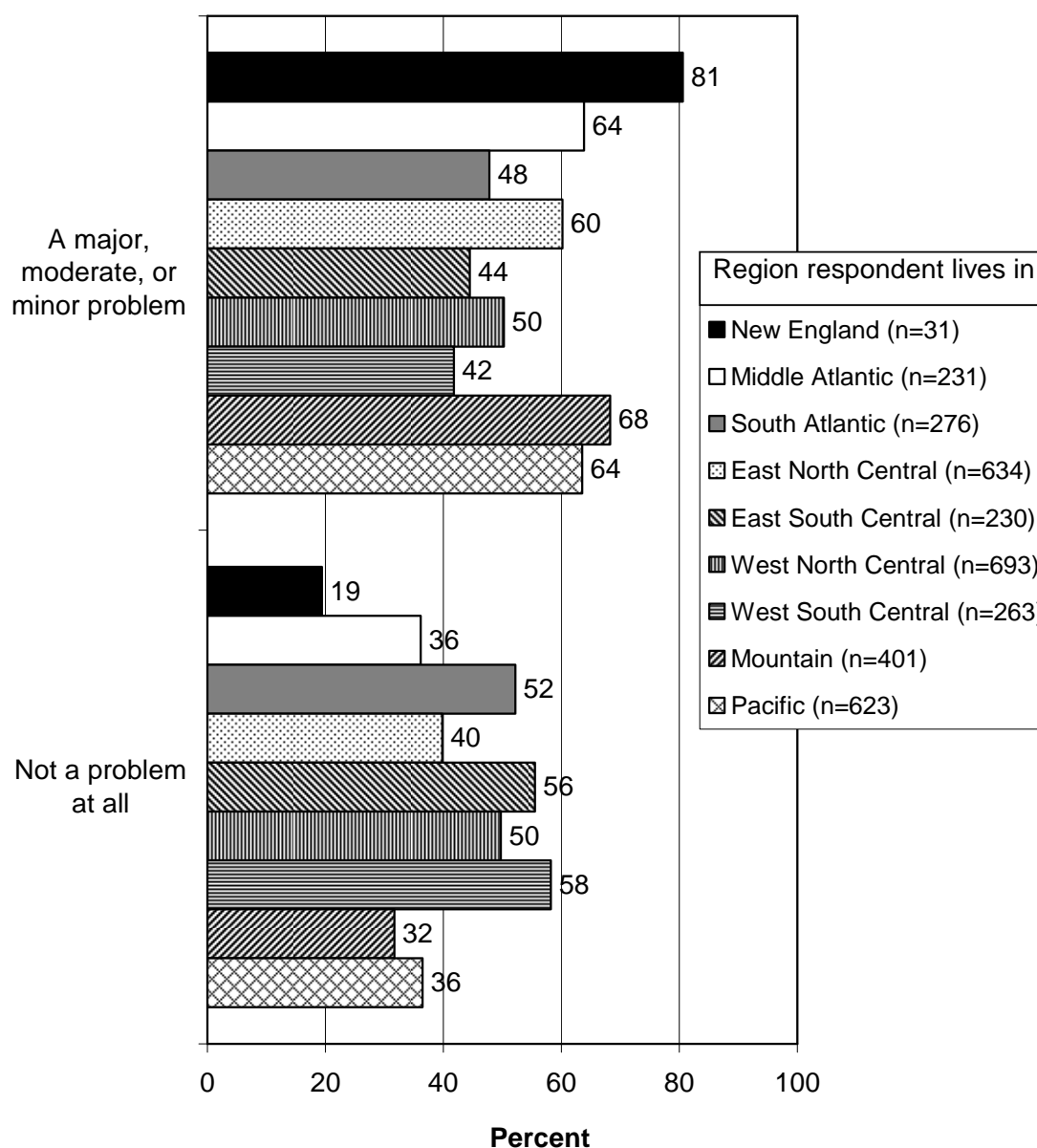


Figure 2.56. Crosstabulation of the rating of the severity of the given problem (leaving an area because of crowding from other hunters) by hunting on public/private lands.

Q159. How much of a problem has leaving an area because of crowding from other hunters been for you in the past 5 years?

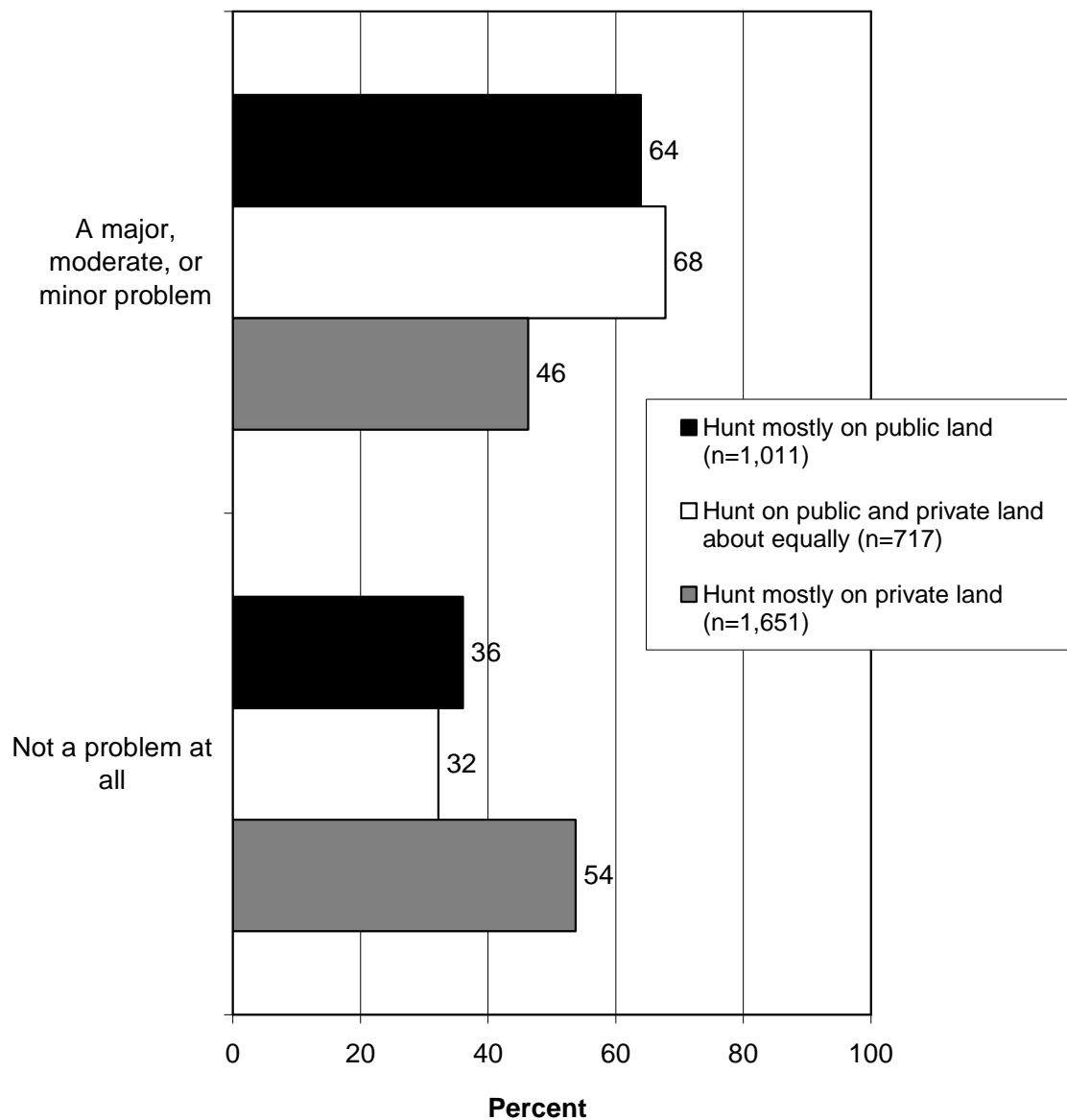
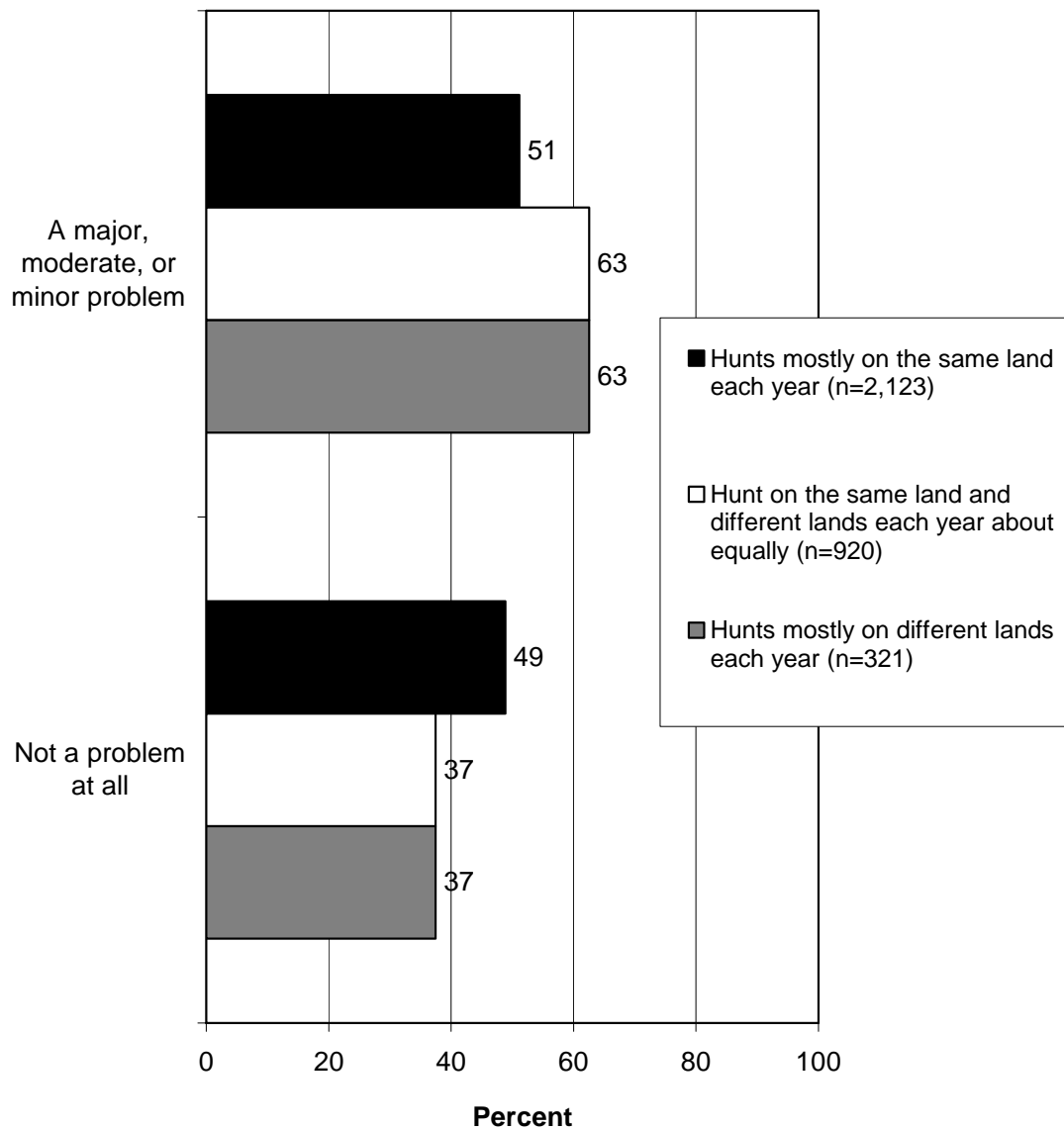


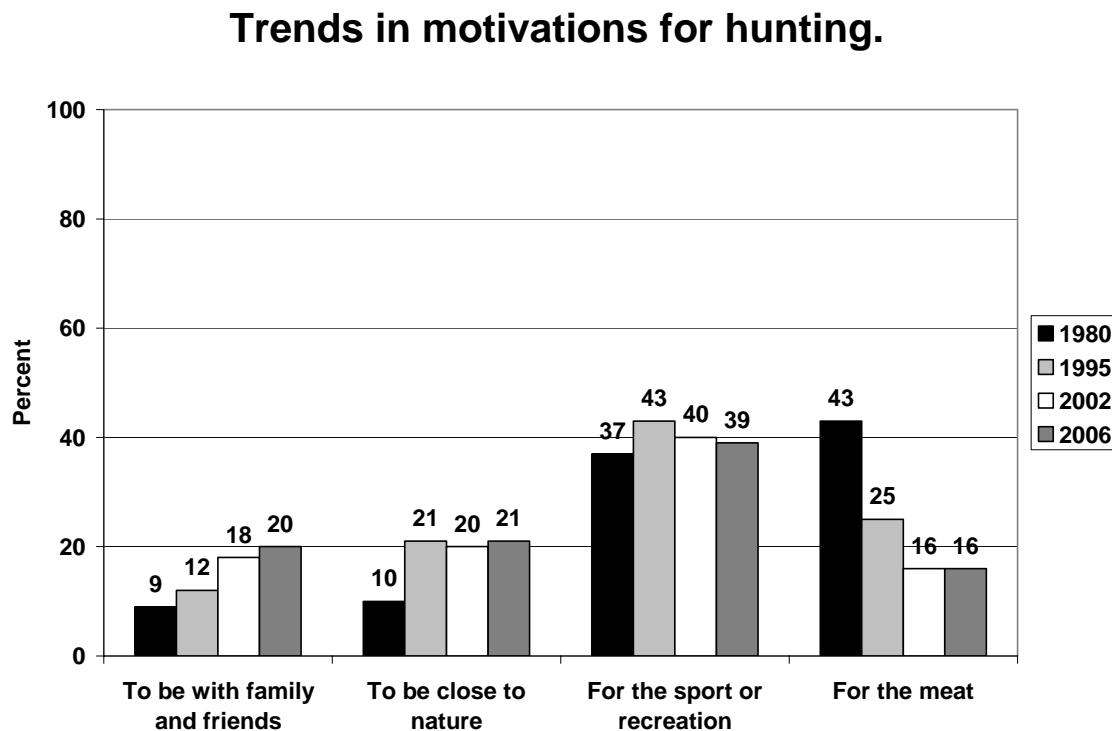
Figure 2.57. Crosstabulation of the rating of the severity of the given problem (leaving an area because of crowding from other hunters) by hunting on the same/different lands each year.

Q159. How much of a problem has leaving an area because of crowding from other hunters been for you in the past 5 years?



Recent trends in motivations for hunting may shed some light on why crowding appears to be such an important consideration when choosing lands to hunt, as well as an important determinant in a hunter's decision not to hunt a specific area. Trends in motivations for hunting over the past few decades show that hunting for meat has become less important, while hunting for other reasons has grown in importance (Figure 2.58). This is a manifestation of the overall trends in motivations for hunting in which aesthetic and appreciative-oriented reasons are becoming more important, whereas utilitarian reasons or achievement-oriented reasons for hunting are becoming less important to hunters (Responsive Management/NSSF, 2008a). Recent research found that 80% of hunters hunted for aesthetic or appreciative-oriented reasons: 39% did so for the sport or recreation, 21% did so to be close to nature, and 20% did so to be with family or friends (Responsive Management, 2002c, 2004a, 2006b, 2006c). Many statewide studies also show that more hunters hunt primarily for recreational, social, or naturalistic reasons than hunt primarily for utilitarian reasons. Because hunters are often motivated to hunt by these aesthetic and appreciative-oriented reasons, it seems reasonable that they would seek hunting locations that are not crowded when choosing where to hunt.

Figure 2.58. Trends in motivations for hunting.



Source: Kellert, 1980; RM/NSSF, 2008.

Previously, it was noted that two other top problems are social issues closely related to crowding: feeling unsafe because of other hunters and the irresponsible behavior of other hunters. It is instructive to delve into these issues a bit more. Previous research shows that concerns over hunter behavior and fear of injury are very real issues that affect participation. When asked in an open-ended question if there were any things that had taken away from

their enjoyment of hunting, 5% of hunters named poor behavior of/fear of injury from other hunters, ranking it below access, but above lack of game (Responsive Management/NSSF, 2008a). In a direct question among the series of possible constraints or dissatisfactions, 14% of active hunters said that poor behavior of other hunters strongly took away from enjoyment or influenced a decline in their hunting. Similarly, in direct questioning, 11% of inactive hunters said that poor behavior of other hunters *strongly* influenced them to not hunt in recent years (Responsive Management/NSSF, 2008a). Previous research also suggests that there is a link between hunter behavior and lack of access. Hunters who said that access had gotten worse were asked to indicate why it had gotten worse, and 11% of them said that poor hunter behavior had led to private land being closed to hunting (Responsive Management/NSSF, 2008a).

Recent studies have directly explored hunter behavior. Research shows that more than a third of hunters (37%) agree that a lot of hunters violate hunting laws, and nearly half of hunters (45%) have witnessed a hunting violation (Responsive Management/NSSF, 2008a). When asked which laws they think hunters violate the most often, hunters cite trespassing and various forms of poaching as the top violations (Responsive Management/NSSF, 2008a). Hunters also show concern about hunter safety. The overwhelming majority of hunters (89%) think that all hunters should be required to pass a hunting safety course to get a license. Additionally, 54% of hunters think that hunters should be required to periodically take a refresher hunting safety course (Responsive Management/NSSF, 2008a).

Feeling unsafe because of other hunters and the irresponsible behavior of other hunters are tangentially related to crowding because having too many hunters in an area may increase these problems. In turn, this impacts the overall natural and aesthetic characteristics of the hunting experience. In general, the research shows that poor hunter behavior and hunter safety are not only considerations that influence landowners' decisions to disallow hunting on their properties, but these considerations are also important access issues for hunters themselves.

FACTORS AFFECTING HUNTER ENJOYMENT

- **When asked about factors that had taken away from their enjoyment of hunting, even if those things did not prevent them from actually going hunting, hunters most commonly named access problems.**

Hunters were asked if there was anything that took away from their enjoyment of hunting, even if those factors did not prevent them from actually going hunting. Results were almost evenly split, with 51% of hunters indicating that something had taken away from their enjoyment of hunting and 48% of hunters saying that nothing had taken away from their enjoyment of hunting. Among the things that had taken away from their enjoyment of hunting, hunters most commonly named some type of access problem (14%). Other problems included a regulation-related answer, such as season timing (10%), and/or not enough game (9%) (Figure 2.59). Note that the analysis breaks down the “access-related problems” category into specific access problems as subsets of access-related problems overall. Primary among those access problems are the posting of private land, a simple lack

of land on which to hunt, land being closed because of development, land being leased to others, and public land being closed.

Figure 2.59. Factors that took away from hunters' enjoyment.

Q31/34/38. Are there any things that have taken away from your enjoyment of hunting in (STATE), even if they didn't prevent you from actually going? If yes, what are they? (Shows only those items with a response of 0.5% or higher)



ACCESS PROBLEMS INFLUENCING HUNTING PARTICIPATION

- **When presented a list of ten problems that may potentially influence access to hunting land, the top problems include private land that is posted or closed because the landowner is concerned about liability, housing and commercial development, and public or private tracts being broken up when sold or leased.**

Hunters were asked about ten potential problems that may or may not influence access to hunting land in general, regardless of whether their own participation was affected. Hunters were asked to identify if each item was a *major* problem, a *moderate* problem, a *minor* problem, or *not at all* a problem. Three of the ten potential problems had a majority saying it is a problem: private land posted or closed because the landowner is specifically concerned about liability (56%), housing and commercial development (54%), and public or private land tracts being broken up when sold or leased (52%) (Figure 2.60).

Figures 2.61 through Figure 2.69 show results of the percent of hunters who indicated that these ten problems have been major, moderate, or minor problems in accessing hunting land in general by region.

Figures 2.70 through Figure 2.76 show results of the percent of hunters who indicated that these ten problems have been major, moderate, or minor problems in accessing hunting land in general by primary species hunted.

Figures 2.77 through Figure 2.78 show the results of the percent of hunters who indicated that these ten problems have been major, moderate, or minor problems in accessing hunting land in general by whether the respondent hunts mostly on public lands or mostly on private lands.

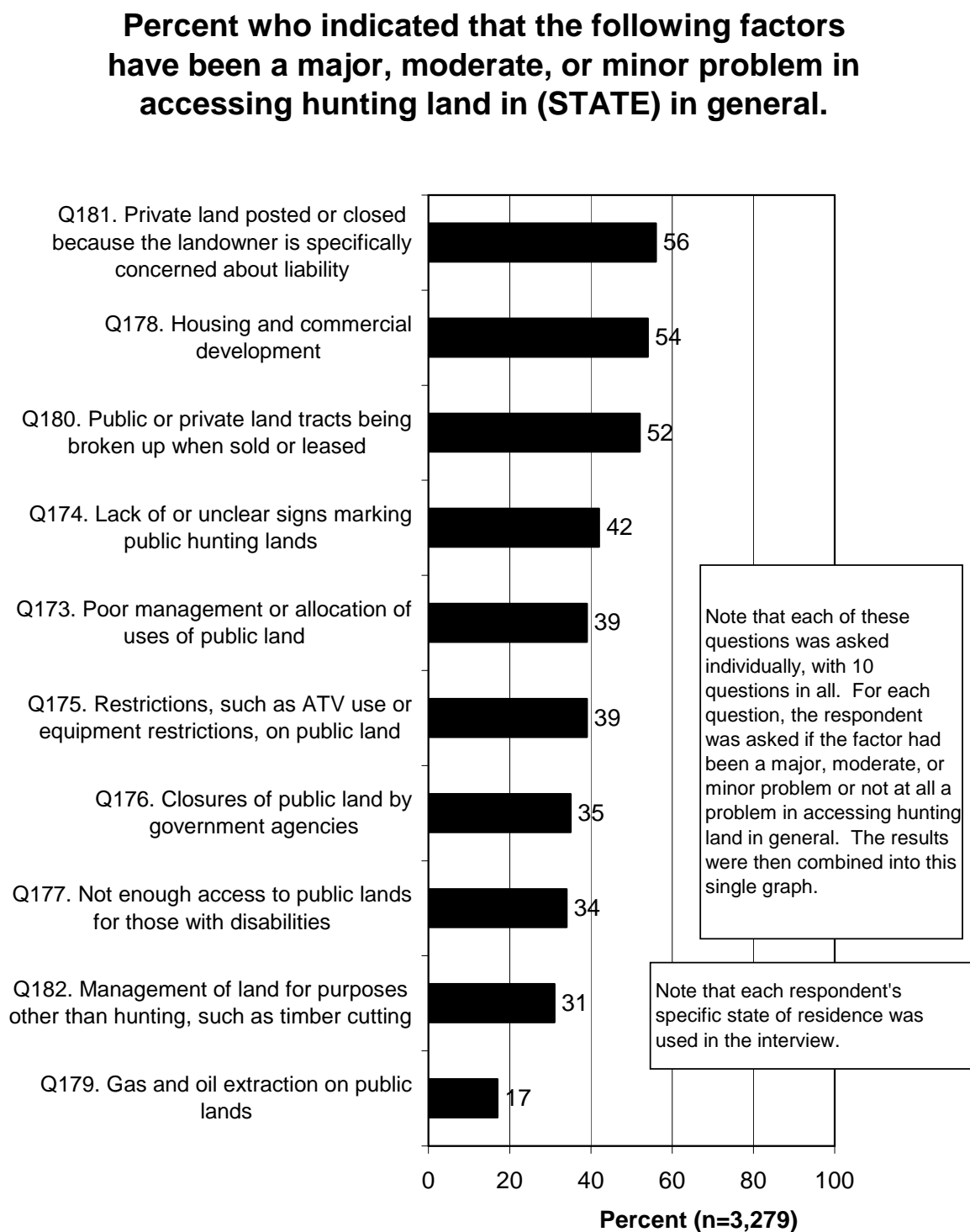
Figure 2.60. Factors influencing access to hunting land in general.

Figure 2.61. Factors influencing access to hunting land in general in the New England Region.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(New England Region)**

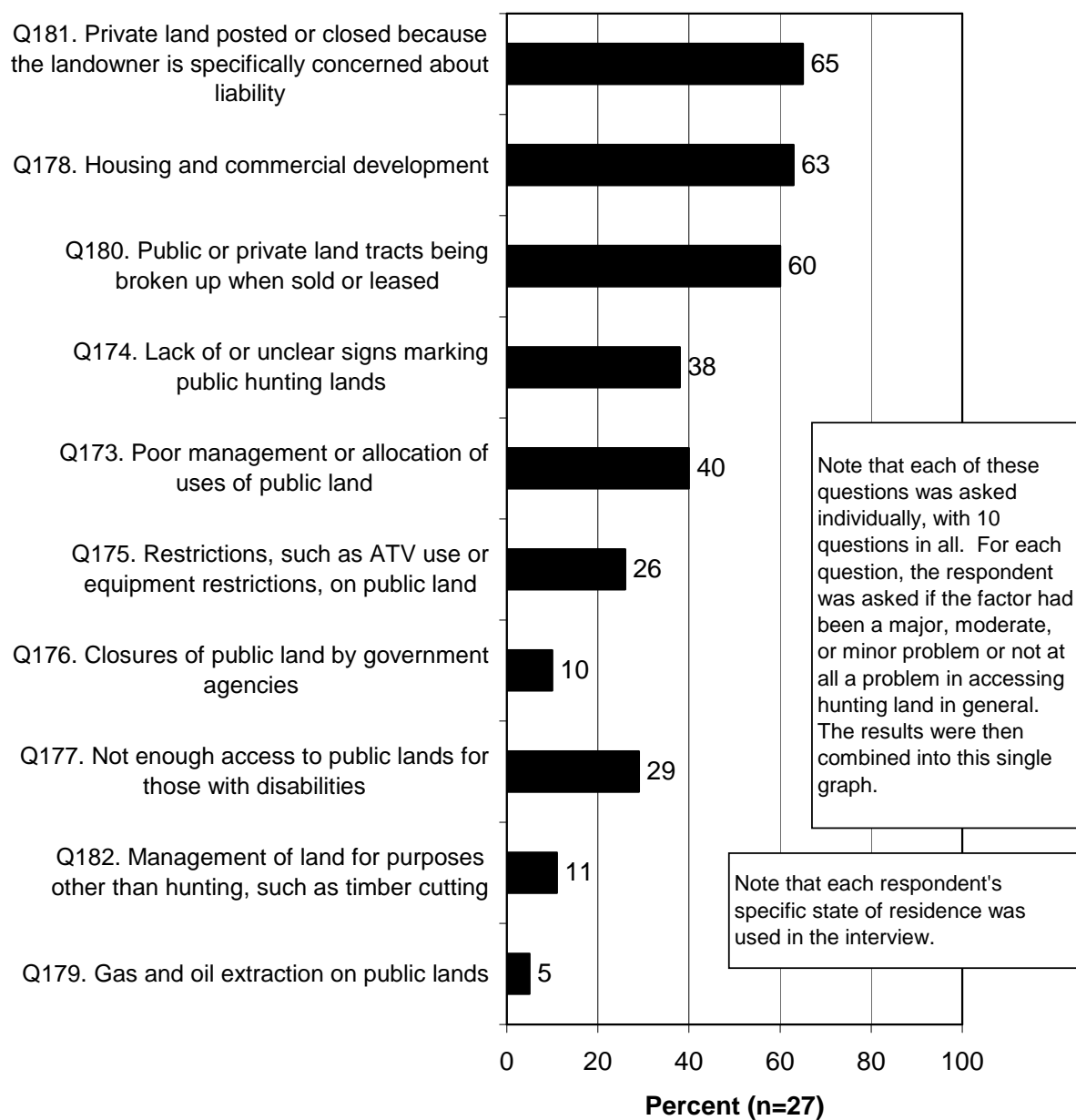


Figure 2.62. Factors influencing access to hunting land in general in the Middle Atlantic Region.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(Middle Atlantic Region)**

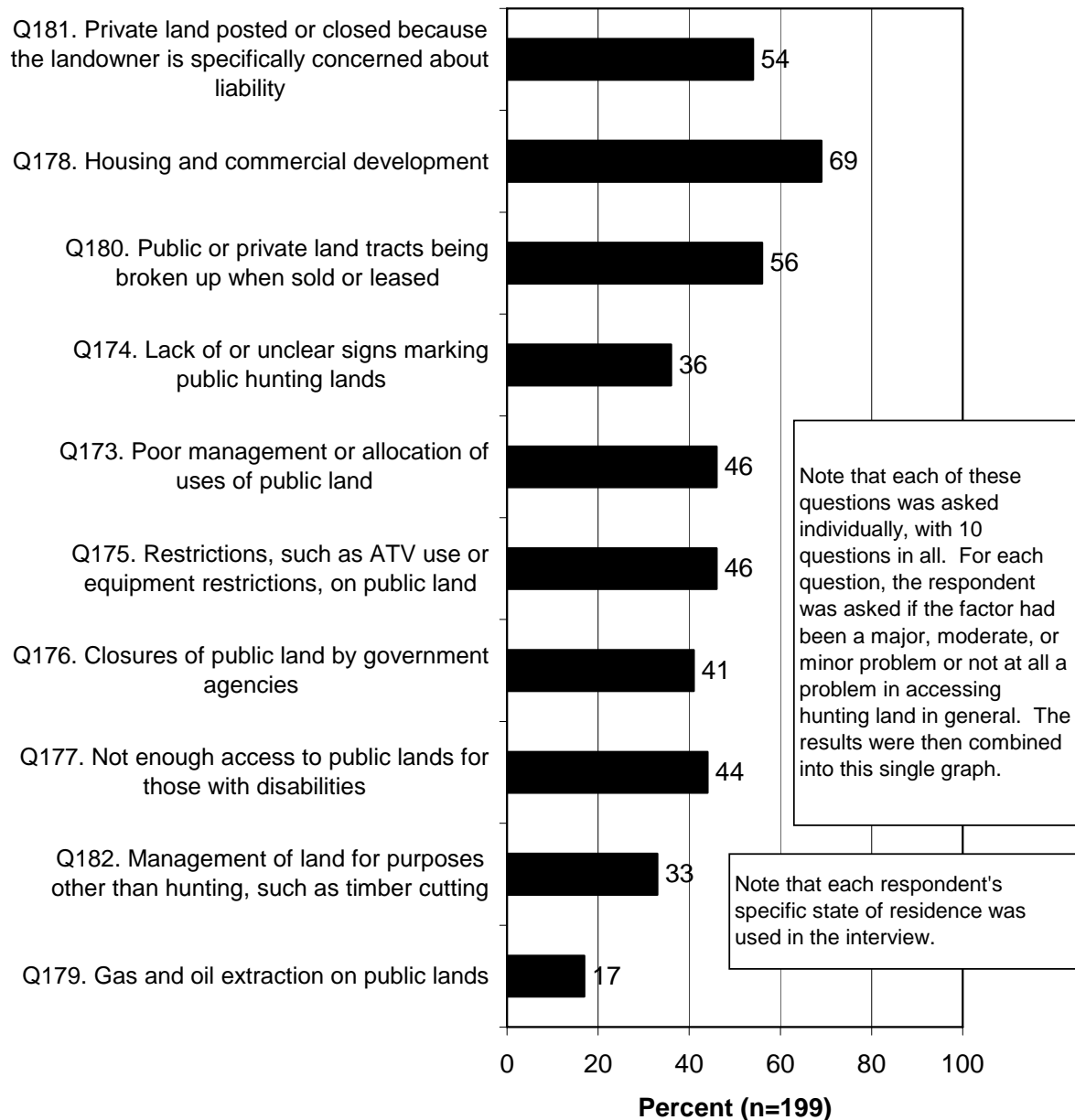


Figure 2.63. Factors influencing access to hunting land in general in the South Atlantic Region.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(South Atlantic Region)**

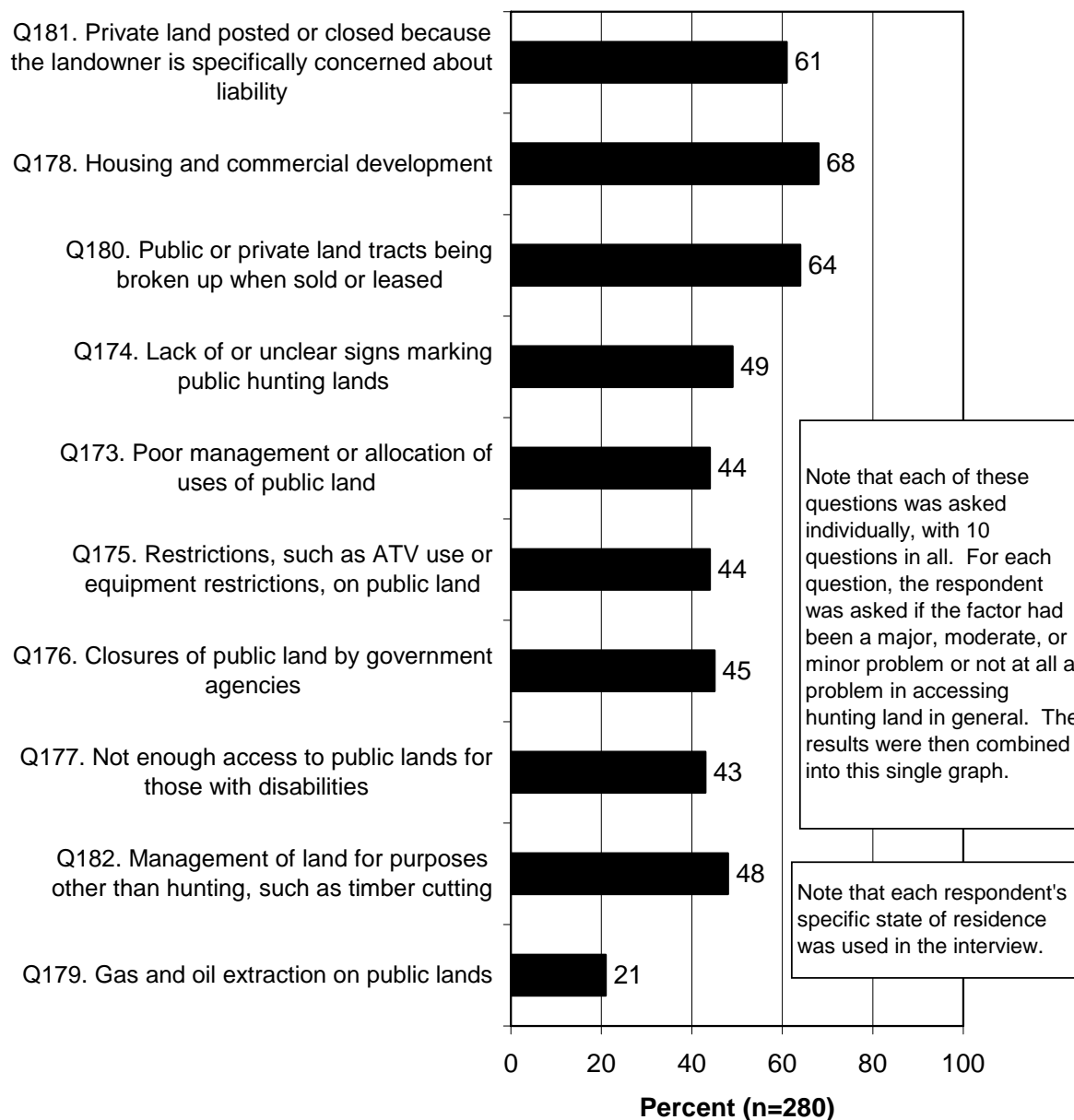


Figure 2.64. Factors influencing access to hunting land in general in the East North Central Region.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(East North Central Region)**

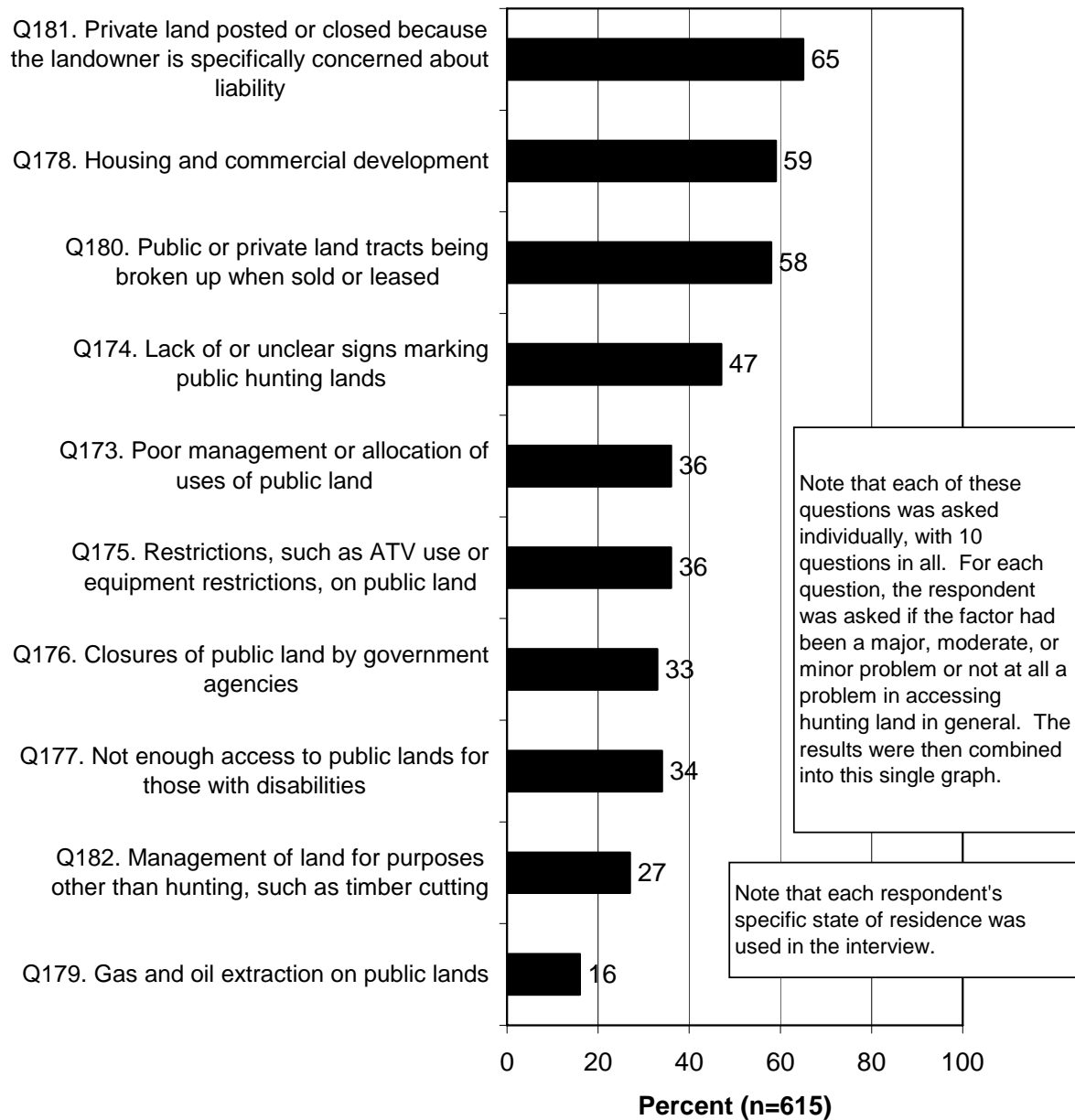


Figure 2.65. Factors influencing access to hunting land in general in the East South Central Region.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(East South Central Region)**

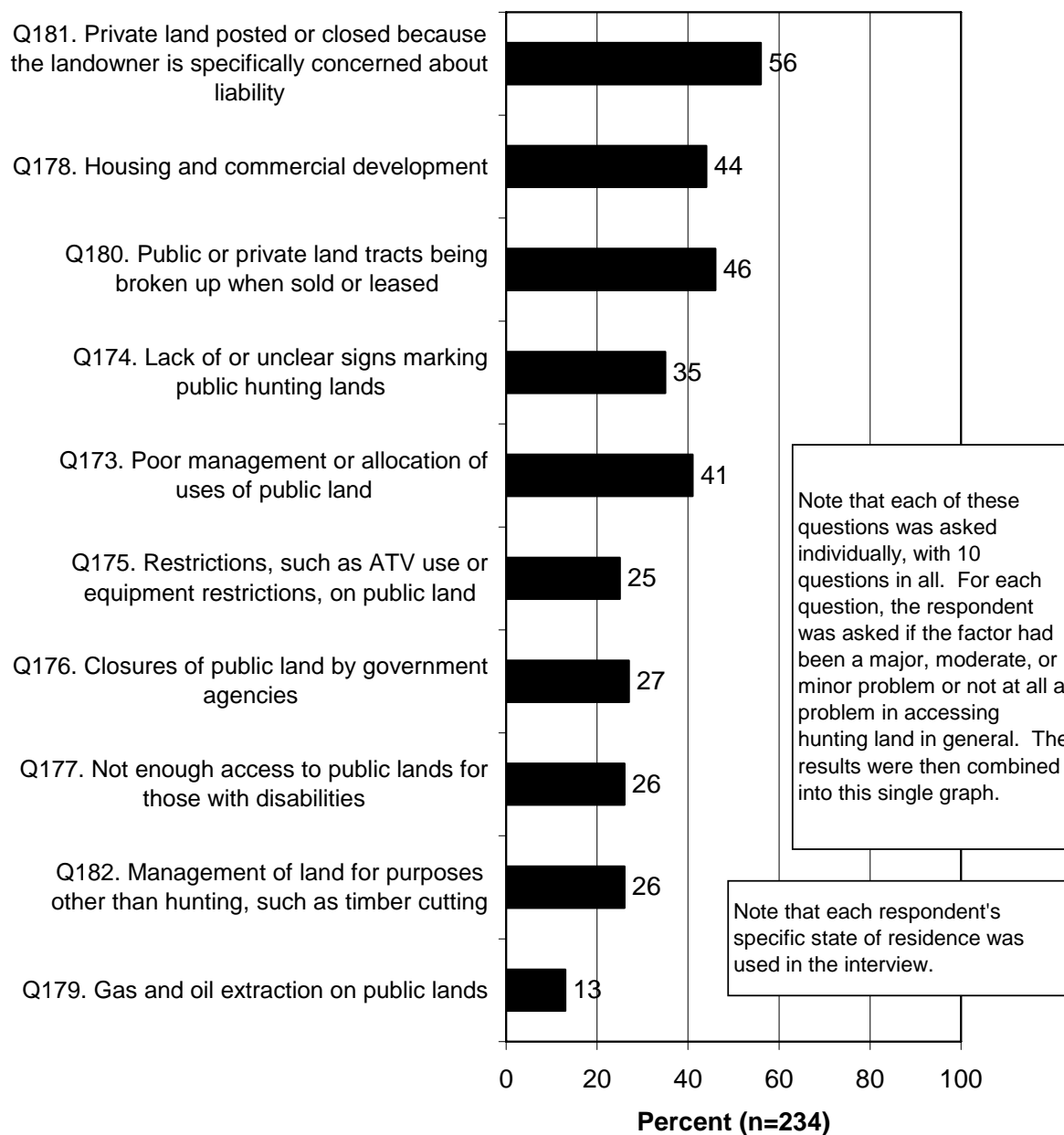


Figure 2.66. Factors influencing access to hunting land in general in the West North Central Region.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(West North Central Region)**

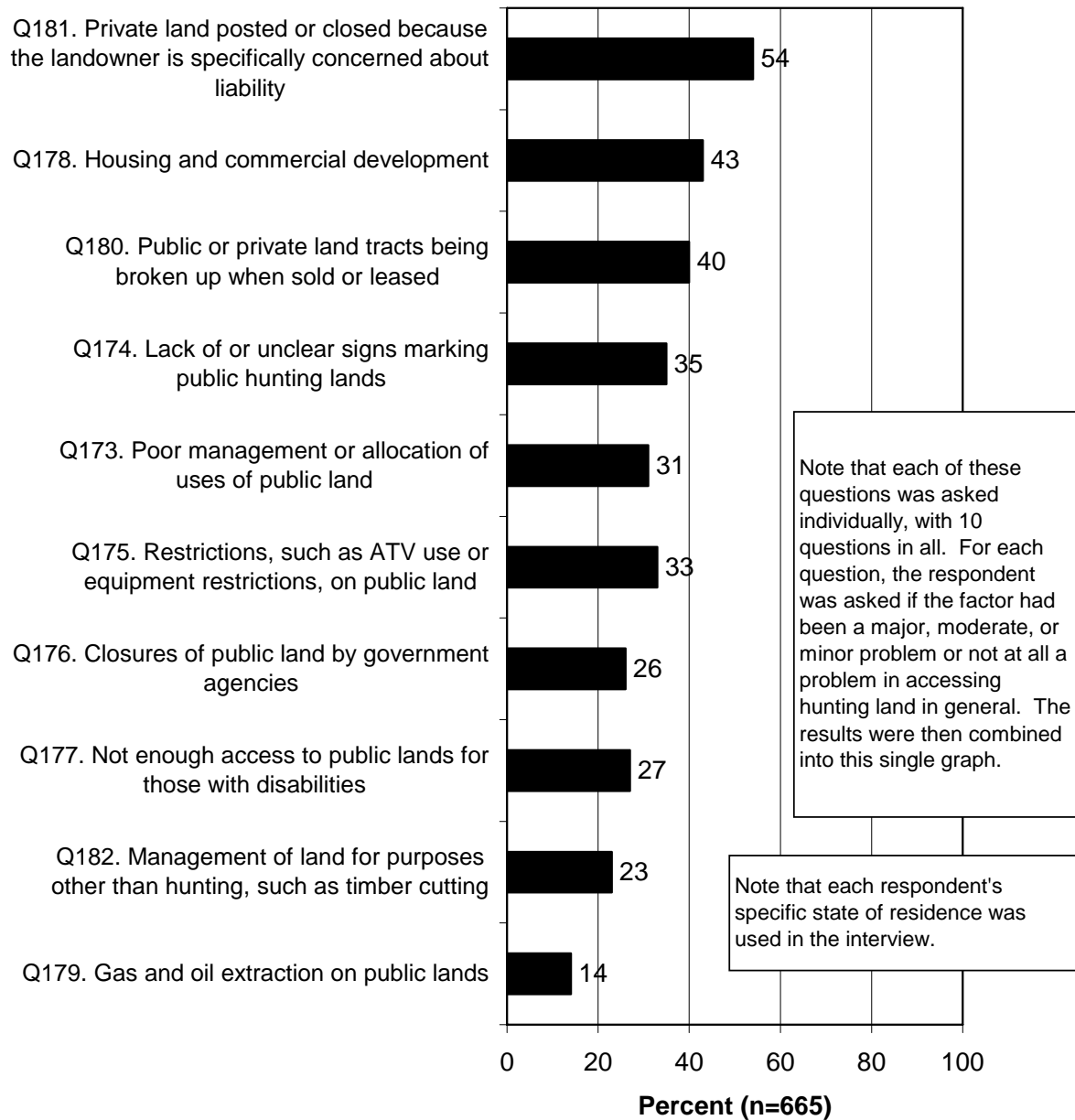


Figure 2.67. Factors influencing access to hunting land in general in the West South Central Region.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(West South Central Region)**

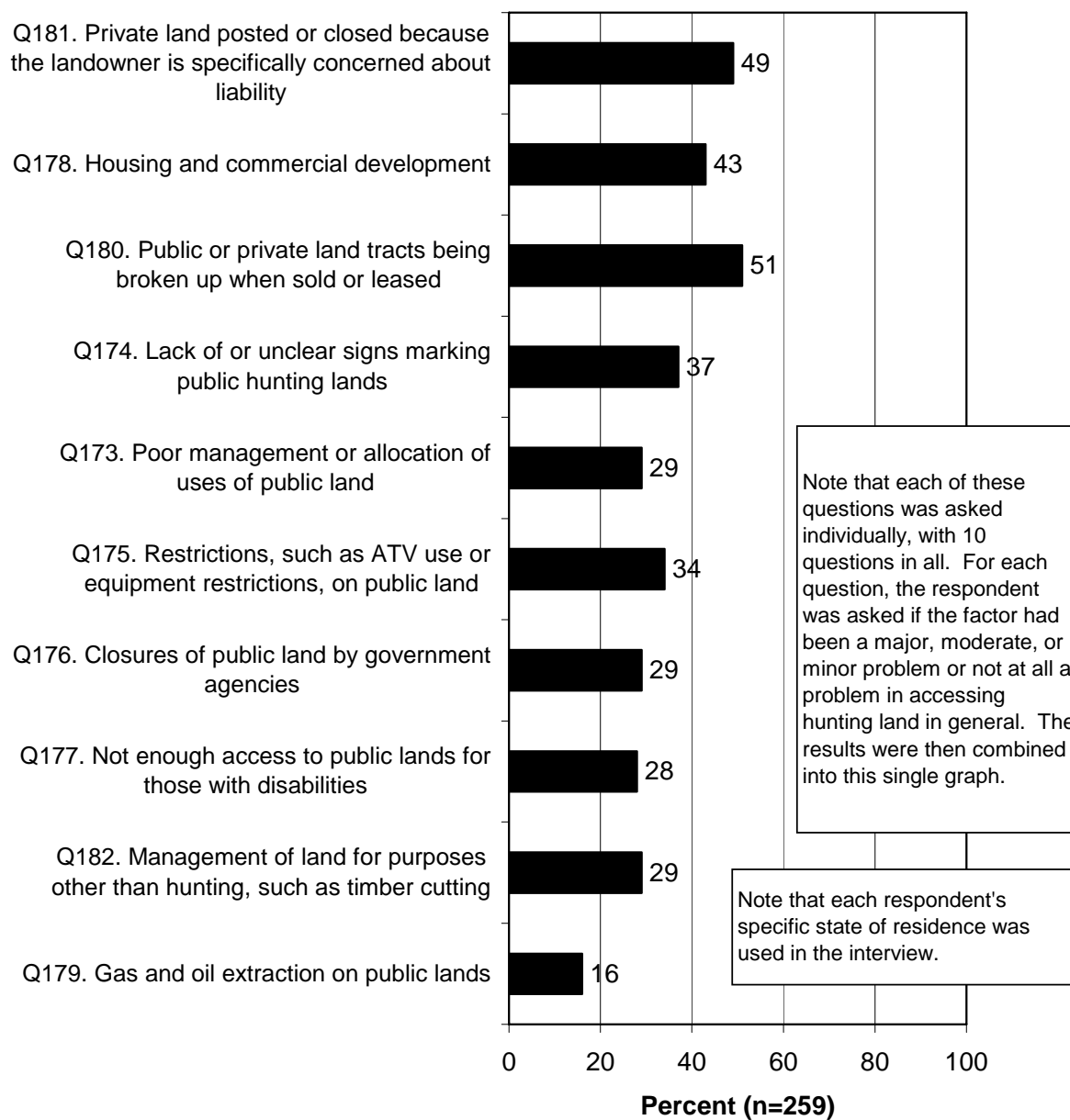


Figure 2.68. Factors influencing access to hunting land in general in the Mountain Region.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(Mountain Region)**

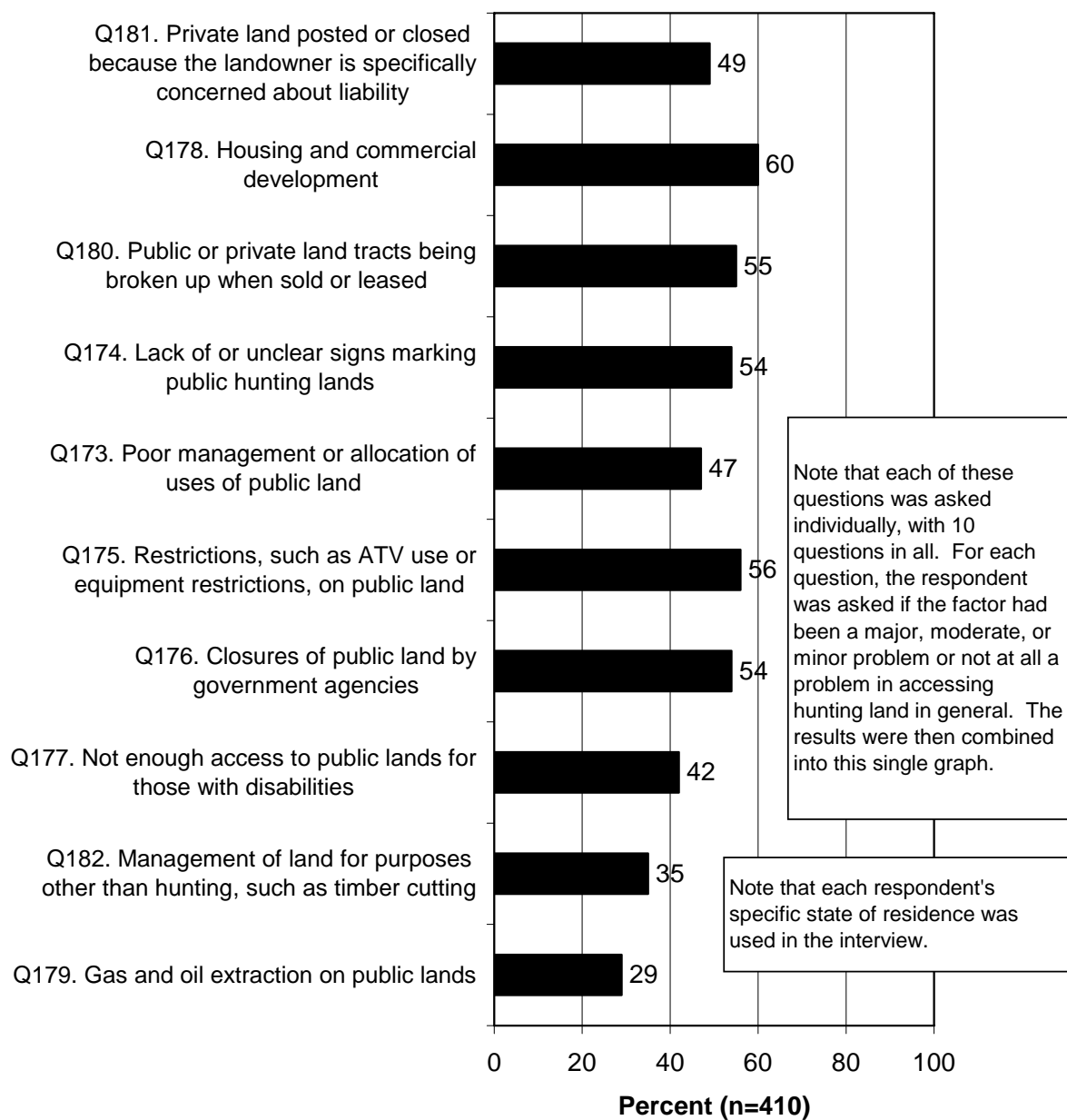


Figure 2.69. Factors influencing access to hunting land in general in the Pacific Region.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(Pacific Region)**

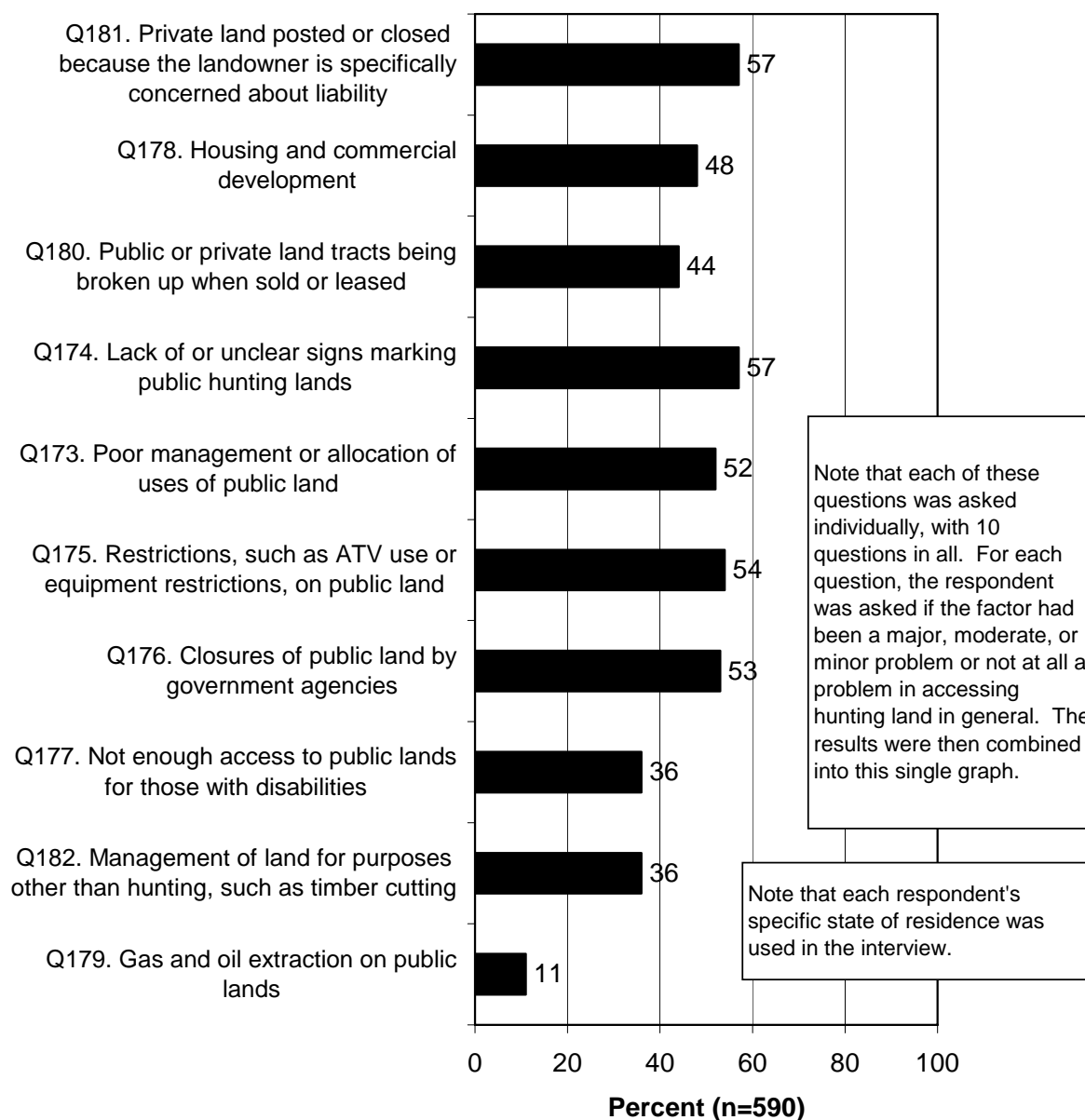


Figure 2.70. Factors influencing access to hunting land in general for those who hunt in any deer species.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(Primarily hunted any deer species)**

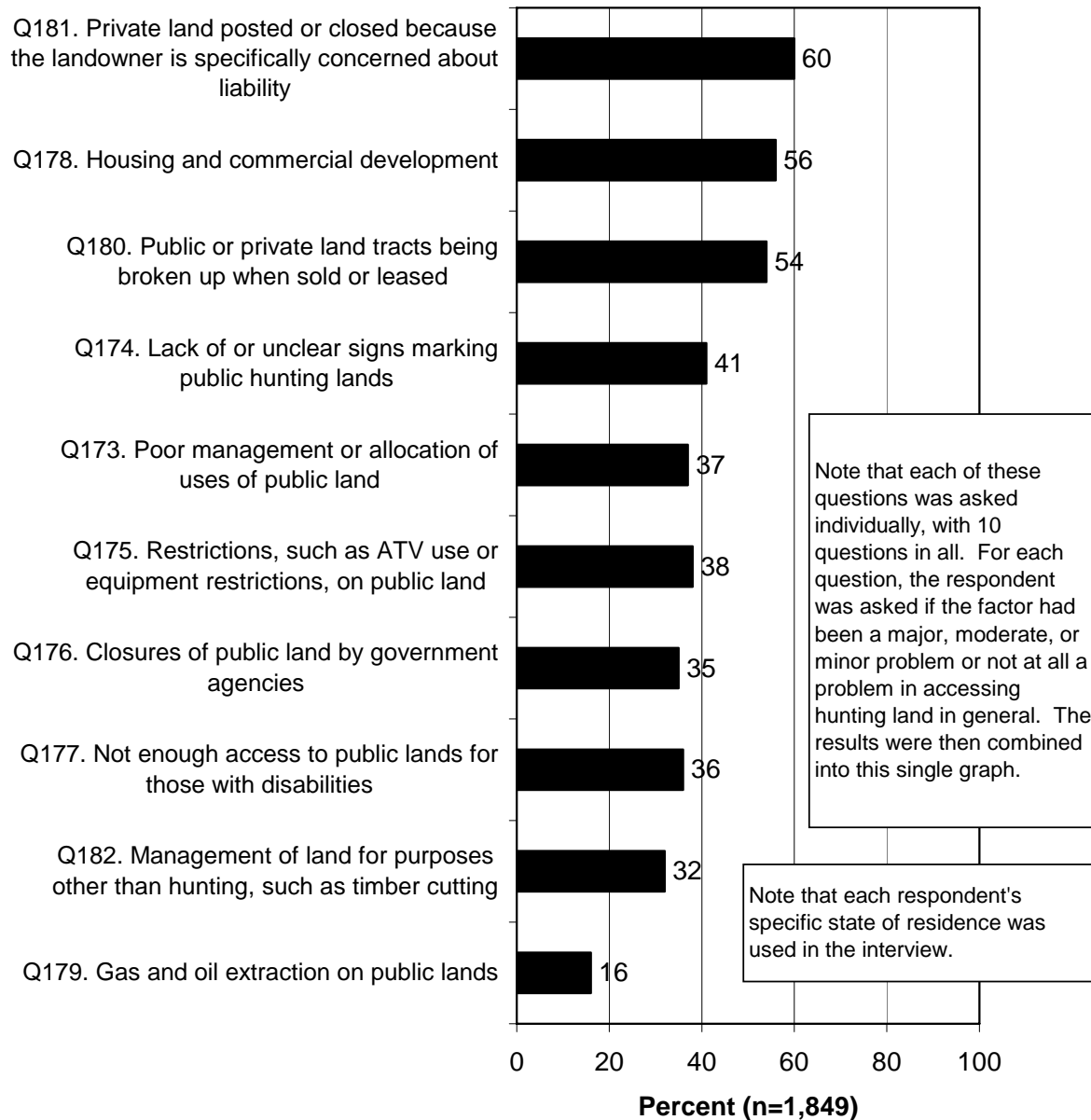


Figure 2.71. Factors influencing access to hunting land in general for those who hunt white-tailed deer.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(Primarily hunted white-tailed deer)**

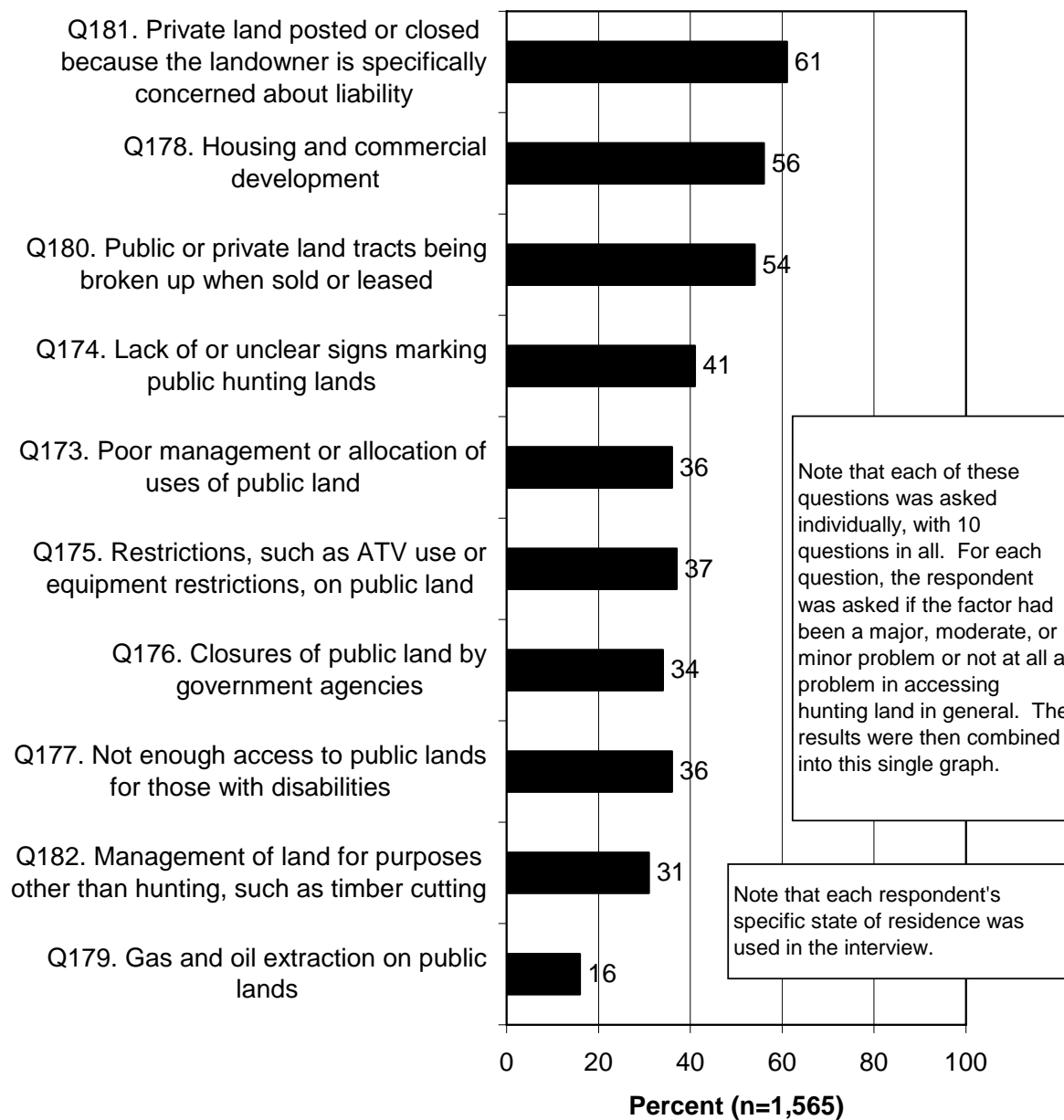


Figure 2.72. Factors influencing access to hunting land in general for those who hunt mule deer.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(Primarily hunted mule deer)**

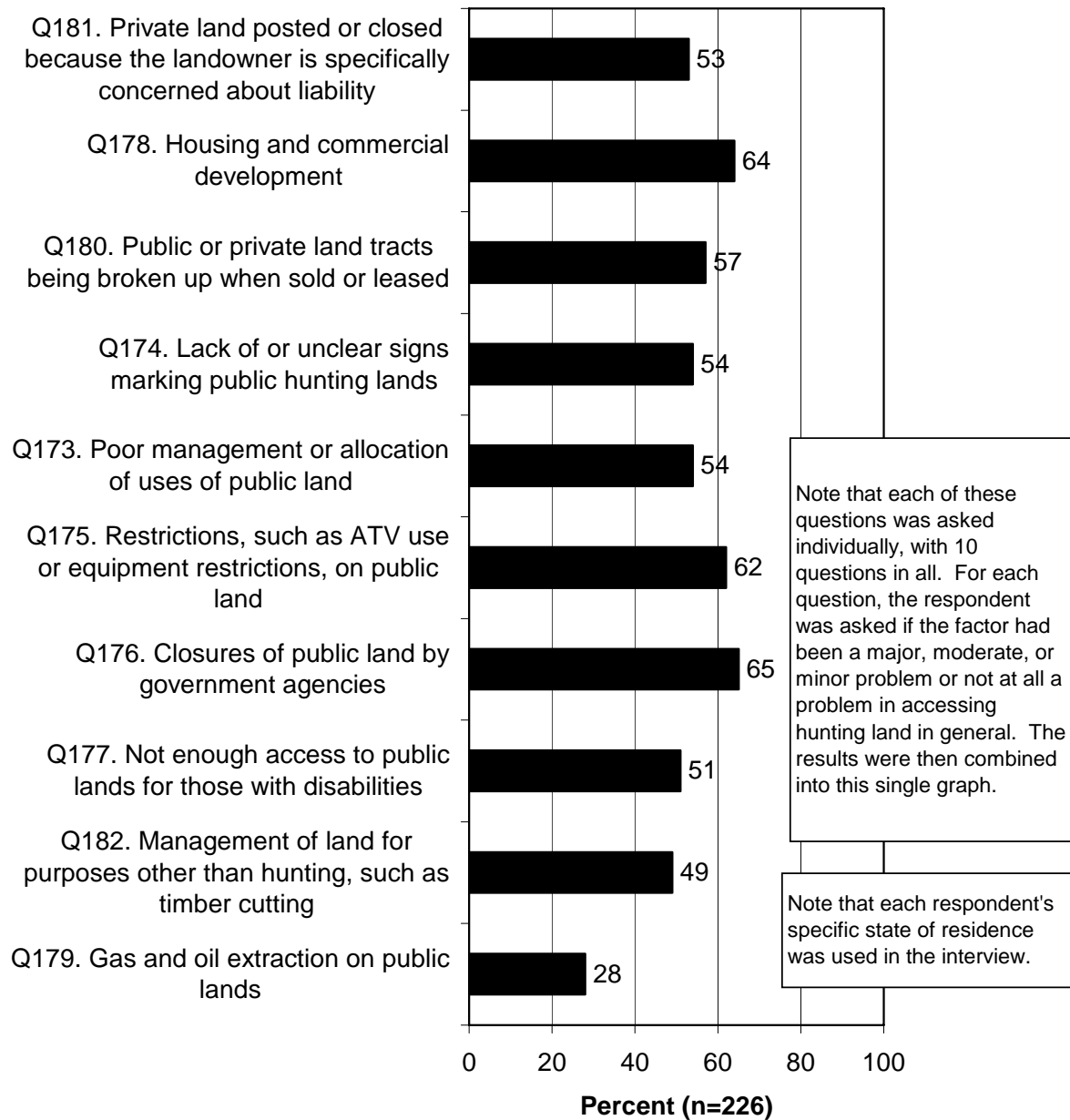


Figure 2.73. Factors influencing access to hunting land in general for those who hunt upland game birds.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(Primarily hunted upland game birds)**

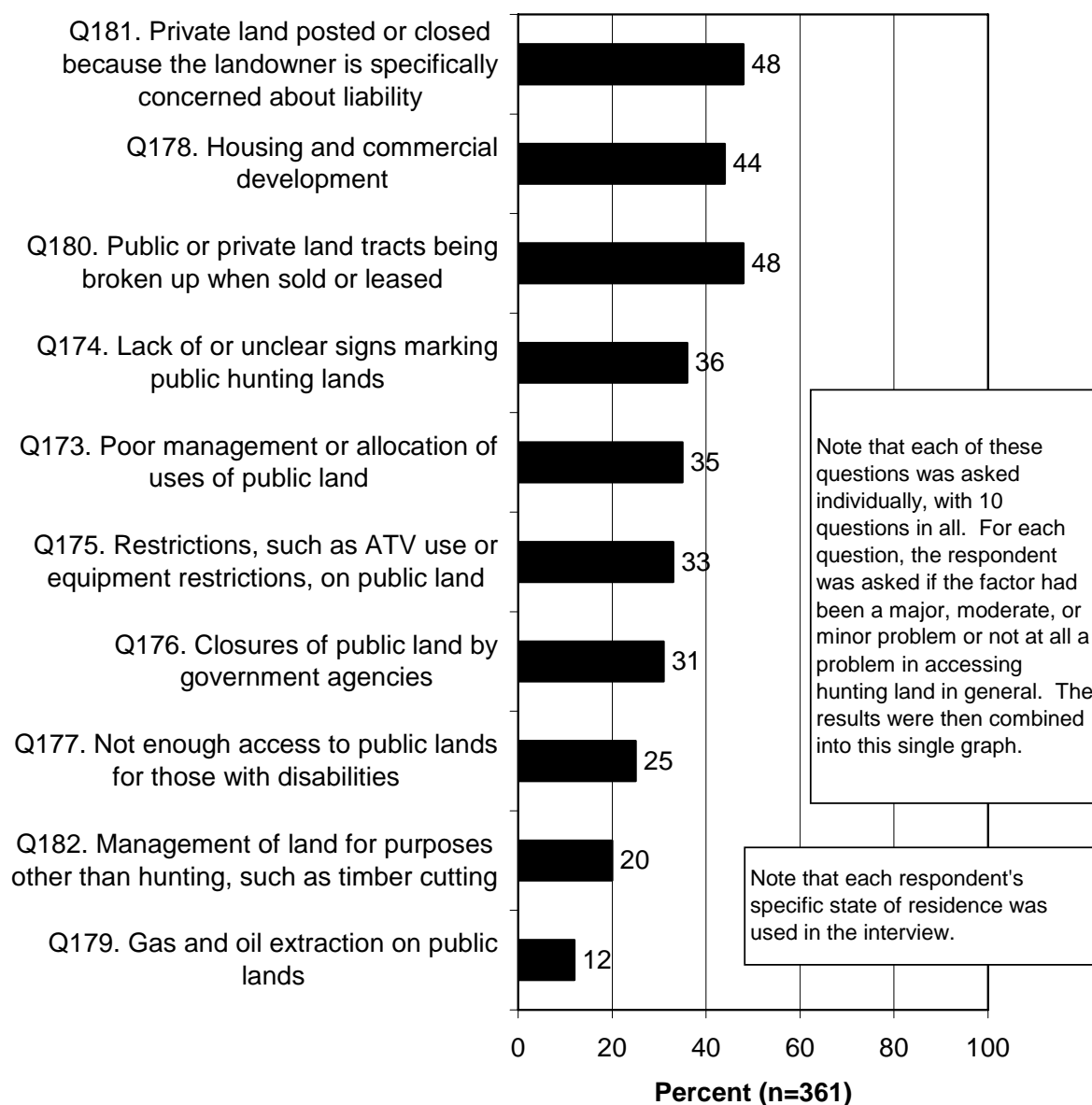


Figure 2.74. Factors influencing access to hunting land in general for those who hunt elk.

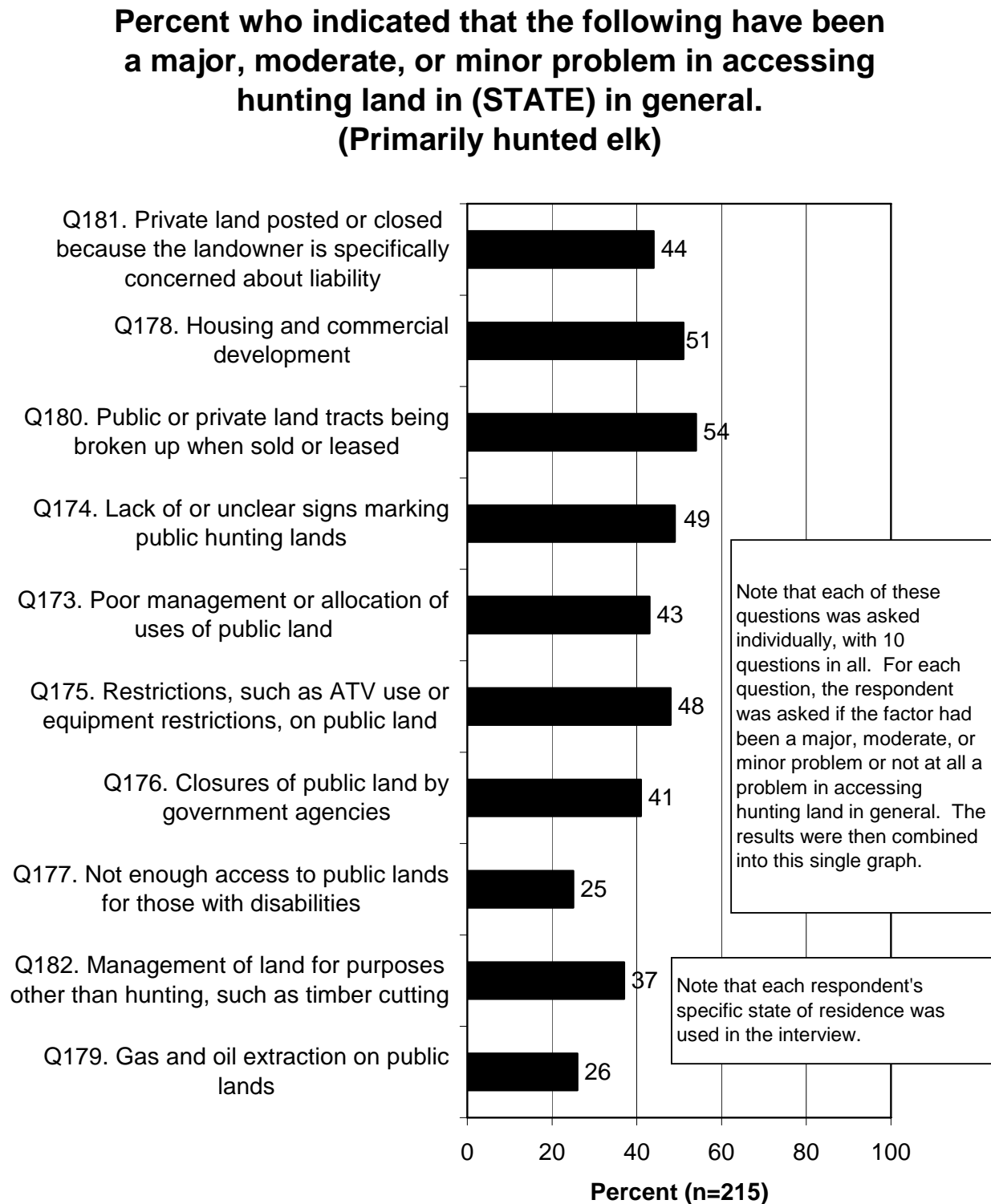


Figure 2.75. Factors influencing access to hunting land in general for those who hunt waterfowl.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(Primarily hunted waterfowl)**

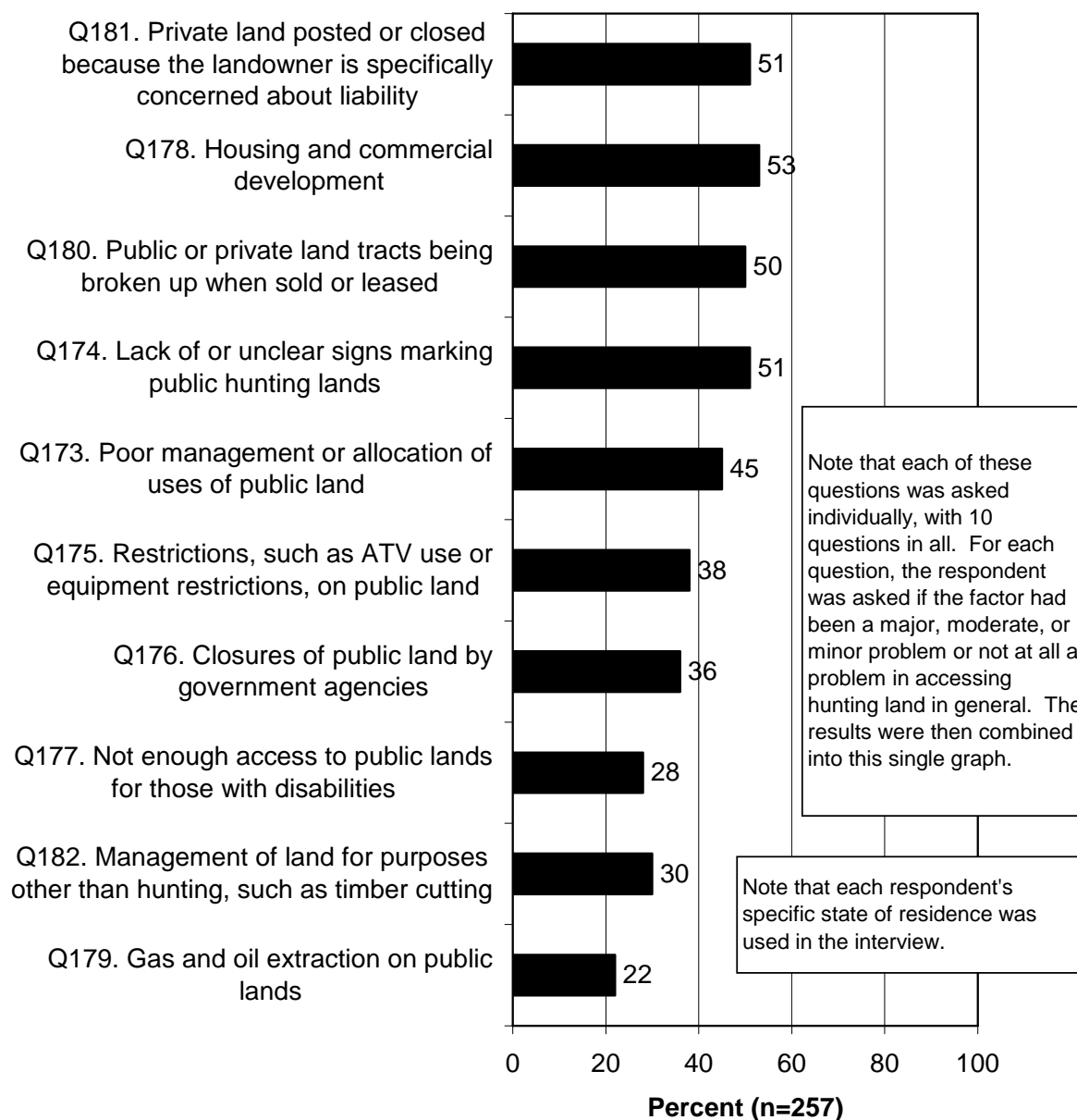


Figure 2.76. Factors influencing access to hunting land in general for those who hunt wild turkey.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(Primarily hunted wild turkey)**

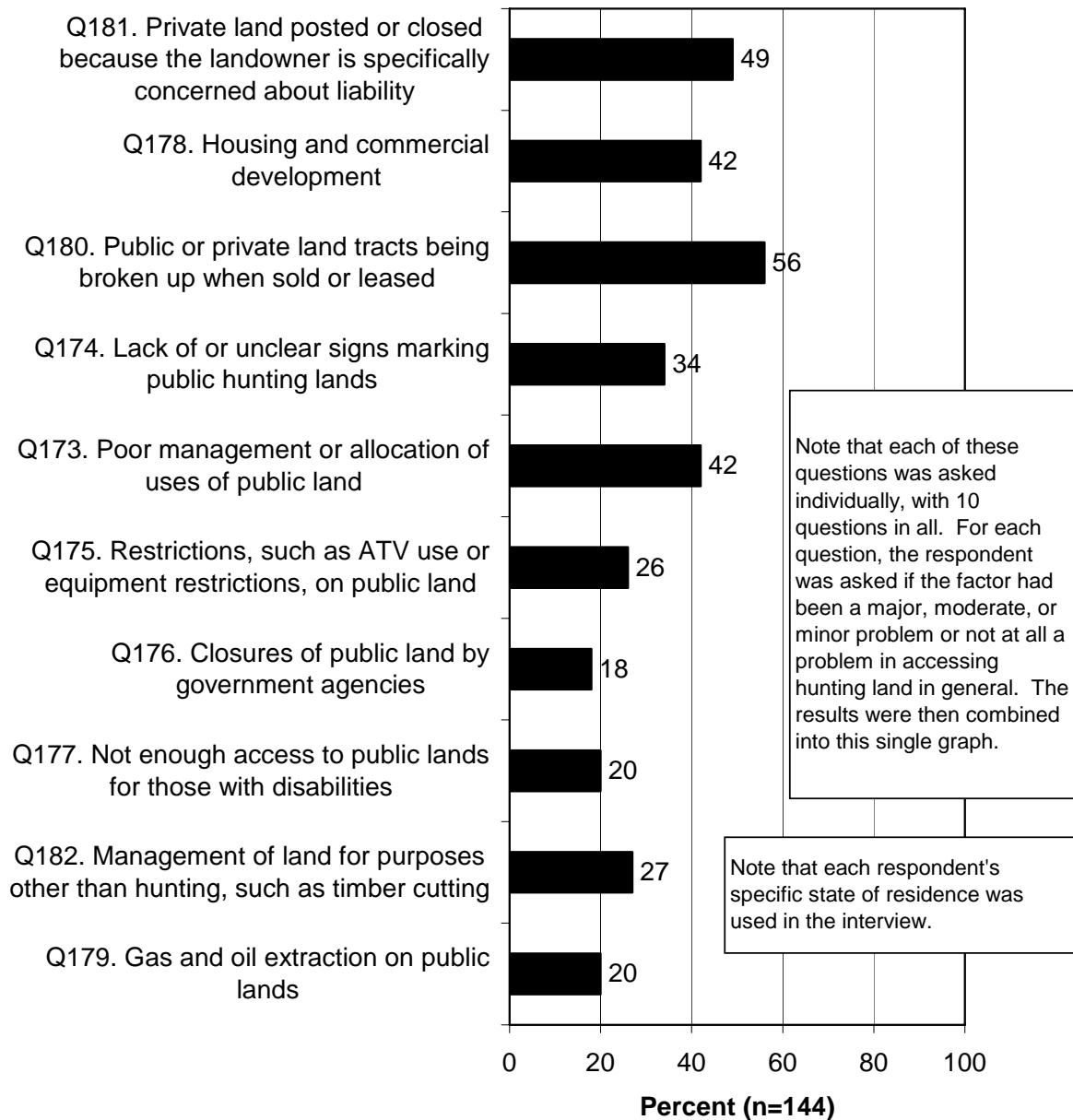


Figure 2.77. Factors influencing access to hunting land in general for those who hunt mostly on public land.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(Hunted mostly on public land)**

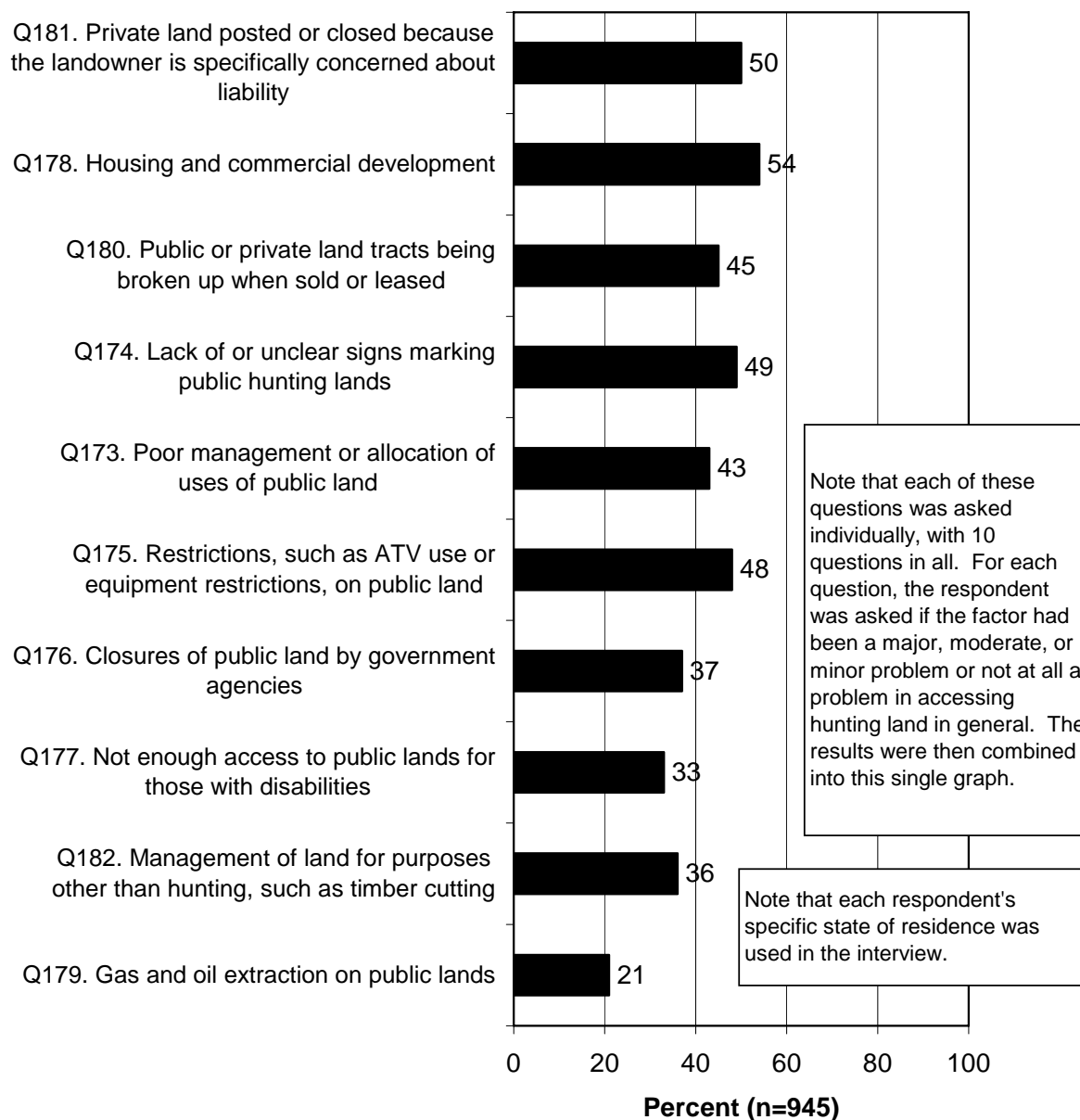
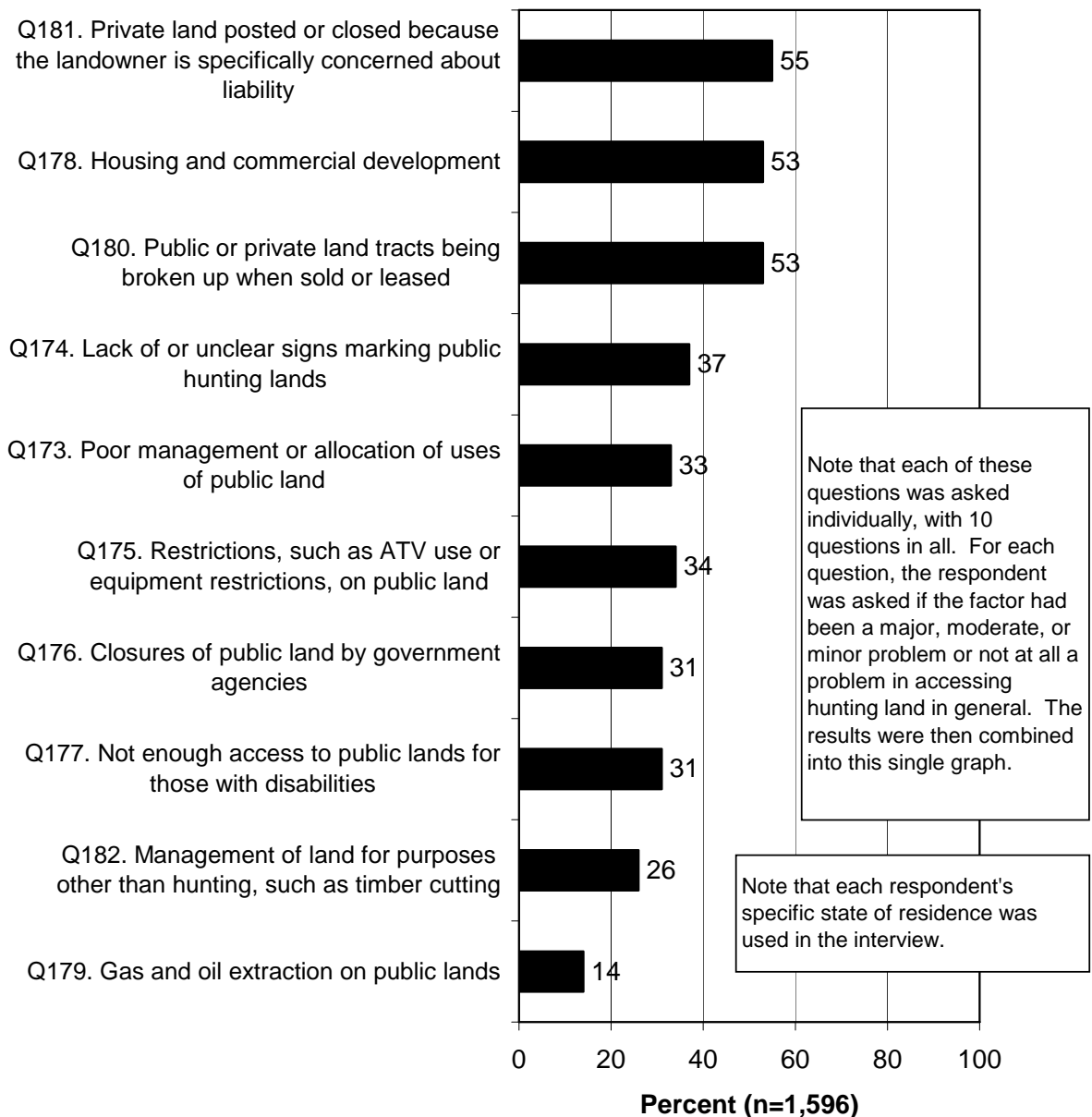


Figure 2.78. Factors influencing access to hunting land in general for those who hunt mostly on private land.

**Percent who indicated that the following have been a major, moderate, or minor problem in accessing hunting land in (STATE) in general.
(Hunted mostly on private land)**

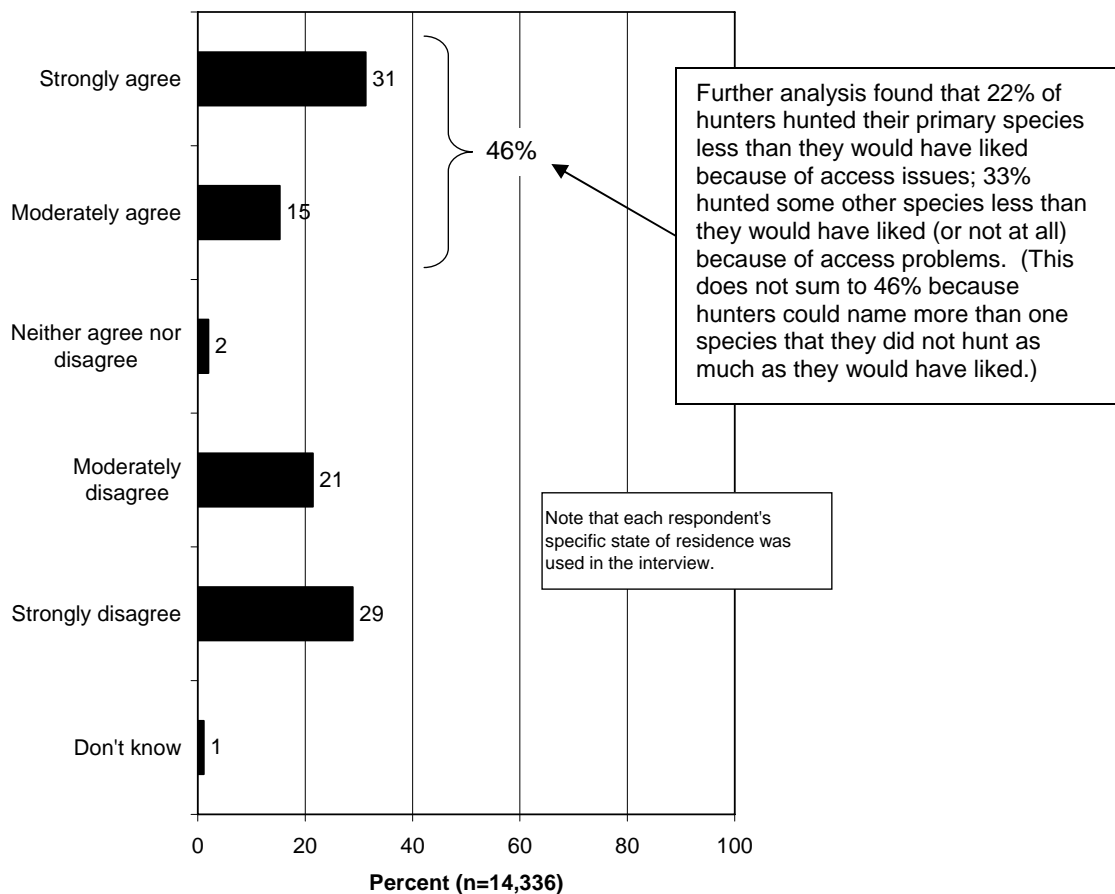


- **Access problems affect hunting participation:** Nearly half of all hunters indicated that lack of hunting access had caused them *not* to hunt a particular species as much as they would have liked in the past 5 years.

In this direct question, almost half of hunters (46%) agreed that lack of access had caused them not to hunt a particular species as much as they would have liked (Figure 2.79). Just under half of those who did not hunt a species as much as they would have liked did not hunt their *primary* species as much as they would have liked; about three-fourths of them did not hunt something other than their primary species as much as they would have liked (or not at all).

Figure 2.79. The impact of lack of access to hunting lands on hunting participation.

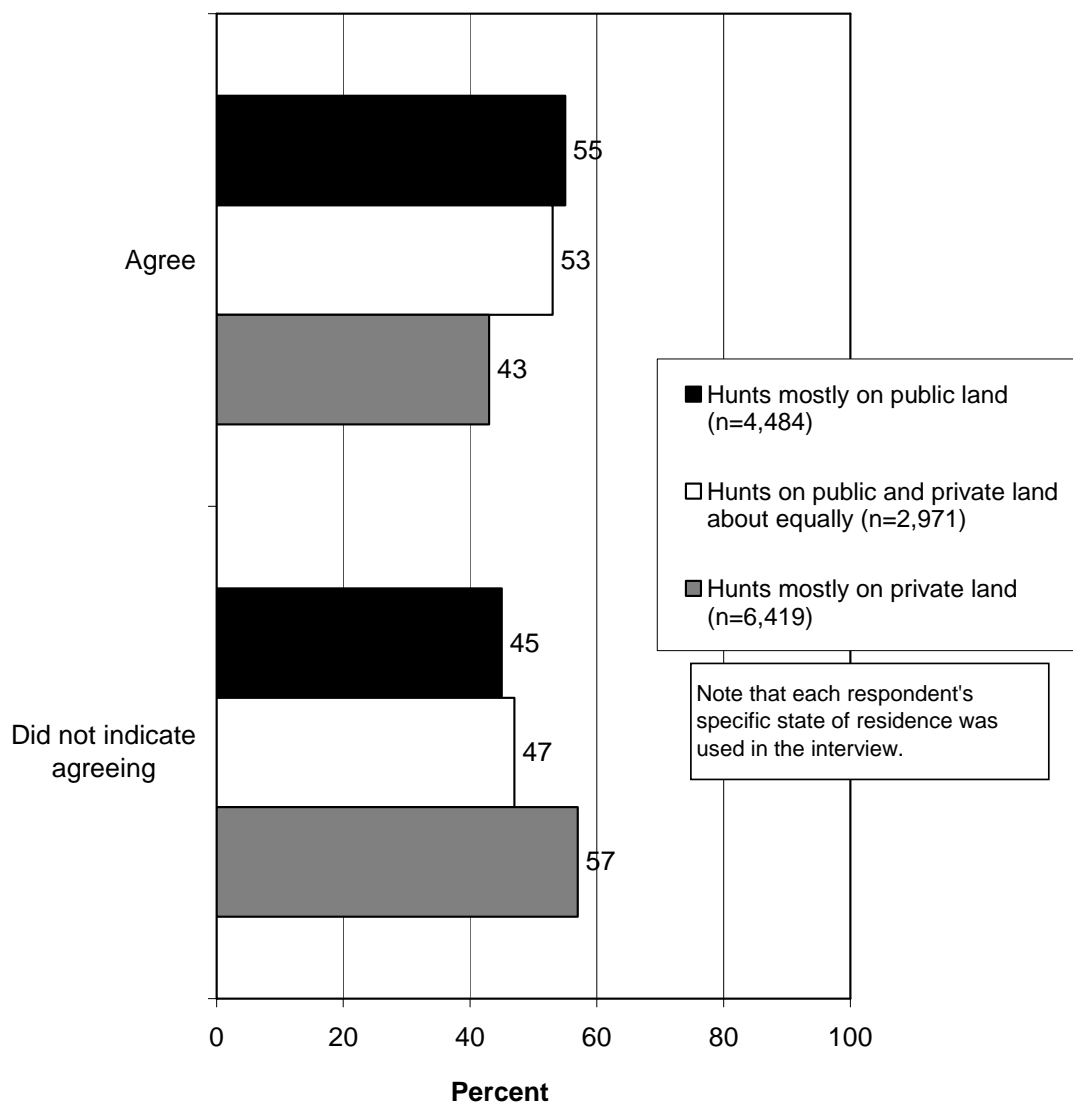
Q40. Do you agree or disagree that a lack of access to hunting lands in (STATE) has caused you to not hunt any species as much as you would have liked in the past 5 years?



Hunters who hunt mostly on public land were more likely than hunters who hunt mostly on private land to indicate that lack of access to hunting lands in their state had caused them not to hunt a species as much as they would have liked in the past 5 years ($p \leq 0.001$) (Figure 2.80).

Figure 2.80. Crosstabulation of lack of hunting access by hunting on public/private lands.

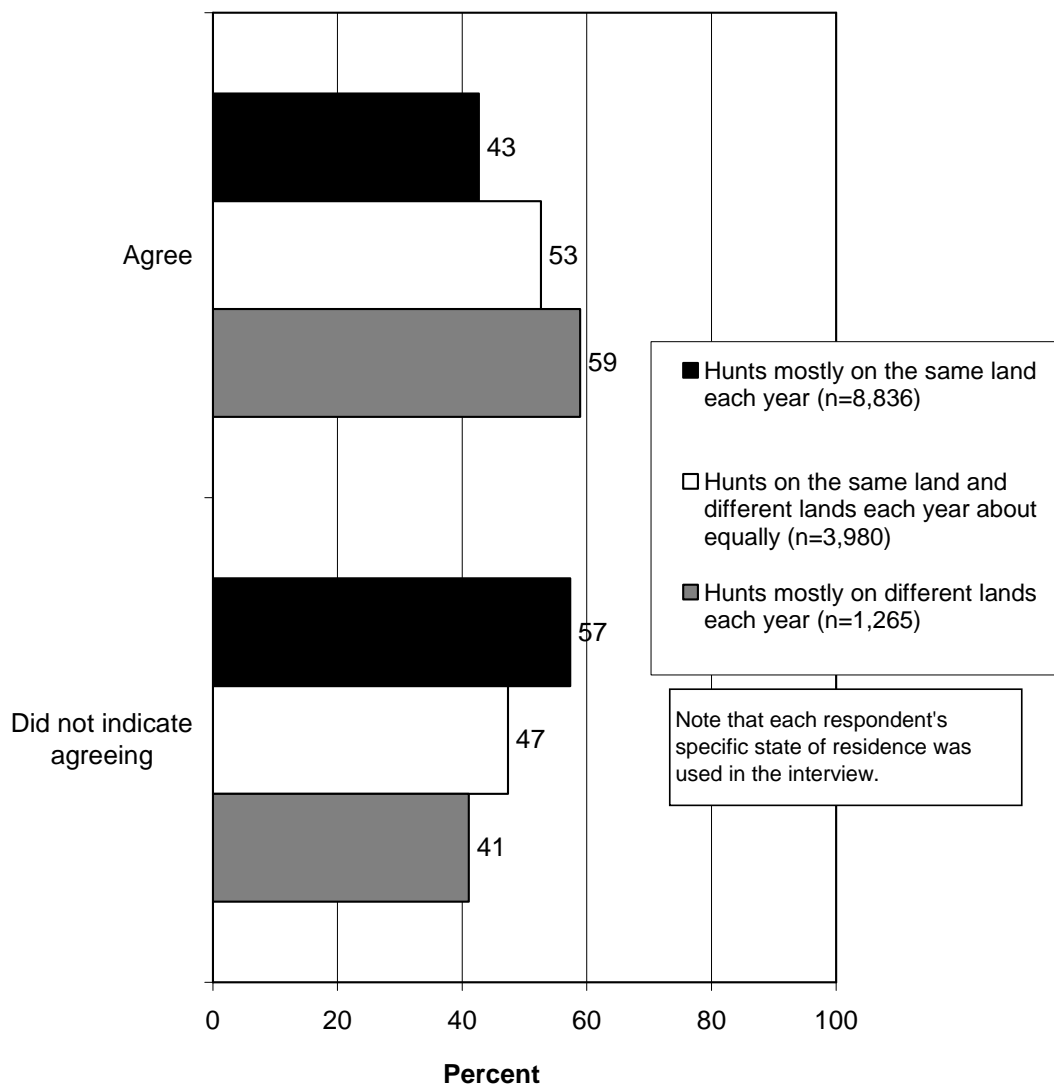
Q40. Do you agree or disagree that a lack of access to hunting lands in (STATE) has caused you to not hunt any species as much as you would have liked in the past 5 years?



Hunters who hunted mostly on different lands each year were more likely than hunters who hunted mostly on the same land to agree that lack of access to hunting lands in their state caused them not to hunt a species as much as they would have liked in the past 5 years ($p \leq 0.001$) (Figure 2.81)

Figure 2.81. Crosstabulation of lack of hunting access by hunting on the same/different lands each year.

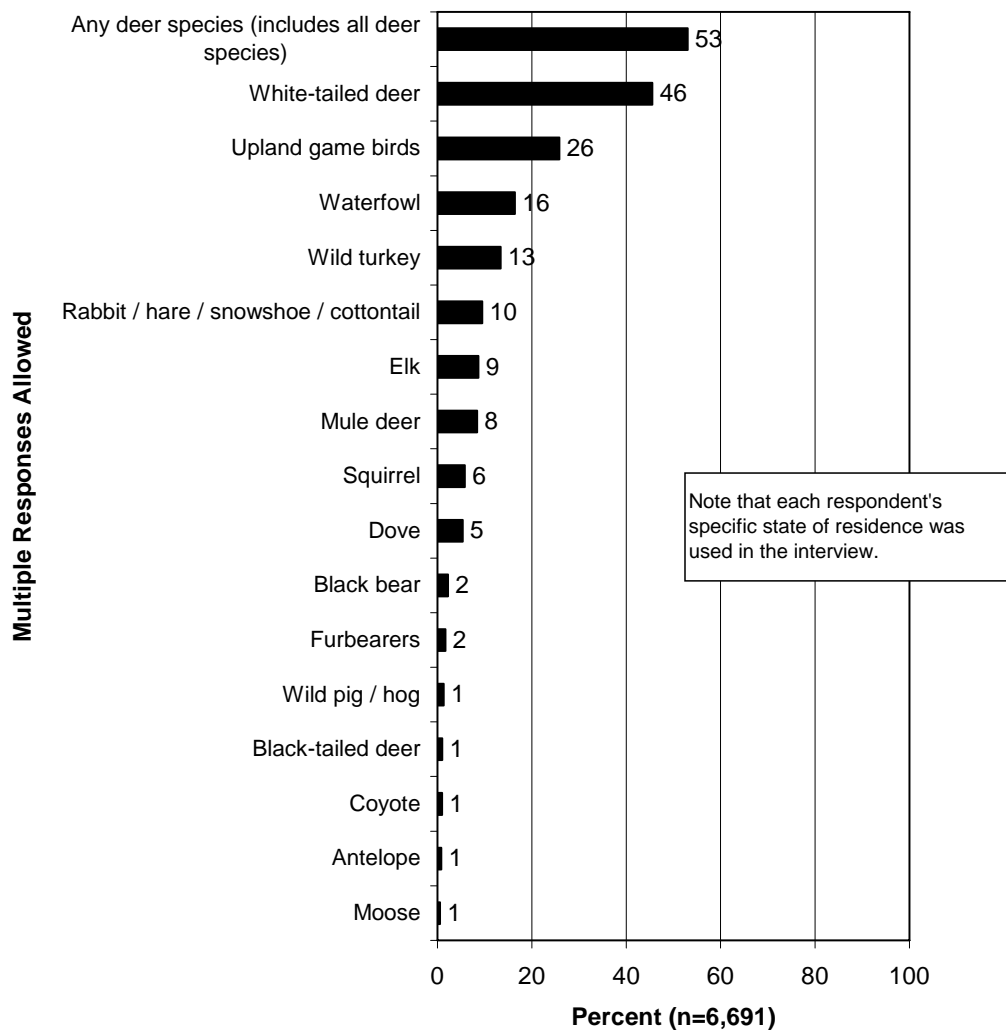
Q40. Do you agree or disagree that a lack of access to hunting lands in (STATE) has caused you to not hunt any species as much as you would have liked in the past 5 years?



Hunters were asked to name the species that they had not hunted as much as they would have liked because of access problems. The top-named species is white-tailed deer (46% among those who said that they had not been able to hunt a certain species as much as they would have liked due to access problems), followed by upland game birds (26%), waterfowl (16%), wild turkey (13%), rabbit (10%), elk (9%), and mule deer (8%). In total, 53% named a type of deer (Figure 2.82). Note that hunters could name more than one species on this question.

Figure 2.82. Species named that hunters had not hunted as much as they would have liked because of access problems.

Q43. What species have you not hunted as much as you would have liked as a result of access problems? (Asked of those who agree that lack of access to hunting lands in STATE has caused them not to hunt a species as much as they would have liked in the past 5 years.)

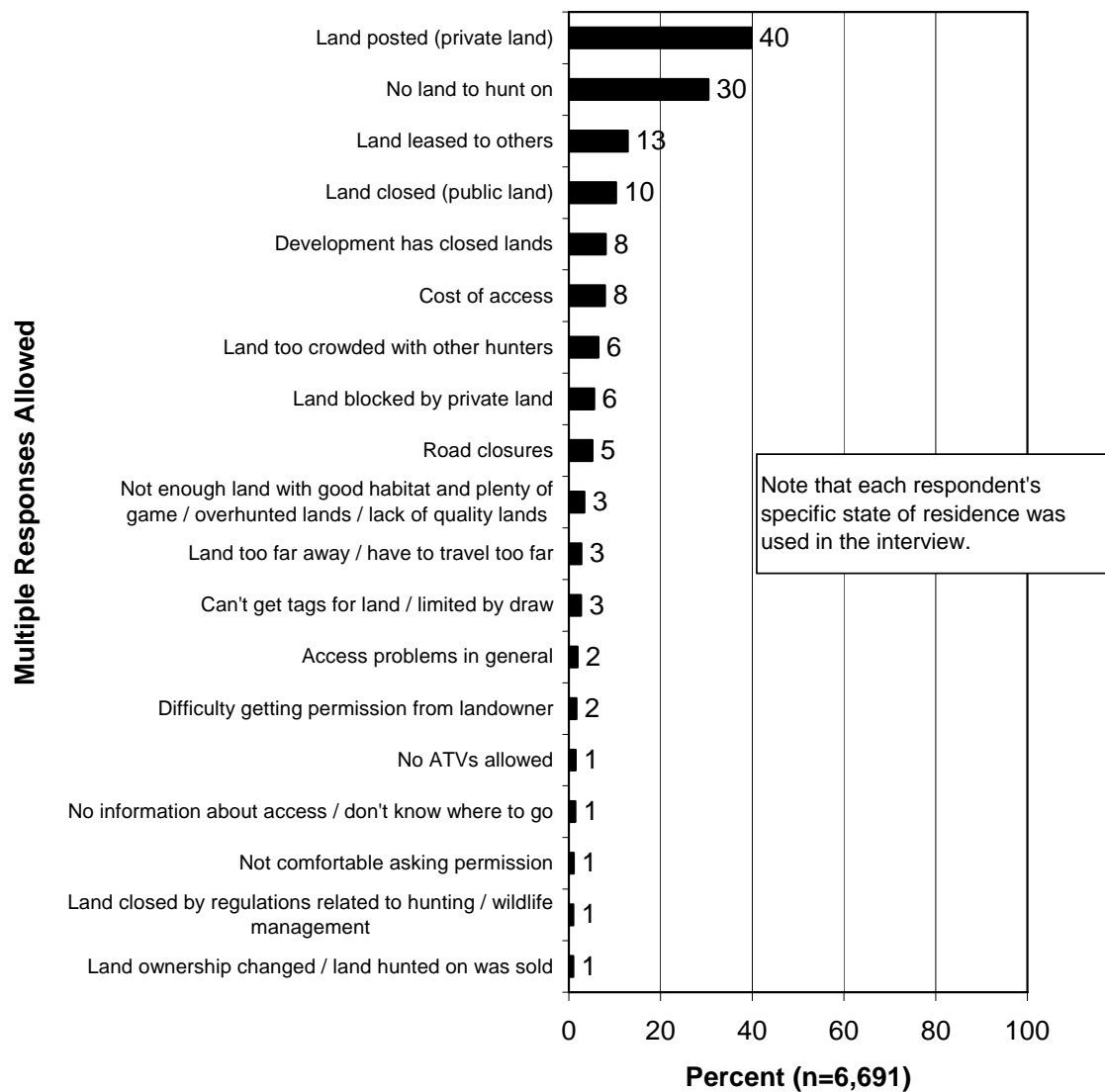


- **Private land being posted and no land to hunt on were the top-named access problems, among hunters who agreed that lack of access to hunting lands in their state caused them not to hunt a particular species as much as they would have liked in the previous five years.**

In follow-up to the previous lead-in question, the top-named access problems were private land being posted (40% of those who agreed to the lead-in question) and no land to hunt on (30%). These two reasons were markedly more important than the rest, being distantly followed by the land being leased to others (13%), public land being closed (10%), development closing lands (8%), and the cost of access (8%) (Figure 2.83).

Figure 2.83. Access problems that caused hunters not to hunt a species as much as they would have liked in the previous 5 years.

Q48. What are the specific access problems that have caused you not to hunt this/these species as much as you would have liked? (Asked of those who agree that lack of access to hunting lands in STATE has caused them not to hunt a species as much as they would have liked in the past 5 years.)

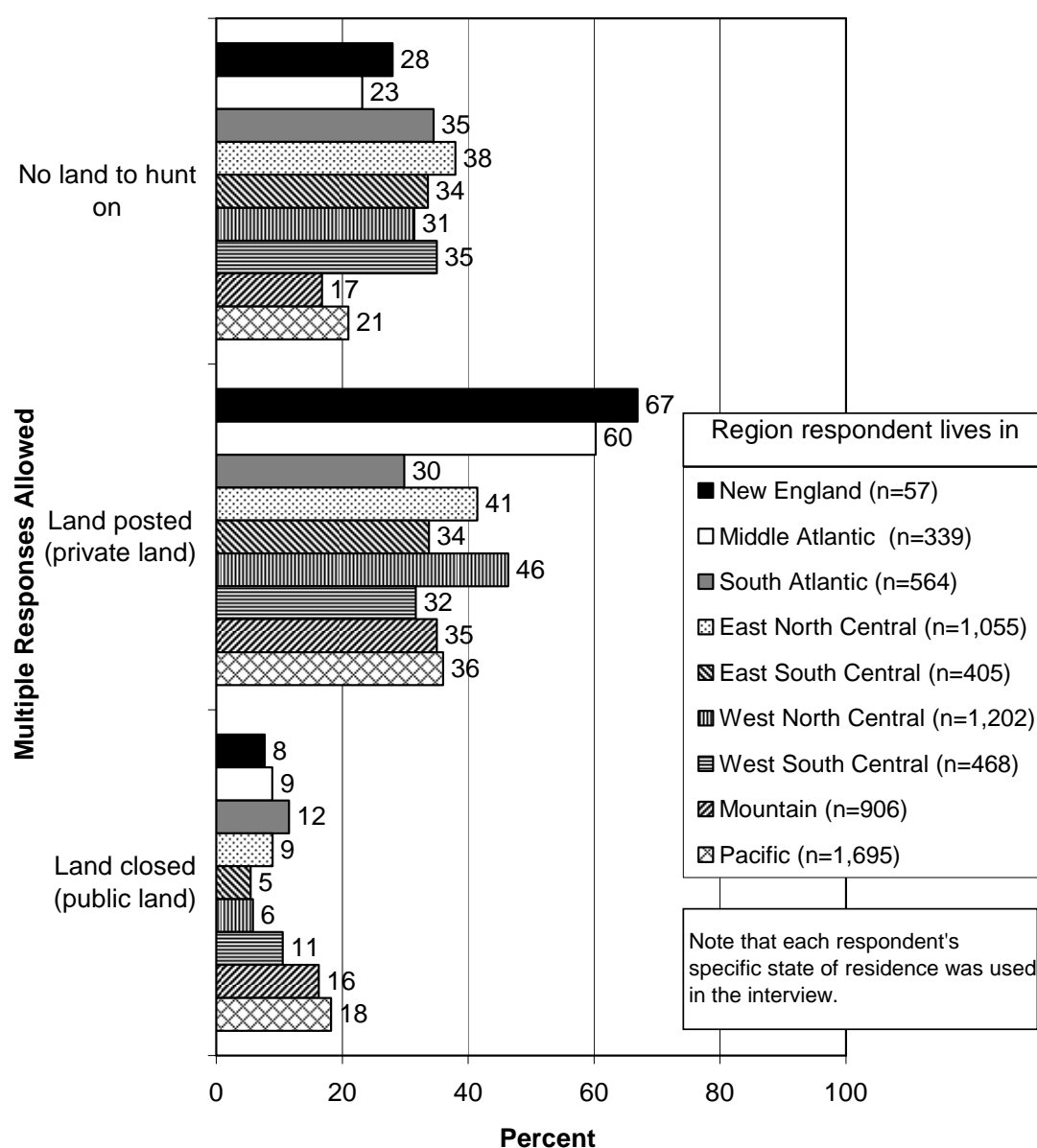


Access problems vary regionally, with hunters in the New England and Middle Atlantic regions more likely than hunters in other regions to report that private land being posted was

a specific access problem that caused them not to hunt a species as much as they would have liked during the past 5 years ($p \leq 0.001$) (Figure 2.84).

Figure 2.84. Crosstabulation of selected access problems that caused hunters not to hunt as much as they would have liked in the past 5 years by region of residence.

Q48. What are the specific access problems that have caused you not to hunt this/these species as much as you would have liked? (Asked of those who agree that lack of access to hunting lands in your STATE has caused them not to hunt a species as much as they would have liked in the past 5 years.)



- **Hunters were asked specifically about hunting access constraints, and several potential constraints stand out with a relatively high percentage of hunters saying that each was a problem. These constraints include issues related less land on which to hunt because of ownership or land use changes.**

To identify specific access issues causing problems for hunters, the survey asked a series of 25 questions about possible hunting access constraints. For each possible constraint, the survey asked hunters if it had been a *major* problem, a *moderate* problem, a *minor* problem, or *not at all* a problem over the past 5 years. In general, many of the top constraints to hunting access are related to development and land ownership changes. The potential constraints that had the highest percentages of hunters saying that the constraint was a *major*, *moderate*, or *minor* problem were less land on which to hunt because of private land ownership changes (51%), less land on which to hunt because the land use has changed (48%), finding previously open private land sold and posted by the new landowner (47%), the cost of gas (47%), housing or other development making land not huntable (47%), finding previously open private land now posted by the landowner (45%), less land on which to hunt due to development (43%), being denied permission to hunt on somebody else's land (41%), and finding previously open private land closed because a club has now leased it (41%). Each of these had more than 40% of respondents saying it was a *major*, *moderate*, or *minor* problem (Figure 2.85).

Figures 2.86 through Figure 2.94 show results of the percent of hunters who rated these access issues as a major problem when hunting in the past five years by region.

Figures 2.95 through Figure 2.101 show results of the percent of hunters who rated these access issues as a major problem when hunting in the past five years by primary species hunted.

Figures 2.102 through Figure 2.103 show the results of the percent of hunters who rated these access issues as a major problem when hunting in the past five years by whether the respondent hunts mostly on public lands or mostly on private lands.

Figure 2.85. Access issues rated as being a major, moderate, or minor problem for hunters.

Percent who indicated that the following hunting access problems have been major, moderate, or minor in the past 5 years when hunting (SPECIES).

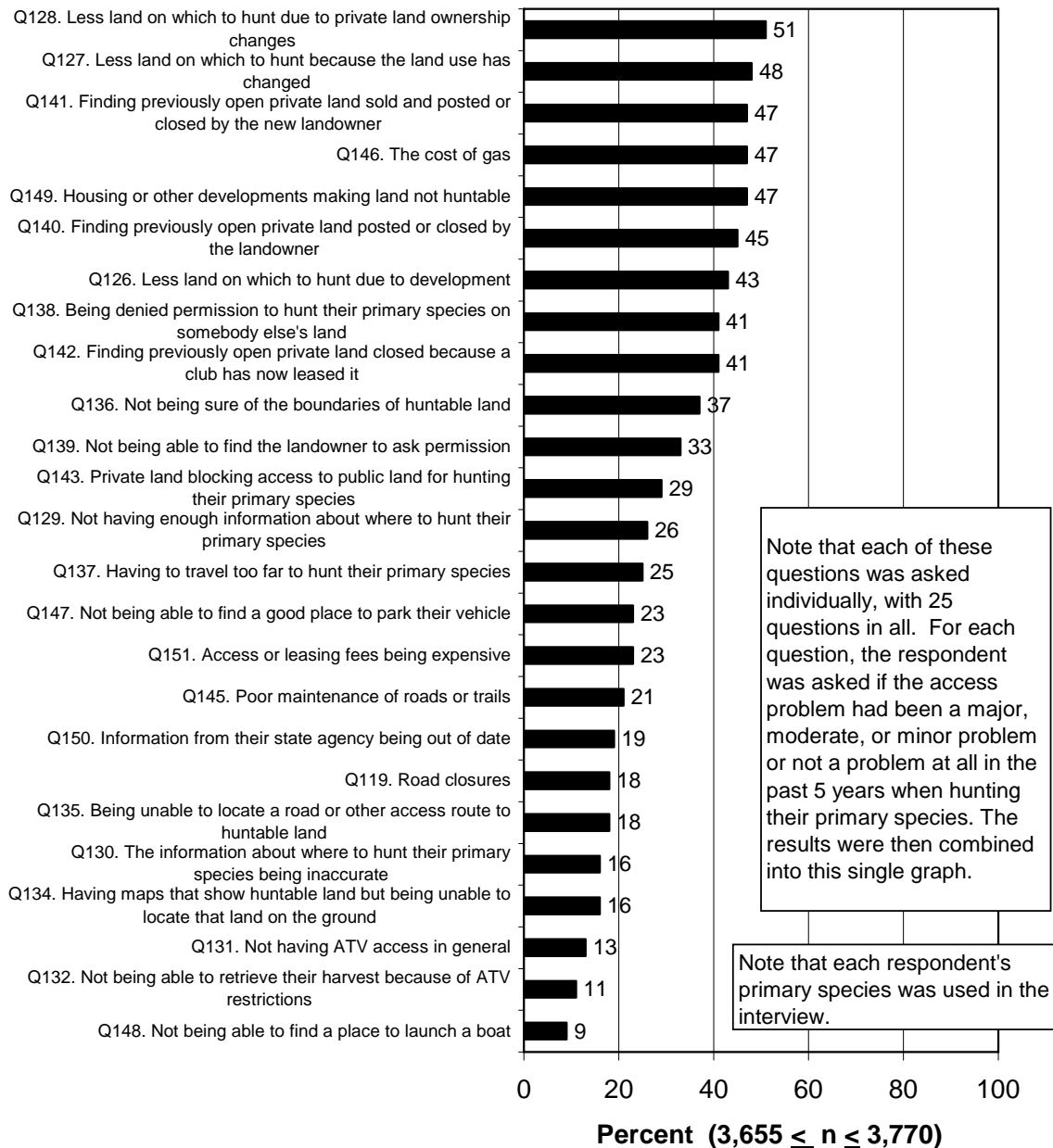


Figure 2.86. Access issues rated as being a major problem for hunters in the New England Region.

**Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting (SPECIES).
(New England Region)**

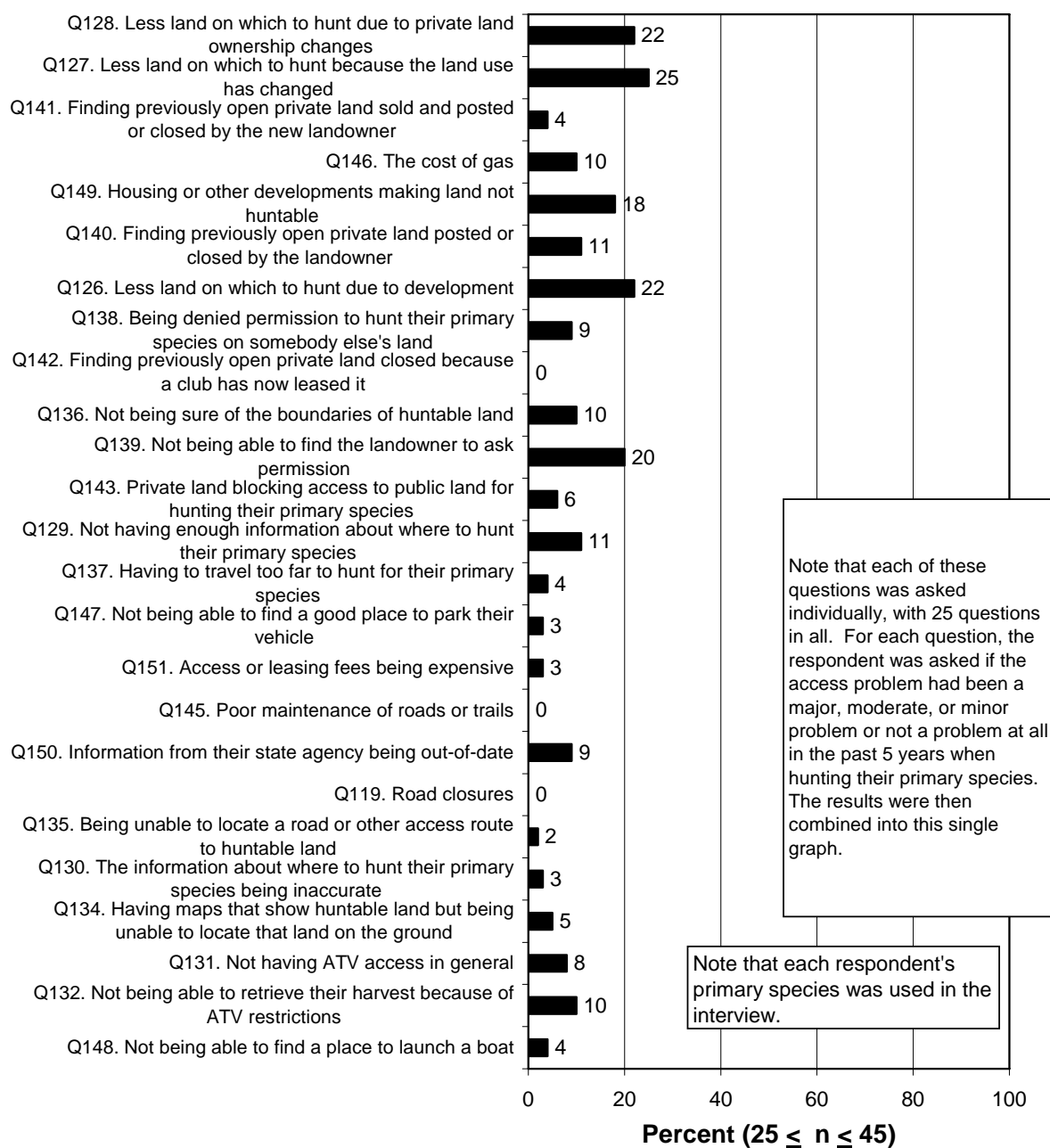


Figure 2.87. Access issues rated as being a major problem for hunters in the Middle Atlantic Region.

**Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting (SPECIES).
(Middle Atlantic Region)**

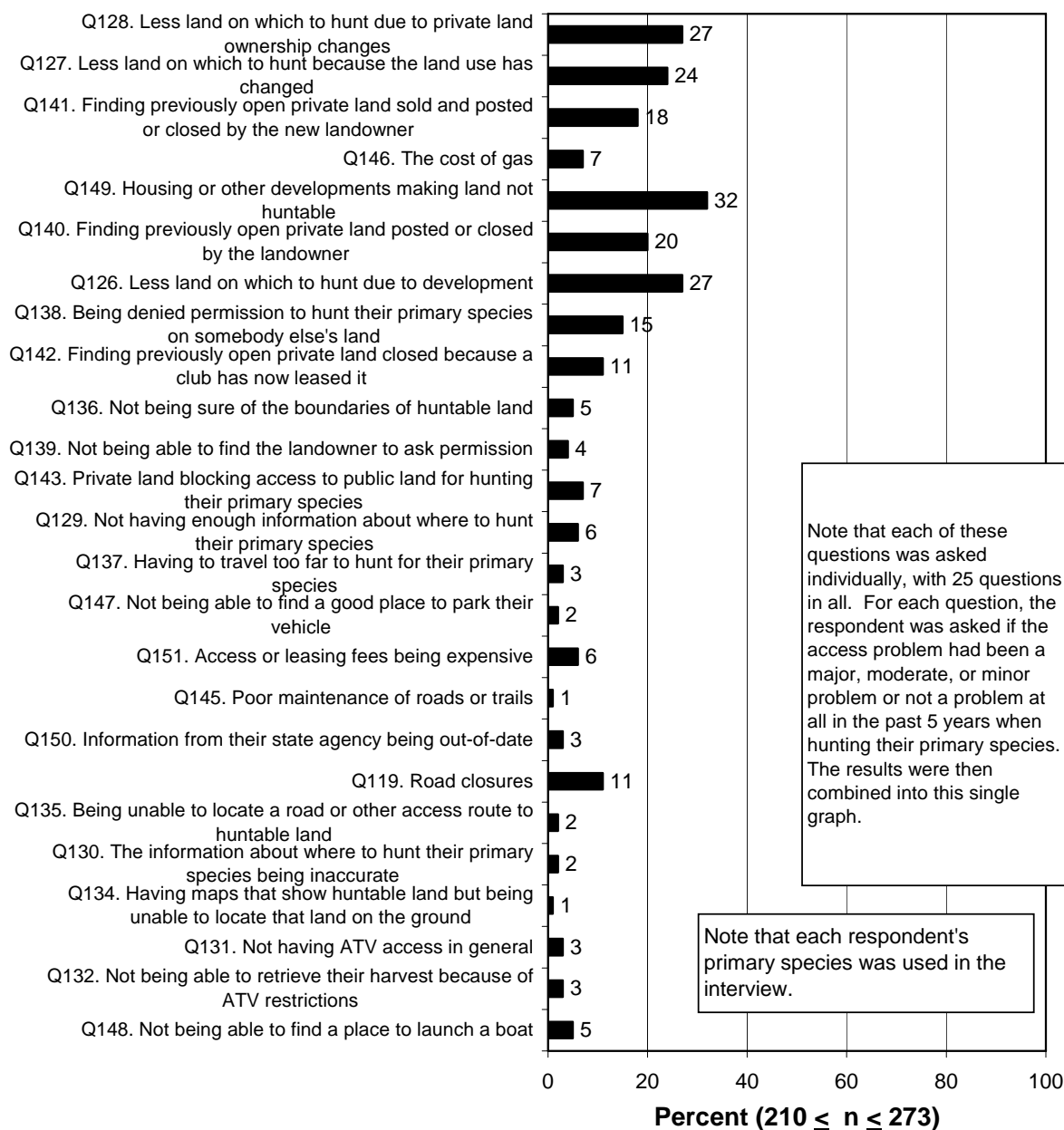


Figure 2.88. Access issues rated as being a major problem for hunters in the South Atlantic Region.

**Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting (SPECIES).
(South Atlantic Region)**

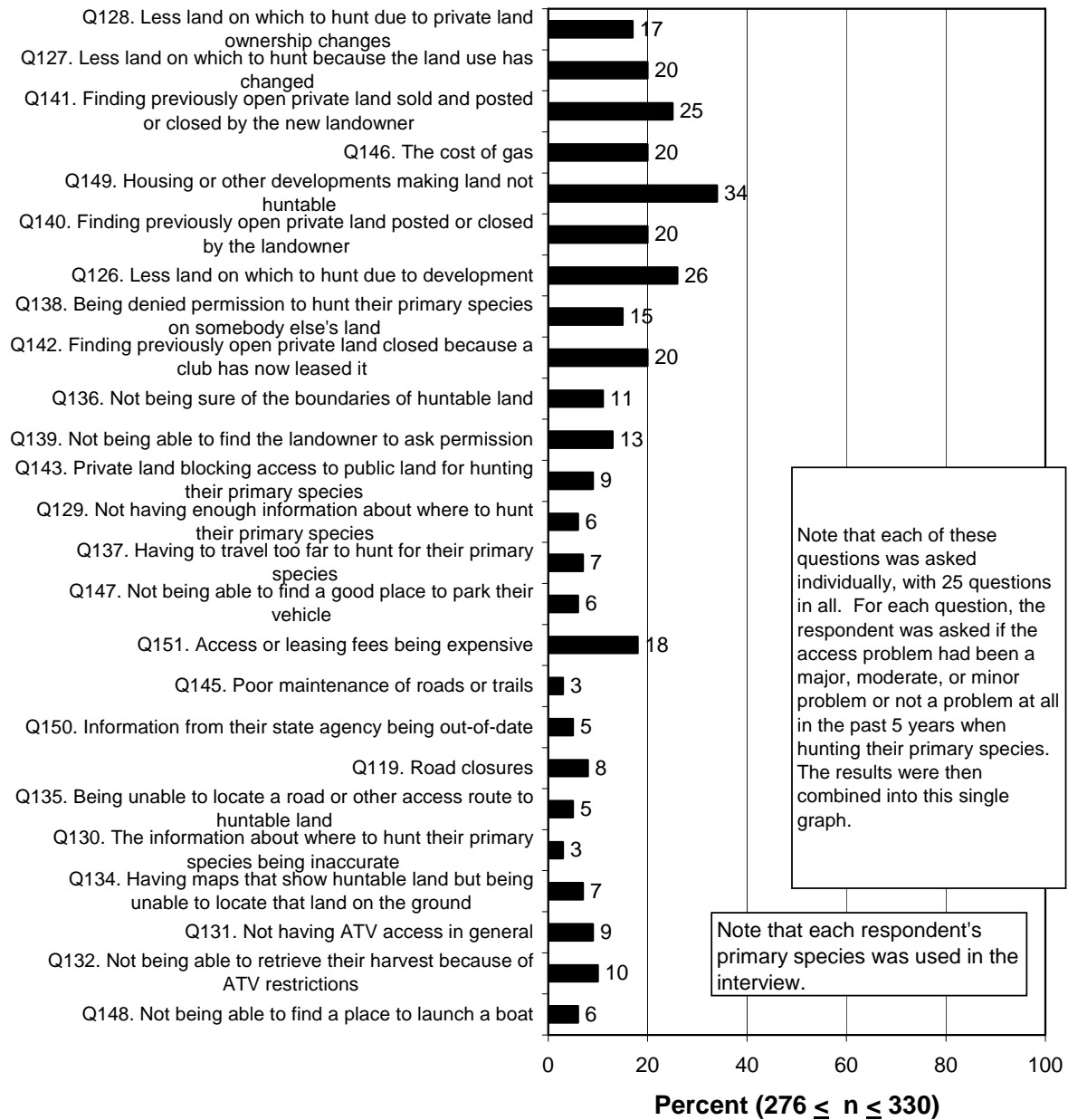


Figure 2.89. Access issues rated as being a major problem for hunters in the East North Central Region.

**Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting (SPECIES).
(East North Central Region)**

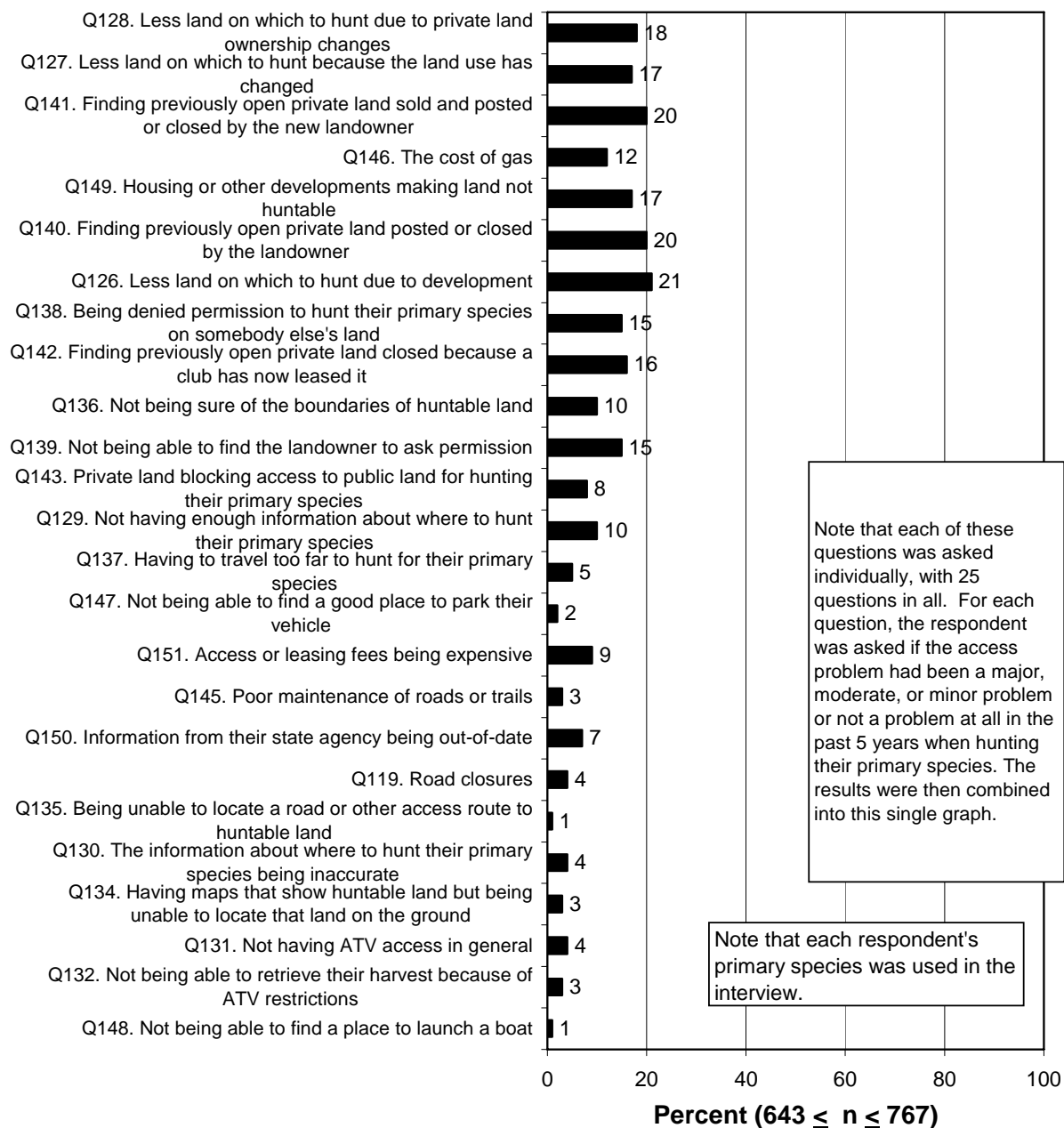


Figure 2.90. Access issues rated as being a major problem for hunters in the East South Central Region.

**Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting (SPECIES).
(East South Central Region)**

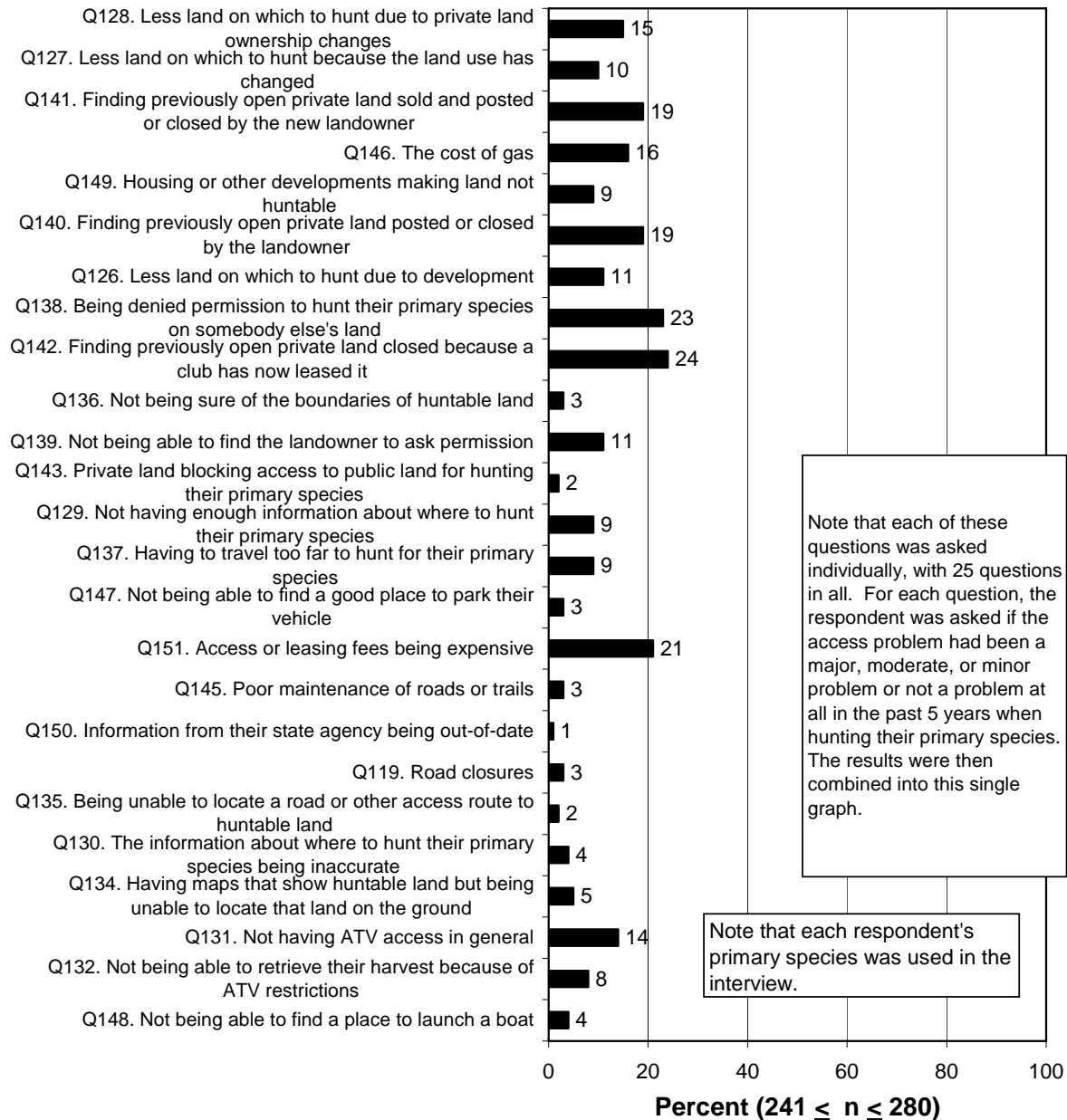


Figure 2.91. Access issues rated as being a major problem for hunters in the West North Central Region.

**Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting (SPECIES).
(West North Central Region)**

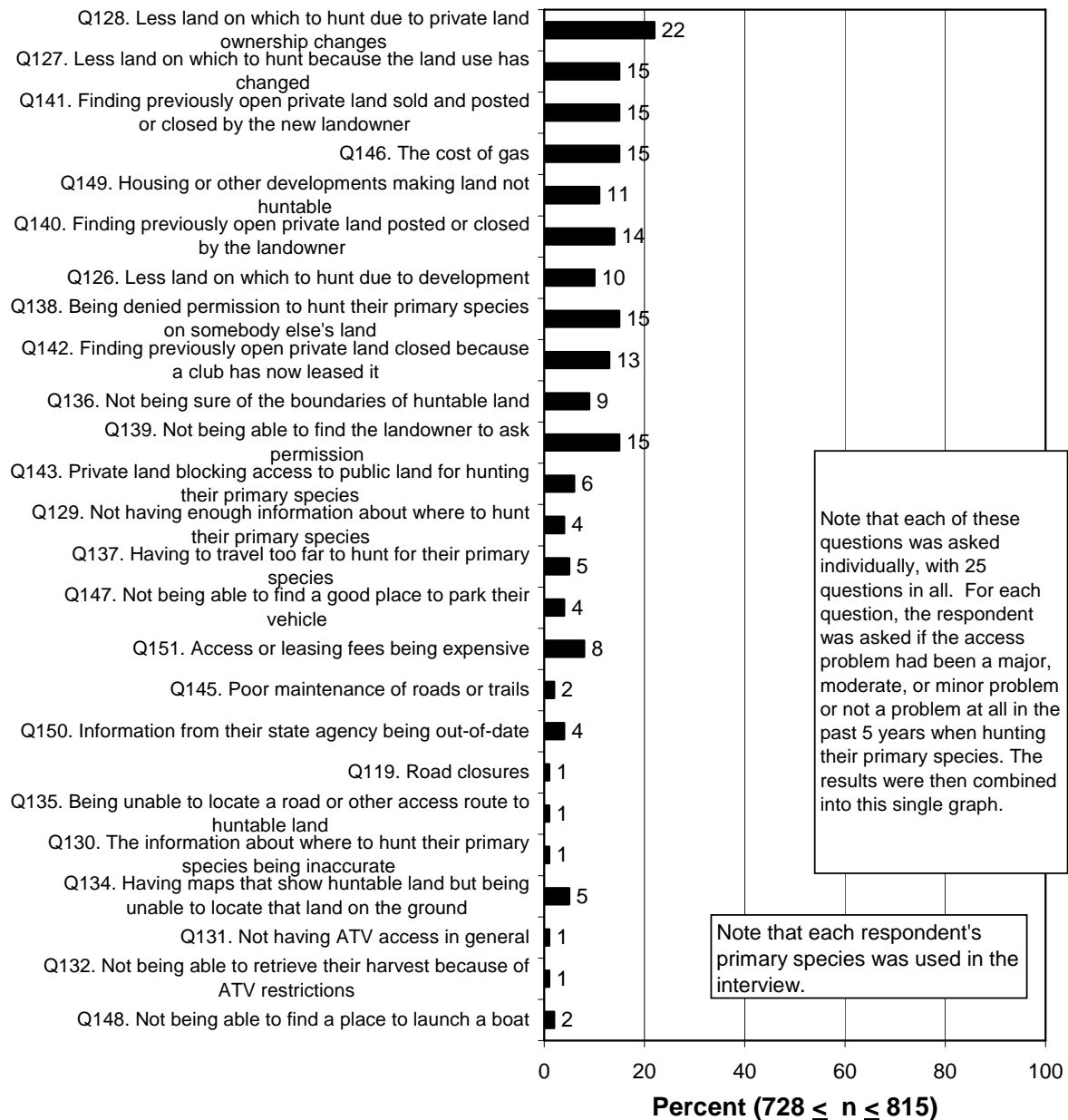


Figure 2.92. Access issues rated as being a major problem for hunters in the West South Central Region.

**Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting (SPECIES).
(West South Central Region)**

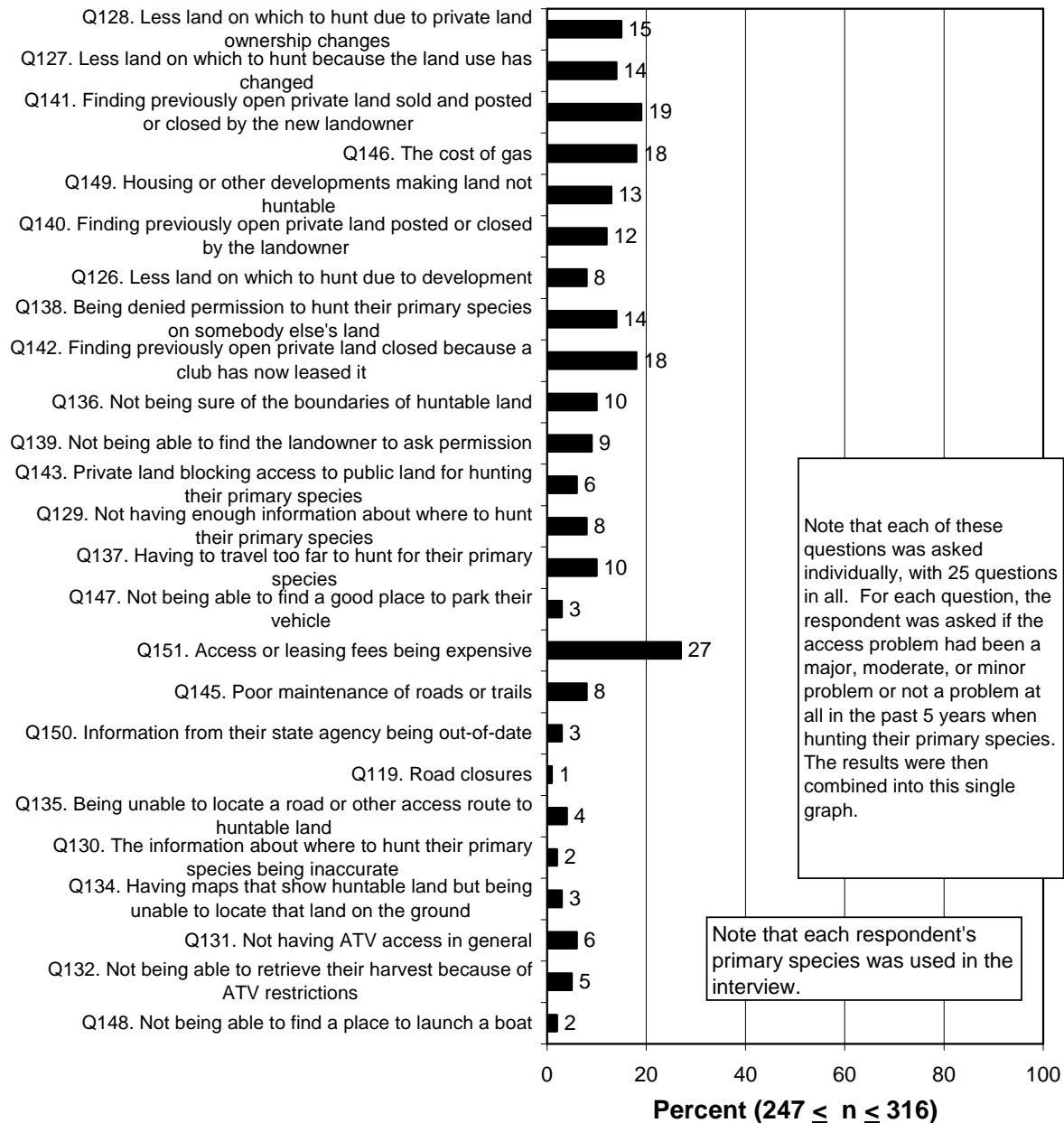


Figure 2.93. Access issues rated as being a major problem for hunters in the Mountain Region.

**Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting (SPECIES).
(Mountain Region)**

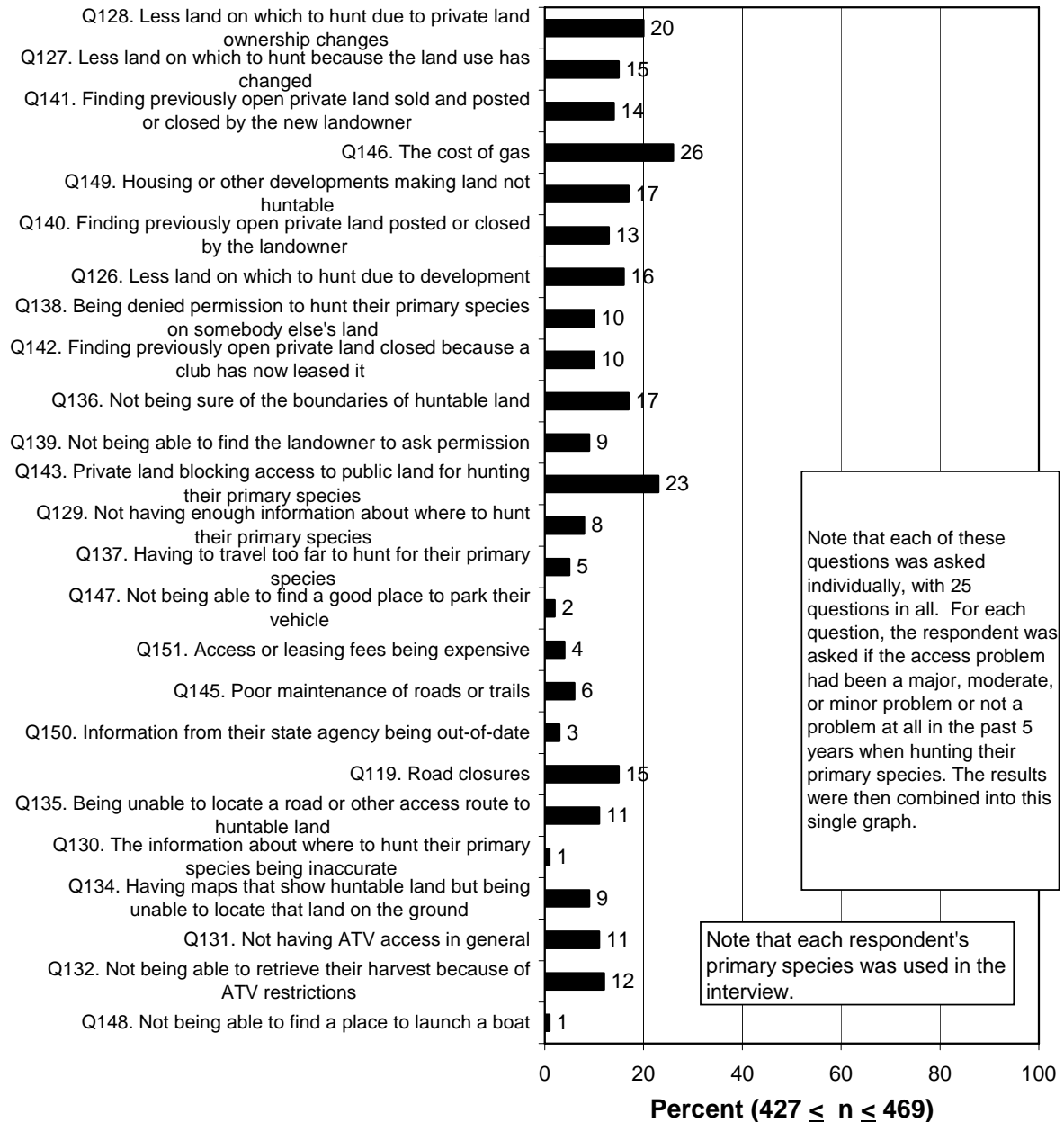


Figure 2.94. Access issues rated as being a major problem for hunters in the Pacific Region.

**Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting (SPECIES).
(Pacific Region)**

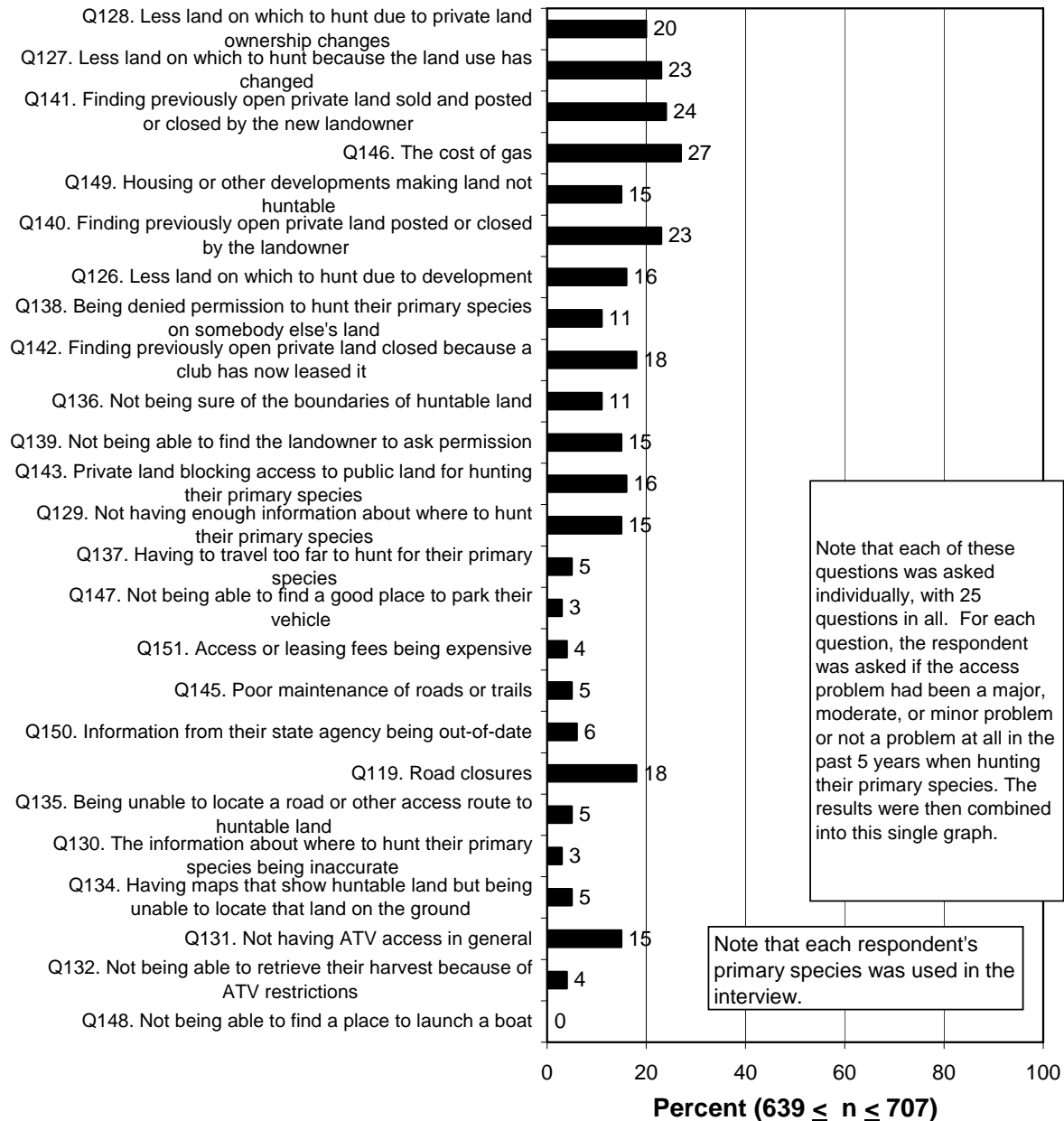


Figure 2.95. Access issues rated as being a major problem for those who hunt any deer species.

Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting any deer species.

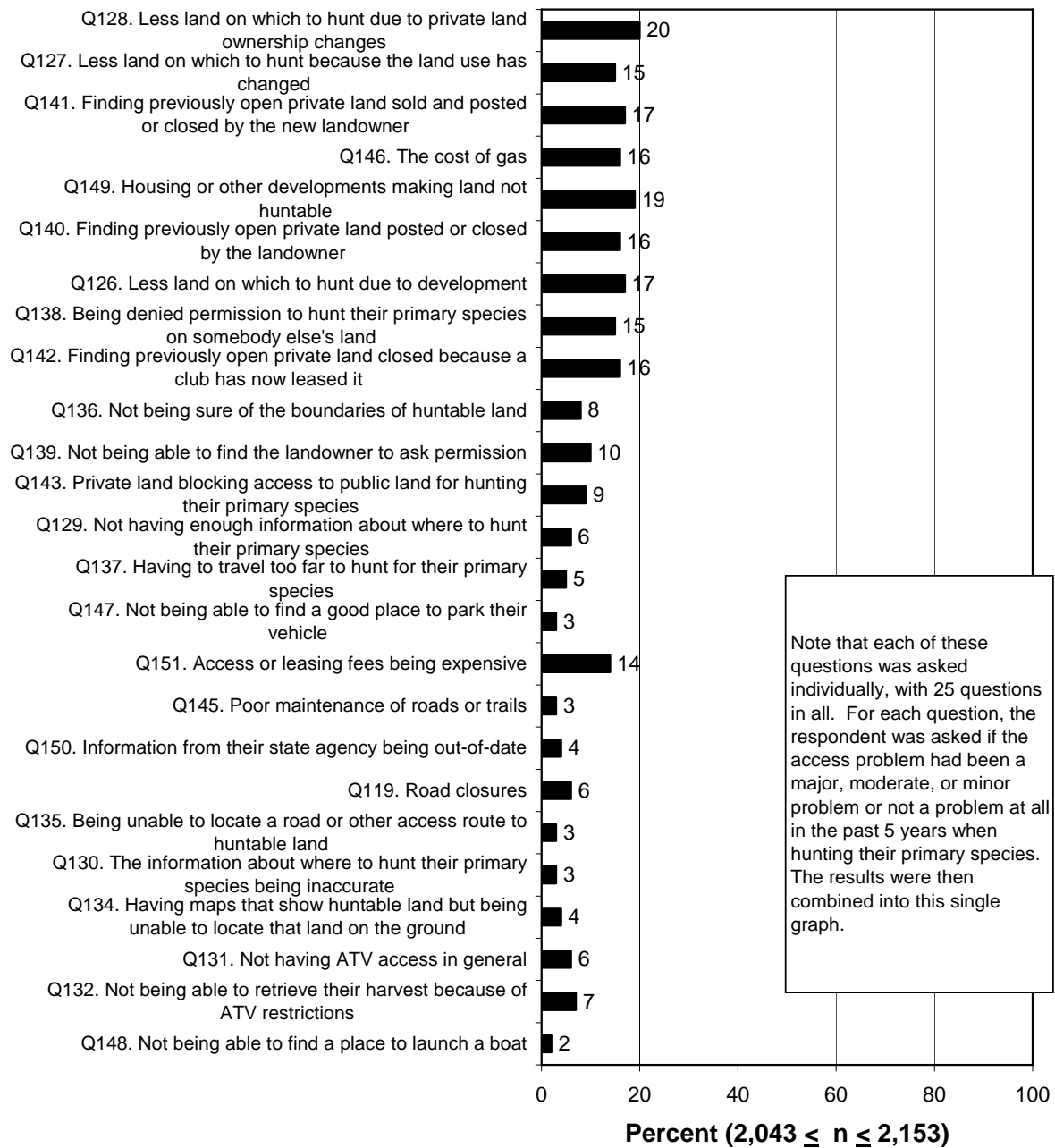


Figure 2.96. Access issues rated as being a major problem for those who hunt white-tailed deer.

Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting white-tailed deer.

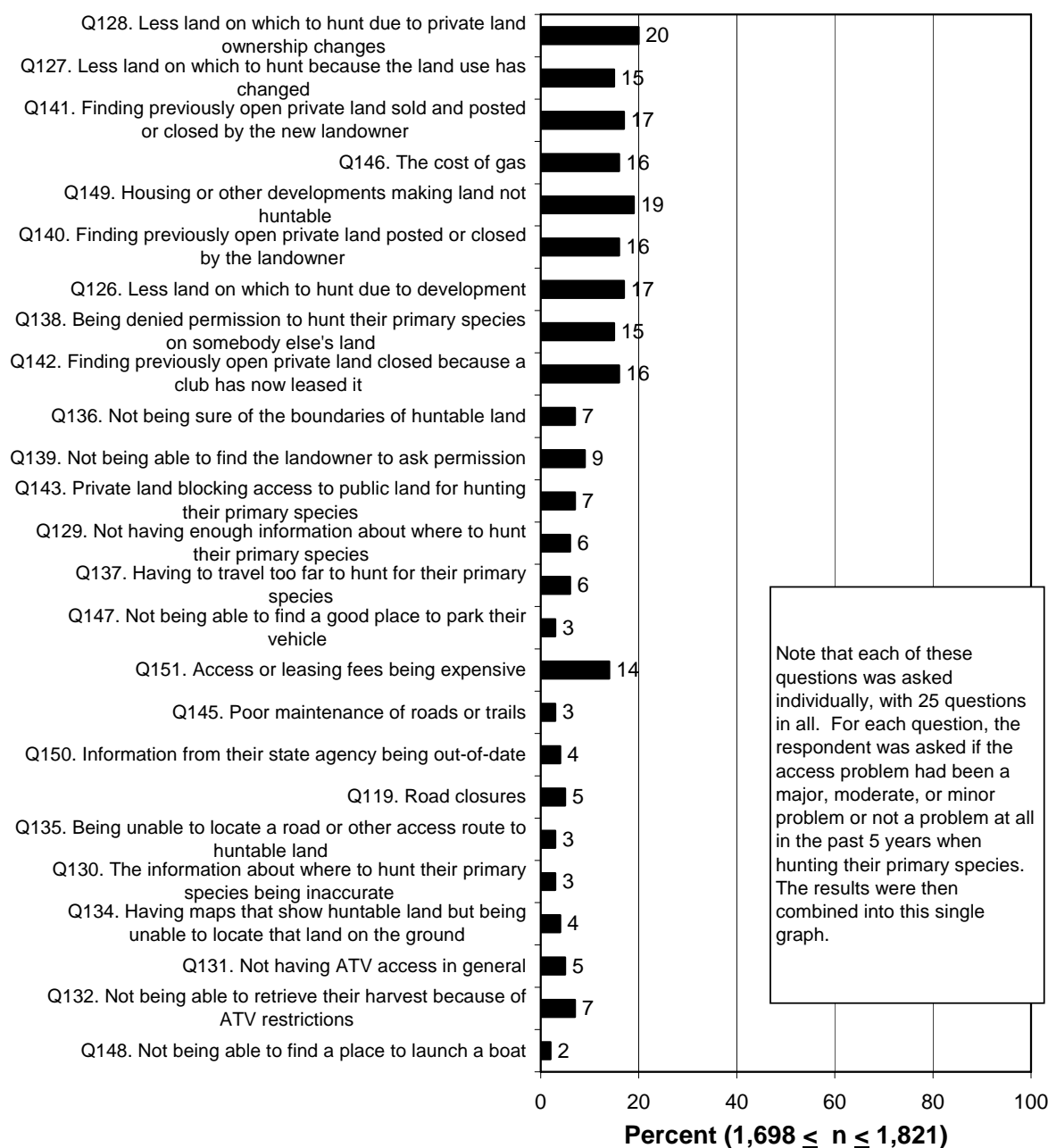


Figure 2.97. Access issues rated as being a major problem for those who hunt mule deer.

Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting mule deer.

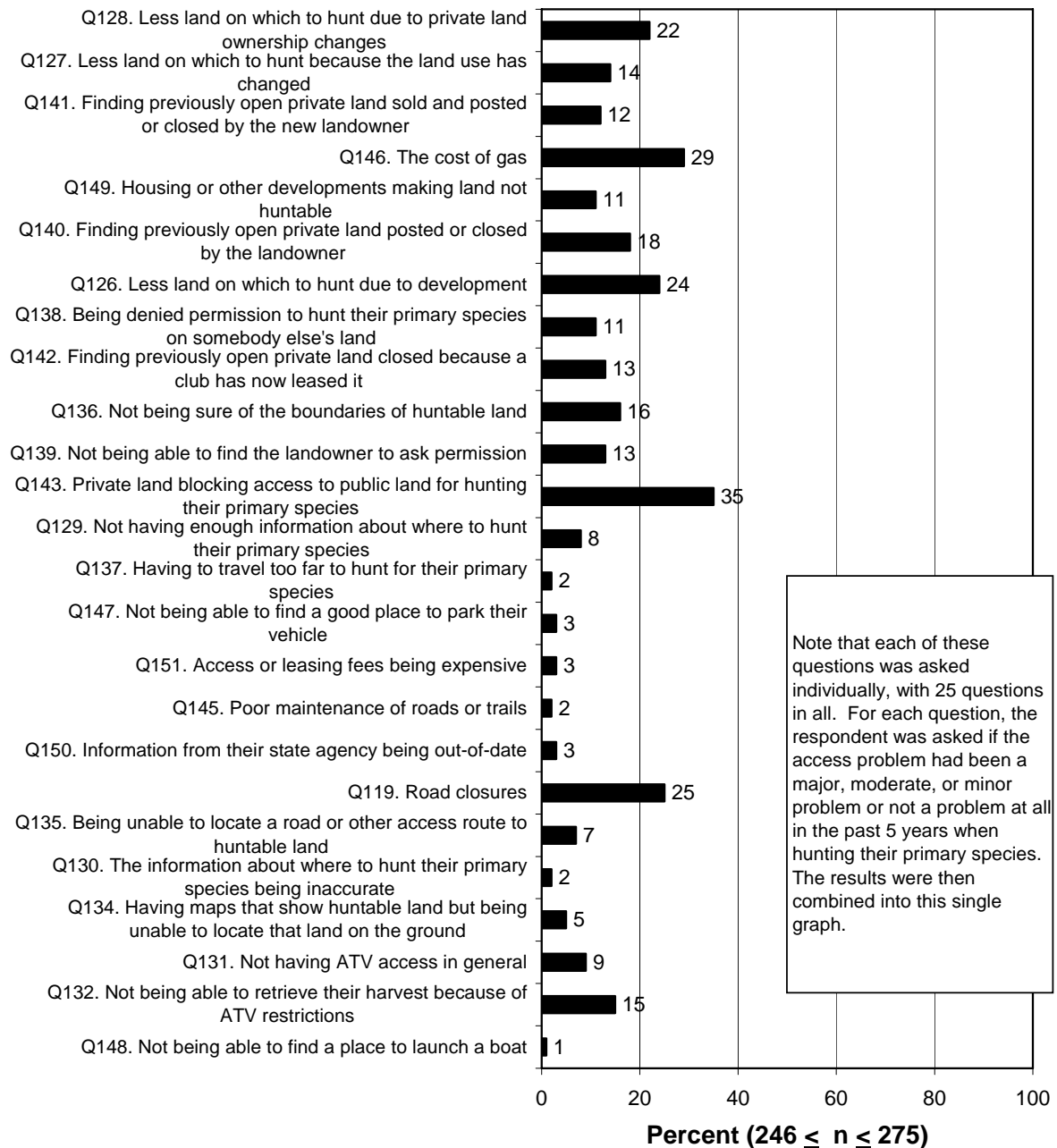


Figure 2.98. Access issues rated as being a major problem for those who hunt upland game birds.

Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting upland game birds.

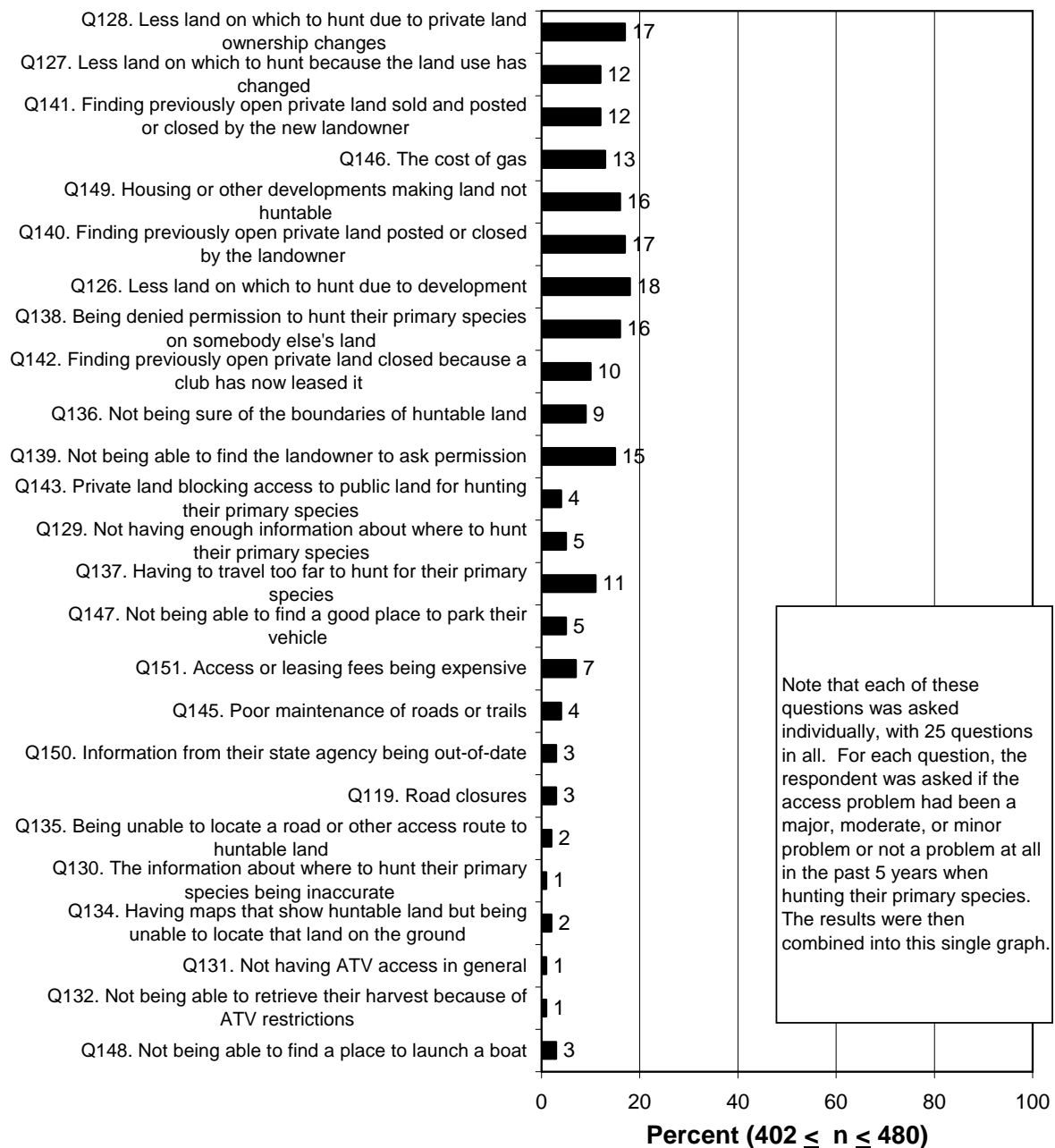


Figure 2.99. Access issues rated as being a major problem for those who hunt elk.

Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting elk.

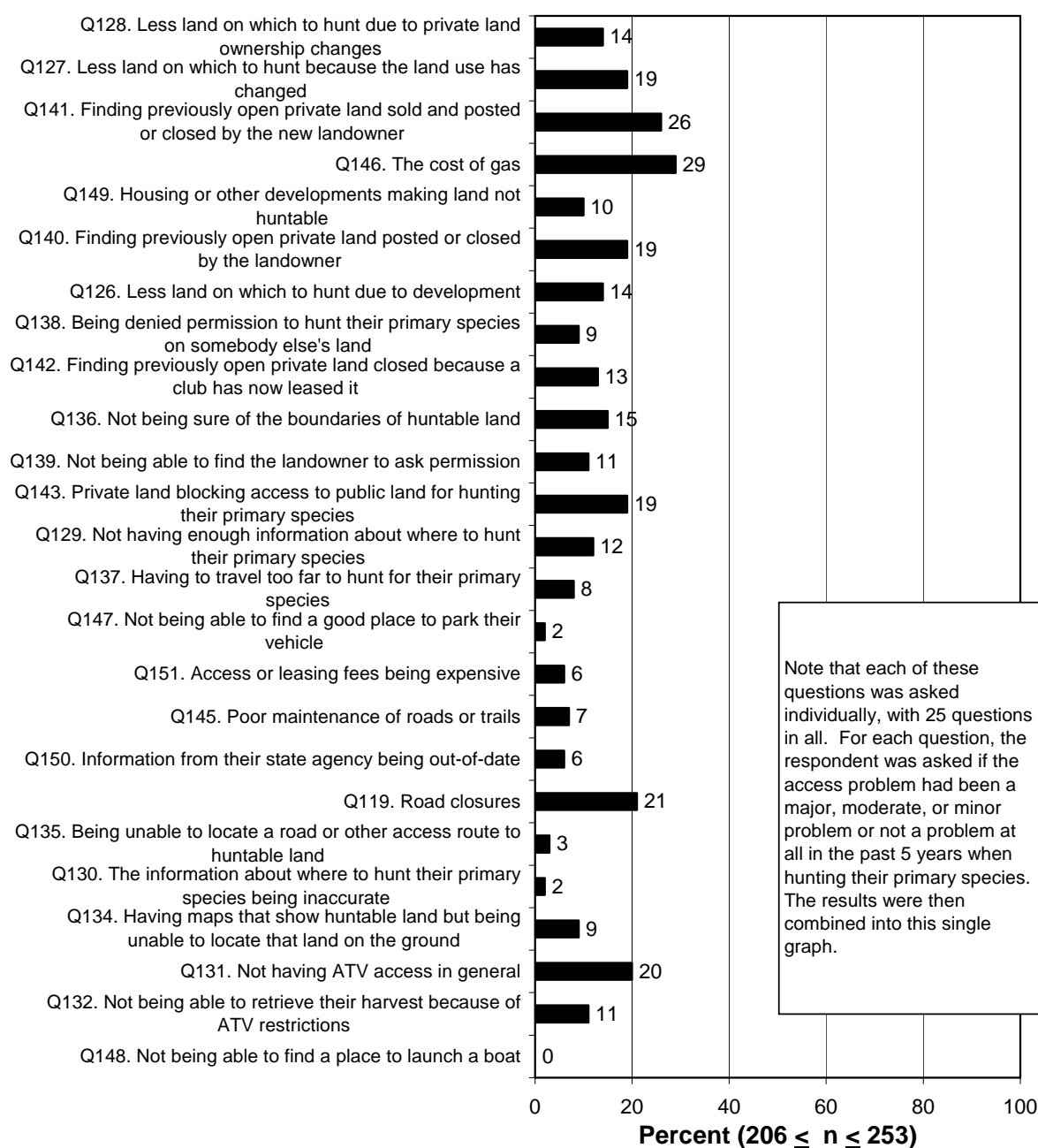


Figure 2.100. Access issues rated as being a major problem for those who hunt waterfowl.

Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting waterfowl.

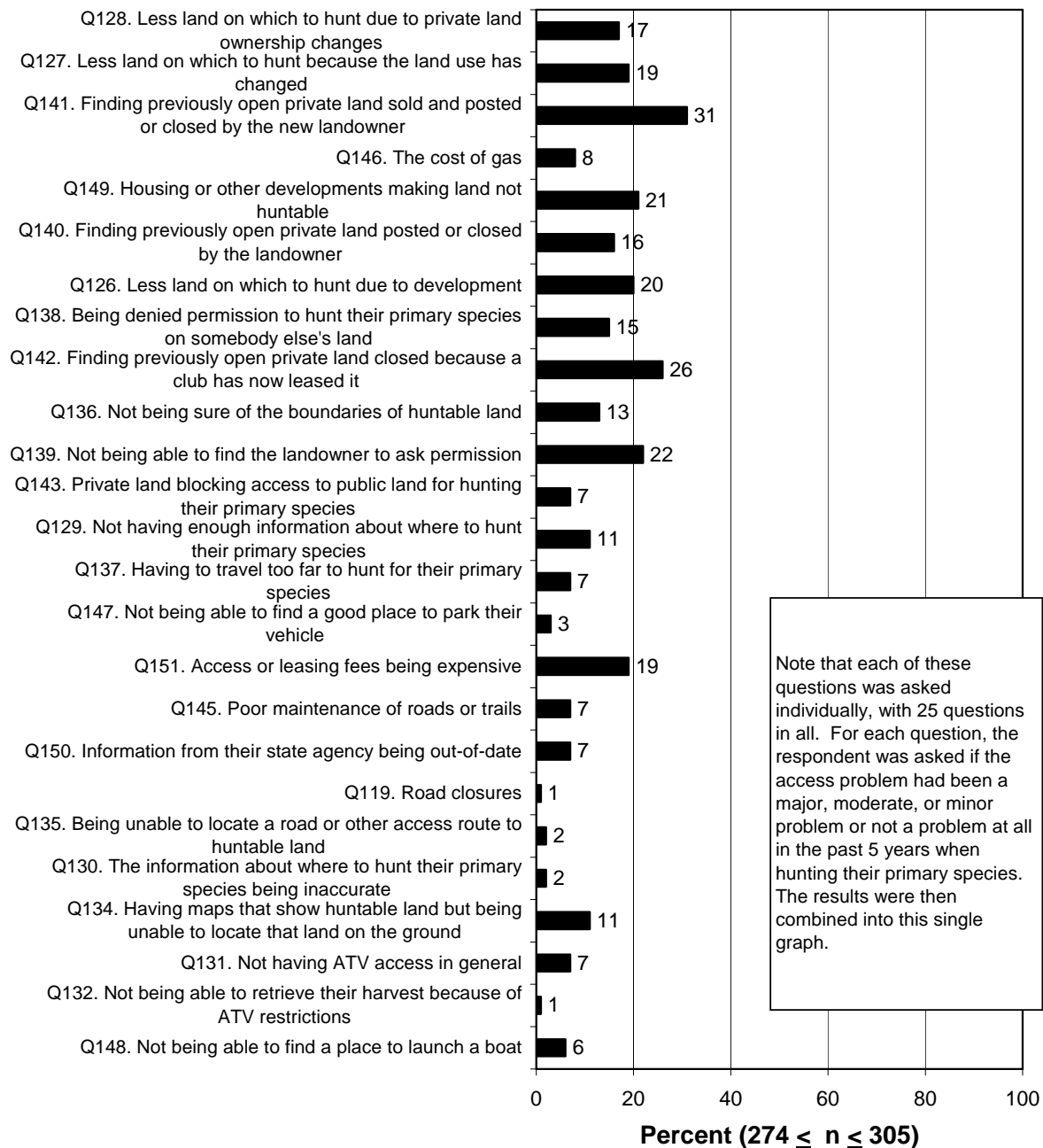


Figure 2.101. Access issues rated as being a major problem for those who hunt wild turkey.

Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting wild turkey.

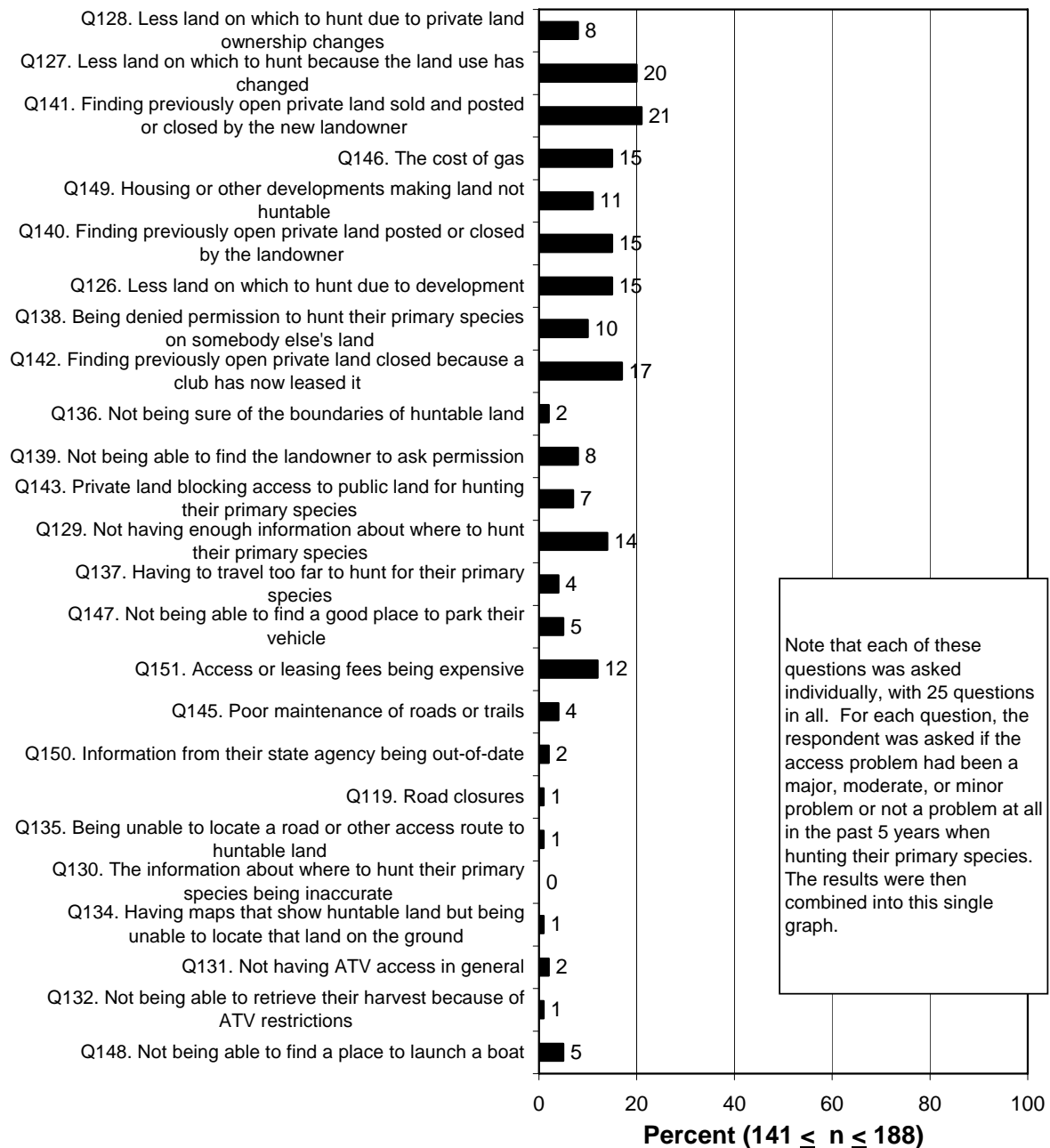


Figure 2.102. Access issues rated as being a major problem for those who hunt mostly on public land.

**Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting (SPECIES).
(Mostly hunted on public land)**

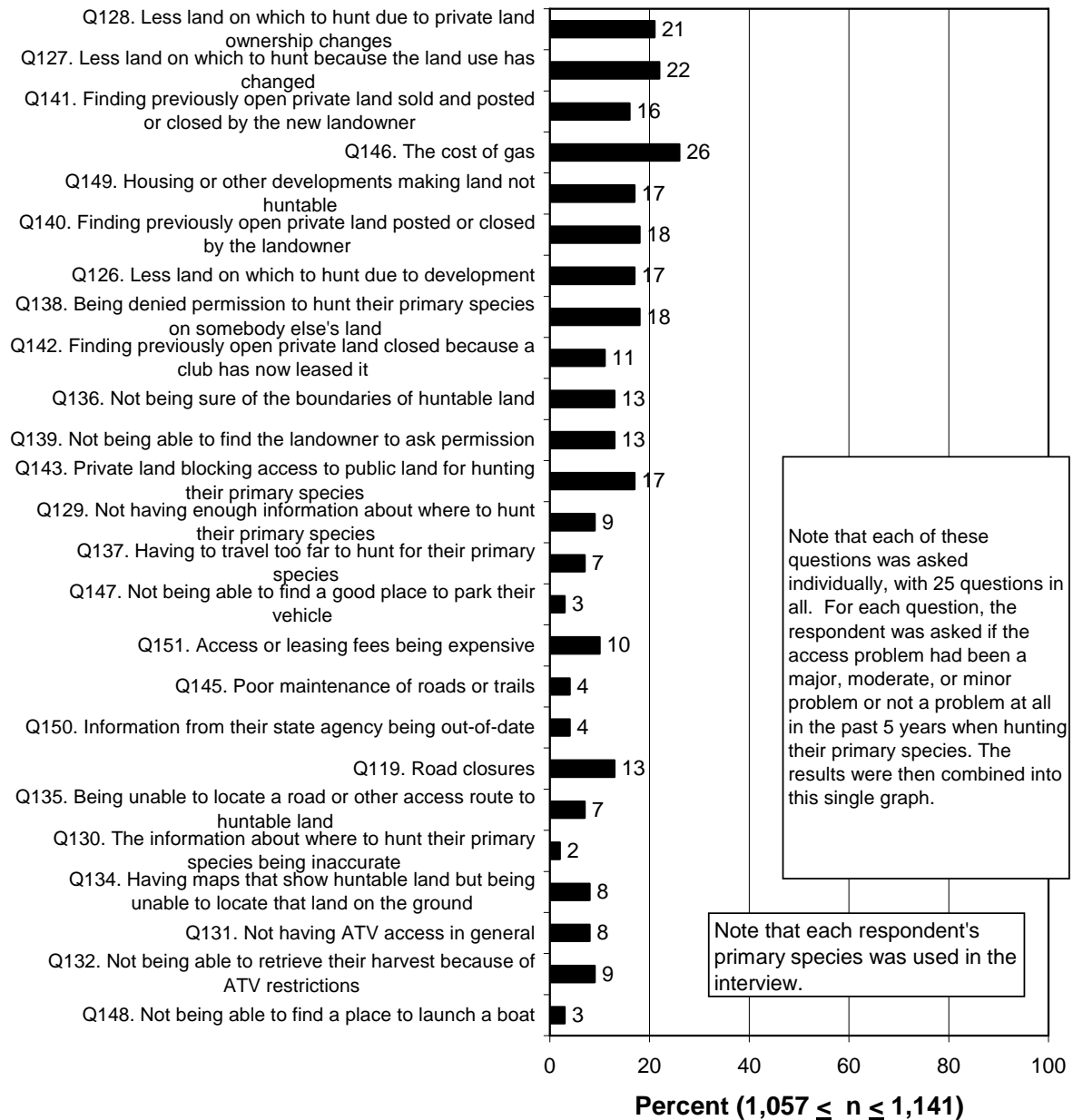
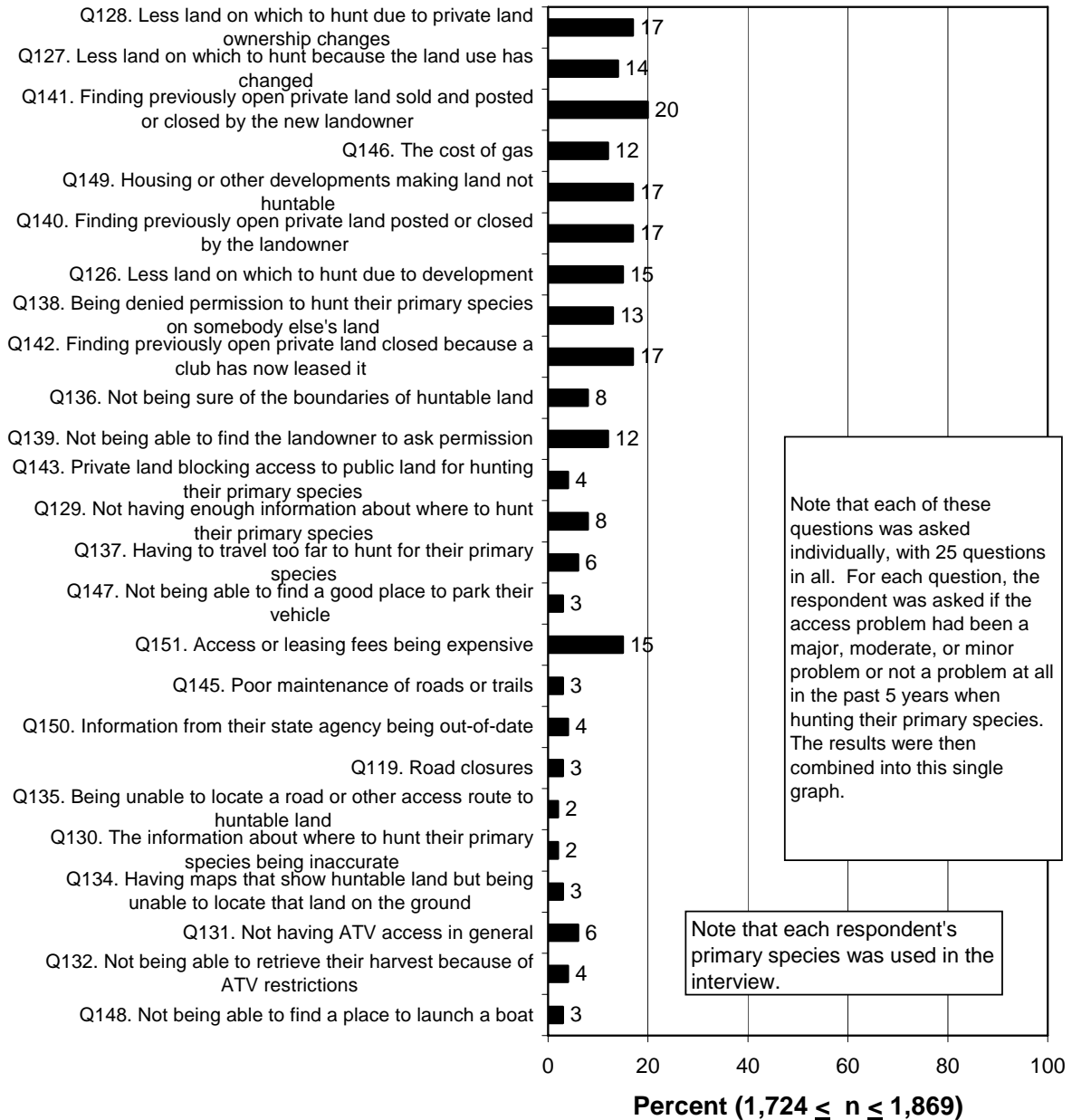


Figure 2.103. Access issues rated as being a major problem for those who hunt mostly on private land.

**Percent who indicated that the following hunting access problems have been major in the past 5 years when hunting (SPECIES).
(Mostly hunted on private land)**

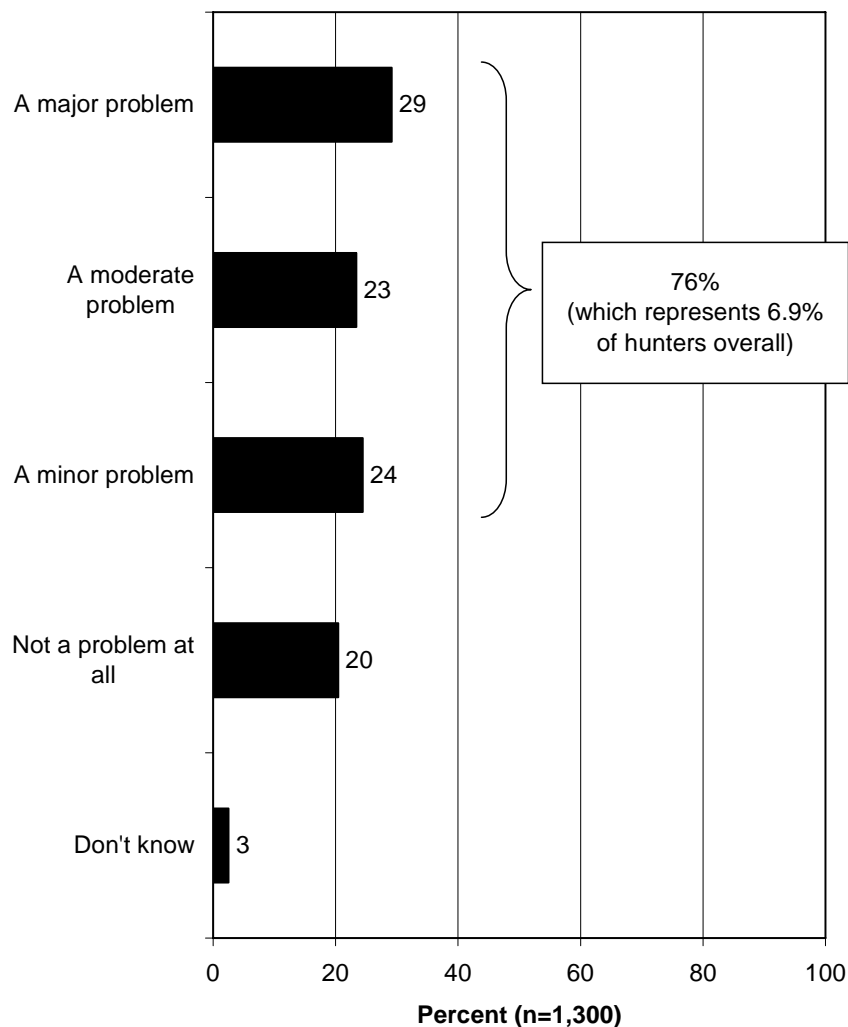


➤ **Many hunters report problems with private landowners *intentionally* blocking access to public hunting lands.**

Hunters who indicate that private land blocking access to public land had been a problem (29% of all hunters indicate that this was a *major*, *moderate*, or *minor* problem) were asked how much of a problem *intentional* blocking of public land by a private landowner had been. The majority (76%) of those respondents indicate that private landowners *intentionally* blocking access was a problem (6.9% of hunters overall) (Figure 2.104).

Figure 2.104. Intentional blocking of public land by private landowners.

Q144. How much of a problem were landowners intentionally blocking or making it difficult to physically access public land? (Asked of the 29% of hunters who said that private land blocking access to public land has been a problem when they were hunting their primary species.)



- **While road closures appear to be a lesser issue to survey respondents relative to other problems, road closures were a top-of-mind issue for focus group participants.**

Eighteen percent (18%) of hunters identified road closures as a *major, moderate, or minor* problem with access. Of those hunters, most indicated that the road was closed by a gate, although a few reported that the road was closed by a berm or dirt pile, by a “No trespassing” sign posted by a landowner, or by a lack of maintenance (Figure 2.105). Most commonly, the road closures were perceived to be permanent (55% of those hunters who identified road closures as a problem believed the road was permanently closed) rather than seasonal/temporary (38%). Typically, the roads that were gated were public—National Forest roads, BLM roads, or other public roads (Figure 2.106).

Figure 2.105. Road closure access issues.

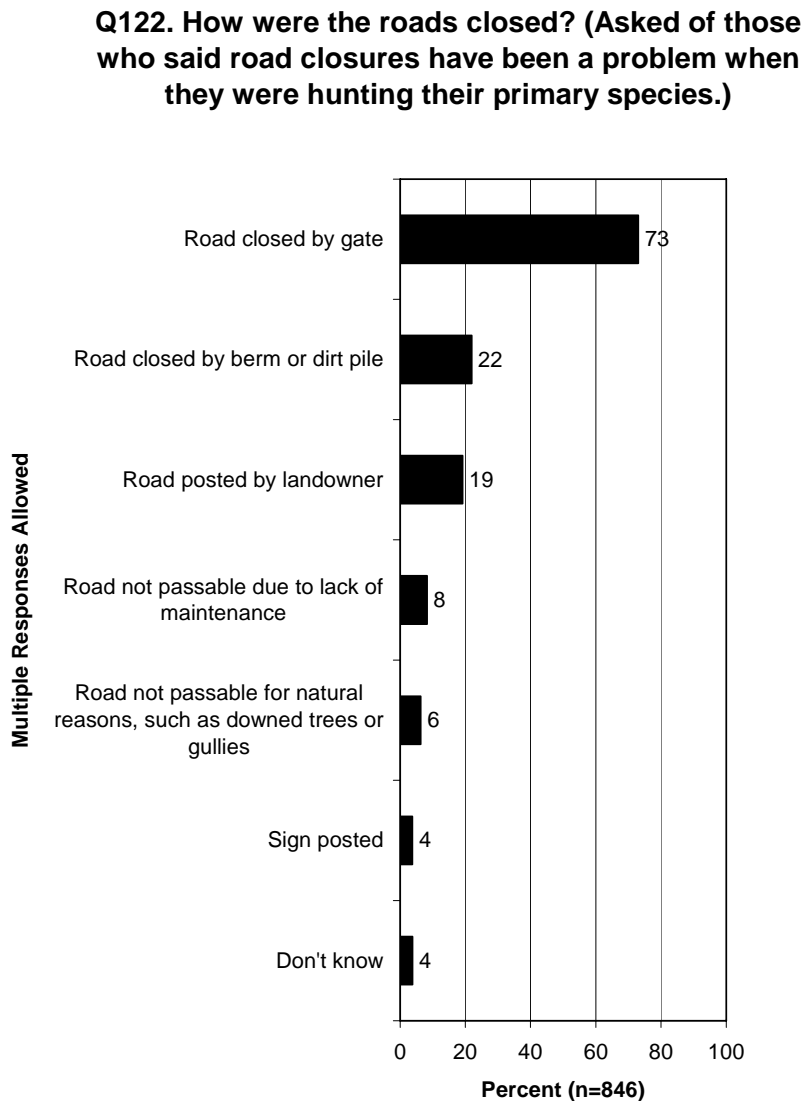
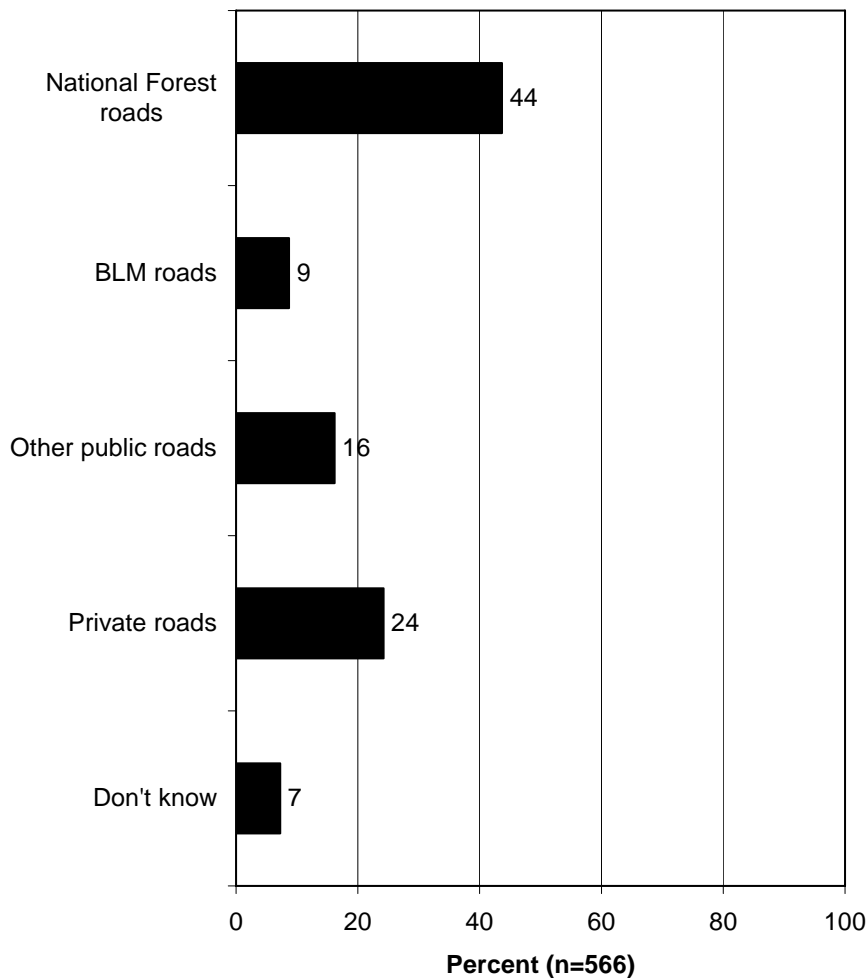


Figure 2.106. Types of roads closed by gates.

Q125. Were the closed roads National Forest roads, BLM roads, other public roads, or private roads? (Asked of those who said road closures have been a problem when they were hunting their primary species and who said the road was closed by a gate.)



Locked gates that block or effectively close roads and trails were an overarching issue affecting hunting access in the focus groups in Macon, Georgia, and Seattle, Washington (Responsive Management/NSSF, 2008b). Further, hunters in these groups noted the seemingly arbitrary nature of many locked gates (i.e., hunters often cannot discern any schedule or reason for the locking of certain gates). Some gates are recognized as being locked by concerned landowners, timber companies, or state agencies; others, however,

essentially appear to be locked for no reason, disrupting access to preferred hunting areas and adversely affecting hunting trips (Responsive Management/NSSF, 2008b).

“I’ve been hunting with the same people for fifteen years, and this family has been hunting the same general area for about seventy-five years. Now they’ve gated off that property so we can’t get in there. The farmer meanwhile owns his own gate, so he can drive into the closed area and drive up to our gate, and then drive back down and hunt it on the way. He’s pushing the deer up to his ranch, where he’s got his private club.”

— Seattle, Washington, hunter (Responsive Management/NSSF, 2008b)

“In some areas, one time the gate is open and another it’s closed—we don’t know when it’s going to be open.”

— Seattle, Washington, hunter (Responsive Management/NSSF, 2008b)

➤ **Not being able to retrieve their harvest because of ATV restrictions causes some hunters to hunt less than they would like.**

Hunters were asked if being unable to retrieve their harvest because of ATV restrictions had been a problem: 11% of hunters overall indicated that this was a problem. Of those hunters who indicated that this had been a problem, 51% agreed that not being able to retrieve game with an ATV had caused them to hunt less than they would otherwise have liked to do, which represents 1.7% of hunters overall (Figure 2.107).

ATV restrictions were mentioned several times as being an important access issue in focus group discussions. Several of the focus group participants discussed the issue of ATV use on hunting lands and how regulations often prohibited hunters from using such vehicles to bring their harvested game out of the forests. This was also discussed in conjunction with the issue of closed roads. Many of the participants said that they did not know how game wardens expected them to remove game from the land considering regulations prohibiting ATVs in certain areas. Prohibitions on ATVs were also cited as a discouragement to older and/or disabled hunters (Responsive Management/NSSF, 2008b).

“I don’t know where to begin to get changes to the issue of being able to bring in ATVs to get the game out. You can’t take game off the main road, you need to get an ATV down a fire road or something.”

— Macon, Georgia, hunter (Responsive Management/NSSF, 2008b)

“I had back surgery and had to use a four-wheeler to [bring game out of the woods]. I’d bring the four-wheeler up to a ditch or a hill, but I can’t drag a deer that far. That’s been hard for me.”

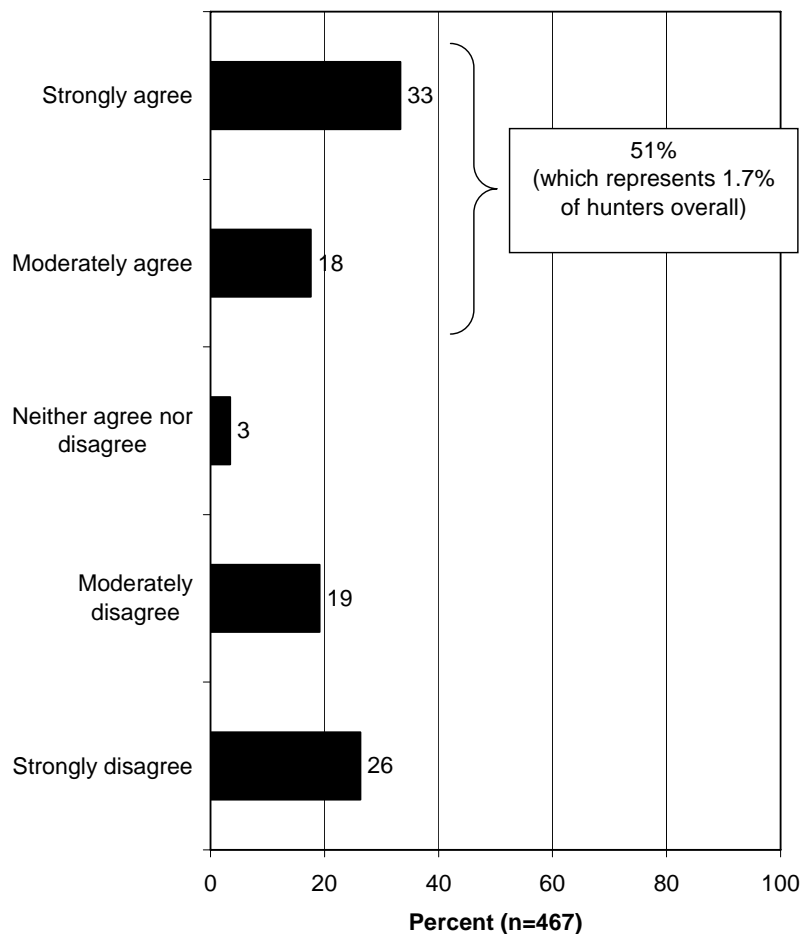
— Macon, Georgia, hunter (Responsive Management/NSSF, 2008b)

“You can’t typically drive ATVs down Forest Service roads. You can get a ticket so easily. They’ve really eliminated ATVs.”

— Seattle, Washington, hunter (Responsive Management/NSSF, 2008b)

Figure 2.107. The impact of ATV restrictions on hunters' ability to retrieve their harvest.

Q133. Do you agree or disagree that not being able to retrieve your harvest with an ATV has caused you to hunt less in the past 5 years? (Asked of the 11% of hunters who said that not being able to retrieve their harvest because of ATV restrictions has been a problem when they were hunting their primary species.)



It is important to keep in mind that, although some hunters are concerned about ATV restrictions, allowing ATVs on hunting lands may cause other hunting access problems. For example, ATV use may impact hunters' perceptions of crowding. Additionally, ATV use has the potential to negatively impact road conditions and trails, another common hunting access concern. These findings are not reported to advocate for fewer ATV restrictions but merely to provide data regarding hunters' concerns with these restrictions. Because changing ATV restrictions could result in other frustrations, further research is needed to explore the potential negative affects of relaxing ATV restrictions.

RATINGS OF ACCESS TO HUNTING LANDS

- **Most hunters view access to hunting land in their state overall positively as well as their state agency's *management* of access to hunting lands.**

Hunters were asked to rate access to hunting land in their state: 56% of hunters gave a rating of excellent or good, while 42% gave a rating of fair or poor (Figure 2.108.). Note that the moderate answers (good and fair) far exceeded the extreme answers (excellent and poor). Ratings varied by state. Figure 2.109. shows the state-by-state results in hunters' overall ratings of access to hunting lands.

Figure 2.108. Ratings of access to hunting lands.

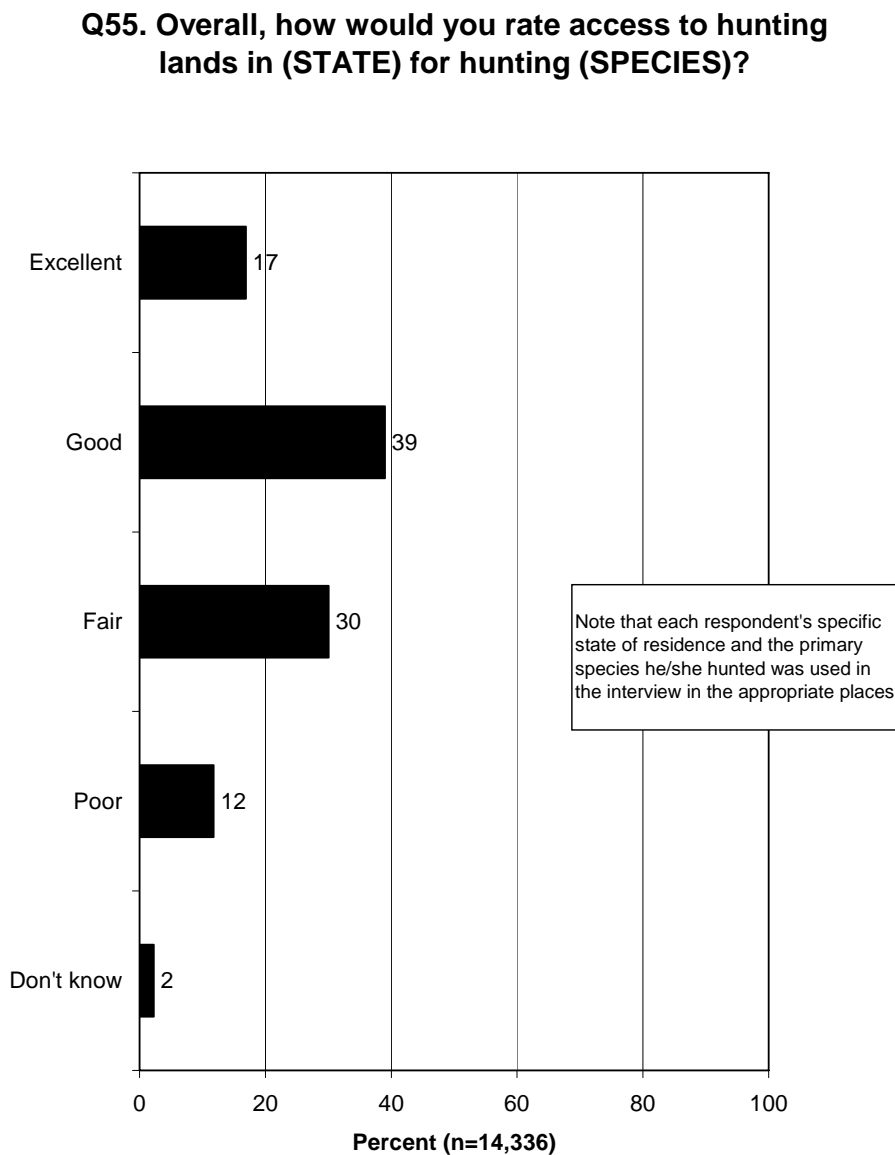
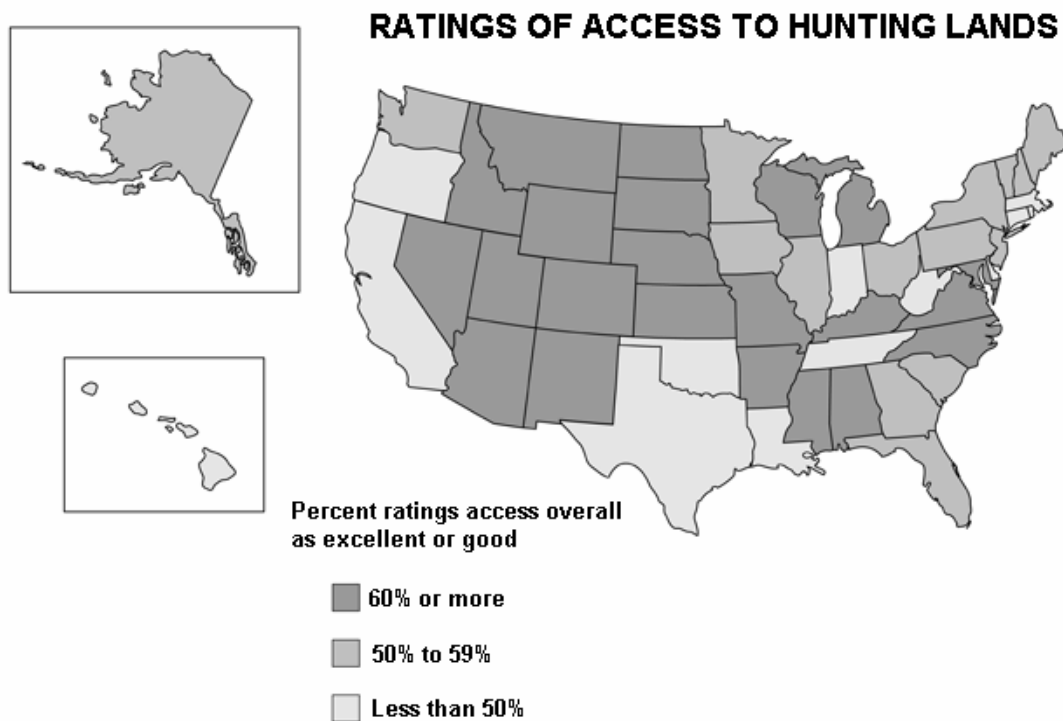


Figure 2.109. Map of ratings of access to hunting lands by state.

➤ **The ratings for hunting access overall are better among oversampled states.**

In general, the hunters in oversampled states gave higher ratings than other hunters. However, it is important to note that not all hunters who rated access in the oversampled states as excellent or good participated in a program/resource (Figure 2.110).

➤ **There was only slight variation in ratings according to species primarily hunted, with wild turkey hunters the most likely to give an excellent rating.**

For all the species except wild turkey, from 16% to 17% gave an excellent rating to access in their state for hunting their primary species; for wild turkey, 27% gave an excellent rating (Figure 2.111). On the other hand, this graph shows that upland game bird hunters were the most likely to give a rating of poor, although the difference is slight ($p \leq 0.001$).

➤ **In general, hunters who hunt public lands are more satisfied with access than are those who hunt private lands.**

Hunters who hunted their primary species on public land at least half the time were asked to rate access to public lands in their state. The majority of these hunters (65%) gave excellent or good ratings, while 31% gave fair or poor ratings (Figure 2.112). In comparison, those who hunted their primary species on private land at least half the time were asked to rate access to private lands in their state. These hunters were more evenly split, with 47% giving a rating of excellent or good and 48% giving a rating of fair or poor (Figure 2.113).

Figure 2.110. Ratings of access among oversampled states compared to other hunters.

Q55. Overall, how would you rate access to hunting lands in (STATE) for hunting (SPECIES)?

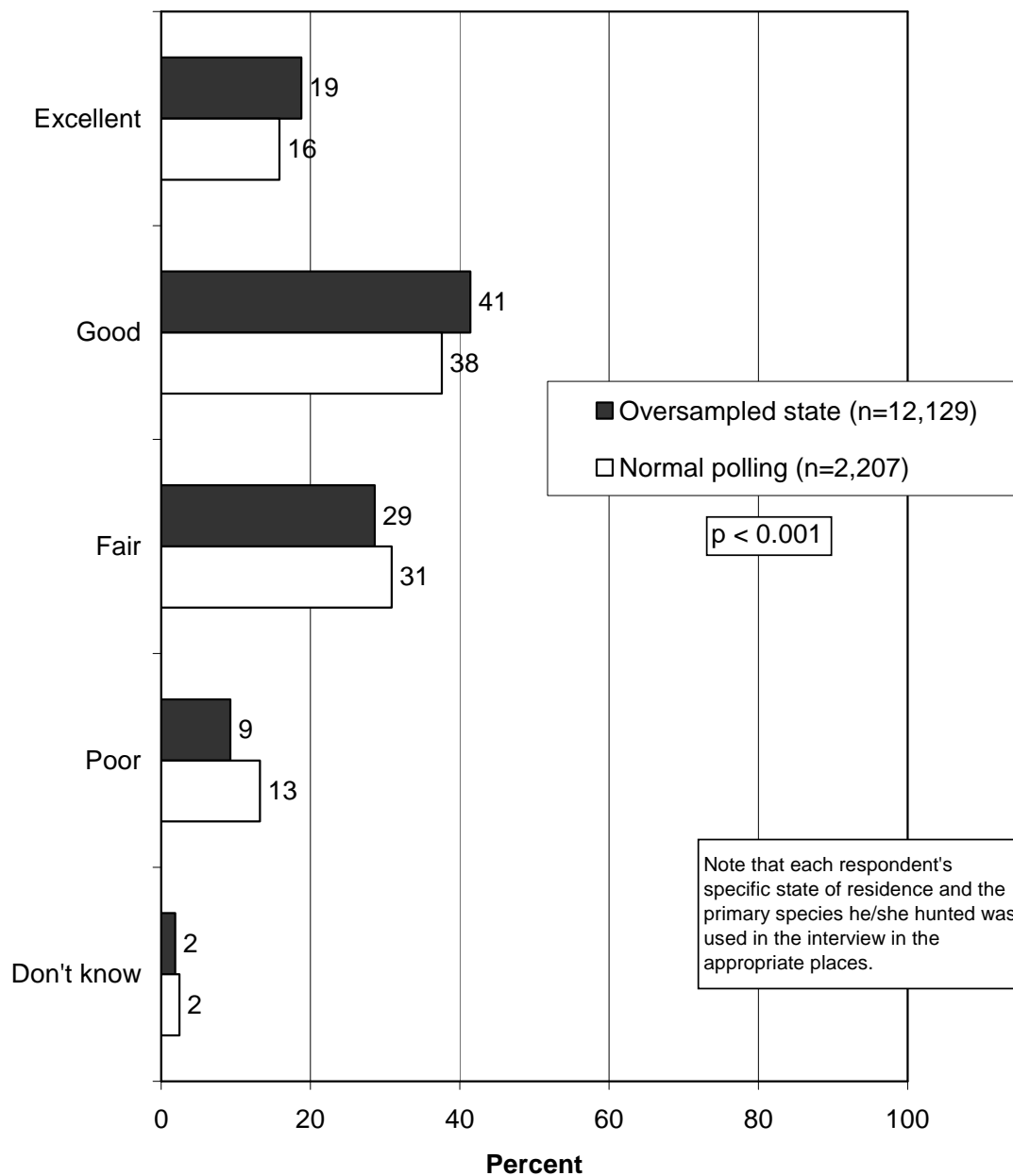


Figure 2.111. Ratings of access to hunting lands crosstabulated by primary species hunted.

Q55. Overall, how would you rate access to hunting lands in (STATE) for hunting (SPECIES)?

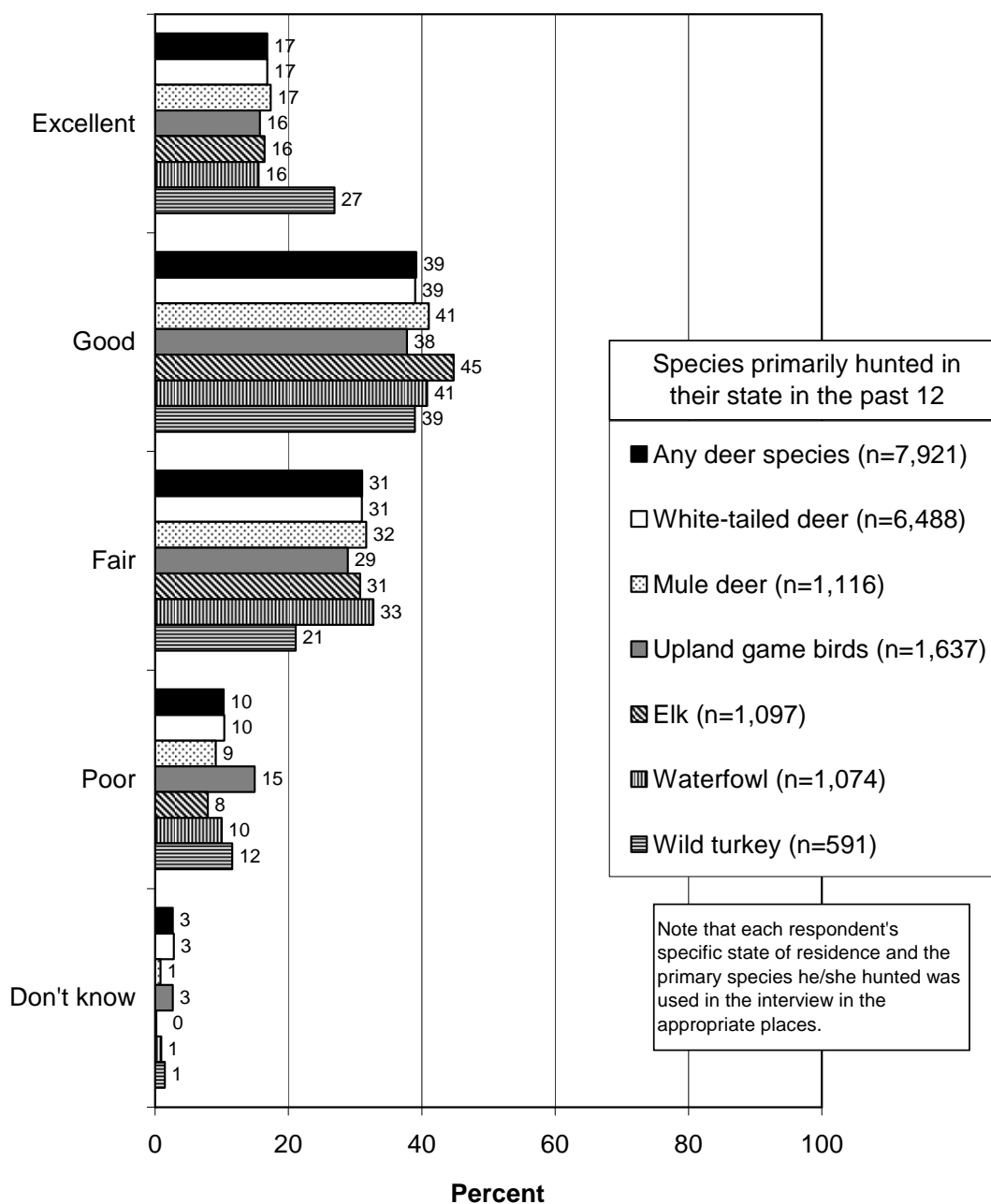


Figure 2.112. Ratings of access to public lands by hunters who hunted their primary species on public lands at least half the time.

Q63. How would you rate access to public lands for hunting (SPECIES) in (STATE)? (Asked of those who hunted their primary species on public lands at least half the time.)

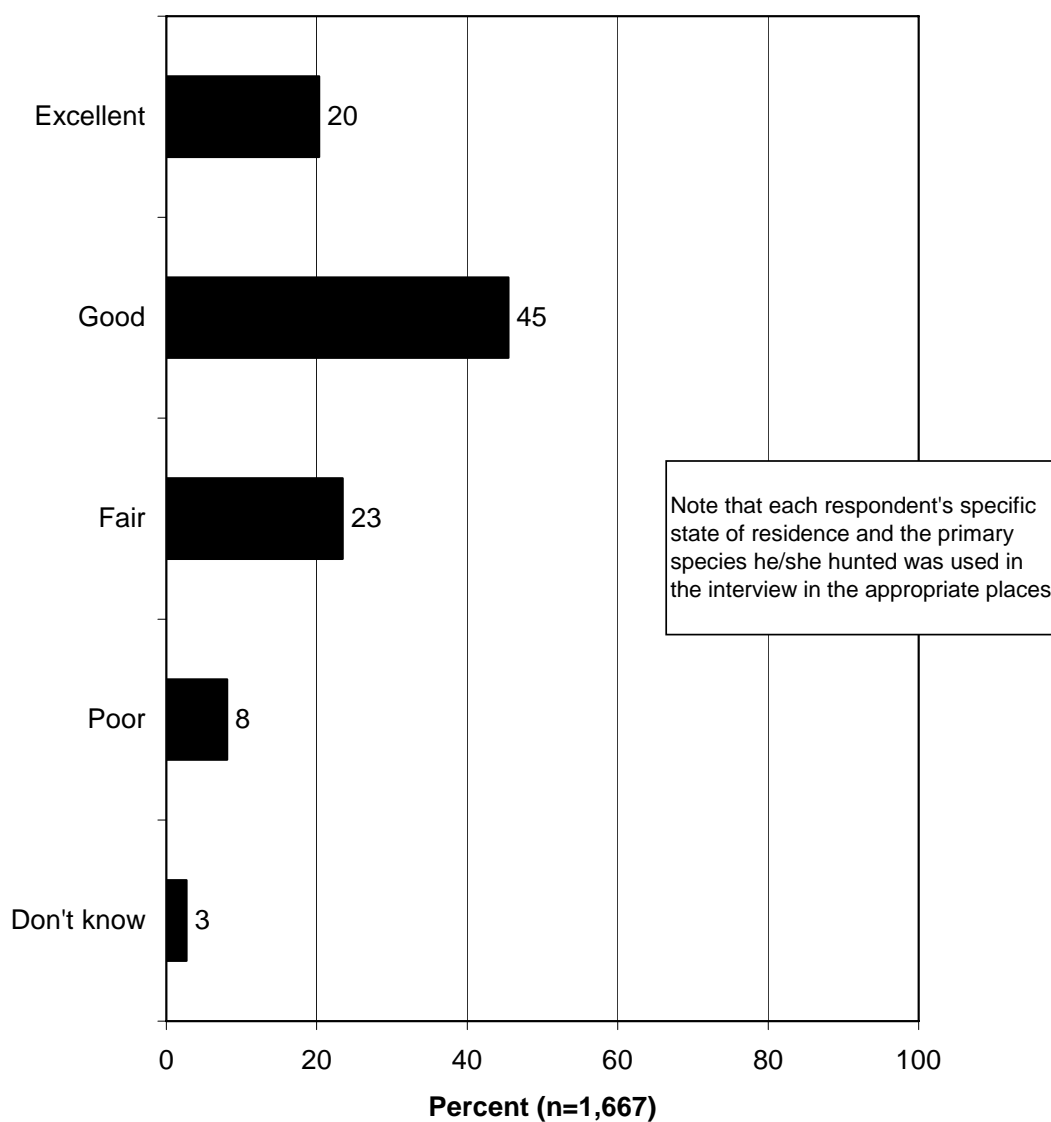
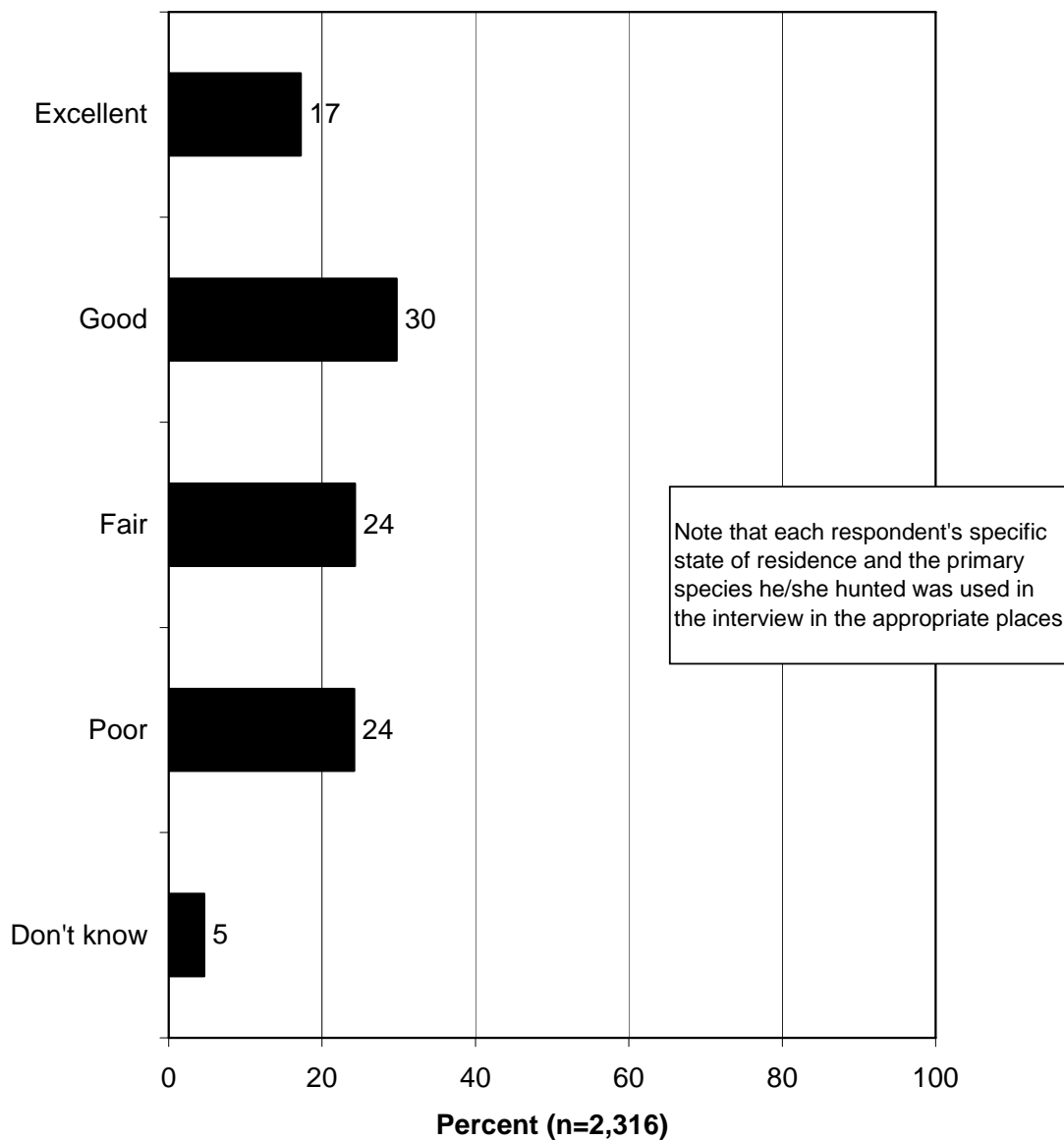


Figure 2.113. Ratings of access to private lands by hunters who hunted their primary species on private lands at least half the time.

Q69. How would you rate access to private lands for hunting (SPECIES) in (STATE)? (Asked of those who hunted their primary species on private lands at least half the time.)



The top reasons for rating public land access as fair or poor are a simple lack of land on which to hunt, road closures, land being too crowded with other hunters, public land being blocked by private land, lack of quality land or land with plenty of game, and access problems in general to public land (Figure 2.114). By far, the top reason for rating private land access as fair or poor is because of land being posted, followed by the land being leased, cost of access, and simple lack of land on which to hunt (Figure 2.115).

Figure 2.114. Reasons for rating access to public land as fair or poor.

Q66. What are the specific reasons you rate access to public land to hunt on in (STATE) as (fair or poor)? (Asked of those who hunted their primary species on public lands at least half the time and rated the access to public land as fair or poor.)

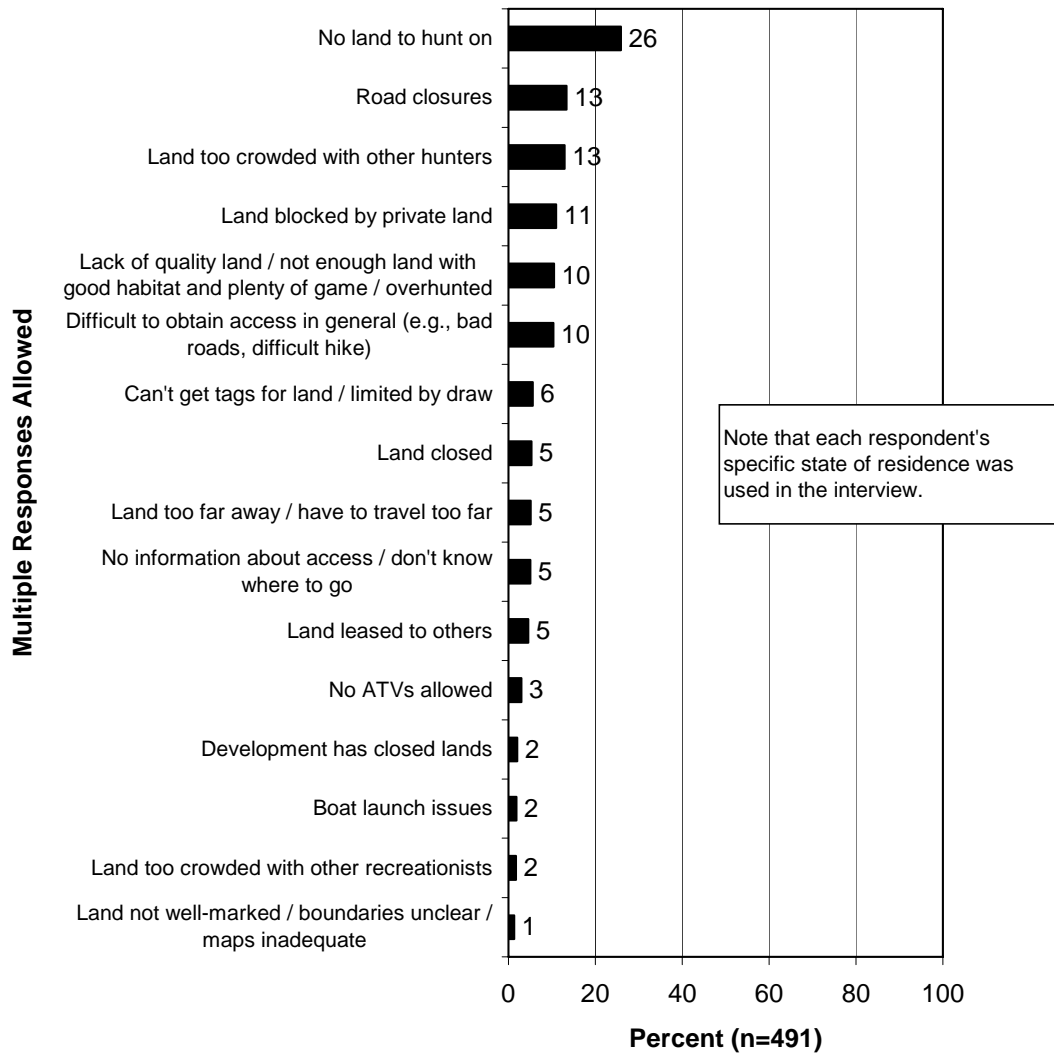
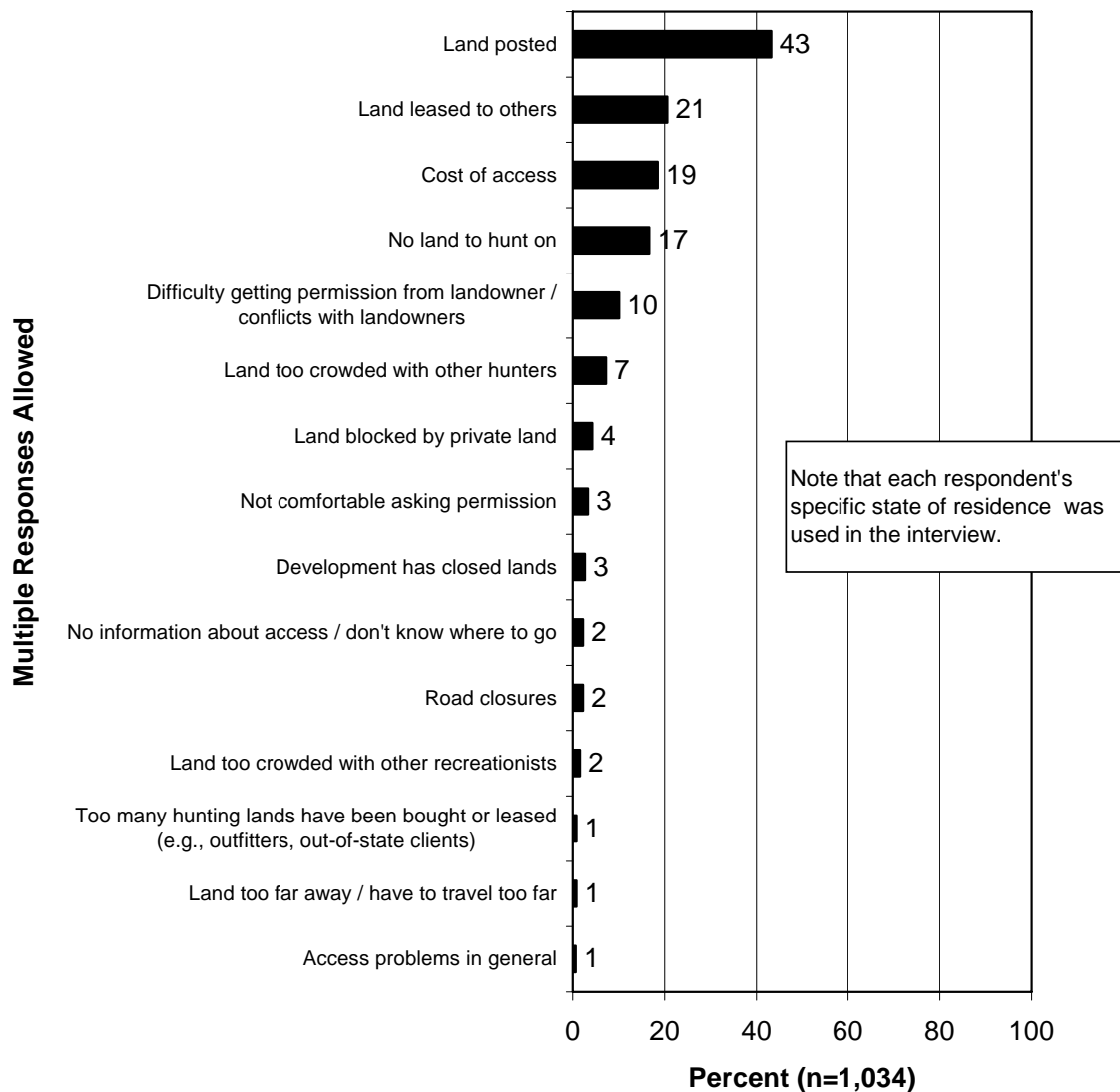


Figure 2.115. Reasons for rating access to private land as fair or poor.

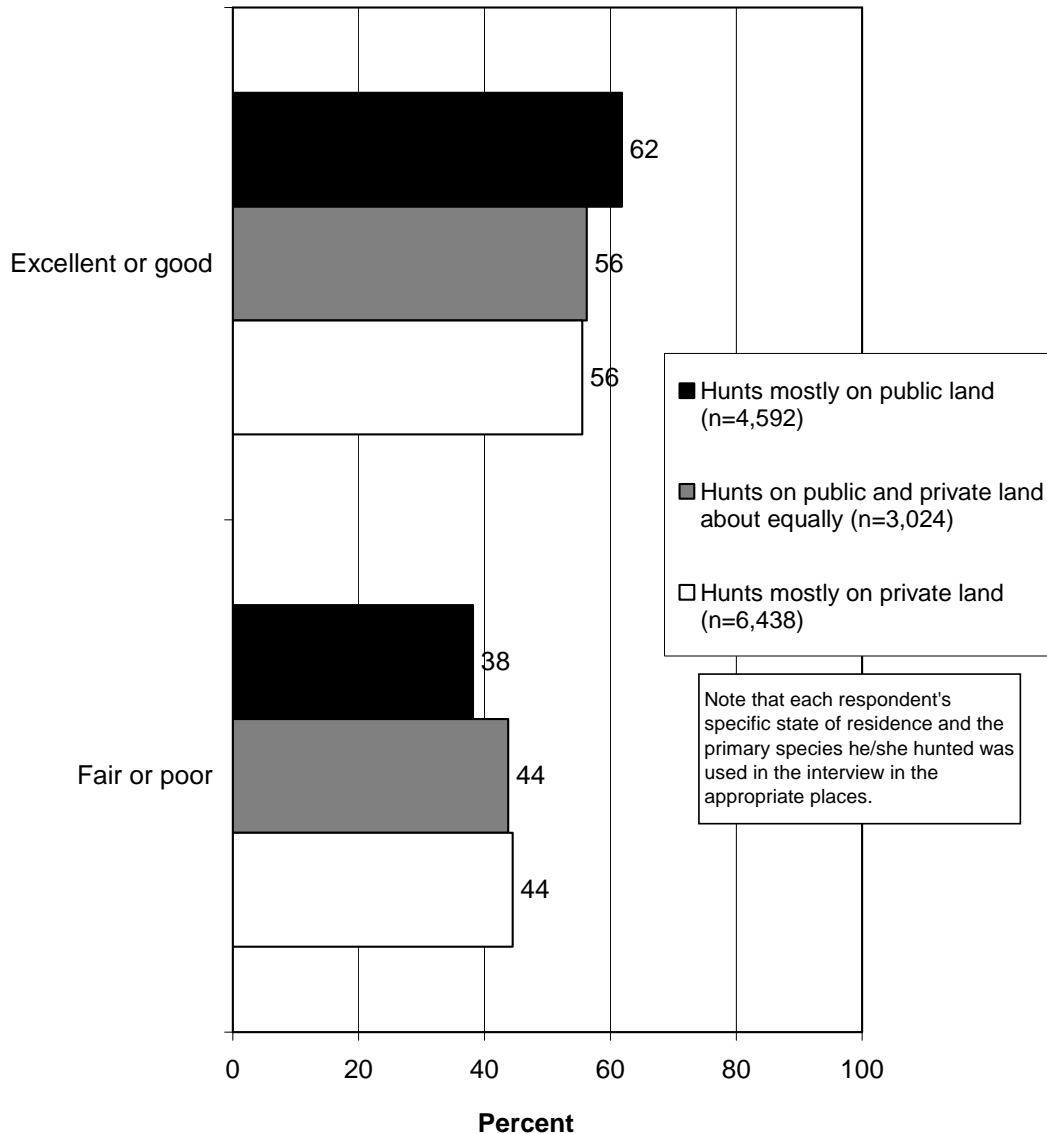
Q72. What are the specific reasons you rate access to private land to hunt on in (STATE) as (fair or poor)? (Asked of those who hunted their primary species on private lands at least half the time and rated the access to private land as fair or poor.)



A crosstabulation was run of access ratings by whether the hunter hunts mostly on public land or mostly on private land, and again public land is associated with better ratings. As Figure 2.116 shows, those hunters who hunted mostly on public land are more positive in their access ratings than hunters who hunted mostly on private land ($p \leq 0.001$).

Figure 2.116. Crosstabulation of ratings of access to hunting by hunting on public/private lands.

Q55. Overall, how would you rate access to hunting lands in (STATE) for hunting (SPECIES)?



The survey also asked hunters to rate their state agency's *management* of hunting access. Their ratings of their state agency's management of access to hunting lands are more positive than negative: 55% gave an excellent or good rating, while 34% gave a fair or poor rating (Figure 2.117). Results vary by region (Figure 2.118).

Figure 2.117. Ratings of agency's management of access to hunting lands.

Q56. How would you rate your state agency's management of access to hunting lands in (STATE) for hunting (SPECIES)?

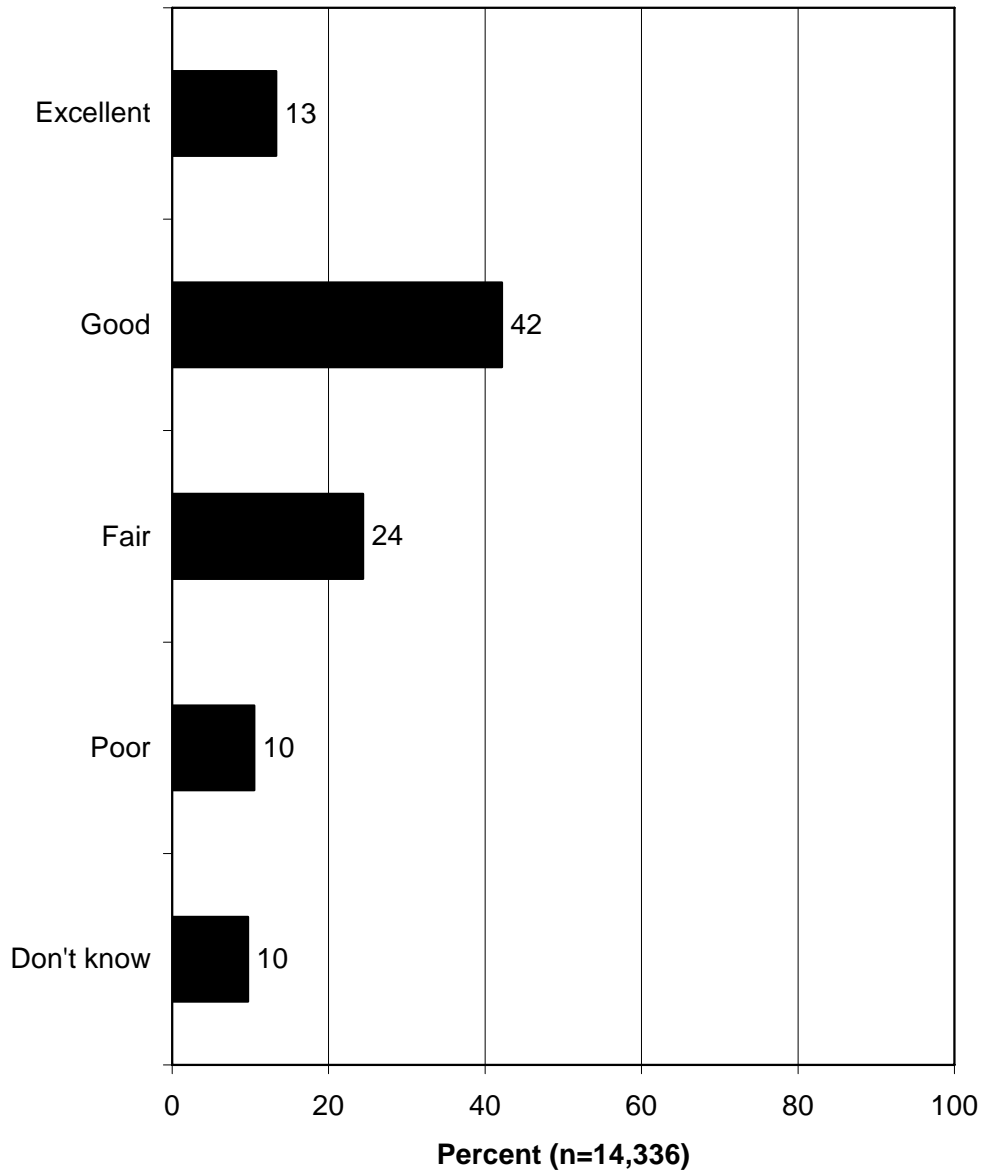
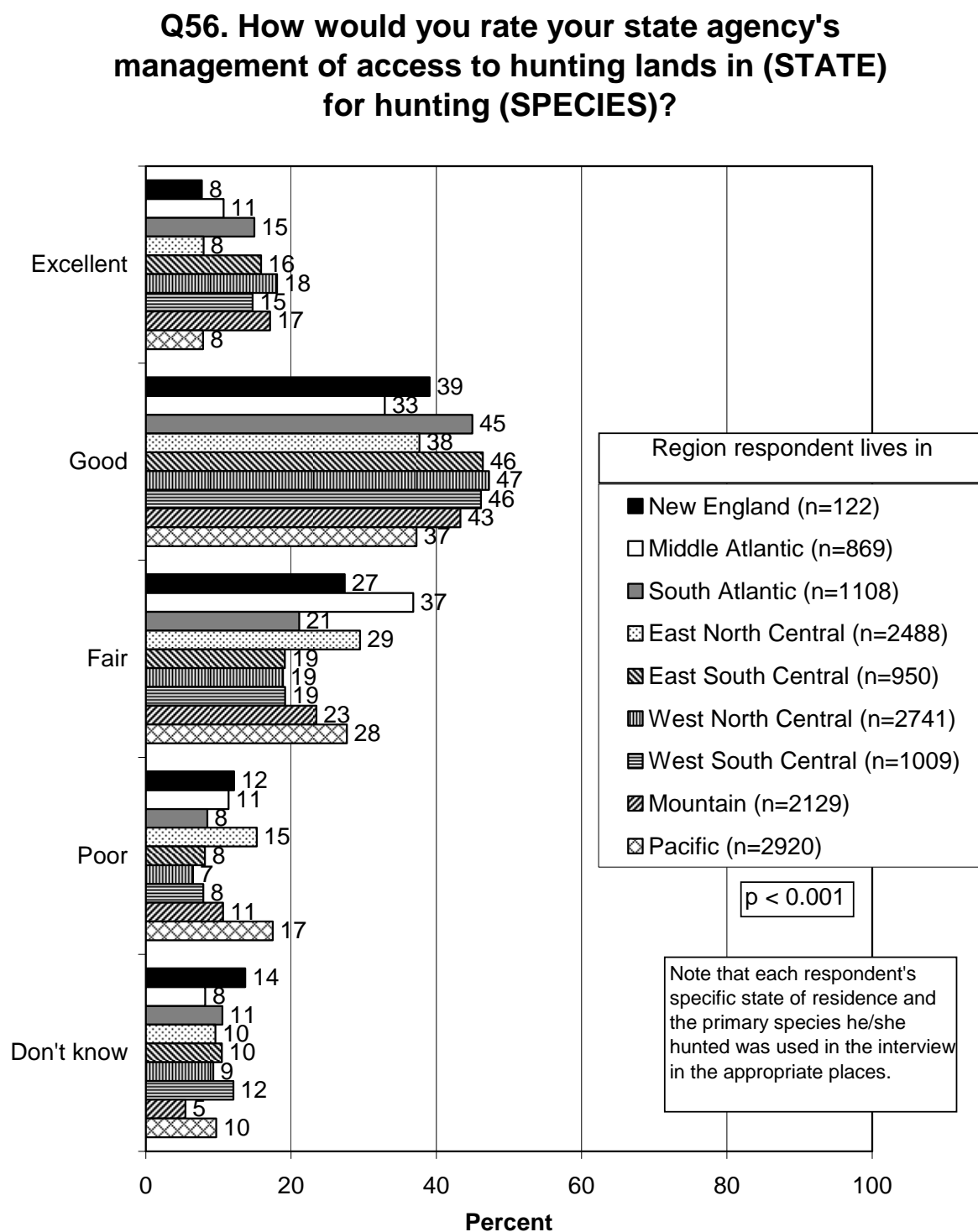


Figure 2.118. Ratings of agency's management of access to hunting lands by region.



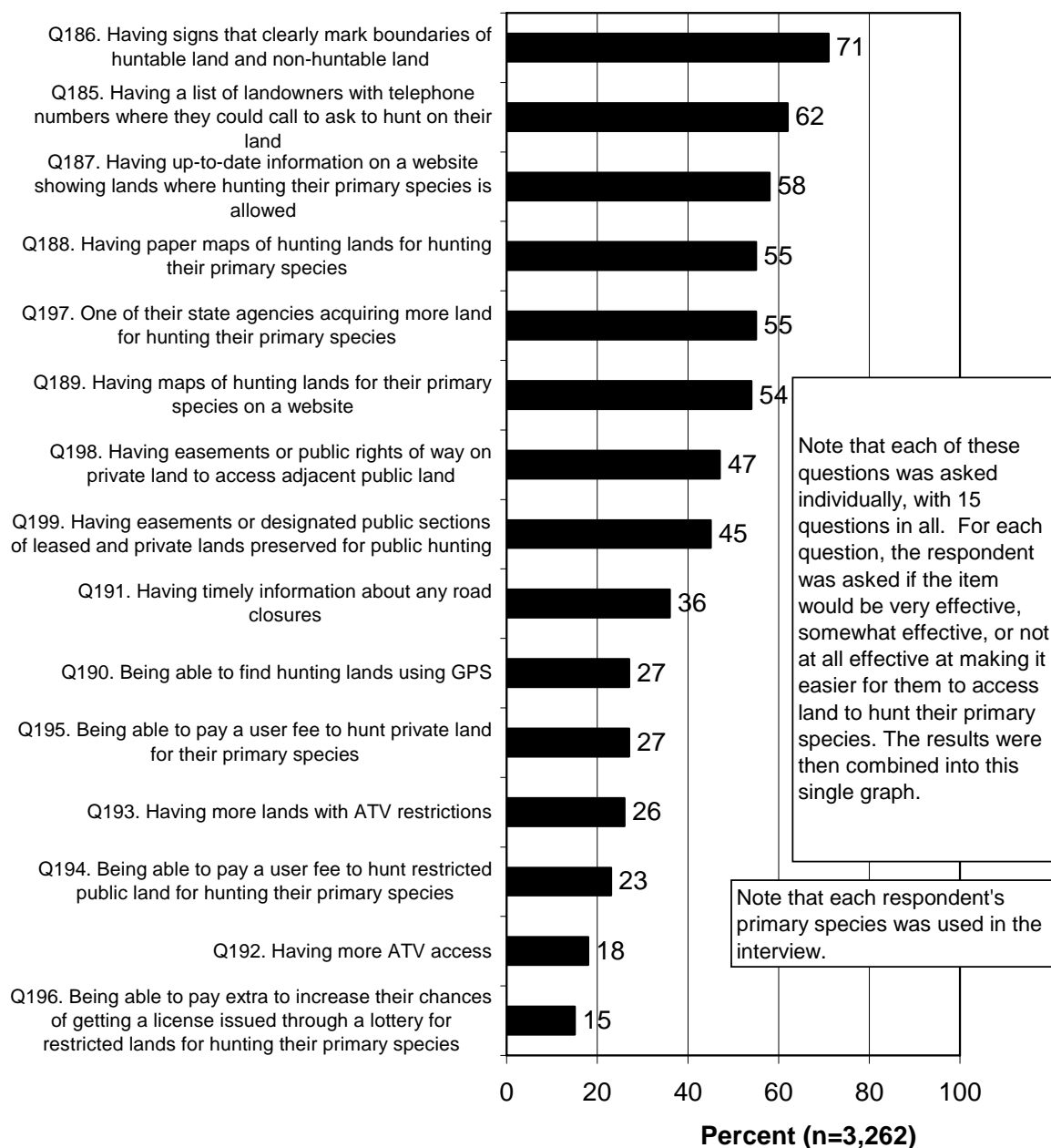
FACTORS THAT MAY POSITIVELY AFFECT ACCESS

- **When asked to rate the effectiveness of factors that may make hunting access easier, the top-ranked factors are those that involve the availability of and/or distribution of additional information, including signage in the field.**

Hunters were asked about 15 specific items that may make hunting access easier. Six items stand out—each with a majority saying it would be *very* effective. These items include having signs that clearly mark boundaries of huntable land (71%), having a list of landowners with telephone numbers hunters could call to ask to hunt on their land (62%), having up-to-date information on a website showing lands where hunting their primary species is allowed (58%), having paper maps of hunting lands for their primary species (55%), having their state agency acquire more land for hunting (55%), and having maps of hunting lands for their primary species on a website (54%). With the exception of having their state agency acquire more land for hunting, all items listed involve additional *information* regarding hunting lands (Figure 2.119).

Figure 2.119. Factors considered very effective at making it easier for hunters to access land to hunt.

Percent who indicated that the following would be very effective at making it easier for them to access land to hunt (SPECIES), including lands they don't currently hunt.



CHARACTERISTICS OF HUNTERS WHO REPORT ACCESS PROBLEMS

- **To help identify target markets for access-related programs/resources, a nonparametric analysis was run to determine the characteristics associated with access problems. Based on the nonparametric analyses conducted for this study, several characteristics emerge that are significantly correlated with hunters who report that access-related issues are a reason for dissatisfaction with hunting or a barrier to hunting participation.**

For this study, Responsive Management and the NSSF conducted extensive nonparametric analyses to help identify the characteristics of hunters who are concerned with access problems. The nonparametric analysis examined how various responses related to demographic, geographic, and attitudinal characteristics (i.e., how responses pertaining to access related to other responses in the survey). The importance of a nonparametric analysis is that it allows for the identification of highly targeted populations based on demographic and attitudinal characteristics.

Based on the nonparametric analyses conducted for this study, several characteristics emerged that were significantly correlated with reporting that access-related issues are a reason for dissatisfaction with hunting or a barrier to hunting participation. Table 2.3 shows the characteristics positively correlated with hunters indicating that an access problem took away from their hunting enjoyment during the previous 12 months. Note that the strongest positive statistically significant correlations are at the top of the table, with the positive correlations getting weaker as one moves down the table (nonetheless, all variables in the table are positively correlated and statistically significant). This does not mean, however, that respondents without access problems did not have any of the characteristics listed below; rather, it means that hunters with access problems were statistically *more likely* than hunters without access problems to have the characteristics listed below.

Table 2.3. Characteristics positively correlated with reporting that an access-related problem took away from hunting enjoyment.

An access-related problem took away from hunting enjoyment in his/her state in the past 12 months.	Significance of Correlation
Agrees that lack of access to hunting lands in his/her state caused him/her not to hunt a species as much as he/she would have liked in the past 5 years.	$p \leq 0.001$
Does not rate overall access to hunting lands in his/her state as excellent or good.	$p \leq 0.001$
Does not rate state agency's management of access to hunting lands in his/her state as excellent or good.	$p \leq 0.001$
Says his/her hunting participation in his/her state has decreased over the past 5 years.	$p \leq 0.001$
Usually travels more than 50 miles, one way, to hunt in his/her state.	$p \leq 0.001$
Is 55 years of age or older.	$p \leq 0.001$
Does not indicate hunting mostly on the same land each year.	$p \leq 0.001$
Primarily hunted upland game birds in the past 12 months in his/her state.	$p \leq 0.001$
Has hunted fewer than 5 of the past 5 years in his/her state (or does not know).	$p \leq 0.001$
Hunts on private lands enrolled in a walk-in access program or a private lands access program in his/her state at least rarely.	$p \leq 0.001$
Resides in a large city/urban area or suburban area.	$p \leq 0.01$
Has hunted the median number of years or more.	$p \leq 0.05$
Uses an ATV to access hunting lands in his/her state.	$p \leq 0.05$
Does not indicate being aware of the Conservation Reserve Program.	$p \leq 0.05$
Hunts mostly on public land each year. ¹	$p \leq 0.05$
Highest education level is some college, but no bachelor's degree.	$p \leq 0.05$
Primarily hunted mule deer in the past 12 months in his/her state.	$p \leq 0.05$
Does not look at state agency's website for information on places to hunt and hunting access.	$p \leq 0.05$
Primarily hunted elk in the past 12 months in his/her state.	$p \leq 0.05$
Hunts on public and private lands about equally each year. ¹	$p \leq 0.05$
INSIGNIFICANT AND NEGATIVE CORRELATIONS OMITTED	

¹ Taken together, these results suggest that hunters who hunt mostly on public land each year are more likely than hunters who hunt mostly on private land each year to indicate that an access-related problem took away from their hunting enjoyment. The nonparametric analysis showed that hunters who hunt mostly on private land each year were more likely to indicate that nothing took away from their hunting enjoyment than hunters who hunt mostly on public land each year.

Table 2.4 shows the demographic and attitudinal characteristics that are positively correlated with indicating that a lack of access to hunting lands in his/her state caused him/her not to hunt a species as much as he/she would have liked in the past 5 years.

Table 2.4. Characteristics positively correlated with indicating that a lack of access caused him/her not to hunt a species as much as he/she would have liked.

Agrees that lack of access to hunting lands in his/her state caused him/her not to hunt a species as much as he/she would have liked in the past 5 years.	Significance of Correlation
Does not rate overall access to hunting lands in his/her state as excellent or good.	$p \leq 0.001$
An access-related problem took away from hunting enjoyment in his/her state in the past 12 months.	$p \leq 0.001$
Does not rate state agency's management of access to hunting lands in his/her state as excellent or good.	$p \leq 0.001$
Does not indicate hunting mostly on same land each year.	$p \leq 0.001$
Hunts mostly on public land each year. ¹	$p \leq 0.001$
Says his/her hunting participation in his/her state has decreased over the past 5 years.	$p \leq 0.001$
Usually travels more than 50 miles, one way, to hunt in his/her state. ²	$p \leq 0.001$
Has hunted fewer than 5 of the past 5 years in his/her state (or does not know).	$p \leq 0.001$
Hunts on private lands enrolled in a walk-in access program or a private lands access program in his/her state at least rarely.	$p \leq 0.001$
Hunts on public and private lands about equally each year. ¹	$p \leq 0.001$
Looks at state agency's website for information on places to hunt and hunting access.	$p \leq 0.001$
Looks at one of the listed websites for information on places to hunt and hunting access.	$p \leq 0.001$
Resides in a small city/town. ³	$p \leq 0.001$
Usually travels 31-50 miles, one way, to hunt in his/her state. ²	$p \leq 0.01$
Primarily hunted upland game birds in the past 12 months in his/her state.	$p \leq 0.01$
Usually hunts 1-10 days annually in his/her state.	$p \leq 0.05$
Does not indicate being aware of the Conservation Reserve Program.	$p \leq 0.05$
Is male.	$p \leq 0.05$
Highest education level is some college, but no bachelor's degree.	$p \leq 0.05$
Resides in a large city/urban area or suburban area. ³	$p \leq 0.05$
INSIGNIFICANT AND NEGATIVE CORRELATIONS OMITTED	

¹ Taken together, these results suggest that hunters who hunt mostly on public land each year are more likely than hunters who hunt mostly on private land each year to indicate that lack of access to hunting lands caused them not to hunt a species as much as they would have liked.

² Taken together, these results suggest that hunters who travel more than 30 miles are more likely to indicate that lack of access to hunting lands caused them not to hunt a species as much as they would have liked than hunters who travel 30 miles or less to hunt. In other words, hunters who travel shorter distances are less likely than those who travel greater distances to indicate that lack of access caused them not to hunt a species as much.

³ Taken together, these results suggest that hunters who reside in urban or suburban areas and small cities are more likely to indicate that lack of access to hunting lands caused them not to hunt a species as much as they would have liked than hunters who reside in rural areas. In other words, hunters residing in rural areas are less likely to indicate that lack of access caused to hunting lands caused them not to hunt a species as much as they would have liked than hunters residing in urban areas.

Table 2.5 shows the demographic and attitudinal characteristics that are positively correlated with *not* rating overall access to hunting lands in his/her state as excellent or good.

Table 2.5. Characteristics positively correlated with not rating overall access to hunting lands in his/her state as excellent or good.

Did not rate overall access to hunting lands in his/her state as excellent or good.	Significance of Correlation
Does not rate state agency's management of access to hunting lands in his/her state as excellent or good.	$p \leq 0.001$
Agrees lack of access to hunting lands in his/her state caused him/her not to hunt a species as much as he/she would have liked in the past 5 years.	$p \leq 0.001$
An access-related problem took away from hunting enjoyment in his/her state in the past 12 months.	$p \leq 0.001$
Has hunted fewer than 5 of the past 5 years in his/her state (or does not know).	$p \leq 0.001$
Does not indicate being aware of the Conservation Reserve Program.	$p \leq 0.001$
Says his/her hunting participation in his/her state has decreased over the past 5 years.	$p \leq 0.001$
Hunts mostly on private land each year.	$p \leq 0.001$
Does not indicate being aware of the U.S. Fish and Wildlife Service's Waterfowl Production Areas.	$p \leq 0.001$
Never hunts on private lands enrolled in a walk-in access program or a private lands access program in his/her state.	$p \leq 0.001$
Usually travels more than 50 miles, one way, to hunt in his/her state.	$p \leq 0.001$
Usually hunts 1-10 days annually in his/her state.	$p \leq 0.001$
Has hunted the median number of years or more.	$p \leq 0.001$
Highest education level is no higher than a high school diploma or equivalent.	$p \leq 0.001$
Resides in a small city/town. ¹	$p \leq 0.001$
Resides in a large city/urban area or suburban area. ¹	$p \leq 0.01$
Is 55 years of age or older.	$p \leq 0.01$
Does not look at state agency's website for information on places to hunt and hunting access.	$p \leq 0.01$
Uses an ATV to access hunting lands in his/her state.	$p \leq 0.01$
INSIGNIFICANT AND NEGATIVE CORRELATIONS OMITTED	

¹ Taken together, these results suggest that hunters who reside in urban or suburban areas or small cities are more likely to give fair or poor ratings for overall access than hunters who reside in rural areas. In other words, hunters residing in urban areas are less satisfied with overall access to hunting lands in their state than hunters residing in rural areas.

- **There are differences between hunters who hunt mostly on public lands each year and hunters who hunt mostly on private lands each year and the way they identify access issues.**

The nonparametric analysis also examined characteristics of those who hunt mostly on public land, as shown in Table 2.6, and who hunt mostly on private land, as shown in Table 2.7.

Table 2.6. Characteristics positively correlated with hunting mostly on public lands.

Hunts mostly on public land each year.	Significance of Correlation
Primarily hunted elk in the past 12 months in his/her state.	$p \leq 0.001$
Primarily hunted mule deer in the past 12 months in his/her state.	$p \leq 0.001$
Usually travels more than 50 miles, one way, to hunt in his/her state. ¹	$p \leq 0.001$
Has hunted fewer than 5 of the past 5 years in his/her state (or does not know).	$p \leq 0.001$
Does not indicate mostly hunting on same land each year.	$p \leq 0.001$
Usually hunts 1-10 days annually in his/her state. ²	$p \leq 0.001$
Agrees lack of access to hunting lands in his/her state caused him/her not to hunt a species as much as he/she would have liked in the past 5 years.	$p \leq 0.001$
Does not use an ATV to access hunting lands in his/her state.	$p \leq 0.001$
Does not indicate being aware of the Conservation Reserve Program.	$p \leq 0.001$
Resides in a small city/town. ³	$p \leq 0.001$
Rates overall access to hunting lands in his/her state as excellent or good.	$p \leq 0.001$
Primarily hunted waterfowl in the past 12 months in his/her state.	$p \leq 0.001$
Says his/her hunting participation in his/her state has decreased over the past 5 years.	$p \leq 0.001$
Never hunts on private lands enrolled in a walk-in access program or a private lands access program in his/her state.	$p \leq 0.001$
Something took away from enjoyment of hunting in his/her state in the past 12 months, but not an access-related problem. ⁴	$p \leq 0.001$
Usually travels 31-50 miles, one way, to hunt in his/her state. ¹	$p \leq 0.001$
Looks at state agency's website for information on places to hunt and hunting access.	$p \leq 0.001$
Has hunted 1-20 years.	$p \leq 0.001$
Resides in a large city/urban area or suburban area. ³	$p \leq 0.001$
Usually hunts 11-20 days annually in his/her state. ²	$p \leq 0.001$
Does not indicate being aware of the Open Fields Program.	$p \leq 0.001$
Looks at one of the listed websites for information on places to hunt and hunting access.	$p \leq 0.01$
Is 55 years of age or older. ⁵	$p \leq 0.01$
Rates state agency's management of access to hunting lands in his/her state as excellent or good.	$p \leq 0.01$
An access-related problem took away from hunting enjoyment in his/her state in the past 12 months. ⁴	$p \leq 0.05$
Is younger than 35 years of age. ⁵	$p \leq 0.05$
INSIGNIFICANT AND NEGATIVE CORRELATIONS OMITTED	

¹ Taken together, these results suggest that hunters who hunt mostly on public land each year are more likely to travel farther distances to hunt than those who hunt mostly on private land each.

² Taken together, these results suggest that hunters who hunt mostly on public lands are more likely to hunt 20 days or less annually than those who hunt mostly on private land each year. In other words, hunters who hunt mostly on public lands hunt less frequently than those who hunt mostly on private land each year.

³ Taken together, these results suggest that hunters who hunt mostly on public lands are more likely to reside in urban or suburban areas or small cities than in rural areas.

⁴ Taken together, these results suggest that hunters who mostly hunt on public lands were less likely to indicate that nothing taking away from enjoyment of hunting in the past 12 months than those who mostly hunt on private land each year.

⁵ Taken together, these results indicate that hunters who mostly hunt on public lands were less likely to be in the middle age bracket than those who mostly hunt on private land each year.

Table 2.7. Characteristics positively correlated with hunting mostly on private lands.

Hunts mostly on private land each year.	Significance of Correlation
Hunts mostly on same land each year.	$p \leq 0.001$
Primarily hunted white-tailed deer in the past 12 months in his/her state.	$p \leq 0.001$
Primarily hunted any deer in the past 12 months in his/her state.	$p \leq 0.001$
Uses an ATV to access hunting lands in his/her state.	$p \leq 0.001$
Does not indicate agreeing that lack of access to hunting lands in his/her state caused him/her not to hunt a species as much as he/she would have liked in the past 5 years.	$p \leq 0.001$
Never hunts on private lands enrolled in a walk-in access program or a private lands access program in his/her state.	$p \leq 0.001$
Usually travels 1-30 miles, one way, to hunt in his/her state.	$p \leq 0.001$
Nothing has taken away from enjoyment of hunting in his/her state in the past 12 months.	$p \leq 0.001$
Primarily hunted wild turkey in the past 12 months in his/her state.	$p \leq 0.001$
Resides in a rural area.	$p \leq 0.001$
Does not rate overall access to hunting lands in his/her state as excellent or good.	$p \leq 0.001$
Does not indicate being aware of the U.S. Fish and Wildlife Service's Waterfowl Production Areas.	$p \leq 0.001$
Does not look at state agency's website for information on places to hunt and hunting access.	$p \leq 0.001$
Does not look at any of the listed websites for information on places to hunt and hunting access.	$p \leq 0.001$
Has hunted all 5 of the past 5 years in his/her state.	$p \leq 0.001$
Does not rate state agency's management of access to hunting lands in his/her state as excellent or good.	$p \leq 0.001$
Usually hunts more than 20 days annually in his/her state.	$p \leq 0.001$
Says his/her hunting participation in his/her state has stayed the same over the past 5 years. ¹	$p \leq 0.001$
Highest education level is a bachelor's degree or higher.	$p \leq 0.01$
Has hunted the median number of years or more.	$p \leq 0.01$
Says his/her hunting participation in his/her state has increased over the past 5 years. ¹	$p \leq 0.05$
Is from 35 to 54 years of age.	$p \leq 0.05$
INSIGNIFICANT AND NEGATIVE CORRELATIONS OMITTED	

¹ Taken together, these results suggest that hunters who hunt mostly on private land each year are less likely to indicate that their hunting participation has decreased over the past 5 years than other hunters.

It is important to recognize that hunters who hunt public lands and hunters who hunt private lands encounter and identify different access issues. For example, hunters who hunt mostly on public lands are more likely to be concerned about crowding (see Figure 2.56). Hunters who hunt private lands encounter a different set of access issues, such as posted land and problems associated with developing hunting arrangements with landowners.

In general, hunters who hunted their primary species on public lands at least half the time gave higher ratings for overall access to hunting lands in their state. For those hunters who gave lower ratings, the top reasons for rating overall access to public lands as fair or poor were a simple lack of land on which to hunt, road closures, land being too crowded with other hunters, public land being blocked by private land, lack of quality land or land with plenty of game, and access problems in general to public land.

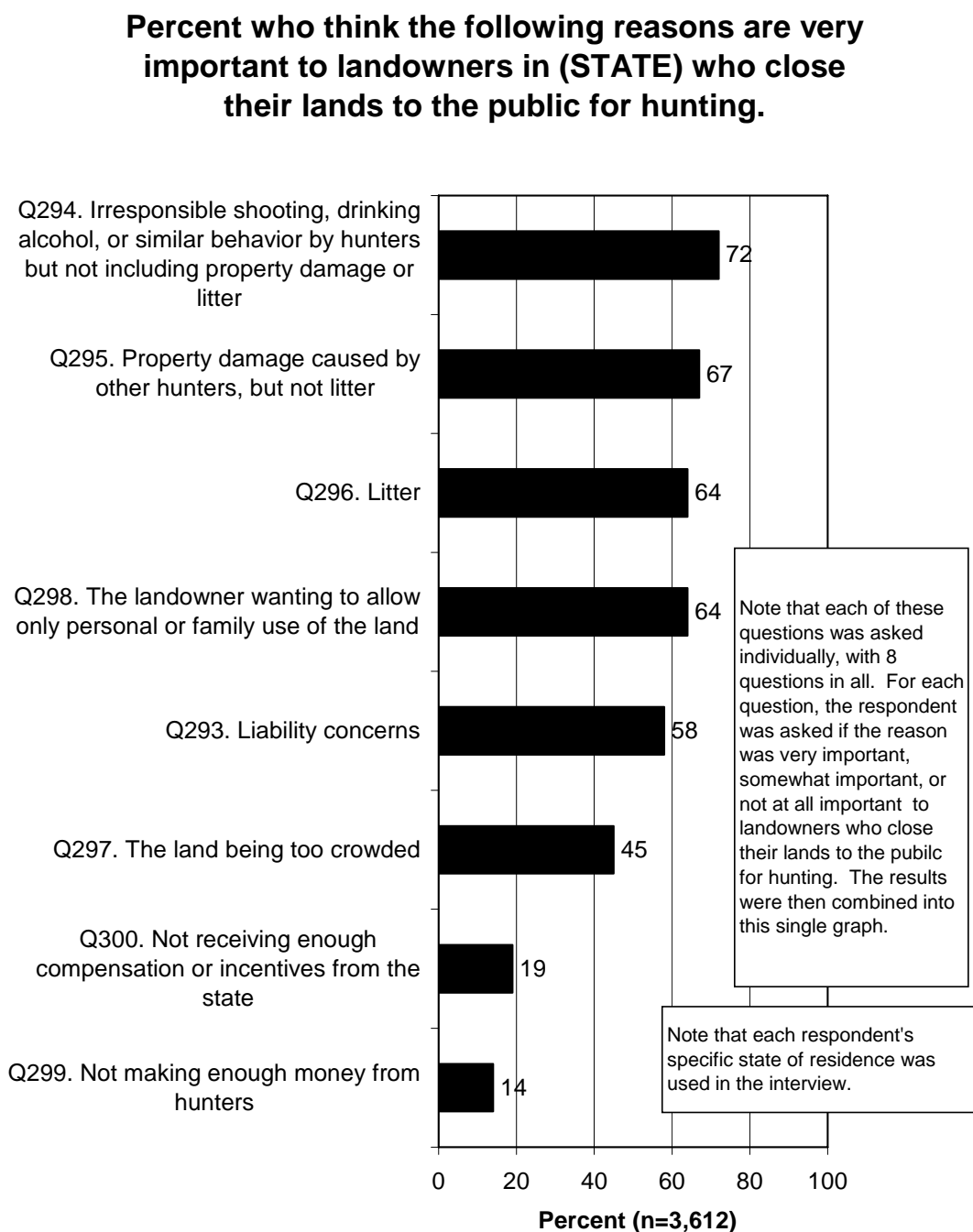
FACTORS INFLUENCING LANDOWNERS' ACCESS DECISIONS

- **Several factors are perceived as being very important reasons that landowners close their land to the public for hunting: poor hunter behavior, wanting to allow only personal/family use of the land, and liability concerns.**

Hunters were asked about eight reasons landowners may close their land to public hunting. Five items stand out above the rest in the ranking by the percentage saying they think the reasons are *very* important to landowners, the top three of which relate to poor hunter behavior: irresponsible shooting, alcohol use, or similar behavior by hunters (72% say they think this is a *very* important reason that landowners close their land), property damage caused by hunters (excluding litter) (67%), litter (64%), wanting to allow only personal/family use of the land (64%), and liability concerns (58%) (Figure 2.120).

Similarly, the survey asked those hunters who gave a low rating to hunting access on private land because of a lack of land or the posting of land to indicate why they think that landowners are posting their land. Four reasons are commonly given: liability concerns, to allow only personal or family use of the land, the poor behavior of hunters (excluding property damage), and/or property damage caused by hunters.

Figure 2.120. Factors perceived to be influencing landowners' decisions to close land to hunting.



In general, the research shows that concerns about hunters' behavior and liability are cited more often than other reasons for a landowner's decision not to open his/her land (Duda & Brown, 2001; Responsive Management, 1999, 2004b, 2004c, 2005b; Wright, Kaiser, & Nicholls, 2002; Brown & Messmer, 2009).

- **Landowners believe that a program that provides landowners with compensation or incentives for opening their lands to the public for hunting would be effective at improving hunting access in their state. Hunters mirror this opinion.**

A substantial percentage of landowners indicate that a financial incentive would persuade them to open their lands to hunting (Duda & Brown, 2001; Responsive Management, 2003b, 2005b). Focus group participants also indicated that user fees may be a good idea, contending that such fees would allow serious hunters to gain a key to gates that would allow individual access while keeping out trespassers and those who would otherwise do property or environmental damage (Responsive Management/NSSF, 2008b).

“I think fees [could help with hunting access]. There [are] still families out there with kids and wives who like to go, and they like to camp. But they can’t get behind the gate. I don’t like the fees, but with those, there’s safety, because your truck and stuff are safe, and the wife and kids can go hunting and camp, too.”

— Seattle, Washington, hunter (Responsive Management/NSSF, 2008b)

“Fees weed people out, the serious from the not-so-serious. It gives hunters a place to go and non-hunters can go as well. Fees would protect the environment more, the woods and the animals. ...There’s so many people at a gate right now, where are you going to camp?”

— Seattle, Washington, hunter (Responsive Management/NSSF, 2008b)

- **Majorities of hunters think that legislation reducing landowner liability would be effective at improving hunting access on private lands and support such legislation.**

The majority of hunters (80%) think that legislation reducing landowner liability would be *very* or *somewhat* effective at improving hunting access on private lands in their state; only 12% think it would be *not at all* effective (Figure 2.121). Further, the overwhelming majority of hunters (82%) support laws to reduce landowner liability for landowners who open their lands to the public for hunting; only 7% oppose (the remainder give neutral answers) (Figure 2.122).

Figure 2.121. Perceived effectiveness of legislation reducing landowner liability in obtaining access.

Q220. In your opinion, how effective do you think legislation reducing landowner liability is or would be at improving hunting access to private lands in (STATE)?

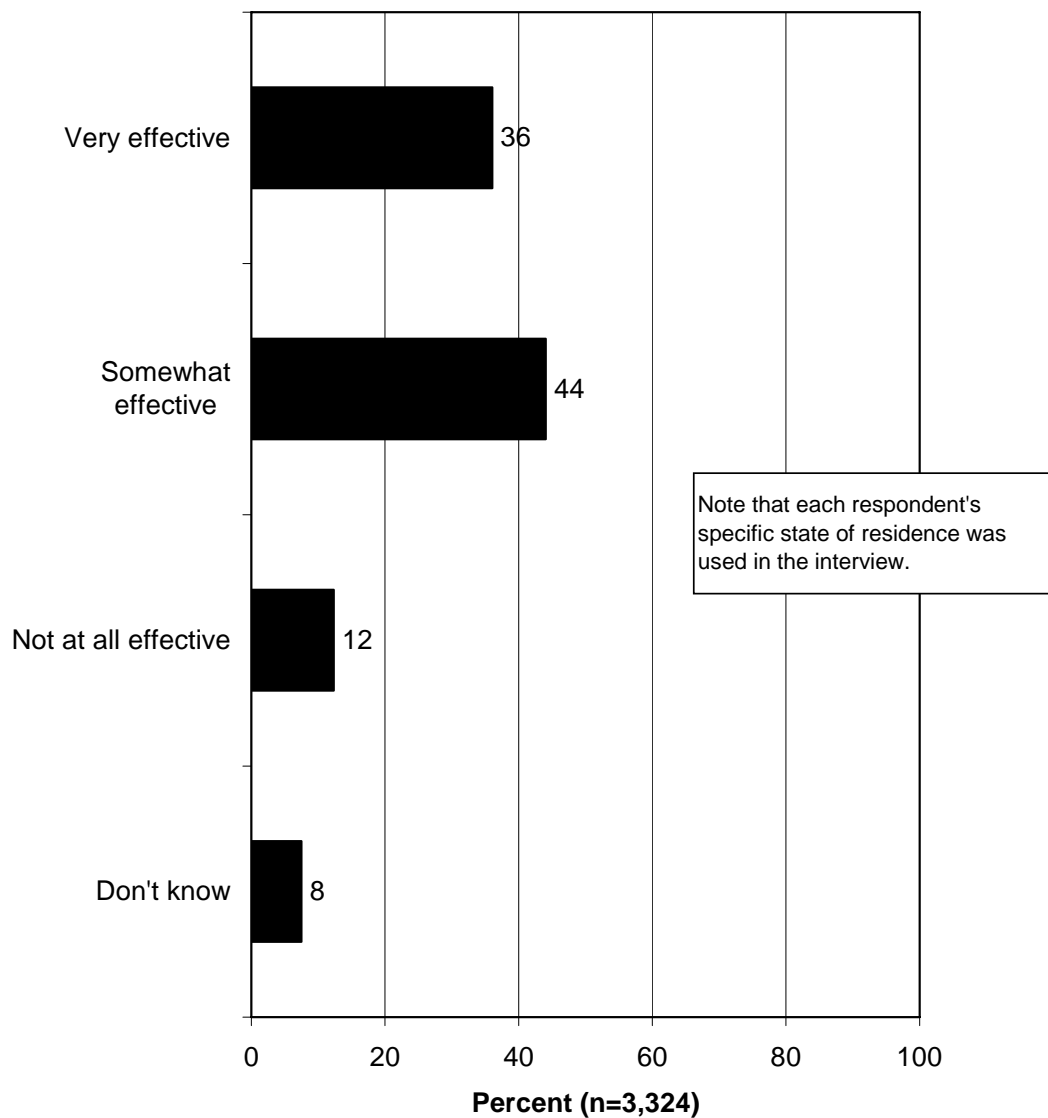
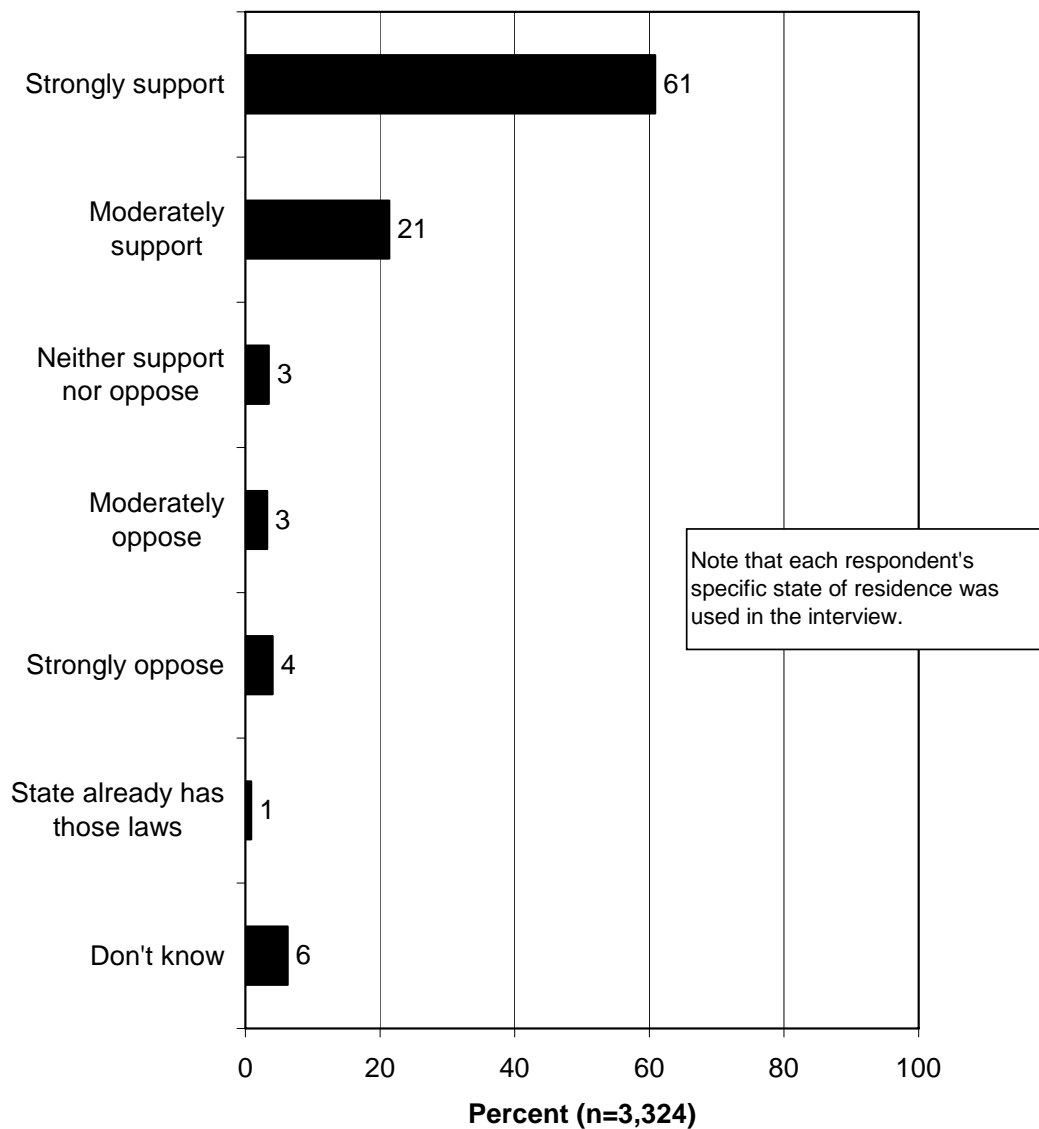


Figure 2.122. Hunters' support for or opposition to state laws to reduce landowner liability.

Q219. Do you support or oppose (STATE) laws to reduce landowner liability for landowners who open their lands to the public for hunting?



PARTICIPATION IN AND USE OF VARIOUS PROGRAMS/RESOURCES

- **Of the national access programs/resources assessed in this survey, the Conservation Reserve Program and the U.S. Fish and Wildlife Service's Waterfowl Production Areas (WPAs) are the most well-known and most used programs/resources.**

The survey asked about six national programs/resources that pertain to hunting access. Hunters were asked about their awareness of the programs/resources, and two of the six programs/resources had awareness levels near the halfway mark: the Conservation Reserve Program (45% are *very* or *somewhat* aware of it) and the U.S. Fish and Wildlife Service's Waterfowl Production Areas or WPAs (45%). The other programs/resources had awareness levels of 10% or lower. Table 2.8 shows the awareness levels for each program/resource. In follow-up, the survey asked about participation in or use of the programs/resources. Those programs/resources with the highest rates of participation/use are the Conservation Reserve Program (18% of hunters say they have participated in or used this program) and the U.S. Fish and Wildlife Service's Waterfowl Production Areas or WPAs (13% of hunters say they have used or participated in this program).

Table 2.8. Hunters' awareness of national hunting-related programs/resources.

NATIONAL PROGRAMS/RESOURCES	Very Aware (%)	Very or Somewhat Aware (%)	Have Used (%)
The Conservation Reserve Program	20	45	18
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (WPAs)	16	45	13
The wheretohunt website	3	10	4
The Open Fields Program	2	9	2
The huntinfo website	2	7	3
The huntandshoot website	1	4	2

Each of the 16 oversampled states had additional state-specific programs/resources about which the survey asked. These specific state programs/resources were asked about only in the applicable state. Table 2.9 shows the awareness levels of the individual state programs/resources among the oversampled states; the awareness levels varied greatly from program to program among the states. The tabulation includes the six national programs/resources in each state's listing to allow for comparisons with the state-specific programs/resources. In general, hunters are most aware of state-sponsored programs/resources. Overall, hunters appear to be the least aware of the national websites and the Open Fields Program.

Table 2.9. Hunters' awareness of national and state programs/resources (ranked by level of awareness "very or somewhat aware").

PROGRAMS/RESOURCES USED IN THE OVERSAMPLED STATES (including the six national programs/resources)	Very Aware	Very or Somewhat Aware	Have Used
ALABAMA (n=810)			
Alabama's Youth Dove Hunts	25	59	16
Alabama's Forever Wild Land Trust Program	21	54	12
The Conservation Reserve Program (Alabama)	22	47	20
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Alabama)	17	46	14
Alabama's physically disabled hunting locations	10	37	4
The Outdoor Alabama Interactive Map on the ADCNR website	20	35	23
The Hunt Outdoor Alabama Program (program discontinued)	8	28	5
The wheretohunt website (Alabama)	3	10	3
The huntinfo website (Alabama)	3	8	4
The Open Fields program (Alabama)	2	6	1
The huntandshoot website (Alabama)	1	4	2
ARIZONA (n=811)			
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Arizona)	10	50	6
The Conservation Reserve Program (Arizona)	9	40	5
Arizona's Heritage Access Program	6	39	5
Arizona's Adopt-A-Ranch Program	9	32	8
The wheretohunt website (Arizona)	4	14	7
The huntinfo website (Arizona)	2	12	6
The Open Fields program (Arizona)	2	11	1
The huntandshoot website (Arizona)	1	7	2
CALIFORNIA (n=805)			
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (California)	15	40	9
The Conservation Reserve Program (California)	11	36	6
California's Private Lands Management Program	8	31	6
California's Game Bird Heritage Special Hunts Program Public Game Bird Hunts	7	24	5
California's Game Bird Heritage Special Hunts Program Apprentice Hunts	7	19	4
California's Delta Island Hunting Program	4	15	2
The wheretohunt website (California)	2	10	4
The huntinfo website (California)	1	9	4
California's SHARE Program	1	8	2
The Open Fields program (California)	1	8	2
The huntandshoot website (California)	1	4	1

PROGRAMS/RESOURCES USED IN THE OVERSAMPLED STATES (including the six national programs/resources) (continued)	Very Aware	Very or Somewhat Aware	Have Used
HAWAII (n=447)			
Public Hunting Area Maps in the Game Mammal or Game Bird Hunting Guide	25	57	38
The Conservation Reserve Program (Hawaii)	4	26	5
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Hawaii)	6	25	5
Hawaii's lease agreements to use agricultural lands for public hunting areas	6	16	7
Hawaii's Statewide GIS Map Program	5	16	6
The wheretohunt website (Hawaii)	1	7	1
The Open Fields program (Hawaii)	2	5	1
The huntinfo website (Hawaii)	0	4	1
The huntandshoot website (Hawaii)	1	4	1
IDAHO (n=386)			
Idaho's Access Yes! Program	32	64	28
The Conservation Reserve Program (Idaho)	33	56	24
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Idaho)	21	46	18
Idaho's Accessible Idaho program	6	22	4
The huntinfo website (Idaho)	3	9	4
The wheretohunt website (Idaho)	3	9	3
The Open Fields program (Idaho)	2	6	1
The huntandshoot website (Idaho)	1	3	1
KANSAS (n=807)			
Kansas' Walk-In Hunting Access program	56	84	58
The Conservation Reserve Program (Kansas)	45	72	43
Kansas' Controlled Shooting Areas, or CSAs	26	58	15
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Kansas)	18	52	12
Kansas' Special Hunts on Public Lands program	14	45	8
The wheretohunt website (Kansas)	5	17	6
The Open Fields program (Kansas)	3	11	2
The huntinfo website (Kansas)	3	9	3
The huntandshoot website (Kansas)	1	6	2
MICHIGAN (n=804)			
The Conservation Reserve Program (Michigan)	23	53	19
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Michigan)	18	49	13
Michigan's Commercial Forest Lands	14	41	17
Michigan's Hunting Access Program	9	40	11
Michigan's efforts to provide disability access for recreation	6	35	2
The Conservation Reserve Enhancement Program, or CREP	6	22	4
The Open Fields program (Michigan)	3	13	3
The wheretohunt website (Michigan)	3	11	3
The huntinfo website (Michigan)	1	6	2
The huntandshoot website (Michigan)	0	3	1

PROGRAMS/RESOURCES USED IN THE OVERSAMPLED STATES (including the six national programs/resources) (continued)	Very Aware	Very or Somewhat Aware	Have Used
NEBRASKA (n=807)			
The Conservation Reserve Program (Nebraska)	40	71	40
Nebraska's CRP Management Access Program, or CRP-MAP	25	56	29
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Nebraska)	21	51	14
Nebraska's Passing Along the Heritage (PATH) Program	4	18	2
The Open Fields program (Nebraska)	4	15	4
The wheretohunt website (Nebraska)	5	14	4
The huntinfo website (Nebraska)	2	7	3
The huntandshoot website (Nebraska)	1	4	2
NEVADA (n=804)			
Nevada Department of Wildlife's Hunt Information Sheets	32	56	39
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Nevada)	12	45	9
Nevada Department of Wildlife's Interactive Map Service on the Department website	20	42	27
The Conservation Reserve Program (Nevada)	6	29	4
The wheretohunt website (Nevada)	5	13	4
The huntinfo website (Nevada)	4	11	5
The Open Fields program (Nevada)	1	6	1
The huntandshoot website (Nevada)	1	5	1
OHIO (n=808)			
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Ohio)	9	37	7
The Conservation Reserve Program (Ohio)	11	36	9
Ohio's cooperative hunting program	4	23	3
The wheretohunt website (Ohio)	3	11	5
The Open Fields program (Ohio)	2	9	2
The huntinfo website (Ohio)	2	6	2
The huntandshoot website (Ohio)	1	4	1
PENNSYLVANIA (n=807)			
Pennsylvania's Deer Management Assistance Program	18	45	17
Pennsylvania's Cooperative Farm-Game Program	13	42	12
Maps of hunting lands on the PA Game Commission's website	19	41	27
Pennsylvania's Cooperative Safety Zone Program	14	38	10
The Conservation Reserve Program (Pennsylvania)	13	37	10
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Pennsylvania)	8	35	8
Pennsylvania's Cooperative Forest-Game Program	5	18	4
The Open Fields program (Pennsylvania)	2	10	2
The wheretohunt website (Pennsylvania)	2	9	3
The huntinfo website (Pennsylvania)	1	6	2
The huntandshoot website (Pennsylvania)	0	3	1

PROGRAMS/RESOURCES USED IN THE OVERSAMPLED STATES (including the six national programs/resources) (continued)	Very Aware	Very or Somewhat Aware	Have Used
SOUTH DAKOTA (n=808)			
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (South Dakota)	46	73	43
South Dakota's Walk-In Hunting Areas	44	73	54
The Conservation Reserve Program (South Dakota)	42	69	47
South Dakota's Game Production Areas, or GPAs	40	69	48
The printed South Dakota Hunting Atlas	48	69	57
South Dakota's Volunteer Antlerless Deer Hunter Program	12	30	7
South Dakota Office of School and Public Lands Program	9	28	9
South Dakota's Interactive South Dakota Public Lands Maps and Information system on the Division of Wildlife's website	12	26	14
The South Dakota Hunting Atlas on the SDDGFP's website	14	25	15
South Dakota's Controlled Hunting Access Program	6	18	5
South Dakota's Lower Oahe Waterfowl Access Program	6	16	6
The Open Fields program (South Dakota)	4	15	5
The wheretohunt website (South Dakota)	3	8	2
The huntinfo website (South Dakota)	1	6	3
The huntandshoot website (South Dakota)	0	3	1
VIRGINIA (n=804)			
Virginia's special youth hunts	16	47	10
Virginia Department of Game and Inland Fisheries' Outdoor Report	17	42	21
Virginia's Quota and Managed Hunts	10	40	7
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Virginia)	10	39	3
The Conservation Reserve Program (Virginia)	10	37	5
Public Access Lands for Sportsmen, or PALS	3	20	3
The wheretohunt website (Virginia)	5	16	6
The Find Game GIS Mapping System or FindGame.org website	3	12	5
The Open Fields program (Virginia)	2	9	1
The huntinfo website (Virginia)	2	9	4
The huntandshoot website (Virginia)	1	7	2
WASHINGTON (n=806)			
The Disabled Hunter Road Access Entry program	12	51	8
The Conservation Reserve Program (Washington)	12	39	11
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Washington)	9	38	7
The Hunt by Written Permission program	14	37	11
The Landowner Hunting Permit program	7	35	6
The Feel Free to Hunt program	11	30	13
The wheretohunt website (Washington)	7	21	7
The Accessing Washington's Outdoors program	3	21	3
The Register to Hunt program	6	20	5
The GoHunt GIS Mapping System	7	19	9
Washington's Quality Hunting Areas	4	16	4
The huntinfo website (Washington)	3	12	4
The Open Fields program (Washington)	2	11	2
The huntandshoot website (Washington)	1	5	1

PROGRAMS/RESOURCES USED IN THE OVERSAMPLED STATES (including the six national programs/resources) (continued)	Very Aware	Very or Somewhat Aware	Have Used
WISCONSIN (n=807)			
Wisconsin's Agricultural Deer Damage Shooting Permit Program	19	58	11
The Conservation Reserve Program (Wisconsin)	24	56	27
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Wisconsin)	23	52	22
Wisconsin's leased public hunting grounds	9	33	10
Wisconsin's Damage and Abatement Claims Program's Hunting Access During Open Seasons Program	6	26	4
The wheretohunt website (Wisconsin)	3	9	3
The Open Fields program (Wisconsin)	2	7	2
The huntinfo website (Wisconsin)	2	6	2
The huntandshoot website (Wisconsin)	1	3	1
WYOMING (n=808)			
Wyoming's Walk-In Area program	48	81	51
Wyoming's Hunter Management Area program	24	57	29
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Wyoming)	11	45	8
The Conservation Reserve Program (Wyoming)	15	43	11
Wyoming's Hunter/Landowner Assistance program	12	35	7
The wheretohunt website (Wyoming)	3	13	3
The Open Fields program (Wyoming)	3	11	1
The huntinfo website (Wyoming)	1	9	3
The huntandshoot website (Wyoming)	1	5	1

Table 2.10 shows the awareness levels for all programs and resources asked about in the survey questionnaire and ranked by percent very aware.

Table 2.10. Hunters' awareness of national and state programs/resources (ranked by level of awareness "very aware").

HUNTERS' AWARENESS OF PROGRAMS/RESOURCES (Ranked by Percent Very Aware)	Percent Very Aware	Percent Very or Somewhat Aware
Kansas' Walk-In Hunting Access program	56	84
The printed South Dakota Hunting Atlas	48	69
Wyoming's Walk-In Area program	48	81
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (South Dakota)	46	73
The Conservation Reserve Program (Kansas)	45	72
South Dakota's Walk-In Hunting Areas	44	73
The Conservation Reserve Program (South Dakota)	42	69
South Dakota's Game Production Areas, or GPAs	40	69
The Conservation Reserve Program (Nebraska)	40	71
The Conservation Reserve Program (Idaho)	33	56
Nevada Department of Wildlife's Hunt Information Sheets	32	56
Idaho's Access Yes! Program	32	64
Kansas' Controlled Shooting Areas, or CSAs	26	58
Public Hunting Area Maps in the Game Mammal or Game Bird Hunting Guide (Hawaii)	25	57
Nebraska's CRP Management Access Program, or CRP-MAP	25	56
Alabama's Youth Dove Hunts	25	59
Wyoming's Hunter Management Area program	24	57
The Conservation Reserve Program (Wisconsin)	24	56
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Wisconsin)	23	52
The Conservation Reserve Program (Michigan)	23	53
The Conservation Reserve Program (Alabama)	22	47
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Idaho)	21	46
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Nebraska)	21	51
Alabama's Forever Wild Land Trust Program	21	54
Nevada Department of Wildlife's Interactive Map Service on the Department website	20	42
The Outdoor Alabama Interactive Map on the ADCNR website	20	35
Maps of hunting lands on the Pennsylvania Game Commission's website	19	41
Wisconsin's Agricultural Deer Damage Shooting Permit Program	19	58
Pennsylvania's Deer Management Assistance Program	18	45
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Michigan)	18	49
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Kansas)	18	52
Virginia Department of Game and Inland Fisheries' Outdoor Report	17	42
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Alabama)	17	46
Virginia's special youth hunts	16	47
The Conservation Reserve Program (Wyoming)	15	43
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (California)	15	40
Michigan's Commercial Forest Lands	14	41
The South Dakota Hunting Atlas on the SDDGFP's website	14	25
The Hunt by Written Permission program (Washington)	14	37
Pennsylvania's Cooperative Safety Zone Program	14	38
Kansas' Special Hunts on Public Lands program	14	45
Pennsylvania's Cooperative Farm-Game Program	13	42

HUNTERS' AWARENESS OF PROGRAMS/RESOURCES (Ranked by Percent Very Aware) (continued)	Percent Very Aware	Percent Very or Somewhat Aware
The Conservation Reserve Program (Pennsylvania)	13	37
South Dakota's Interactive South Dakota Public Lands Maps and Information system on the Division of Wildlife's website	12	26
The Conservation Reserve Program (Washington)	12	39
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Nevada)	12	45
The Disabled Hunter Road Access Entry program (Washington)	12	51
South Dakota's Volunteer Antlerless Deer Hunter Program	12	30
Wyoming's Hunter/Landowner Assistance program	12	35
The Feel Free to Hunt program (Washington)	11	30
The Conservation Reserve Program (Ohio)	11	36
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Wyoming)	11	45
The Conservation Reserve Program (California)	11	36
Virginia's Quota and Managed Hunts	10	40
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Arizona)	10	50
The Conservation Reserve Program (Virginia)	10	37
Alabama's physically disabled hunting locations	10	37
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Virginia)	10	39
Michigan's Hunting Access Program	9	40
Wisconsin's leased public hunting grounds	9	33
South Dakota Office of School and Public Lands program	9	28
Arizona's Adopt-A-Ranch Program	9	32
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Ohio)	9	37
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Washington)	9	38
The Conservation Reserve Program (Arizona)	9	40
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Pennsylvania)	8	35
California's Private Lands Management Program	8	31
The Hunt Outdoor Alabama Program	8	28
The GoHunt GIS Mapping System (Washington)	7	19
The wheretohunt website (Washington)	7	21
The Landowner Hunting Permit program (Washington)	7	35
California's Game Bird Heritage Special Hunts Program Public Game Bird Hunts	7	24
California's Game Bird Heritage Special Hunts Program Apprentice Hunts	7	19
Hawaii's lease agreements to use agricultural lands for public hunting areas	6	16
South Dakota's Lower Oahe Waterfowl Access Program	6	16
Arizona's Heritage Access Program	6	39
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Hawaii)	6	25
South Dakota's Controlled Hunting Access Program	6	18
The Register to Hunt program (Washington)	6	20
Idaho's Accessible Idaho program	6	22
The Conservation Reserve Enhancement Program, or CREP (Michigan)	6	22
The Conservation Reserve Program (Nevada)	6	29
Wisconsin's Damage and Abatement Claims Program's Hunting Access During Open Seasons Program	6	26
Michigan's efforts to provide disability access for recreation	6	35
Hawaii's Statewide GIS Map Program	5	16
The wheretohunt website (Kansas)	5	17
The wheretohunt website (Virginia)	5	16
The wheretohunt website (Nebraska)	5	14

HUNTERS' AWARENESS OF PROGRAMS/RESOURCES (Ranked by Percent Very Aware) (continued)	Percent Very Aware	Percent Very or Somewhat Aware
The wheretohunt website (Nevada)	5	13
Pennsylvania's Cooperative Forest-Game Program	5	18
The wheretohunt website (Arizona)	4	14
The Conservation Reserve Program (Hawaii)	4	26
The huntinfo website (Nevada)	4	11
The Open Fields program (South Dakota)	4	15
The Open Fields program (Nebraska)	4	15
Washington's Quality Hunting Areas	4	16
Ohio's cooperative hunting program	4	23
California's Delta Island Hunting Program	4	15
Nebraska's Passing Along the Heritage (PATH) Program	4	18
The wheretohunt website (Ohio)	3	11
The Find Game GIS Mapping System or FindGame.org website (Virginia)	3	12
The huntinfo website (Alabama)	3	8
The huntinfo website (Idaho)	3	9
The huntinfo website (Washington)	3	12
The wheretohunt website (Alabama)	3	10
The wheretohunt website (Idaho)	3	9
The huntinfo website (Kansas)	3	9
The Open Fields program (Michigan)	3	13
The wheretohunt website (Michigan)	3	11
Public Access Lands for Sportsmen, or PALS (Virginia)	3	20
The Accessing Washington's Outdoors program	3	21
The wheretohunt website (Wisconsin)	3	9
The wheretohunt website (Wyoming)	3	13
The Open Fields program (Kansas)	3	11
The wheretohunt website (South Dakota)	3	8
The Open Fields program (Wyoming)	3	11
The huntinfo website (Arizona)	2	12
The wheretohunt website (California)	2	10
The huntinfo website (Virginia)	2	9
The huntinfo website (Nebraska)	2	7
The wheretohunt website (Pennsylvania)	2	9
The Open Fields program (Ohio)	2	9
The huntinfo website (Ohio)	2	6
The Open Fields program (Pennsylvania)	2	10
The Open Fields program (Washington)	2	11
The Open Fields program (Wisconsin)	2	7
The huntinfo website (Wisconsin)	2	6
The Open Fields program (Alabama)	2	6
The Open Fields program (Arizona)	2	11
The Open Fields program (Hawaii)	2	5
The Open Fields program (Idaho)	2	6
The Open Fields program (Virginia)	2	9
The huntinfo website (California)	1	9
The huntinfo website (South Dakota)	1	6
The huntinfo website (Wyoming)	1	9
The huntandshoot website (Alabama)	1	4
The huntandshoot website (Arizona)	1	7
California's SHARE Program	1	8
The Open Fields program (California)	1	8

HUNTERS' AWARENESS OF PROGRAMS/RESOURCES (Ranked by Percent Very Aware) (continued)	Percent Very Aware	Percent Very or Somewhat Aware
The huntandshoot website (Kansas)	1	6
The huntinfo website (Michigan)	1	6
The huntandshoot website (Nebraska)	1	4
The huntinfo website (Pennsylvania)	1	6
The huntandshoot website (Virginia)	1	7
The huntandshoot website (California)	1	4
The wheretohunt website (Hawaii)	1	7
The huntandshoot website (Hawaii)	1	4
The huntandshoot website (Idaho)	1	3
The Open Fields program (Nevada)	1	6
The huntandshoot website (Nevada)	1	5
The huntandshoot website (Ohio)	1	4
The huntandshoot website (Washington)	1	5
The huntandshoot website (Wisconsin)	1	3
The huntandshoot website (Wyoming)	1	5
The huntinfo website (Hawaii)	0	4
The huntandshoot website (Michigan)	0	3
The huntandshoot website (Pennsylvania)	0	3
The huntandshoot website (South Dakota)	0	3

Table 2.11 shows the levels of use for all programs and resources asked about in the survey questionnaire.

Table 2.11. Hunters' use of national and state programs/resources (ranked by percent "have used").

HUNTERS' USE OF PROGRAMS/RESOURCES (Ranked by Percent Have Used)	Percent Have Used
Kansas' Walk-In Hunting Access program	58
The printed South Dakota Hunting Atlas	57
South Dakota's Walk-In Hunting Areas	54
Wyoming's Walk-In Area program	51
South Dakota's Game Production Areas, or GPAs	48
The Conservation Reserve Program (South Dakota)	47
The Conservation Reserve Program (Kansas)	43
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (South Dakota)	43
The Conservation Reserve Program (Nebraska)	40
Nevada Department of Wildlife's Hunt Information Sheets	39
Public Hunting Area Maps in the Game Mammal or Game Bird Hunting Guide (Hawaii)	38
Nebraska's CRP Management Access Program, or CRP-MAP	29
Wyoming's Hunter Management Area program	29
Idaho's Access Yes! Program	28
Nevada Department of Wildlife's Interactive Map Service on the Department website	27
Maps of hunting lands on the Pennsylvania Game Commission's website	27
The Conservation Reserve Program (Wisconsin)	27
The Conservation Reserve Program (Idaho)	24
The Outdoor Alabama Interactive Map on the ADCNR website	23
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Wisconsin)	22
Virginia Department of Game and Inland Fisheries' Outdoor Report	21
The Conservation Reserve Program (Alabama)	20
The Conservation Reserve Program (Michigan)	19
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Idaho)	18
Michigan's Commercial Forest Lands	17
Pennsylvania's Deer Management Assistance Program	17
Alabama's Youth Dove Hunts	16
Kansas' Controlled Shooting Areas, or CSAs	15
The South Dakota Hunting Atlas on the SDDGFP's website	15
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Alabama)	14
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Nebraska)	14
South Dakota's Interactive South Dakota Public Lands Maps and Information system on the Division of Wildlife's website	14
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Michigan)	13
The Feel Free to Hunt program (Washington)	13
Alabama's Forever Wild Land Trust Program	12
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Kansas)	12
Pennsylvania's Cooperative Farm-Game Program	12
Michigan's Hunting Access Program	11
The Conservation Reserve Program (Washington)	11
The Hunt by Written Permission program (Washington)	11
Wisconsin's Agricultural Deer Damage Shooting Permit Program	11
The Conservation Reserve Program (Wyoming)	11
Pennsylvania's Cooperative Safety Zone Program	10
The Conservation Reserve Program (Pennsylvania)	10
Virginia's special youth hunts	10

HUNTERS' USE OF PROGRAMS/RESOURCES (Ranked by Percent Have Used) (continued)	Percent Have Used
Wisconsin's leased public hunting grounds	10
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (California)	9
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Nevada)	9
The Conservation Reserve Program (Ohio)	9
South Dakota Office of School and Public Lands program	9
The GoHunt GIS Mapping System (Washington)	9
Arizona's Adopt-A-Ranch Program	8
Kansas' Special Hunts on Public Lands program	8
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Pennsylvania)	8
The Disabled Hunter Road Access Entry program (Washington)	8
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Wyoming)	8
The wheretohunt website (Arizona)	7
Hawaii's lease agreements to use agricultural lands for public hunting areas	7
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Ohio)	7
South Dakota's Volunteer Antlerless Deer Hunter Program	7
Virginia's Quota and Managed Hunts	7
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Washington)	7
The wheretohunt website (Washington)	7
Wyoming's Hunter/Landowner Assistance program	7
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Arizona)	6
The huntinfo website (Arizona)	6
The Conservation Reserve Program (California)	6
California's Private Lands Management Program	6
Hawaii's Statewide GIS Map Program	6
The wheretohunt website (Kansas)	6
South Dakota's Lower Oahe Waterfowl Access Program	6
The wheretohunt website (Virginia)	6
The Landowner Hunting Permit program (Washington)	6
The Hunt Outdoor Alabama Program	5
The Conservation Reserve Program (Arizona)	5
Arizona's Heritage Access Program	5
California's Game Bird Heritage Special Hunts Program Public Game Bird Hunts	5
The Conservation Reserve Program (Hawaii)	5
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Hawaii)	5
The huntinfo website (Nevada)	5
The wheretohunt website (Ohio)	5
South Dakota's Controlled Hunting Access Program	5
The Open Fields program (South Dakota)	5
The Conservation Reserve Program (Virginia)	5
The Find Game GIS Mapping System or FindGame.org website (Virginia)	5
The Register to Hunt program (Washington)	5
Alabama's physically disabled hunting locations	4
The huntinfo website (Alabama)	4
California's Game Bird Heritage Special Hunts Program Apprentice Hunts	4
The wheretohunt website (California)	4
The huntinfo website (California)	4
Idaho's Accessible Idaho program	4
The huntinfo website (Idaho)	4
The Conservation Reserve Enhancement Program, or CREP (Michigan)	4
The Open Fields program (Nebraska)	4
The wheretohunt website (Nebraska)	4

HUNTERS' USE OF PROGRAMS/RESOURCES (Ranked by Percent Have Used) (continued)	Percent Have Used
The Conservation Reserve Program (Nevada)	4
The wheretohunt website (Nevada)	4
Pennsylvania's Cooperative Forest-Game Program	4
The huntinfo website (Virginia)	4
Washington's Quality Hunting Areas	4
The huntinfo website (Washington)	4
Wisconsin's Damage and Abatement Claims Program's Hunting Access During Open Seasons Program	4
The wheretohunt website (Alabama)	3
The wheretohunt website (Idaho)	3
The huntinfo website (Kansas)	3
The Open Fields program (Michigan)	3
The wheretohunt website (Michigan)	3
The huntinfo website (Nebraska)	3
Ohio's cooperative hunting program	3
The wheretohunt website (Pennsylvania)	3
The huntinfo website (South Dakota)	3
The U.S. Fish and Wildlife Service's Waterfowl Production Areas (Virginia)	3
Public Access Lands for Sportsmen, or PALS (Virginia)	3
The Accessing Washington's Outdoors program	3
The wheretohunt website (Wisconsin)	3
The wheretohunt website (Wyoming)	3
The huntinfo website (Wyoming)	3
The huntandshoot website (Alabama)	2
The huntandshoot website (Arizona)	2
California's Delta Island Hunting Program	2
California's SHARE Program	2
The Open Fields program (California)	2
The Open Fields program (Kansas)	2
The huntandshoot website (Kansas)	2
Michigan's efforts to provide disability access for recreation	2
The huntinfo website (Michigan)	2
Nebraska's Passing Along the Heritage (PATH) Program	2
The huntandshoot website (Nebraska)	2
The Open Fields program (Ohio)	2
The huntinfo website (Ohio)	2
The Open Fields program (Pennsylvania)	2
The huntinfo website (Pennsylvania)	2
The wheretohunt website (South Dakota)	2
The huntandshoot website (Virginia)	2
The Open Fields program (Washington)	2
The Open Fields program (Wisconsin)	2
The huntinfo website (Wisconsin)	2
The Open Fields program (Alabama)	1
The Open Fields program (Arizona)	1
The huntandshoot website (California)	1
The wheretohunt website (Hawaii)	1
The Open Fields program (Hawaii)	1
The huntinfo website (Hawaii)	1
The huntandshoot website (Hawaii)	1
The Open Fields program (Idaho)	1

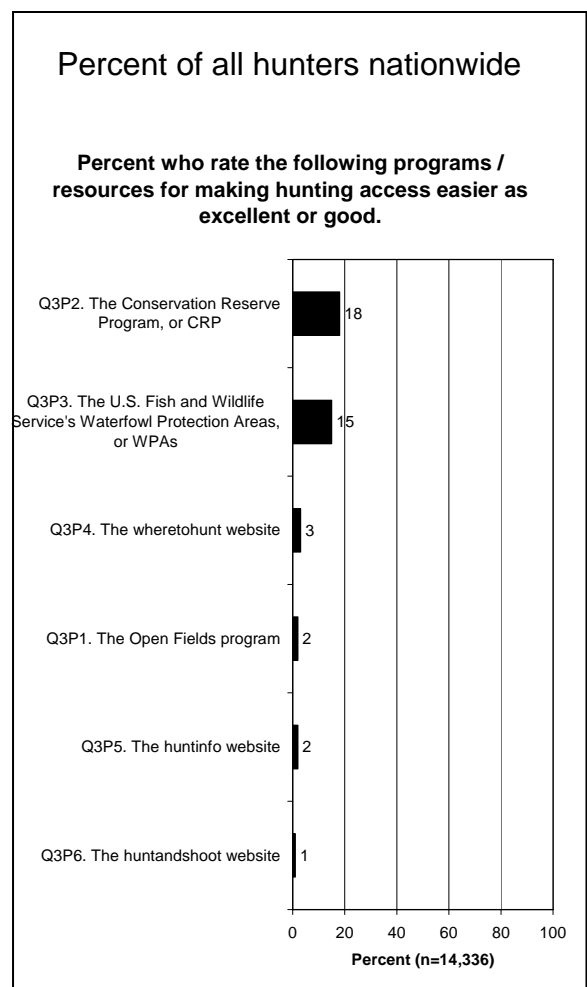
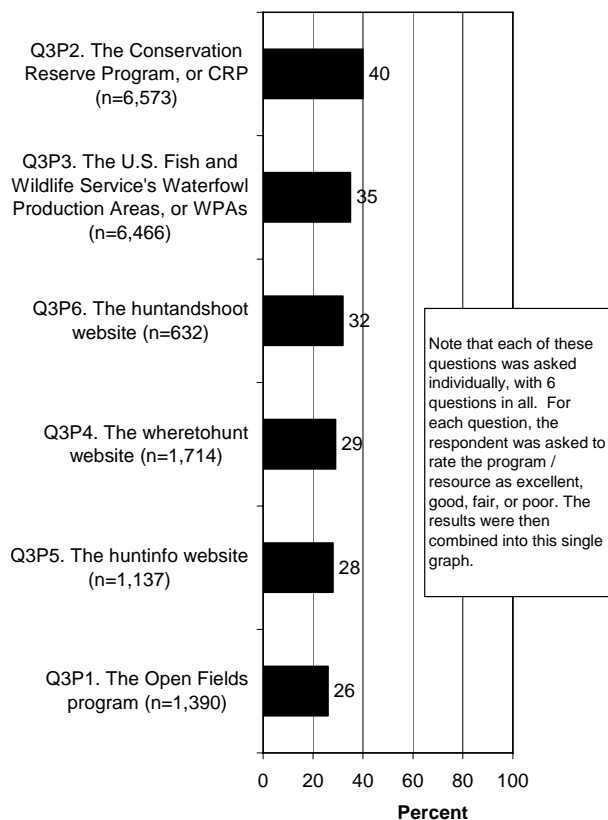
HUNTERS' USE OF PROGRAMS/RESOURCES (Ranked by Percent Have Used) (continued)	Percent Have Used
The huntandshoot website (Idaho)	1
The huntandshoot website (Michigan)	1
The Open Fields program (Nevada)	1
The huntandshoot website (Nevada)	1
The huntandshoot website (Ohio)	1
The huntandshoot website (Pennsylvania)	1
The huntandshoot website (South Dakota)	1
The Open Fields program (Virginia)	1
The huntandshoot website (Washington)	1
The huntandshoot website (Wisconsin)	1
The Open Fields program (Wyoming)	1
The huntandshoot website (Wyoming)	1

- **Of the national access programs/resources assessed in this survey, the Conservation Reserve Program and the U.S. Fish and Wildlife Service's Waterfowl Production Areas (WPAs) are the highest rated programs/resources for making hunting access easier. For all programs/resources, the results suggest a need for dissemination of information about the programs/resources.**

For each program/resource of which a hunter was aware, the survey asked him/her to rate its effectiveness at making hunting access easier. The programs/resources with the highest percentages of hunters giving them an *excellent* or *good* rating, each at more than a third, are the Conservation Reserve Program (40%) and the U.S. Fish and Wildlife Service's Waterfowl Production Areas (35%) (Figure 2.123). A follow-up question was asked to determine why some hunters ranked programs/resources as *fair* or *poor* at making hunting access easier. For each program/resource, the most common response was that the respondent was not familiar enough with the program/resource and/or that the respondent had never used it or had not used it much. These results suggest that there is a need for increasing public outreach and communication on access programs/resources.

Figure 2.123. Ratings of national hunting access-related programs/resources.

Percent who rate the following programs / resources for making hunting access easier as excellent or good. (Asked of those aware of the programs / resources.)



- **Of all the hunting access programs/resources discussed in the survey, state-sponsored walk-in access programs and state-sponsored mapping and atlas resources are rated as the most effective programs/resources for making hunting access easier.**

As stated previously, for each program/resource of which a hunter was aware, the survey asked him/her to rate it at making hunting access easier. Table 2.12 shows the percentage of hunters rating these programs/resources *excellent*. As shown, the most effective programs/resources are state-sponsored walk-in access programs and state-sponsored mapping, GPS, and atlas resources. The Conservation Reserve Program and Waterfowl Production Areas are also rated highly at making hunting access easier. Some programs/resources, such as the Open Fields Program, have *not* been included in this analysis because so few people were aware of these programs/resources.

Table 2.12. Hunters' ratings of effectiveness of national and state programs/resources (ranked by percentages rating "excellent").

STATE	HUNTERS' RATINGS OF PROGRAMS/RESOURCES (Ranked by Percent Rating Excellent)	*Percent who rated program / resource excellent	*Percent who rated program / resource excellent or good
South Dakota	The printed South Dakota Hunting Atlas (n=556)	34	72
Kansas	Kansas' Walk-In Hunting Access program (n=681)	30	70
Wyoming	Wyoming's Walk-In Area program (n=652)	27	65
South Dakota	South Dakota's Walk-In Hunting Areas (n=587)	26	63
Virginia	Virginia Department of Game and Inland Fisheries' Outdoor Report (n=336)	25	58
Virginia	Virginia's special youth hunts (n=380)	25	52
South Dakota	South Dakota's Game Production Areas, or GPAs (n=557)	23	64
South Dakota	The South Dakota Hunting Atlas on the SDDGFP's website (n=204)	23	52
Alabama	Alabama's Youth Dove Hunts (n=475)	19	37
Nevada	Nevada Department of Wildlife's Hunt Information Sheets (n=450)	18	61
Arizona	Arizona's Adopt-A-Ranch Program (n=256)	18	45
Wyoming	Wyoming's Hunter Management Area program (n=460)	17	53
California	California's Game Bird Heritage Special Hunts Program Apprentice Hunts (n=152)	17	30
Kansas	The Kansas Special Hunts on Public Lands program (n=360)	16	44
Michigan	Michigan's Commercial Forest Lands or CF lands (n=328)	16	41
South Dakota	South Dakota's Lower Oahe Waterfowl Access Program (n=130)	16	38
Nevada	Nevada Department of Wildlife's Interactive Map Service on the Department website (n=341)	15	56
Nebraska	Nebraska's CRP Management Access Program, or CRP-MAP (n=454)	15	48
South Dakota	South Dakota's Interactive South Dakota Public Lands Maps and Information system on the Division of Wildlife's website (n=212)	15	47
National	The Conservation Reserve Program, or CRP (n=6,563)	15	40
Pennsylvania	Maps of hunting lands on the PA Game Commission's website (n=333)	14	50
Washington	The Feel Free to Hunt program (n=241)	14	48
Washington	The GoHunt GIS Mapping System (n=154)	14	47
Alabama	Alabama's Forever Wild Land Trust Program (n=434)	14	33
Alabama	Alabama's physically disabled hunting locations (n=299)	14	31
Alabama	The Outdoor Alabama Interactive Map on the ADCNR website (n=285)	13	48
Virginia	The Find Game GIS Mapping System or FindGame.org website (n=94)	13	45
Virginia	Virginia's Quota and Managed Hunts (n=323)	13	36
National	The U.S. Fish and Wildlife Service's Waterfowl Production Areas, or WPAs (n=6,466)	13	35
California	California's Game Bird Heritage Special Hunts Program Public Game Bird Hunts (n=190)	12	30

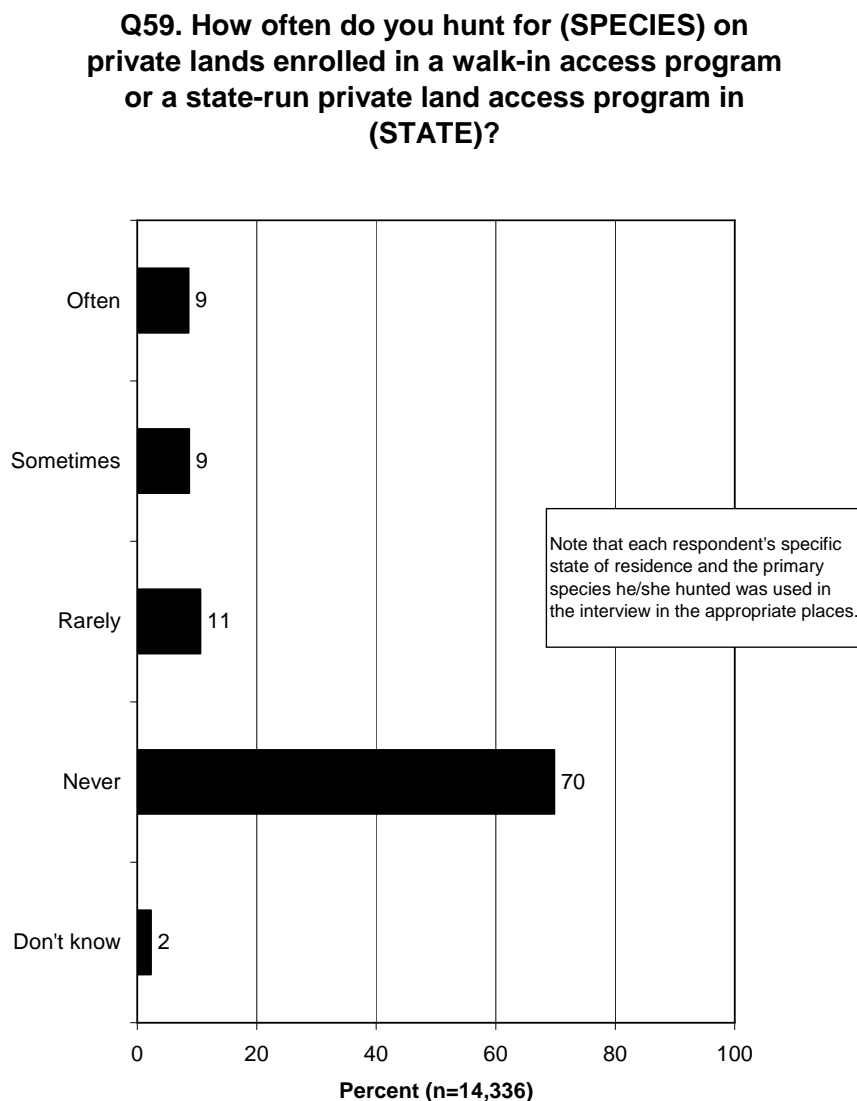
STATE	HUNTERS' RATINGS OF PROGRAMS/RESOURCES (Ranked by Percent Rating Excellent) (continued)	*Percent who rated program / resource excellent	*Percent who rated program / resource excellent or good
South Dakota	South Dakota's Volunteer Antlerless Deer Hunter Program (n=241)	12	29
Washington	The Hunt by Written Permission program (n=300)	10	39
Ohio	Ohio's cooperative hunting program (n=284)	10	30
Hawaii	Public Hunting Area Maps in the Game Mammal or Game Bird Hunting Guide (n=253)	9	45
Idaho	Idaho's Access Yes! Program (n=248)	9	40
Kansas	Controlled Shooting Areas, or CSAs (n=469)	9	35
Virginia	Public Access Lands for Sportsmen, or PALS (n=159)	9	30
Alabama	The Hunt Outdoor Alabama Program (n=224)	9	29
Washington	The Disabled Hunter Road Access Entry program (n=410)	8	39
Hawaii	Hawaii's lease agreements to use agricultural lands for public hunting areas (n=73)	8	36
Wyoming	Wyoming's Hunter/Landowner Assistance program (n=279)	8	34
Wisconsin	Wisconsin's leased public hunting grounds (n=264)	8	30
Washington	Washington's Quality Hunting Areas (n=132)	8	29
California	California's Delta Island Hunting Program (n=121)	8	14
Hawaii	Hawaii's Statewide GIS Map Program	7	45
Washington	The Register to Hunt program (n=162)	7	43
Arizona	Arizona's Heritage Access Program (n=315)	7	37
Pennsylvania	Pennsylvania's Deer Management Assistance Program (n=363)	7	31
South Dakota	South Dakota's Controlled Hunting Access Program (n=149)	7	30
Pennsylvania	Pennsylvania's Cooperative Safety Zone Program (n=308)	7	29
Washington	The Landowner Hunting Permit program (n=284)	6	30
South Dakota	South Dakota Office of School and Public Lands program (n=225)	6	28
National	The Open Fields program (n=1,390)	6	26
Nebraska	Nebraska's Passing Along the Heritage (PATH) Program (n=149)	6	23
Michigan	Michigan's efforts to provide disability access for recreation (n=279)	6	20
California	California's Private Lands Management Program (n=249)	6	17
Pennsylvania	Pennsylvania's Cooperative Forest-Game Program (n=149)	5	33
National	wheretohunt website (n=1,714)	5	29
National	huntinfo website (n=1,137)	5	28
Pennsylvania	Pennsylvania's Cooperative Farm-Game Program (n=339)	5	28
Michigan	The Conservation Reserve Enhancement Program, or CREP (n=174)	5	24
National	huntandshoot website (n=632)	4	32
Washington	The Accessing Washington's Outdoors program (n=167)	4	29
Michigan	Michigan's Hunting Access Program (n=318)	4	26
Wisconsin	Wisconsin's Agricultural Deer Damage Shooting Permit Program (n=467)	4	16
Idaho	Idaho's Accessible Idaho program (n=86)	3	17

STATE	HUNTERS' RATINGS OF PROGRAMS/RESOURCES (Ranked by Percent Rating Excellent) (continued)	*Percent who rated program / resource excellent	*Percent who rated program / resource excellent or good
Wisconsin	Wisconsin's Damage and Abatement Claims Program's Hunting Access During Open Seasons Program (n=208)	1	14
California	California's SHARE Program (n=68)	0	12
* Of those who were aware of the program (including only those programs for which a large enough sample gave a rating)			
Note that "don't know" ratings are included in these results, which were relatively high for some programs. A low percentage giving a rating of excellent/good does <i>not</i> necessarily mean that a high percentage is giving a rating of fair/poor.			

- **Over a fourth of all hunters make some use of private lands enrolled in a walk-in access program in their state, and the data show that state-sponsored walk-in access programs are viewed as effective programs for making hunting access easier.**

The survey included a specific question about use of private lands enrolled in any walk-in access program in their state. Over a fourth (29%) make some use of them, and just under a fifth of hunters (18%) hunt their primary species *often* or *sometimes* on such lands. On the other hand, the majority (70%) *never* do so (Figure 2.124). As was shown in the tables above, these programs are generally rated effective among those hunters aware of them.

Figure 2.124. Hunters' participation in walk-in access programs.

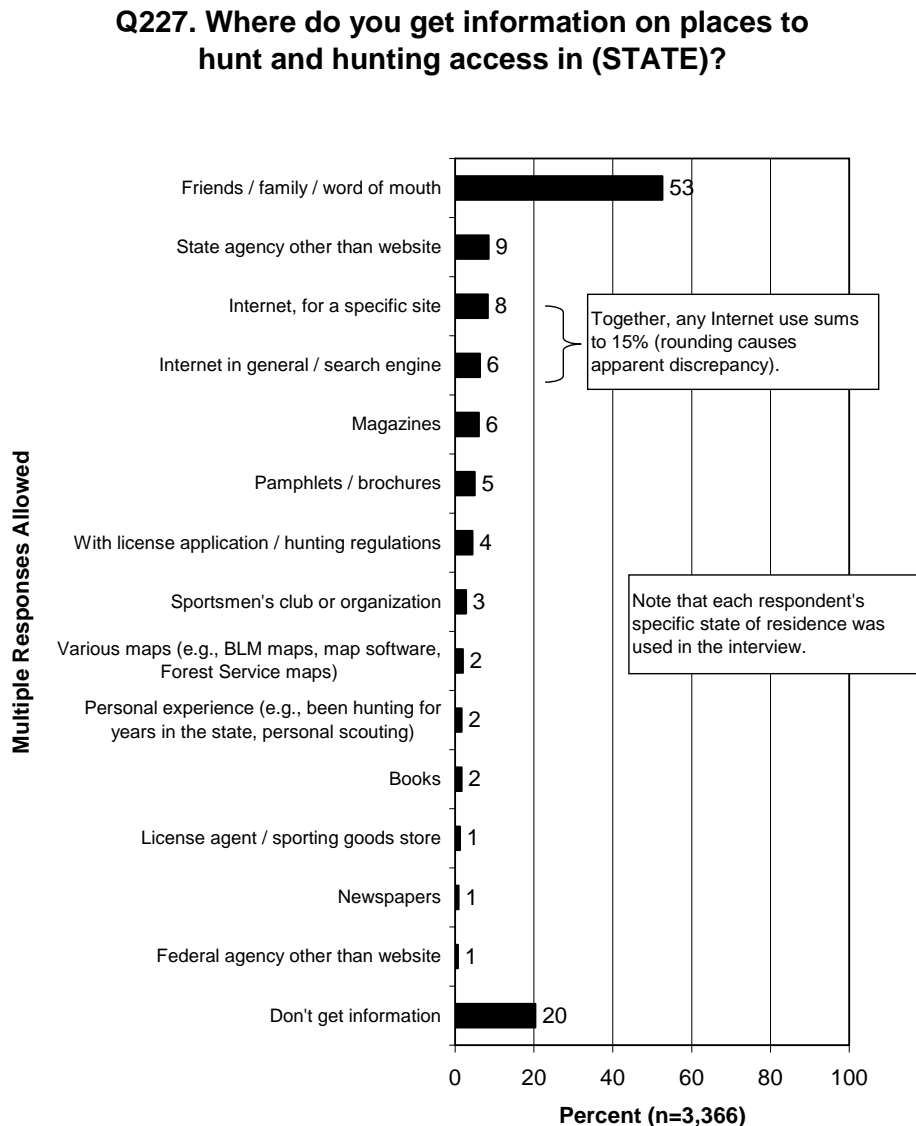


SOURCES OF INFORMATION USED IN DECIDING WHERE TO HUNT

- **The most popular source of information on places to hunt and hunting access is friends/family/word of mouth; otherwise, the state agency and the Internet in general are top sources.**

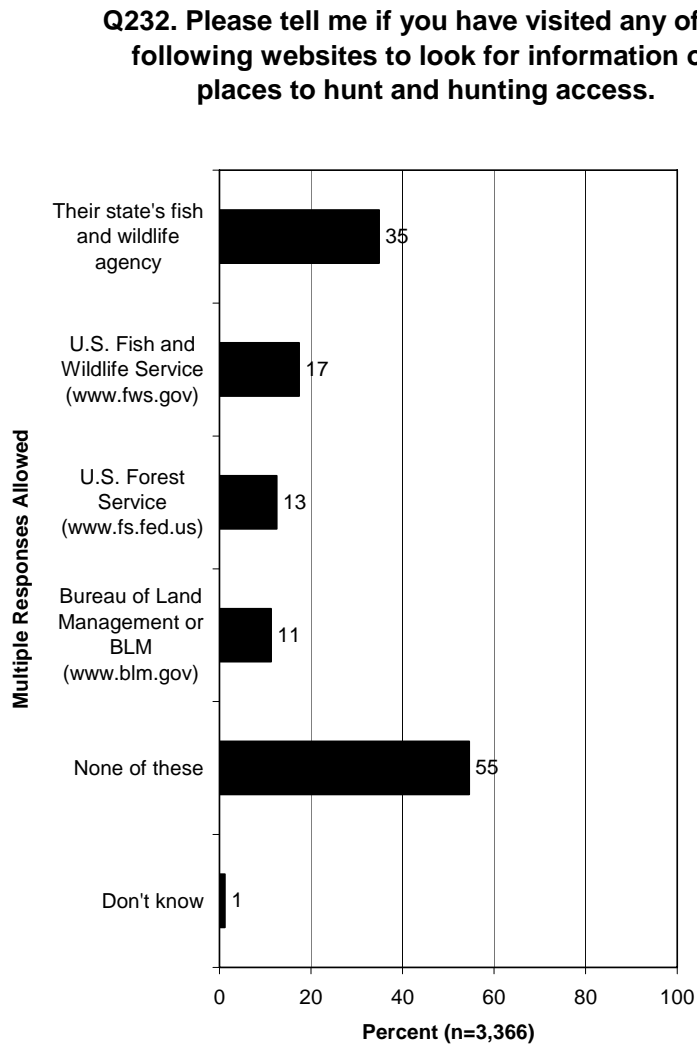
In a broad, open-ended question about sources of information, hunters were asked where they got information on places to hunt and hunting access in their state. The most popular source is friends/family/word of mouth (53%), by far the top answer. Other notable answers include the state fish and wildlife agency (not including its website) (9%), a specific site on the Internet (8%), the Internet in general/a search engine (6%), magazines (6%), and pamphlets/brochures (5%) (Figure 2.125).

Figure 2.125. Sources of information on hunting access.



- **About a third of hunters had searched at some time for information on places to hunt and hunting access on their state agency website (although the previous results suggest that not all site visitors use the sites consistently), and most site visitors rated the usefulness of information on the site as excellent or good.**

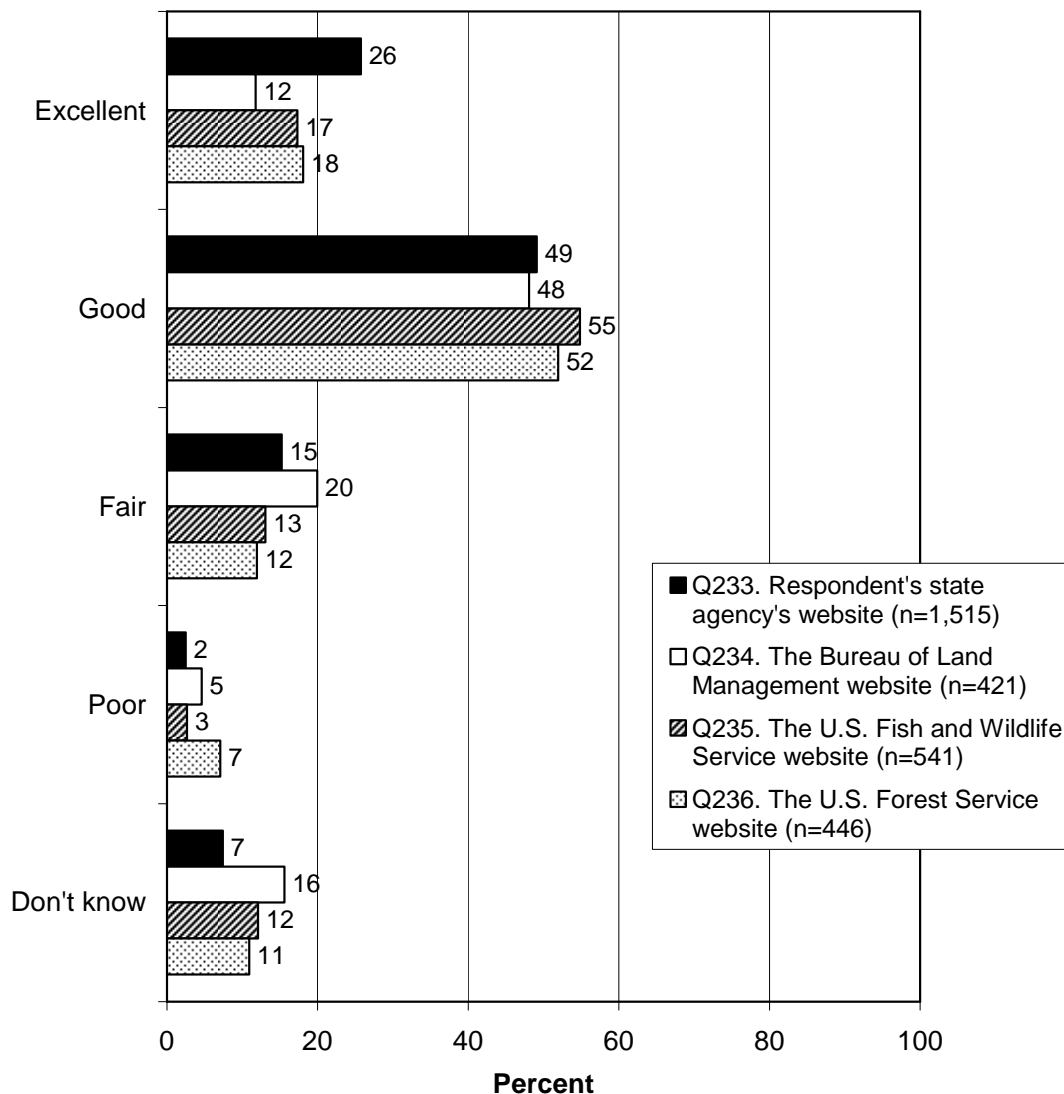
The survey asked hunters if they had visited the websites of four agencies (their state's fish and wildlife agency, the U.S. Forest Service, the U.S. Fish and Wildlife Service, and the Bureau of Land Management) to look for information on places to hunt and hunting access. In a previous open-ended question about where hunters get their information on places to hunt, the Internet was named by 15% of hunters (see Figure 2.125); however, when asked if they had visited specific government websites, 44% had visited at least one of the listed websites. About a third of hunters had visited their state agency site (35%), and fewer (from 11% to 17%) had visited the other sites (Figure 2.126). These findings suggest that, although hunters do not cite their agency website as a top-of-mind source of information, many of them have visited the state website at some time. For this reason, making hunting information readily available and easily accessible is crucial to encouraging hunters to return to agency websites for information.

Figure 2.126. Hunters' use of various state and federal websites.

Follow-up questions asked site visitors to rate the usefulness of the websites' information on places to hunt and hunting access in planning hunting trips. Ratings are positive: each site (with all of the individual state agency sites being considered together as one site) has a majority rating the usefulness of information on the site as *excellent* or *good* (Figure 2.127).

Figure 2.127. Hunters' ratings of the usefulness of agency websites.

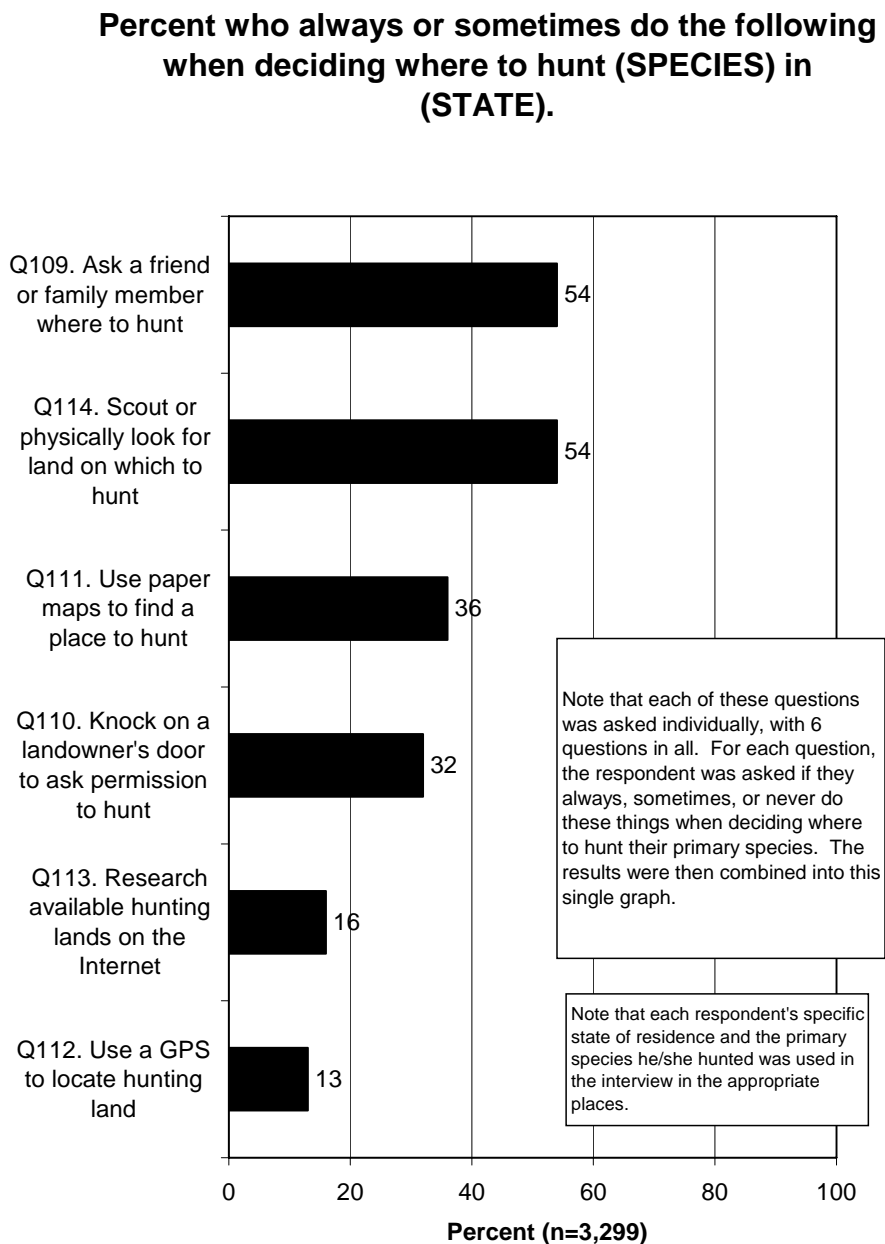
Q233-Q236. How would you rate the usefulness of the information on places to hunt and hunting access on (your state agency's / the Bureau of Land Management / the U.S. Fish and Wildlife Service / the U.S. Forest Service) website to you personally in planning your hunting trips in your state? (Asked of those who used the website to look for information on places to hunt and hunting access.)



- **When deciding where to hunt, a majority of hunters consult a friend or family member and/or scout or physically look for a place to hunt.**

The survey asked six questions about actions that hunters may take in deciding where to hunt. For each action, the survey asked hunters if they always, sometimes, rarely, or never do it when deciding where to hunt. A majority of hunters always or sometimes do two things in deciding where to hunt: 54% ask a friend or family member where to hunt and 54% scout or physically look for a place to hunt. Additionally, about a third use paper maps to find a place (36%) and/or knock on a landowner's door to ask permission (32%) (Figure 2.128).

Figure 2.128. Hunters' actions when deciding where to hunt.



A follow-up question within the above series asked those who scout or physically look for land on which to hunt to indicate how many days they typically spend scouting for hunting locations. The median number of days they typically spend annually scouting for hunting land is 6 days, among those who scout for land (Figure 2.129). Figure 2.130 shows the days spent scouting for land by hunters who mostly hunt public land each year, hunters who mostly hunt private lands each year, and hunters who hunt both equally.

Figure 2.129. Days spent scouting for land on which to hunt.

Q115. About how many days do you usually scout for land on which to hunt for (species) each year in your state?

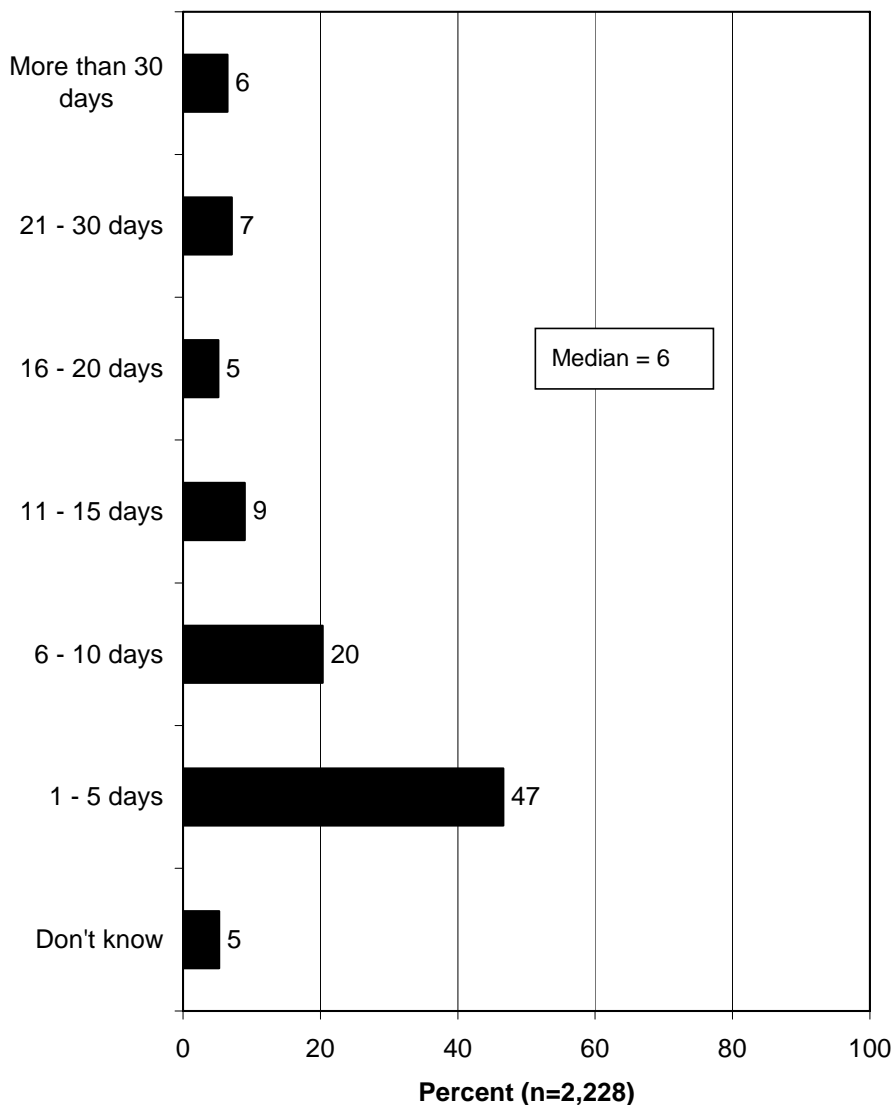
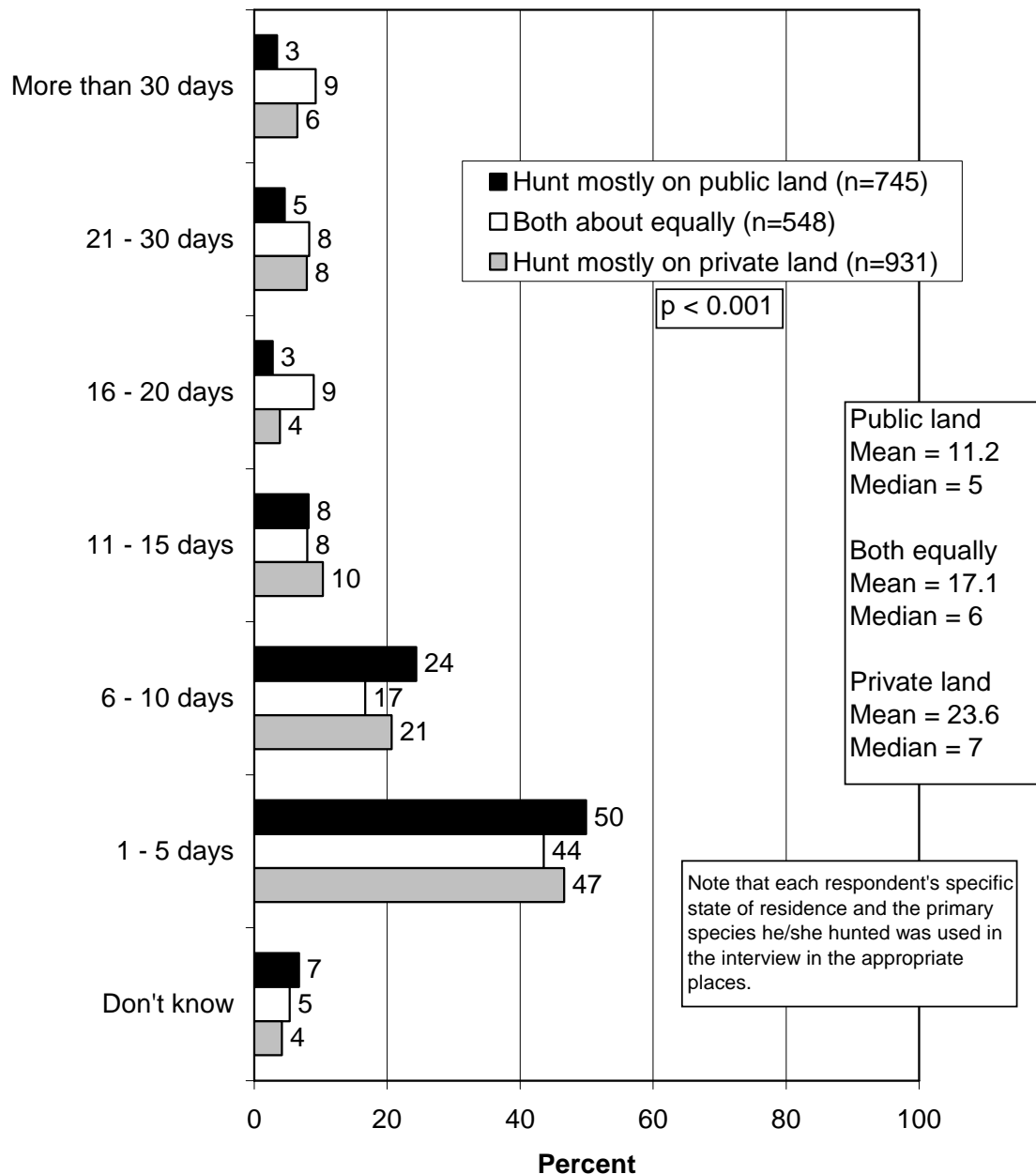


Figure 2.130. Days spent scouting for land on which to hunt by hunters who hunt mostly public land, hunters who hunt mostly private land, and hunters who hunt both equally each year.

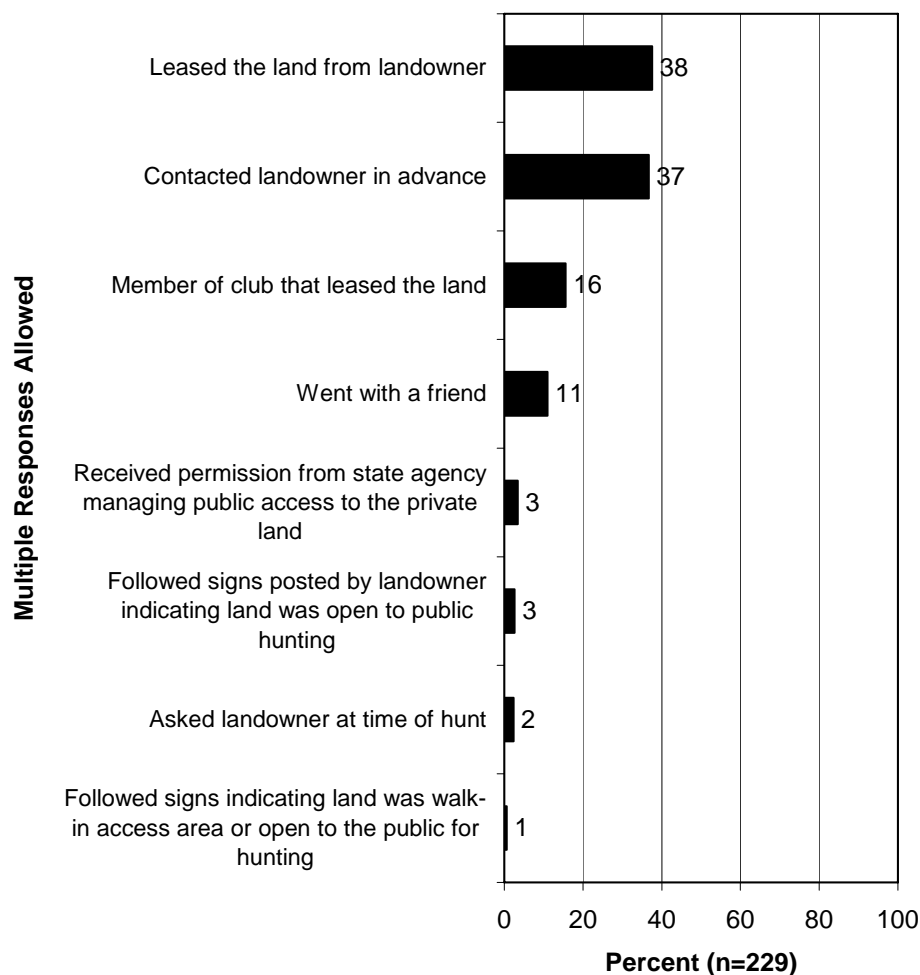
Q115. About how many days do you usually scout for land on which to hunt for (SPECIES) each year in (STATE)?



Another question in the survey asked hunters who had hunted on land owned by somebody they did not previously know how they had obtained permission to hunt on the land. They most commonly leased the land from the landowner and/or contacted the landowner in advance (Figure 2.131).

Figure 2.131. Hunters' means of obtaining landowner permission for private land access.

Q82. In the past 5 years, when you have hunted on private land owned by someone you did not know, how did you get permission to hunt on the land? (Asked of those who hunted their primary species on private lands at least half the time and who indicated that those lands are owned by someone that they did not know prior to hunting on those lands.)



In the focus groups, hunters stressed the importance of word of mouth as well as scouting as important in deciding where to hunt.

“First thing I do when I want to go to a new hunting area is go to a sporting goods store, and those guys are usually pretty knowledgeable.”

— Seattle, Washington, hunter (Responsive Management/NSSF, 2008b)

“Knowing people is what you have to do. Word of mouth is a big part of it, too.”

— Macon, Georgia, hunter (Responsive Management/NSSF, 2008b)

“You lay out a map and the hunting regulations on a table and start flipping through and start drawing it out. It’s kind of hard, figuring out the crossroads and boundaries. That’s how you got to do it.”

— Seattle, Washington, hunter (Responsive Management/NSSF, 2008b)

“Friends, family, and maps [are the main sources for finding out where to hunt].”

— Seattle, Washington, hunter (Responsive Management/NSSF, 2008b)

This nationwide study was designed to understand the full array of access issues that hunters face today. This chapter presented the major findings from this study, including how access issues affect hunting participation, hunters’ decisions in choosing areas to hunt, and hunters’ enjoyment and satisfaction with hunting opportunities. Based on these findings, the following chapter discusses the implications of the findings and offers specific recommendations to help improve access to hunting lands.

CHAPTER 3. IMPLICATIONS AND RECOMMENDATIONS

UNDERSTANDING ACCESS ISSUES

Action Item 1. Realize that hunting access issues are related to both physical and social/psychological aspects. Both aspects need to be addressed. If efforts to improve access concentrate only on the provision of physical opportunities/locations, a significant component of the hunting access issue may be missed. Social and psychological issues related to hunting access include hunters' awareness of hunting opportunities as well as their assumptions and perceptions regarding hunting access issues. For example, atlas/mapping programs and websites that identify hunting locations and opportunities address the social/psychological aspects of awareness and information.

Action Item 2. Consider that hunting access issues can be categorized into five broad types of aspects: availability, accessibility, accommodation, awareness, and assumptions. When designing comprehensive plans or programs to address access issues in a state or on a particular piece of land, it is important to consider the typology of hunting access factors. The factors that affect hunting participation include physical factors and social/psychological factors—the perceptions of hunters. It is important to note that access involves the physical opportunities and locations to hunt as well as hunters' awareness, perceptions, and attitudes regarding hunting access issues. The practical reality of whether fewer hunting opportunities exist and the perception that access is becoming a greater problem represent two separate, albeit related, issues. The reality of less hunting access is a physical constraint to hunting, whereas the perception that access is becoming more difficult is a psychological constraint (Responsive Management, 2004b). When addressing access issues, it is important to consider this typology of factors. The physical aspects of access include:

- **Availability** pertains to the actual land available to hunt. Research has shown that the capacity for providing quality outdoor recreation opportunities is threatened by urban growth and development. Although the majority of U.S. residents participate in recreational activities on rural lands and this demand is expected to rise, the land base will likely remain stable or shrink (Cordell, English, & Randall, 1993). Changes in land use, including land conversion, subdivision, and development, continue to limit the amount of land available for recreational activities. In fact, research indicates that between 1982 and 1997, there was a 34% increase in the amount of land devoted to urban uses in the United States, primarily due to the conversion (i.e., development) of croplands and forests into urban/suburban and industrial land uses (Alig, Kline, & Lichtenstein, 2004). As a result of anticipated urban expansion and population growth, researchers project that developed land areas will increase by 79% in the next 25 years, resulting in an increase from 5.2% to 9.2% of the proportion of the total land base in the United States that is developed (Alig, Kline, & Lichtenstein, 2004). Because of these trends in land use, sustainable land management efforts are imperative for preserving land availability to provide outdoor recreation opportunities in the future.

Fish and wildlife agencies depend on recreational hunting as an integral component in the effective management and regulation of wildlife populations; in effect, recreational hunting “serves as an artificial means of predation now that natural

predators no longer keep wildlife populations in balance” (Backman & Wright, 1993, p. 2). Thus, although the availability of hunting lands is certainly important to hunter recruitment and retention, research also suggests that access for hunting is an important component in effective game management on these lands; that is, lack of access for hunting not only contributes to hunter cessation, but it also impacts wildlife managers’ capacity to manage wildlife (Stedman et al., 2008). In fact, lack of access specifically to private lands may affect capacity to manage deer populations effectively for several reasons. Private land hunters are more likely than public land hunters to (1) have harvest success, (2) have a strong commitment to hunting, (3) demonstrate willingness to hunt antlerless deer, (4) spend more than the median amount of time hunting, and (5) continue hunting (i.e., private land hunters are *less* likely to desert the sport of hunting) (Stedman et al., 2008). Accordingly, Stedman et al. (2008) have suggested that “decreasing access to private lands may exacerbate already-recognized deficiencies in hunter capacity to manage deer” (p. 230). As the aforementioned findings show, then, land availability and access issues are not only a concern for hunter recruitment and retention but for effective wildlife management.

- **Accessibility** pertains to the ability to get to the land. Often, problems with access are more closely related to accessibility rather than availability. In a recent study, hunters who had experienced access problems were asked whether the access problem was a lack of land (i.e., availability) on which to hunt or a situation where land existed that the hunter could not get to (i.e., accessibility). The majority of hunters with access problems (60%) indicated that land existed but they could not get to it, while 29% indicated that there was a lack of land. In fact, among active hunters, 68% reported that land existed but they were unable to get to it (Responsive Management/NSSF, 2008a).

Lack of accessibility to land also occurs when private lands are leased to hunting clubs, which limits public access to that land. Hunting clubs that arrange for their members to hunt on private lands take those private lands out of the “public” realm. Furthermore, those clubs can drive up leasing costs of other hunting lands, the result of which is increases in hunting club fees and fees for hunting land leases. This presents a problematic financial aspect of hunting access.

Accessibility issues include real and/or perceived “landlocked” hunting areas (e.g., public lands surrounded by private lands or public lands only accessible by remote access points), posted lands, closed lands, gated entries, illegally blocked access to public lands, and road closures. Accessibility issues differ on public versus private lands, as well. Fish and wildlife agencies often have more options available for managing public land under their jurisdiction, meaning that they can work to improve roads and reduce road closures into and on public lands. Conversely, working with private landowners to ensure hunting access is more complicated.

- **Accommodation** pertains to the ease of mobility and the experience once hunters are on the land. For example, as shown in this study, crowding is a major concern for providing positive hunting experiences and is closely related to access. Crowding may be a concern for hunters who are seeking isolated areas for hunting and prefer not to encounter others on their hunt. In this case, access issues are related to accommodation, and perhaps more specifically, the carrying capacity of the land

itself. To complicate the issue even further, each hunter has his/her own tolerance threshold for the number of other hunters he/she encounters and how that impacts his/her hunting experience. While some hunters may have a higher threshold before they cite crowding as an access-related problem, other hunters may only be willing to tolerate one or two other recreationists before it has a negative impact on their hunting experience and becomes an important access issue. Whether it is an issue of carrying capacity or the individual hunter's tolerance threshold for other recreationists, as urbanization continues to limit land access, it is almost certain that crowding issues will remain a top-of-mind issue for hunters.

Other issues related to accommodation include, but are not limited to, road and trail conditions, prohibitions on vehicles, distance traveled afoot for hunting, and crowding. All of these factors limit hunting opportunities in some way. In some instances, the distance—though open to foot access—is too far for *feasible* access. Further, restrictions on ATVs and other vehicles can result in difficulties in trying to remove game harvested from woods and forests. Areas that fail to provide hunters with an opportunity to feasibly remove game are commonly viewed as lacking access.

The social/psychological aspects of access include:

- **Awareness** pertains to information and knowledge—to hunters' awareness of the access options open to them. There is sometimes a disconnect between the amount of land actually available and a hunter's awareness of this land. Although in some cases, there is clearly land available for hunting, hunters may lack awareness of the land, remote access points, and/or alternative routes to hunting land. As well, they may also think public land is land-locked. In other words, lack of *knowledge* of a place to hunt can be just as effective as an actual lack of places to hunt in preventing hunting.

Awareness also pertains to knowing where information can be found and how to use it. Many states lack a reliable, centralized location for the distribution of up-to-date information on the availability of and access to public and private hunting lands. Many hunters simply do not know where to find information on access and areas for hunting. At other times, maps are available but the information is not easily transferred to the ground—a map shows an available plot, but the plot cannot be located on the ground. In other instances, hunters are able to locate hunting lands shown as open on a map, only to discover that, in reality, such lands are either blocked, closed to the public, or have in some way been made inaccessible. Websites of state fish and wildlife agencies may represent the best locations for centralized, comprehensive listings of access locations and public and private hunting lands. The key is for state agencies to be able to provide consistently updated information regarding the availability of access and the status of hunting lands.

As shown in this study, there is a general lack of awareness of programs/resources designed to address hunting access issues. This study clearly shows the necessity of addressing hunters' awareness of access issues as well as the programs/resources that can minimize access problems.

- **Assumptions** pertain to hunters' perceptions about hunting opportunities. These include prevalent ideas that hunting opportunities are being threatened or other perceived barriers, regardless of whether they actually exist. Changes in land use

from agriculturally zoned to residentially zoned and development of land have made more prevalent the idea that hunting opportunities are being threatened and have increased hunters' perception that hunting access is becoming worse. As hunters increasingly see the encroachment of development in their communities, they may assume that access is being threatened, even if they themselves have not experienced access problems. If a hunter passes land that has been developed on the way to his favorite hunting spot, even though he may not have an access problem to the location of his choice, he may worry about the future encroachment or development of those lands. Other perceptions or fears may also contribute to access issues. For example, if a hunter is hesitant to obtain permission from a landowner, access can be, for all practical purposes, blocked by this hesitancy.

Well-designed plans and programs designed to address access issues should take a holistic approach that considers each of these factors. Ensuring that all five types of aspects are addressed will ensure that all aspects of access are covered by access programs/resources and, ultimately, help minimize hunters' frustrations with access problems.

Action Item 3. Note that an additional consideration of hunting access is whether the land is public or private. Consider these types of land separately. Hunting access issues vary on the two types of land, and some recommendations pertain only to one or the other.

Action Item 4. Understand the characteristics associated with reporting access issues.

The nonparametric analysis conducted for this study offers additional information regarding hunters who reported that access-related problems took away from their hunting enjoyment as well as hunters who indicated that a lack of access to hunting lands in their state caused them *not* to hunt a species as much as they would have liked in the past 5 years. The analysis shows that both of these responses are positively correlated with the following characteristics:

- Indicating that their hunting participation in their state has decreased during the past 5 years
- Traveling longer distances to hunt
- Hunting on different lands each year or same and different lands about equally
- Hunting upland game birds
- Hunting fewer than 5 of the past 5 years in their state

These analyses identify specific subgroups that are more likely, in comparison to other subgroups, to report access issues; the analyses are particularly useful in better understanding target audiences for the development of focused marketing and outreach efforts. Use the results of the nonparametric analysis in this study as an ongoing resource to help identify target markets.

Action Item 5. Utilize this report as a tool for identifying target markets and implementing hunting access programs that work. Different groups of hunters encounter different issues and problems with access and the data in this report can help organizations identify target markets and implement the programs that have been identified as the most successful and effective. As shown above, the nonparametric analysis helps identify audiences that should be targeted with outreach and programmatic

efforts. Fish and wildlife agencies and organizations should use a marketing approach with clearly defined goals and objectives to target these specific audiences. Tailor programs to address the concerns to these target markets and evaluate program efforts. Specifically, a marketing approach maintains the following order of decision-making: 1) specifically define goals; 2) identify groups within the overall pool of hunters and decide which ones should be targeted with certain programs/resources; 3) define specific and quantifiable objectives for each target market; 4) tailor programs/resources to each target market; and 5) evaluate the efforts directly to the established goals and objectives in terms of outcomes, not outputs. One small example is to target urban hunters. The nonparametric analysis shows that less experienced hunters from urban and suburban areas are having the most difficulty finding access. Increasing outreach and opportunities to these groups may encourage interest and participation.

The results also show that upland game bird hunters are more likely to report access issues than hunters who hunt other species. States that provide upland game bird hunting opportunities may consider offering special upland game bird hunts, similar to the youth dove hunts in Alabama. Implementing special upland game bird hunts aimed at youth and based on fostering mentoring relationships will offer additional hunting opportunities and may help to improve hunters' frustrations with access issues. In this study, several special youth hunt programs are ranked as some of the most effective programs/resources for making hunting access easier, including Virginia's special youth hunts and Alabama's youth dove hunts. As well, states may consider providing an opportunity similar to Kansas' Special Hunts on Public Lands Program, where hunters are provided pre-season or high quality hunts on public lands.

Action Item 6. Be aware of the strong link between effective marketing and outreach strategies and the success of programs/resources. According to this study, the Kansas Walk-In Hunting Access Program (WIHA) is the highest rated walk-in program (among hunters who were aware of the program and rated the program's effectiveness for making hunting access easier), followed closely by Wyoming's Public Lands Access Program (PLAP).

The Kansas Department of Wildlife and Parks has implemented numerous communications and outreach efforts designed to increase public awareness of WIHA opportunities, and this investment has paid off: 84% of Kansas hunters were very or somewhat aware of the WIHA program, making it the most well-known of all the national and state-sponsored programs/resources.

Similarly, Wyoming offers a heavily marketed Public Lands Access Program (PLAP), and its walk-in access program falls under the umbrella of PLAP. According to this study, Wyoming's efforts to increase public awareness of hunting access are working: 81% of Wyoming's hunters are aware its walk-in access program. Again, marketing, branding, and effective communications and outreach efforts have a clear impact on hunters' awareness of, participation in, and satisfaction with hunting access programs/resources.

Action Item 7. The detailed primary source data in this report should be used in planning beyond the specific recommendations discussed below. For instance, the

results showing the ranking of items that detracted from hunting enjoyment and participation are of immense value in determining agency priorities in designing and administering programs/resources. Additionally, the tables that show awareness of various programs/resources, as well as their effectiveness ratings, allow for an objective assessment of the effectiveness of these programs/resources and suggest areas in which these programs/resources need to be improved. In short, these tables suggest programs/resources for which more information is needed as well as programs/resources that need to have improved effectiveness ratings (i.e., have improved *implementation*). The data also establish a baseline against which future efforts can be evaluated.

Action Item 8. Additionally, the secondary data from review of past research that is included should also be consulted in planning.

ISSUES RELATED TO AVAILABILITY

Action Item 9. Consider ways to address issues related to urbanization and housing developments in an attempt to curb hunters' concerns regarding land availability.

As discussed in Chapter 1, urbanization and concomitant rural land loss remain a critical obstacle for access to outdoor recreation activities. In fact, 54% of hunters in this study indicate that housing and commercial development had been a major, moderate, or minor problem in accessing hunting land in their state, in general. Efforts to increase hunting opportunities and access, particularly near areas experiencing high levels of development, are important. In many ways, this is a reminder to enhance hunting opportunities near areas of high growth and development to counter the loss of available hunting lands in these areas.

ISSUES RELATED TO ACCESSIBILITY

Action Item 10. Be aware that a top-of-mind issue related to hunting access is land accessibility. Lack of access to land is an important dissatisfaction with or disincentive to participation among active hunters. Improving accessibility can be as effective as increasing actual acreage of hunting lands—it can “open” land that was *de facto* closed.

Action Item 11. Ensure the availability of and proper maintenance of road access. The majority of hunters (70%) indicate that they use a car or truck to access hunting lands. In a series of questions designed to determine access issues that affect hunters' decisions of where to hunt, 35% of hunters indicate that easy access by car or truck is a very important consideration when choosing lands on which to hunt, making poor maintenance and closed roads and trails an important access issue. When asked a series of questions specifically about access, 23% of hunters said not being able to find a good place to park their vehicle, 21% said poor maintenance of roads or trails, and 18% said road closures have been a major, moderate, or minor problem during the past 5 years. Ensuring the availability and proper maintenance of road access to public lands will help increase hunting access for this group of hunters.

ISSUES RELATED TO ACCOMMODATION

Action Item 12. Understand that hunting access issues are not only related to land availability and accessibility but are also related to accommodation—the physical traits of the land and access points, such as road and trail conditions and prohibitions on vehicles. While lack of availability and lack of accessibility remain key barriers to hunting participation, related issues appear to have an impact on hunters' decisions to hunt and satisfaction with their hunting experiences as well. Road and trail conditions, vehicle restrictions, and distance from roads for hunting all influence the ease of mobility once a hunter has accessed land, thereby impacting the overall hunting experience.

Action Item 13. Note that crowding is an issue that falls under accommodation in that land is actually available but is not perceived to be available because of crowding. In other words, crowding becomes a factor in *perceptions* of availability. Address crowding as a way to improve overall access.

Action Item 14. Be aware that crowding is the most important consideration for hunters choosing lands on which to hunt. When hunters were asked about the importance of 11 factors in their decisions regarding where to hunt their primary species, a single factor stands out markedly more important than the rest in the ranking by the percentage saying the factor is *very* important: that the land is not crowded with other sportsmen (82% say this is *very* important). Similarly, crowding was also identified as an important determinant in a hunter's decision to leave certain hunting locations.

In a finding tangentially related to crowding, hunters also identified two other social issues in this line of questioning as top-named problems: leaving an area because they felt unsafe because of other hunters (40%) and leaving an area because of the irresponsible behavior of other hunters (35%). Feeling unsafe because of other hunters and the irresponsible behavior of other hunters are tangentially related to crowding because having too many hunters in an area may increase these problems. In turn, this impacts the overall natural and aesthetic characteristics of the hunting experience.

In general, the research shows that poor hunter behavior and hunter safety are not only considerations that influence landowners' decisions to disallow hunting on their property, but these considerations are also important access issues for hunters themselves. As a whole, the results of the focus groups and telephone survey suggest that access itself is not as great a problem as is access to *uncrowded* lands—the four top problems in the survey relate to other people being on the land on which the hunter wanted to hunt. It is important for fish and wildlife professionals to keep in mind that crowding appears to be more of an issue to hunters who hunt mostly on public lands each year.

Action Item 15. Understand that crowding is a complicated access issue because it relates to both the physical aspects of access (e.g., use levels, carrying capacity) as well as the social/psychological aspects (e.g., hunters' perceptions of crowding). While fish and wildlife agencies may be able to address the physical aspects of hunter density and carrying capacity by various regulations, such as limiting the number of hunters permitted to hunt in a given area, addressing the social/psychological aspects of crowding may prove more challenging.

Action Item 16. Conduct more research to identify the point at which crowding becomes a problem for most hunters and thereby results in overall dissatisfaction with the quality of their hunt. This additional research will identify best practices in addressing crowding issues and assist wildlife management professionals in determining the managerial and regulatory steps necessary to improve hunter satisfaction and decrease crowding throughout their state.

Action Item 17. Increase outreach aimed at reducing a hunter's level of perceived crowding, which can be effective in addressing concerns regarding actual crowding and, ultimately, hunting access. As previous research has shown, a hunter's expectations regarding the hunting experience as well as situational factors (e.g., hunter density) all influence the hunter's perception of crowding. One way that agencies can address the issue of perceived crowding is through information. Increasing information regarding hunter density and carrying capacity may influence hunters' expectations and tolerance, thereby changing hunters' perceptions of crowding. According to past research, information helps to minimize the effects of crowding through self-selected redistribution and through its impact on hunters' perceptions regarding crowding (Heberlein, 1992). In Heberlein's study, information was distributed to hunters regarding the number of hunters and hunter density in hunting areas. In comparison to hunters who did not receive this information, hunters who received information reported feeling less crowded.

Action Item 18. Realize that increased information may impact hunters' preferences and behaviors regarding crowding. Information that identifies where hunters hunt and approximately how many hunters hunt a given area may help hunters' decision-making. With this information, hunters may change their hunting behaviors to avoid other hunters, thereby reducing crowding.

ISSUES RELATED TO AWARENESS

Action Item 19. Ensure that dissemination of information is included in efforts to improve access. According to the current research, hunters identify the availability and distribution of additional *information* as an important factor in making hunting access easier. Indeed, this study shows that many hunting access problems are due to a lack of information or misconceptions regarding hunting opportunities. While agencies find ways to manage the physical aspects of hunting access, such as increasing landowner/hunter partnerships, it appears that increasing information dissemination and outreach may be just as valuable in addressing hunting access issues. Furthermore, of all the hunting access programs/resources discussed in this survey, state-sponsored mapping and atlas programs/resources are rated among the most effective for making hunting access easier, thereby underscoring the importance of addressing the informational aspect of access.

Action Item 20. Ensure that there are high levels of public awareness on *how* to obtain information regarding hunting opportunities and access. It is important not only for agencies to provide additional information on hunting lands and hunting access, but also to ensure that there are high levels of public awareness on *how* to obtain and use this information. Lack of information can be as detrimental to participation as actual lack of

land in preventing hunting. Furthermore, this is an aspect of access in which agencies and organizations can have a direct influence.

Action Item 21. Make sure that information regarding hunting access is clear, timely, and accurate. Hunters experience access issues when they attempt to follow maps that are confusing or inaccurate, when information regarding hunting opportunities in their state is out-of-date, and when there is a disparity between information provided by agency maps and actual on-the-ground physical access. In a series of questions regarding specific access problems and actions hunters may have taken as a result of those problems, many hunters said being confused by a state agency map that was hard to follow was a problem during the past 5 years when hunting their primary species. Additionally, when asked a series of questions regarding specific access problems, many hunters said that having maps that show huntable land but being unable to locate that land on the ground was a problem.

Action Item 22. Provide opportunities for and encourage hunters to report inaccuracies. To help alleviate frustration, it may be a good idea for states to provide an opportunity for hunters to report inaccurate maps and/or “random” road closings. Providing an outlet for hunters to report these issues would serve three purposes: 1) hunters would feel that they have an impact or voice in access problems, thereby lowering their frustration, 2) states will receive good, useful information about maps and agency information that can be corrected for future use, and 3) states could use this opportunity to inform hunters on why roads are closed so that it no longer seems arbitrary or unnecessary. States should consider hosting a spot on their websites that allows hunters to post comments about closings and inaccuracies in real-time, thereby reducing frustration among those who check the website comments prior to hunting.

Action Item 23. Provide a statewide mapping system or atlas that clearly identifies public hunting areas. Among the states oversampled in this study, South Dakota had one of the top-rated hunting access programs/resources. The South Dakota Department of Game, Fish and Parks (SDGFP) provides a thorough mapping system of hunting opportunities throughout the state, including a printed atlas, an interactive mapping system on the agency website, and public hunting maps designed to work with GPS. The printed atlas provides clearly marked areas for public hunting, including, but not limited to, National Forest lands, Bureau of Land Management lands, Waterfowl Production Areas, Game Production Areas, and restricted and nonrestricted walk-in areas. Similarly, the online atlas offers a topographic view of hunting lands as well as tools to measure the distance to specific hunting areas, a description of area wildlife and habitat, and total acreage available. Also, the SDGFP updates the hunting atlas annually to ensure the most accurate and up-to-date information is available regarding hunting opportunities in the state. Similarly, Alabama offers a particularly useful online, interactive mapping system. The website provides a map of the entire state, and users can set their specifications to identify public hunting lands and other outdoor recreation opportunities. After locating hunting lands, users are able to download a very detailed map of specific areas.

Action Item 24. Provide clearly marked boundaries and ensure appropriate signage in the field. Increasing a hunter’s knowledge while afield is just as important as providing the right informational tools for the planning process. This is an area in which agencies

can have great influence, and it also provides an opportunity for agencies to work with landowners and land management agencies to increase information and hunter awareness. Many of the problems reported by hunters are related to a lack of clearly marked boundaries and signage. In fact, a substantial percentage of hunters (42%) said that lack of or unclear signs marking public hunting lands was a major, moderate, or minor problem in accessing hunting land in their state, in general. Moreover, in response to a series of questions regarding specific access issues, 37% of hunters said that not being sure of the boundaries of huntable land was a problem in the past 5 years when hunting their primary species. Additionally, this could also be contributing to problems landowners have with hunting access, such as trespassing; that is, hunters may unintentionally trespass simply because they are unaware that they are on private property. These findings suggest that agencies need to take steps to increase information in the field.

Action Item 25. Paper maps, at least in the present and near future, are important, as more hunters use them for deciding where to hunt than use the Internet mapping sites. Although paper maps in the future may give way to electronic maps, currently paper maps still appear to be highly important to hunters.

ISSUES RELATED TO ASSUMPTIONS

Action Item 26. Disseminate information regarding the availability of hunting lands in the state to counter possible *misconceptions* that land is unavailable. Concerns regarding the availability of hunting lands, whether there is an actual limitation or a perceived problem with land availability, are important to address. Increasing information regarding hunting opportunities, location, and access throughout the state is one of the best ways an agency can showcase hunting lands and counter misconceptions regarding lack of land available for hunting.

Action Item 27. Better communicate to hunters information on land management and resource allocation decisions. Several factors emerged from the research showing that hunters are concerned with land management, including use and allocation. It is important for land management and fish and wildlife agencies to clearly communicate agency land management uses and objectives. Again, misconceptions regarding land use and resource allocation can be highly detrimental to a hunter's attitudes about hunting access in his or her state.

Action Item 28. Be aware that land closures have an important impact on hunting participation, but, perhaps more importantly, to many hunters land closings appear arbitrary. State land management and fish and wildlife agencies have some control over land closures, and such closures should be minimized. However, if land closures are necessary, agencies should ensure that up-to-date information is available to their constituents explaining where these closures occur and why they are necessary. These same remarks apply to road closures, including the seeming arbitrariness of road closings, as well.

ISSUES RELATED EXCLUSIVELY TO PRIVATE LAND

Action Item 29. Be cognizant that access to private lands is crucial to hunting participation, especially considering that more than three-fourths of hunters nationally (77%) hunt private lands at least half the time, and these hunters are also the constituents who appear the most dissatisfied with overall hunting access in their state—meaning that one of the most valuable constituencies (numerically) is also one of the most dissatisfied. This is particularly applicable to the eastern states. Further, many of the top access problems include problems related to private lands. For example, in an open-ended question, the top-named access problem that caused hunters not to hunt their primary species as much as they would have liked was private land being posted. Hunters were also asked a series of questions regarding specific access issues that they had encountered during the previous 5 years: less land on which to hunt due to private land ownership changes (51% of hunters indicated this had been a problem) and finding previously opened private land sold and posted or closed by the new landowner (47% of hunters indicated this had been a problem) were among the top hunting access problems. Moreover, it is clear from the current study that hunters who hunt mostly on private lands appear more dissatisfied with overall hunting access in their state compared to hunters who hunt mostly on public lands.

Action Item 30. Among private land hunters, about four in five hunt on private land owned by a friend or acquaintance. This means that an untapped “market” exists of people who would benefit by a private lands access program—in other words, they already hunt on private land but limit themselves to people they know.

Action Item 31. Facilitate programs/resources that both nurture relationships between hunters and landowners and increase hunting opportunities on private lands. The fact that most hunters hunt either exclusively on private land or on both public and private land about equally complicates the issue of hunting access because state regulatory agencies are limited in their management of hunting opportunities on private lands. Nevertheless, increasing hunting access on private lands is necessary for improving hunter satisfaction and preventing cessation, and it is important for agencies to facilitate programs/resources that both nurture relationships between hunters and landowners and increase hunting opportunities on private lands.

Action Item 32. Ensure that programs/resources designed to increase hunting access on private lands address landowner concerns and issues. When hunters who had said that they had not hunted a species as much as they would have liked because of access problems were asked in an open-ended question to identify those specific access problems, 40% of them cited posted lands—the top-named access problem in this group. Clearly, then, restricted access to private lands is a problem for hunters. For this reason, it is important for agencies to better understand the reasons why landowners choose to restrict access to their lands. The issues that influence a landowner’s decision to restrict access to their property are numerous and varied. For this reason, programs/resources should be designed to address these issues.

Action Item 33. Develop informational and educational outreach strategies designed to better inform landowners and address their reticence to open their lands. Previous research has shown that providing incentives and liability protection encourages

landowners to open their property to hunting. Agencies should develop focused messages and communication strategies that are designed to educate landowners about the benefits of opening their lands to hunters. Landowners should be made aware of the conservation and habitat benefits of permitting hunting, and outreach should highlight the personal and/or financial benefits offered by various programs/resources designed to increase access to private lands. It is important that information and outreach targeting landowners addresses their concerns. For example, outreach to landowners should highlight program/resource elements and steps taken to directly address hunter ethics, safety, and liability concerns.

ISSUES RELATED EXCLUSIVELY TO PUBLIC LAND

Action Item 34. Recognize that private lands blocking public lands can be an important barrier for hunting access to public land and subsequent hunting participation.

According to the study, 29% of hunters said that private land blocking access to public land for hunting their primary species was a major, moderate, or minor problem during the previous 5 years. More importantly, most of this group believe that the private landowners are *intentionally* blocking access to public hunting lands.

Action Item 35. Consider approaches for addressing issues with private lands blocking access to public hunting lands. Note that the Federal Lands Hunting and Shooting Sports Roundtable launched a new initiative to address access to federal lands blocked by private lands. The Making Public Lands Public (MPLP) initiative has earmarked appropriation dollars to acquire access from willing property owners or to enhance access to Bureau of Land Management and Forest Service lands adjacent to private property. The initiative has identified several immediate projects designed to open or increase access to more than 181,000 acres of land. Agencies should support the MPLP initiative and seek funding for similar projects in their state.

THE LINK BETWEEN HUNTER BEHAVIOR AND ACCESS

Action Item 36. Emphasize the importance of good hunter behavior in maintaining access. Good hunter behavior is crucial in maintaining hunting access, particularly access to private lands (but not exclusively to private lands, as poor hunter behavior can affect access decisions made by *public* land management agencies, as well). If hunters expect landowners to offer access to private property, they must have strict guidelines of hunting ethics. In truth, most hunters appear to be aware that their behavior can have a profound impact on access.

Action Item 37. Develop programs/resources that clearly address hunter behavior. In this study, out of a list of 16 possible problems with actions hunters may have had to take because of the problem, two of the top three problems were leaving an area because of feeling unsafe because of other hunters and leaving an area because of the irresponsible behavior of other hunters. In effect, access to good hunting lands was denied to the hunters who had to leave an area because of poor behavior of others, making a direct link between access and poor hunter behavior.

ACCESS AND ATVs

Action Item 38. Consider the impact that ATV restrictions and limitations have on hunters. In this study, 13% of hunters indicate that not having ATV access in general had been a major, moderate, or minor access problem during the past 5 years, and 11% say that not being able to retrieve their harvest because of ATV restrictions was a problem during the past 5 years. Of those hunters who reported that not being able to retrieve their harvest because of ATV restrictions was a problem, 51% agree that this had caused them to hunt less than they would otherwise have liked to do. These concerns were underscored by focus group participants who made the point that although access is often possible through walking or hiking into hunting areas, the inability to remove game harvested essentially negates that access. Areas that fail to provide hunters with an opportunity to feasibly remove game were also viewed as highly discouraging to elderly or disabled hunters.

Action Item 39. Address user conflicts and landowner concerns regarding the use of ATVs. The regulation and management of ATV use is further complicated by the fact that many landowners experience problems with ATVs. In fact, in a study of Pennsylvania landowners enrolled in the Commonwealth's Public Access Programs, an overwhelming majority of those who reported problems or damage from other recreationists attribute the damage to ATV riders, and ATVs are the leading reason that program participants restrict access (Responsive Management, 2007b). Agencies need to take a balanced approach to meeting hunters' needs while, simultaneously, addressing landowner concerns in order to minimize user conflicts.

Action Item 40. Be aware that increasing ATV access may result in additional access problems, such as poor road conditions and perceptions of crowding. Note that ATV use runs the risk of alienating many hunters who do not use ATVs and who may be hunting, in part, for the aesthetic experience—an increasingly important motivation for hunting. ATV use may distract from the aesthetic experience, so caution should be exercised in promulgating any ATV regulations. It is important for land management and fish and wildlife agencies to consider all factors related to ATV use to determine the most effective approach for addressing these issues in their state. Additional research will help inform decisions regarding ATV use and restrictions.

REMARKS ABOUT SPECIFIC PROGRAMS AND RESOURCES

Action Item 41. The research shows that state-sponsored walk-in access programs are considered some of the most effective programs/resources for making hunting access easier; these types of programs should be established (if not already) and vigorously promoted. Typically, walk-in access arrangements are mutually beneficial to both hunters and landowners. For landowners, enrollment in a walk-in access program may result in lease payments (where not prohibited), assistance with conservation and habitat enhancements, patrol and law enforcement, and liability immunity. For hunters, walk-in access programs provide access to private lands for free or for minimal costs and help reduce the crowding hunters experience on public lands.

Action Item 42. Increase familiarity with and awareness of national

programs/resources. Two of the six national programs/resources near the halfway mark: the Conservation Reserve Program and the U.S. Fish and Wildlife Service's Waterfowl Production Areas. Awareness levels for the Open Fields Program and several national websites were very low. To maximize the benefits of these programs/resources, agencies need to increase their communications and outreach efforts and target specific markets.

Action Item 43. Increase dissemination of information about state programs/resources that had low awareness levels in the survey. Use Table 2.10 as a resource to determine which programs/resources have low awareness levels.

Action Item 44. Increase participation in national hunting access programs/resources that currently exist. While awareness levels were substantial for the Conservation Reserve Program and the U.S. Fish and Wildlife Service's Waterfowl Production Areas, participation in these programs was relatively low. This suggests that hunters are aware of the programs but may not be taking advantage of them. Additionally, hunters who were aware of these programs were asked to rate them at making hunting access easier, and hunters who rated the programs as *fair* or *poor* at making hunting access easier were asked why they gave a low rating. For each program, the most common response for giving a *fair* or *poor* rating was that the respondent was not familiar enough with the program and/or that the respondent had not used it or had not used it much. These results suggest that there is a need for increasing public outreach and communication regarding these national hunting access programs/resources that currently exist.

Action Item 45. Understand that the programs/resources rated most effective for making hunting access easier are state-sponsored walk-in access programs and state-sponsored mapping, GPS, and atlas resources.

Action Item 46. Use Table 2.12 as a resource for determining which programs have low effectiveness ratings. Take a closer look at the programs/resources that had low effectiveness rating to determine if there are specific elements that can be improved.

Action Item 47. Realize that special hunting opportunities for youth are important in that they provide hunting access for youth. Among the highly rated programs are programs designed to increase hunting access and opportunities for youth. In particular, Alabama's Youth Dove Hunt program was rated by a large majority of hunters who were aware of the program as being excellent or good for increasing hunting access. The Alabama Department of Conservation and Natural Resources has sponsored Youth Dove Hunts for nearly a decade as a way of initiating youth into hunting. The program is designed to offer youth firsthand hunting experiences by fostering a mentoring relationship with experienced hunters. Hunts occur on an annual basis. This program is credited with introducing thousands of youth to hunting, a substantial number of them being first-time hunters. A huge part of the success of the program is that the agency provides the lands on which the hunts are held—in short, access is an integral part of the program. In addition to providing easier hunting access, this programs maximizes several key recruitment and retention principals: studies show that initiation at a young age, initiation by hunting small game, and promoting a "hunting culture" and are all important to successful hunting recruitment and retention (Responsive Management/NSSF, 2008a).

CHAPTER 4. METHODOLOGIES

Responsive Management and the NSSF completed this large-scale, national study to identify, quantify, and develop an in-depth understanding of the important issues affecting access to hunting lands. The study was conducted under Multi-State Conservation Grant CT-M8-R from the U.S. Fish and Wildlife Service, administered by the Association of Fish and Wildlife Agencies.

This project included a literature review of available source material regarding hunting access issues, including hunting reports, governmental publications, academic journals, agency websites, agency and organizational newsletters and magazines. The study also included focus groups of hunters in Seattle, Washington and Macon, Georgia. Responsive Management and the NSSF also conducted a nationwide survey of hunters, with oversampling in 16 states: Alabama, Arizona, California, Hawaii, Idaho, Kansas, Michigan, Nebraska, Nevada, Ohio, Pennsylvania, South Dakota, Virginia, Washington, Wisconsin, and Wyoming (an additional state—Arkansas—was oversampled, and a report was produced for it as well). Responsive Management completed 14,336 surveys of U.S. hunters, and the results in this report are representative of licensed U.S. hunters, as a whole.

The extensive telephone questionnaire was developed cooperatively by Responsive Management, the NSSF, and the participating state agencies and was reviewed by numerous university professors, staff, and fish and wildlife agency personnel with knowledge regarding survey methods and hunting access issues. Respondents consisted of individuals ages 18 and older who had hunted at least once in the five years that preceded the study. The sample was carefully constructed to reflect the proportion of hunters in each state. Responsive Management and the NSSF worked with each state fish and wildlife agency over a 12-month period to achieve a meticulously constructed and randomly selected sample of hunters. The sample was obtained from each state's agency; for the states where this was not possible, the sample was obtained from a research firm that had valid samples of hunters for those states.

Additionally, although all 50 states were asked about their awareness of, use of, and opinions on the effectiveness of national programs/resources, state-specific programs/resources were also assessed in the 16 aforementioned oversampled states. In addition to this final report with recommendations for implementing effective access programs, the researchers produced the following reports for this project and recommends consulting these reports for additional information and in-depth state-specific results:

- *Issues Related to Hunting Access in the United States: Focus Group Results*
- *Issues Related to Hunting Access in the United States: National Results*
- *Issues Related to Hunting Access in the United States: Alabama Results*
- *Issues Related to Hunting Access in the United States: Arizona Results*
- *Issues Related to Hunting Access in the United States: Arkansas Results*
- *Issues Related to Hunting Access in the United States: California Results*
- *Issues Related to Hunting Access in the United States: Hawaii Results*
- *Issues Related to Hunting Access in the United States: Idaho Results*
- *Issues Related to Hunting Access in the United States: Kansas Results*
- *Issues Related to Hunting Access in the United States: Michigan Results*

- *Issues Related to Hunting Access in the United States: Nebraska Results*
- *Issues Related to Hunting Access in the United States: Nevada Results*
- *Issues Related to Hunting Access in the United States: Ohio Results*
- *Issues Related to Hunting Access in the United States: Pennsylvania Results*
- *Issues Related to Hunting Access in the United States: South Dakota Results*
- *Issues Related to Hunting Access in the United States: Virginia Results*
- *Issues Related to Hunting Access in the United States: Washington State Results*
- *Issues Related to Hunting Access in the United States: Wisconsin Results*
- *Issues Related to Hunting Access in the United States: Wyoming Results*

In addition to a comprehensive look at hunting access issues at the national and regional levels to obtain baseline data, this study was designed to assess the success of initiatives and programs related to access that have already been implemented. The purpose of this project is to help fish and wildlife agencies more effectively utilize the millions of dollars of future funding for implementing access programs by indicating which programs and program elements are having the greatest impact and by providing data to guide and increase the success of the efforts of new and current programs.

LITERATURE REVIEW

The purpose of this literature review is to contextualize study results within a framework of relevant research and focused analyses of hunting access issues. Responsive Management employs a traditional approach to developing a literature review of research. Multiple researchers work both independently and in concert to perform targeted and exhaustive searches on specific identified data sources and databases. For this project, the research team reviewed hunting reports, agency websites, and numerous data sources pertaining to hunting access issues and their impact on hunting participation. These reports and other informational and data sources included governmental publications, academic journals, agency websites, agency and organizational newsletters, and magazines. Additionally, the researchers examined in-house reports previously prepared by Responsive Management pertaining to hunting access from the company archive, which includes hundreds of reports for various federal and state agencies and many not-for-profit organizations.

FOCUS GROUPS

Focus groups entail an in-depth, structured discussion with a small group of participants (10 to 12) about select subjects. The use of focus groups is an accepted research technique for qualitative explorations of attitudes, opinions, perceptions, motivations, constraints, participation, and behaviors. Focus groups provide researchers with insights, new hypotheses, and understanding through the process of interaction. The purpose of the focus groups for this study was two-fold: (1) to provide qualitative research on hunters' opinions on and attitudes toward hunting access issues through the process of interaction and (2) to inform the design and development of the nationwide hunting access survey. Please note that, while findings from the focus groups are included in this final report, a separate focus group report was produced and should be consulted for additional information.

Focus groups were an important way to begin this study because they allowed for extensive open-ended responses to questions; probing, follow-up questions; group discussions; and

observation of emotional response to hunting access issues—one aspect that cannot be measured in a traditional quantitative survey. Qualitative research sacrifices reliability for increased validity. This means that although the focus group findings cannot be replicated statistically as a survey can be (i.e., high reliability), they provide researchers with a more valid understanding of the topics or issues of concern in the study (i.e., high validity). For this project, Responsive Management conducted two focus groups of hunters: one in Seattle, Washington, and another in Macon, Georgia. Focus groups were conducted in June-July 2008.

Focus groups were conducted using a discussion guide designed to encourage hunters to provide their opinions on and attitudes toward hunting access issues and programs designed to increase hunting access. The discussions were moderated by Mark Damian Duda, Executive Director of Responsive Management, and Andrea Criscione, Research Associate. The moderators kept the discussion within design parameters without exerting a strong influence on the discussion content by using the discussion outline. In this sense, the focus groups were non-directive group discussions that exposed the spontaneous attitudes, insights, and perceptions of hunters regarding hunting access issues and programs. All focus group discussions were recorded for further analysis. At the end of each focus group, any questions were answered that participants had regarding the study.

Focus Group Locations and Facilities

Seattle, Washington, and Macon, Georgia, were selected as the two locations for focus groups to offer wide ranging and diverse attitudes and opinions. The first provided an opportunity to discuss hunting access issues in the northwestern region of the U.S., while the second focused on hunting access issues in the southeastern region of the U.S. For each group, specific facilities were selected based on availability. All facility reservations were confirmed by written agreements. Responsive Management ensured that the focus group room at each location was set up appropriately, including furniture, recording equipment, and food arrangements. Refreshments were provided for focus group participants.

Focus Group Recruiting

Responsive Management identified and contacted recreational hunters from hunting license records. Letters with a brief description of the focus group and a toll-free number to contact the recruiting manager at Responsive Management were mailed to hunters in Georgia and Washington. As part of the recruiting process, Responsive Management also contacted potential respondents by telephone from 4:00 p.m. to 9:00 p.m., local time. Participants interested in attending a focus group were given a brief summary concerning the focus group subject matter, were screened using a screener questionnaire, and, if qualified, were asked to participate and confirmed for attendance. A brief pre-screening questionnaire was used to ensure the diversity of participant selection and to minimize any bias in selection design. The screener determined whether potential focus group participants met the established guidelines set for the group. The screener included questions to determine whether potential focus groups participants had hunted in the state during the previous 2 years, whether they had accessed hunting lands through a private or public access point, whether they had hunted private property within the previous year, and their age.

After determining that the respondent was eligible to participate, he/she was informed of the focus group date, time, and location and mailed or e-mailed, by personal preference, a confirmation letter. Participants were also asked if they wanted to receive a reminder call the day before the focus group to ensure that they would have everything they needed to attend the discussion, such as directions and time. To encourage participation, a monetary incentive was given to all participants.

During the recruiting process, the focus group recruiting manager maintained a progress table for each focus group to track the progress of the number of participants recruited and to log participant names, contact information, and essential participant characteristics. For each focus group, 12 to 14 individuals were recruited to account for the likelihood that some would not attend, thereby ensuring that 10 to 12 would attend. The recruiting manager ensured that all confirmation letters were sent out promptly to participants and that reminder calls were made the day before any scheduled group. Reminder calls and interaction with respondents helped ensure participant attendance, resulting in quality focus group participation.

Focus Group Discussion Guide

The focus groups were conducted using a discussion guide that allowed for consistency in data collection. Responsive Management's researchers developed the discussion guide based on their knowledge of hunting access issues. The discussion guide included questions regarding top-of-mind issues related to access, knowledge and awareness of hunting lands, constraints and barriers to access, and awareness of agency programs designed to increase access to hunting lands, to name a few topics. While the discussion guide provided a general framework for directing the content of the focus groups, question order and phrasing were adjusted according to the dynamics of the group discussions.

Focus Group Report

Responsive Management conducted a qualitative analysis of the focus groups through observation of the focus group discussions and reviews of the recordings. Thus, the analyses were performed in three iterations: 1) the actual focus group observation, 2) review of videotapes and/or audiotapes, and 3) the development of findings. While findings from the focus groups are included in this final report, a separate focus group report was produced and should be consulted for additional information.

TELEPHONE SURVEY

This project included a nationwide telephone survey of licensed hunters to accomplish several major objectives: 1) to identify the full array of access issues facing hunters today, 2) to provide baseline data with which to compare conditions in the future and assist efforts to reduce hunting access conflicts and increase lands for hunting, and 3) to assess the effectiveness of access programs in place in 16 oversampled states to develop strategies and recommendations for access programs, as well as the future use of funding for these programs. Responsive Management completed 14,336 surveys of U.S. hunters, and the results in this report are representative of licensed U.S. hunters as a whole.

The extensive telephone questionnaire was developed cooperatively by Responsive Management, the NSSF, and the participating state agencies and was reviewed by numerous university professors, staff, and fish and wildlife agency personnel with knowledge regarding survey methods and hunting access issues. Additionally, although all 50 states were asked about their awareness of, use of, and opinions on the effectiveness of national programs/resources, state-specific programs/resources were also assessed in 16 oversampled states. Please note that, while state-specific results are included in this final report, a separate telephone survey report was produced for each state and is available for additional research on state-specific data. Specific aspects of the research methodology for the telephone survey are discussed below.

Sample Size and Selection

Responsive Management and the NSSF worked with each state fish and wildlife agency over a 12-month period to achieve a meticulously constructed and randomly selected sample of hunters. The sample was obtained from each state's agency; for the states where this was not possible, the sample was obtained from a research firm that had valid samples of hunters for those states. Because this sample included only license holders' names and addresses, Responsive Management worked with Survey Sampling International (SSI) to complete a "telephone look-up" to match telephone numbers to the names and addresses of licensed hunters. Responsive Management obtained a total of 14,336 completed interviews. This includes 12,792 completed interviews in the oversampling of the states, as well as an additional 1,544 completed interviews throughout the rest of the United States, as shown in Table 4.1.

Table 4.1. Survey sample.

State	Total Survey Sample
Alabama	810
Arizona	811
Arkansas	663
California	805
Hawaii	447
Idaho	386
Kansas	807
Michigan	804
Nebraska	807
Nevada	804
Ohio	808
Pennsylvania	807
South Dakota	808
Virginia	804
Washington	806
Wisconsin	807
Wyoming	808
Remaining states	1,544
TOTAL	14,336

Note. For the national results, the data were weighted so that all of the states were properly proportioned. Results are representative of licensed hunters nationwide.

The telephone survey data was weighted appropriately to make the sample from each oversampled state proportionally correct to the population of licensed hunters nationwide. In

other words, the results were weighted to ensure that the proportions of the sample in each state matched population of hunters nationally: Oversampled states were weighted down to maintain the representativeness of the sample. Therefore, for the national results and this final report, no state is over-represented and the results shown are representative of the population of U.S. licensed hunters nationwide. Table 4.2 shows the proportion of the survey sample for each state, which is representative of the total number of hunters in each state.

Table 4.2. Survey sample proportions.

State	Proportion of Survey Sample	State	Proportion of Survey Sample
Alabama	1.8%	Montana	1.7%
Alaska	0.7%	Nebraska	1.2%
Arizona	1.4%	Nevada	0.4%
Arkansas	2.6%	New Hampshire	0.4%
California	2.1%	New Jersey	0.6%
Colorado	2.1%	New Mexico	0.7%
Connecticut	0.3%	New York	4.1%
Delaware	0.1%	North Carolina	3.2%
Florida	1.2%	North Dakota	1.1%
Georgia	1.9%	Ohio	2.8%
Hawaii	0.0%	Oklahoma	2.5%
Idaho	1.8%	Oregon	1.9%
Illinois	2.3%	Pennsylvania	6.5%
Indiana	1.8%	Rhode Island	0.1%
Iowa	2.0%	South Carolina	1.4%
Kansas	1.4%	South Dakota	1.7%
Kentucky	2.4%	Tennessee	4.6%
Louisiana	2.0%	Texas	7.0%
Maine	1.4%	Utah	1.1%
Maryland	0.9%	Vermont	0.6%
Massachusetts	0.4%	Virginia	2.2%
Michigan	5.6%	Washington	1.4%
Minnesota	4.0%	West Virginia	1.6%
Mississippi	1.6%	Wisconsin	5.0%
Missouri	3.3%	Wyoming	1.0%

Note. The proportions (and therefore the statistical weighting) match the number of hunters found in each state.

Questionnaire Design and Implementation

The survey questionnaire was developed cooperatively by Responsive Management, the NSSF, and the participating state agencies and organizations represented in the listing on the acknowledgments page. Responsive Management conducted a pre-test of the questionnaire to ensure proper wording, flow, and logic in the survey. The questionnaire included some “screening” questions; those who had *not* hunted at least once in the past 5 years were not interviewed.

The survey instrument included questions about the following national hunting programs/resources that are used throughout the United States:

- The Open Fields program
- The Conservation Reserve Program
- The U.S. Fish and Wildlife Service's Waterfowl Production Areas
- The wheretohunt website
- The huntinfo website
- The huntandshoot website

The surveys for the oversampled states included each state's programs/resources in the questions about programs/resources. Each state's programs/resources are shown in Table 4.3.

Table 4.3. State hunting access programs/resources.

STATE PROGRAMS/RESOURCES USED IN THE OVERSAMPLED STATES
ALABAMA
The Outdoor Alabama Interactive Map on the ADCNR website
Alabama's Forever Wild Land Trust Program
The Hunt Outdoor Alabama Program (program subsequently discontinued)
Alabama's Youth Dove Hunts
Alabama's physically disabled hunting locations
ARIZONA
Arizona's Heritage Access Program
Arizona's Adopt-A-Ranch Program
CALIFORNIA
California's Private Lands Management Program
California's Shared Habitat Alliance for Recreational Enhancement (SHARE) Program
California's Delta Island Hunting Program
California's Game Bird Heritage Special Hunts Program
California's Game Bird Heritage Special Hunts Program Apprentice Hunts
HAWAII
Hawaii Legacy Land Conservation Program (LLCP)
Hawaii's Statewide Geographic Information System (GIS) Map Program
Hawaii Lease Agreements
Hawaii's Game Mammal and Game Bird Hunting Guides
IDAHO
Idaho's <i>Access Yes!</i> Program
Idaho's "Accessible Idaho" Program
KANSAS
The Kansas Special Hunts on Public Lands program
The Kansas Walk-In Hunting Access Program
Kansas' Controlled Shooting Areas (CSAs)
MICHIGAN
Michigan's Hunting Access Program
Michigan's Commercial Forest Lands
The Conservation Reserve Enhancement Program (CREP)
Michigan's Disability Access for Recreation

STATE PROGRAMS/RESOURCES USED IN THE OVERSAMPLED STATES
NEBRASKA
Nebraska's CRP Management Access Program (CRP-MAP)
Nebraska's Passing Along the Heritage (PATH) Program
NEVADA
Nevada Department of Wildlife's Interactive Map Service on the Department website
Nevada Department of Wildlife's Hunt Information Sheets
OHIO
Ohio's Cooperative Hunting Program
PENNSYLVANIA
Maps of hunting lands on the PA Game Commission's website
Pennsylvania's Cooperative Farm-Game Program
Pennsylvania's Cooperative Forest-Game Program
Pennsylvania's Cooperative Safety Zone Program
Pennsylvania's Deer Management Assistance Program
SOUTH DAKOTA
South Dakota's Walk-In Hunting Areas
South Dakota's Controlled Hunting Access Program (CHAP)
South Dakota's Volunteer Antlerless Deer Hunter Program
South Dakota's Lower Oahe Waterfowl Access Program
South Dakota's Game Production Areas (GPAs)
South Dakota's Interactive South Dakota Public Lands Maps and Information System
The printed <i>South Dakota Hunting Atlas</i>
The <i>South Dakota Hunting Atlas</i> on the SDDGFP's website
South Dakota Office of School and Public Lands program
VIRGINIA
Virginia's Quota and Managed Hunts
Public Access Lands for Sportsmen (PALS)
Virginia's Special Youth Hunts
The "Find Game GIS Mapping System" (FindGame.org)
Virginia Department of Game and Inland Fisheries' <i>Outdoor Report</i>
WASHINGTON
The Feel Free to Hunt Program
The Register to Hunt Program
The Hunt by Written Permission Program
The Landowner Hunting Permit Program
The GoHunt GIS Mapping System
Washington's Quality Hunting Areas Program
The Accessing Washington's Outdoors Program
The Disabled Hunter Road Access Entry Program
WISCONSIN
Wisconsin's Damage and Abatement Claims Program's "Hunting Access During Open Seasons" Program
Wisconsin's Agricultural Deer Damage Shooting Permit Program
Wisconsin's Leased Public Hunting Grounds
WYOMING
Wyoming's Hunter Management Area Program
Wyoming's Walk-In Area Program
Wyoming's Hunter/Landowner Assistance Program

Telephone Interviewing Facilities and Procedures

For this survey, telephones were selected as the preferred sampling medium because of the near-universality of telephone ownership among hunters. In addition, a central polling site at the Responsive Management office allowed for rigorous quality control over the interviews and data collection. Responsive Management maintains its own in-house telephone interviewing facilities. These facilities are staffed by interviewers with experience conducting computer-assisted telephone interviews on the subjects of natural resources and outdoor recreation.

To ensure the integrity of the telephone survey data, Responsive Management has interviewers who have been trained according to the standards established by the Council of American Survey Research Organizations. Methods of instruction included lecture and role-playing. The Survey Center Managers and other professional staff conducted project briefings with the interviewers prior to the administration of this survey. Interviewers were instructed on type of study, study goals and objectives, handling of survey questions, interview length, termination points and qualifiers for participation, interviewer instructions within the survey instrument, reading of the survey instrument, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey instrument. The Survey Center Managers and statisticians monitored the data collection, including monitoring of the actual telephone interviews without the interviewers' knowledge, to evaluate the performance of each interviewer and ensure the integrity of the data.

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

Data Collection and Analysis

The software used for data collection was Questionnaire Programming Language (QPL). QPL is a comprehensive system for computer-assisted telephone interviewing that provides complete capabilities for designing, administering, and managing telephone-based research operations. 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.

Because the survey contained a large number of questions, and no single respondent could feasibly go through all the questions that would apply to him/her, some questions were asked only of a randomized portion of the sample. In other places, only certain respondents received some questions because the questions applied only to specific respondents (e.g., only those who were aware of a given program were asked to rate its effectiveness).

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

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

Also note that the research team sought to learn about access problems of hunters but conjectured that hunting access problems could vary from species to species. To ensure that the researchers would know which species were associated with various results, the survey asked respondents to answer most questions about the species they *primarily* hunted. In many questions, QPL inserted the respondent’s primary species name into the question. For instance, Question 55 would have been “Overall, how would you rate access to hunting lands in (State) for hunting white-tailed deer?” for those who primarily hunt white-tailed deer, and it would have been “Overall, how would you rate access to hunting lands in (State) for hunting waterfowl?” for those who primarily hunt waterfowl. In the graphs, the questions show where the species name would be automatically inserted into the question by the QPL program. For instance, the graph for Question 55 is shown as “Overall, how would you rate access to hunting lands in (State) for hunting (species)?”

After the surveys were obtained by the interviewers, the Survey Center Managers and/or statisticians checked each completed survey to ensure clarity and completeness. The analysis of data was performed using Statistical Package for the Social Sciences software as well as proprietary software developed by Responsive Management.

Occasionally, 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 nationwide data analysis, the telephone survey data was weighted appropriately to make the sample from each oversampled state proportionally correct to the population of licensed hunters nationwide. In other words, the results were weighted to ensure that the proportions of the sample in each state matched population density nationally: Oversampled states were weighted down to maintain the representativeness of the sample. Therefore, for the national results and this final report, no state is over-represented and the results shown are representative of the population of U.S. licensed hunters nationwide.

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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 websites for natural resource organizations, conducted training workshops on the human dimensions of natural resources, and presented numerous studies each year in presentations and as keynote speakers at major natural resource, outdoor recreation, conservation, and environmental conferences and meetings.

Responsive Management has conducted research on public attitudes toward natural resources and outdoor recreation in almost every state in the United States, as well as in Canada, Australia, the United Kingdom, France, Germany, and Japan. Responsive Management routinely conducts

surveys in Spanish and has also conducted surveys and focus groups in Chinese, Korean, Japanese, and Vietnamese.

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

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