

# **Public Opinion and Knowledge Survey of Grizzly Bears in the Cabinet Yaak Ecosystem**

*Final Report*

**2008**

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A copy of the report can be found at <http://www.igbconline.org/html/sc-reports.html>

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# Executive Summary

During July and August of 2007, a public opinion and knowledge survey was conducted in Lincoln and Sanders County, Montana. The survey was designed to measure public understanding of grizzly bears and management in the Cabinet Mountains and Yaak Valley of Montana (hereafter referred to as the CYE: Cabinet Yaak Ecosystem). The survey provided a 'snapshot' of knowledge and attitudes of grizzly bears that residents of Lincoln County and Sanders County, Montana currently hold. The survey results offer wildlife managers a way to identify future information and education needs for the CYE and provided residents an opportunity to express their feelings about grizzly bear issues outside of a public meeting setting.

Communities interviewed were: Libby, Troy, and Yaak in Lincoln County, and Heron, Noxon, Thompson Falls, and Trout Creek in Sanders County. A telephone survey was selected as the survey method, because of the commonality of telephone ownership and the predominant use of landline telephones in the area. Calls were placed on different days of the week and at different times of the day, including evenings and weekends, to allow for equal participation by adults over 18 years of age. The survey consisted of 50 questions and took approximately 15 minutes to complete.

Content for the survey questionnaire was designed to assess resident's attitudes and knowledge of grizzly bears and population recovery in the CYE. The survey focused primarily on knowledge, opinions, and informational sources about grizzly bears in the CYE, knowledge and support of grizzly bear recovery, and opinions about management activities and recreation. Respondents were asked to classify their opinions as *strong*, *moderate*, *neither/nor*, or *don't know*. Responsive Management, a public opinion research firm, conducted 502 interviews, with a participation rate of 85%. Margin of error for this survey was plus or minus 4 percent.

Although 54% of respondents believed that grizzly bears can be dangerous to humans, more than 70% indicated that grizzly bears belong in the CYE and should be preserved as a symbol of our national heritage. Fear of grizzly bears appeared to be the primary reason why some respondents opposed having them in the CYE. Respondents were aware of the most common reasons why a grizzly bear might attack a human, but the majority was unaware of how many people are actually attacked or killed by grizzlies each year in the lower 48 states, which is relatively infrequent. We were unable to locate any documented cases of a grizzly bear caused human injury or death within the CYE in the past 35 years.

Ninety percent of respondents felt that humans can prevent most conflicts with grizzly bears and the majority stated that they would even accept changes to current garbage disposal methods if it would help prevent problems with grizzly bears. If educational efforts can demonstrate to residents that using simple techniques for living safely in grizzly bear country can prevent conflicts before they occur, fear of having grizzly bears in the CYE may be reduced.

While the survey revealed that 57% of respondents supported grizzly bear recovery in the CYE, the level of support decreased to 44% when respondents were asked about achieving a grizzly bear population goal of 100 bears. Increased educational efforts about biology, habitat, and

spatial needs of grizzly bears may help address public concerns about the CYE's ability to accommodate an increase in the grizzly bear population.

Wildlife biologists and managers recommend augmentation as one of the strategies necessary to effectively recover the CYE grizzly bear population. However, the survey showed that the level of support for grizzly bear population recovery efforts in the CYE increased from 57% to almost 75% if recovery could be done without using augmentation.

One of the more controversial subjects brought up during public meetings in the last decade was implementation of motorized access restrictions on National Forest lands. However, one third of respondents stated that they were unaware of the current road restrictions on National Forest lands. In addition, 69% stated that grizzly bear recovery efforts had not negatively affected their employment or recreation opportunities. When asked about support for current road restrictions, 49% supported and 42% were opposed to them. Fifty-eight percent were opposed to any additional road restrictions in the future and 31% were in support of them.

Overall, the majority of respondents indicated support for the recovery of grizzly bears in the CYE, yet concern remained over specific management actions (road restrictions, augmentation and final population goals) proposed to achieve recovery. Respondents were more aware of augmentation efforts in the early 1990's than they were of more recent efforts (2005 and 2006), suggesting that better efforts are needed to keep the public informed of this aspect of the grizzly bear recovery program and educational efforts may benefit residents understanding of this management practice. Most often cited sources of information from the participants were newspapers, magazines, television and film. These sources probably offer the best media opportunities to reach the local public.

Survey responses regarding grizzly bear food habits, abundance, and human injury rates indicate a need for biologists and managers to provide the public with accurate information about general grizzly bear biology.

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## HISTORY AND BACKGROUND

### History of Grizzly Bears in Montana

Before Europeans arrived, grizzly bears occupied a variety of habitats, from the Great Plains to mountainous areas throughout western North America, as far south as central Mexico and north to the Arctic Ocean. European explorers described encounters with grizzlies throughout much of the American West. It is not known exactly how many grizzlies lived in the United States before the 1700's, but it is estimated that 50,000 bears inhabited parts of 17 states.

Prior to 1800, grizzly bears were likely common in Montana. With westward expansion of settlers and new access to firearms by indigenous people, grizzly bear numbers were reduced wherever bears and humans came together for any length of time. Decline of the grizzly population was a result of many factors, including unregulated market and subsistence hunting, precious metal exploration and mining, railroad construction, homesteading, predator control, and loss of habitat related to farming, ranching and human settlement. At the time, most of the killing of bears was a result of the feeling that they posed a threat to people and livestock.

By the late 1800's grizzly bears had disappeared from the prairie river bottoms, most broad, open mountain valleys, and foothill country. Grizzly bears were never eliminated from Montana but their numbers reached their lowest levels by the 1920's. Out of concern for the future of the species, changes began to emerge to help prevent eliminating the species all together. In 1923 grizzlies were listed as a "game animal" and prohibitions and seasons were put in place that allowed the grizzly to continue to survive in portions of western Montana. However, while restrictions were put into place to regulate hunting, little was being done to protect and conserve bear habitat.

The continual decline of grizzlies and concern over the status of the population in the lower 48 states resulted in the species being listed as "Threatened" in 1975 under the U.S. Endangered Species Act. In 1983, the Interagency Grizzly Bear Committee (IGBC) was created with the cooperative goal of recovering the grizzly bear population in the lower 48 states. Six ecosystems were identified for recovery (Figure 1), including the Cabinet-Yaak Ecosystem (CYE) of northwest Montana.

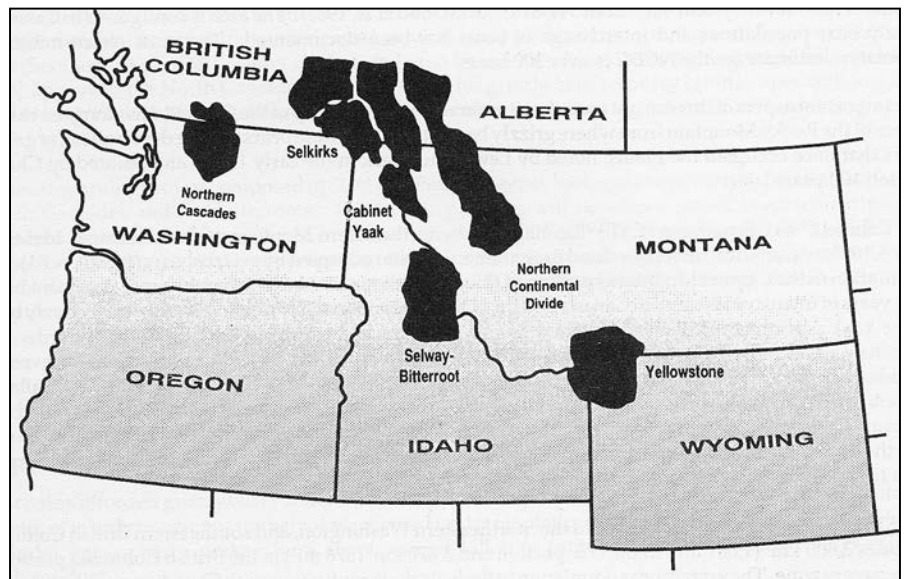


Figure 1: Map of grizzly bear recovery zones in the lower 48

The CYE is the second smallest designated recovery area of those identified by the IGBC. The CYE encompasses approximately 1,000 square miles in the Yaak River drainage and 1,600 square miles in the Cabinet Mountains. The ecosystem is bisected by the Kootenai River, with the Cabinet Mountains to the south and the Yaak River area to the north. Approximately 90% of the area is public land administered by the Kootenai, Lolo, and Idaho Panhandle National Forests. South of the Kootenai River, the Cabinet Mountains Wilderness encompasses 147 square miles of the ecosystem with elevations ranging from 3,000 feet to 8,738 feet atop Snowshoe Peak. Bear populations in the CYE are linked to populations in the Purcell Mountains of British Columbia

### Grizzly Bears in the Cabinet-Yaak Ecosystem

In western Montana, breeding of grizzlies occurs between May and July with an average of 2 cubs born in the den the following winter. Offspring remain with females for 2-3 years before being weaned. Male grizzlies do not become sexually mature until 4.5 years of age, and females typically do not produce their first litter until at least 5.5 years of age. Assuming a female bear successfully reproduces twice in the first 10 years of her life, she would contribute two litters, with only a 50% chance of survival of the cubs, to the total population (MFWP 2006). This limited reproductive capacity of grizzly bears prohibits rapid increases in population growth.

Grizzly bears are successful omnivores and will take advantage of foods rich in protein and carbohydrates to survive denning and post-denning periods. They are opportunistic feeders and will eat almost any available food including, roots, bulbs, tubers, fungi, berries, nuts, insects, ungulates, and carrion. In the CYE, huckleberries are a major source of late summer foods. Grizzlies also feed on hunter-wounded/killed animals and gut piles during the fall big game season and winter killed animals in the spring. However, meat typically comprises only 10-20% of their diet in a given year in the CYE (Kasworm and Thier 1993, Jacoby et al. 1999).

Grizzly bears generally lead solitary lives except when caring for young or during mating season. They do not defend home ranges or territories, resulting in the overlap of multiple bears' home ranges. However, bears typically use the same space at different times to avoid conflict. In areas where food sources are abundant (such as very large huckleberry patches), grizzlies will tolerate each other's presence, but social relationships are generally restricted to family groups of mother and offspring or of weaned siblings. Defense of space in grizzly bears is usually limited to surprise encounters, defense of young, or defense of a limited food source. These surprise encounters make up the majority of grizzly bear-related human injuries and deaths in the lower 48 states. Records indicate that since 1980 approximately 2-3 people per year were injured (less than 0.5 per year were killed) by grizzly bears in Glacier and Yellowstone National Parks (Gniadek and Kendall 1998; Gunther et al. 2004), areas with higher densities of both people and bears than in the CYE. There have been no known recorded human injuries or deaths by grizzly bears in over 35 years in the CYE (USFWS 2000).

The solitary lifestyle and habitat requirements for foraging, denning, and security result in large home ranges for grizzly bears. In the CYE an adult male grizzly bear life range averages about 500 square miles, while female life ranges average about 200 square miles (Kasworm et al. 2007).

### Grizzly Bear Recovery Program

To obtain information on population status and the habitat needs of grizzlies in the CYE, the U.S. Fish & Wildlife Service (USFWS), in cooperation with the U.S. Forest Service (USFS) and Montana Fish, Wildlife & Parks (MFWP), initiated a long-term study in 1983 in the Cabinet Mountains. The objectives of this study focused initially on general ecology and populations of grizzly bears (Kasworm and Manley 1988). As part of the research and monitoring of grizzlies in the area, population estimates of grizzlies were made for the CYE based on observations of bears, bear sign, capture and radio-collar data, and from DNA hair sampling.

Observations and captures of grizzly bears by study personnel in the Cabinet-Yaak study area were examined to evaluate minimum population size (Kasworm et al 2007). The total number of animals identified in the Yaak study area during 1998-2006 was 44, while known mortality during this time numbered 20, suggesting a population of at least 24. Similar observations, captures, and photographic information from the Cabinet Mountains for 2001-2006 identified 19 different bears less 3 mortalities leave a minimum estimate of 16 bears. Based on these data, it would appear that the Cabinets population is now composed of a minimum of 16 individuals and a conservative estimate for the minimum population of the CYE is at least 40 grizzly bears. The Grizzly Bear Recovery Plan indicates that when there are approximately 100 grizzlies in the CYE the population will be considered recovered (approximately one bear per 26mi<sup>2</sup>) (USFWS 1993).

As managers became concerned about the ability of the small Cabinet population to recover itself they began researching the effectiveness of grizzly bear augmentation (the transplanting of bears from one area to another), to determine if this would ultimately contribute to the health of the population through reproduction (USFWS 1990). As an initial test of the augmentation program, 4 young female grizzly bears with no history of human conflicts were captured in the Flathead River Valley of British Columbia and released in the main Cabinet Mountains from 1990-1994. The results were positive. None of the augmented bears exhibited unwanted behaviors, three satisfied the short-term goal of remaining in the target area for at least one year, and one bear was known to have successfully reproduced (Kasworm et al. 2007). Therefore, 4 more young females, again with no history of human-conflicts, were captured in the Flathead River system in Montana and released into the west Cabinet Mountains, one in 2005 and 2006 and 2 in 2008. Augmentation efforts are ongoing and additional young female bears with no history of human conflicts are planned for transplant in the future.

Despite efforts to increase grizzly bear numbers during the past 3 decades, human-caused mortalities appear to be the primary cause in limiting population growth (Kasworm et al. 2007). These human-caused mortalities have included mistaken identity during black bear hunting season, self-defense, management removal of human-food habituated bears, collisions with trains, and poaching. Since 1999 there have been 19 known human caused grizzly bear mortalities in the CYE (including a portion of British Columbia). Given that the estimated minimum population of the CYE is at least 40 grizzly bears, grizzly bear mortality is exceeding the growth rate. While the grizzly bear population appears to have increased in localized areas since the onset of the grizzly bear recovery program, at present because of the numbers of grizzly bear mortalities, the overall population appears to be in decline.



In order to assure that citizens were involved in agency management of grizzly bears in the CYE a local citizen group was formed in 1988, prior to the start of grizzly bear augmentation efforts. The group is composed of local people as representatives for the public to voice views and concerns to the management agencies. Since then, public education and involvement efforts have been made to inform local people about recovery goals and efforts, and grizzly bear biology and behavior.

#### Lincoln and Sanders Counties

A majority of the CYE falls within Lincoln and Sanders counties of northwest Montana, which contain high proportions of federal and state lands (Lincoln County 77%, Sanders County 65%). This high percentage of public land affects settlement and land development patterns, human population density, and natural resource industries.

Lincoln County is approximately 3,600 square miles in size, with approximately 19,100 residents. The population increased by 1.4 % between 2000 and 2004 (2004 U.S. Census Bureau). Libby is the only city in Lincoln County that exceeds a population of 2,000 people (~2,600). Sanders County is smaller at 2,760 square miles and a population of about 10,900 people. The population increased by 7% between 2000 and 2004, according to the U.S. Census Bureau. There are no towns that exceed a population of 2,000 people in Sanders County. The county seat, Thompson Falls, has the largest population of approximately 1,300 people.

As with many other counties in northwest Montana, Lincoln and Sanders counties have experienced social, economic and population changes that sensitize residents to natural resource use. Population composition is changing in part because of an in-migration of new residents and an out-migration of established residents and their adult children. Older residents account for an increasingly larger portion of the total regional population (USFS 1995).

Extraction of natural resources on public lands has made significant contributions to the local economies. There is significant economic dependency of the region on the natural resources of the Kootenai National Forest, however the industries based on extraction or harvesting of these resources (mining, timber, agriculture) have declined. Residents also use National Forest lands for hiking, horseback riding, skiing, camping, snowmobiling, hunting, fishing, firewood collection, berry picking, birding, wildlife viewing, and other non-extractive uses of natural resources.

Residents in both counties share concerns about preservation of the rural character of communities, personal freedoms, and local lifestyles. As a result, controversy often develops over policies and actions that involve regulation, restriction, or enforcement of state or federal mandates, such as the public land restrictions required as a result of grizzly bear recovery efforts.

#### Public Opinion and Knowledge Survey of Grizzly Bears in the CYE

Grizzly bears are often portrayed as dangerous predators. In fact, they are reclusive and rarely aggressive. Grizzly bears will act aggressive if they are startled or feel threatened around cubs or food sources. There has been limited research done on the social aspects of grizzly bear recovery in the CYE and the social context for recovery is not well understood in these rural communities. It is unknown if the local public knows how to co-exist with grizzly bears and whether their

understanding of grizzly bear biology is accurate. Because human-caused mortality is a limiting factor to population growth, a survey that measures the public's understanding of grizzly bears and documents opinions on management can help identify where there is support for recovery efforts, areas of concern, and how future educational efforts can address concerns and misconceptions about grizzly bears.

This survey was the first step toward initiating a Cabinet-Yaak Grizzly Bear Outreach Project, modeled after the successful Grizzly Bear Outreach Project in the North Cascades of Washington state (Davis and Morgan 2005). The outreach project goal was to provide accurate information on grizzly bears and the grizzly bear recovery process so that local residents can have more informed opinions in regard to grizzly bear recovery efforts. Outreach would be conducted as a partnership effort between state and federal agencies, community organizations, and conservation organizations with an interest in grizzly bear recovery in the CYE. An important first step in the outreach effort was to conduct a public opinion and knowledge survey of Montana residents living in and around the Cabinet-Yaak Grizzly Bear Recovery Zone (Figure 2). This survey was designed to accomplish the following goals:

- Measure the public's understanding of grizzly bears in the CYE
- Provide a 'snapshot' of the knowledge and attitudes of grizzly bears that the residents of Lincoln County and Sanders County, Montana currently hold
- Provide managers a way to identify future information and education needs for the CYE
- Offer an opportunity for the local public to express their feelings about grizzly bear issues outside of a public meeting

This survey was funded by the IGBC Selkirk/Cabinet-Yaak Grizzly Bear Subcommittee, Montana Fish, Wildlife and Parks Landowner/Wildlife Resources Department, Yellowstone to Yukon Conservation Initiative, and the Fish and Wildlife Service: Spokane, Washington Office. This document contains the results of the *Public Opinion and Knowledge Survey of Grizzly Bears in the Cabinet Yaak Ecosystem* conducted in July/August of 2007.

## **SURVEY METHODOLOGY**

### Sample Selection

This survey was designed to gauge knowledge and opinions of Montana residents living in proximity to the CYE. The following communities and their surrounding rural areas that meet these criteria include: Libby, Troy, and Yaak in Lincoln County, Montana; Heron, Noxon, Thompson Falls, and Trout Creek in Sanders County, Montana.

The communities of Bonners Ferry, Idaho, and Eureka, Montana, are also in proximity to the CYE. However, they are geographically positioned between the CYE and another grizzly bear recovery area. Bonners Ferry, Idaho is positioned between the CYE and the Selkirk Ecosystem (SE) and Eureka, Montana is positioned between the CYE and the Northern Continental Divide Ecosystem (NCDE). Because the residents of these two communities might be unable to distinguish differences between management activities, recovery efforts, and recovery goals of the CYE, SE and NCDE, they were not included in the survey. The survey was intended to provide information for managers and citizens working to conduct outreach and educational

activities in Lincoln and Sanders County, Montana, therefore, the survey was limited to the Montana portion of the Recovery Zone.

### Survey Contact Method

A telephone survey was selected as the survey method, because of the commonality of telephone ownership and the predominant use of landline telephones in this area. Appropriate participants were identified using telephone prefixes, since only one prefix is used for each of the seven towns and surrounding areas. 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., Mountain Time. A five-callback design was used to avoid bias toward people that are easy to reach by telephone, and to provide an equal opportunity for all selected to participate. When a respondent could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day. The interview took approximately 15 minutes to complete. The survey was limited to adults over the age of 18

### Questionnaire Content

Content for the telephone interview questionnaire (Appendix A) was designed to assess attitudes and knowledge of grizzly bear recovery in the CYE. Content and format was based on a similar survey developed for residents of the North Cascades Ecosystem in Washington State (Davis and Morgan 2005), and was modified to address issues specific to the CYE and reviewed by local wildlife biologists and managers from U.S. Fish & Wildlife Service, U.S. Forest Service, Idaho Dept. of Fish and Game, and Montana Fish, Wildlife & Parks, local citizens, and conservation organizations with an interest in the CYE. Responsive Management, a public opinion research firm specializing in natural resource and outdoor recreation issues, was contracted to assist in survey design and implementation.

Survey questions were written with the understanding that not all survey participants would recognize the name given to the Cabinet-Yaak Grizzly Bear Recovery Zone/Cabinet-Yaak Ecosystem (CYE). Therefore, a description (i.e. the Cabinet Mountains and Yaak Valley) was used to indicate the same area throughout the survey. For this report we will use the term CYE, unless explicitly stated otherwise.

The questionnaire focused primarily on knowledge, opinions and informational sources about grizzly bears in the CYE, knowledge and support of grizzly bear recovery in the CYE, opinions about management activities in the CYE, and recreation in the CYE. Response opinions were classified using *strongly*, *moderately*, *neither/nor*, and *don't know*. Demographic information was also collected.

### Data Analysis

A statistical program (Statistical Package for the Social Sciences) was used to manage survey data and develop graphs of participant responses to questions. The sample size for the survey (n=502) provided good statistical power for analyzing results. Responses based on age, gender, family dependency on forest related industries, awareness of road restrictions, belief in current abundance of grizzly bears in the CYE, and belief of percent of meat in a grizzly bears diet were cross-tabulated with questions on grizzly bear knowledge, general support and recovery efforts. Cross-tabulating looks for the relationship between two variables (i.e. respondent age and

support for grizzly bear recovery), provides a basic picture of how those variable inter-relate, and helps search for patterns of interaction.

Results are accurate within plus or minus 4%. Percentages were rounded to the nearest whole number, resulting in the sum of responses appearing to be 100% +/- 1.

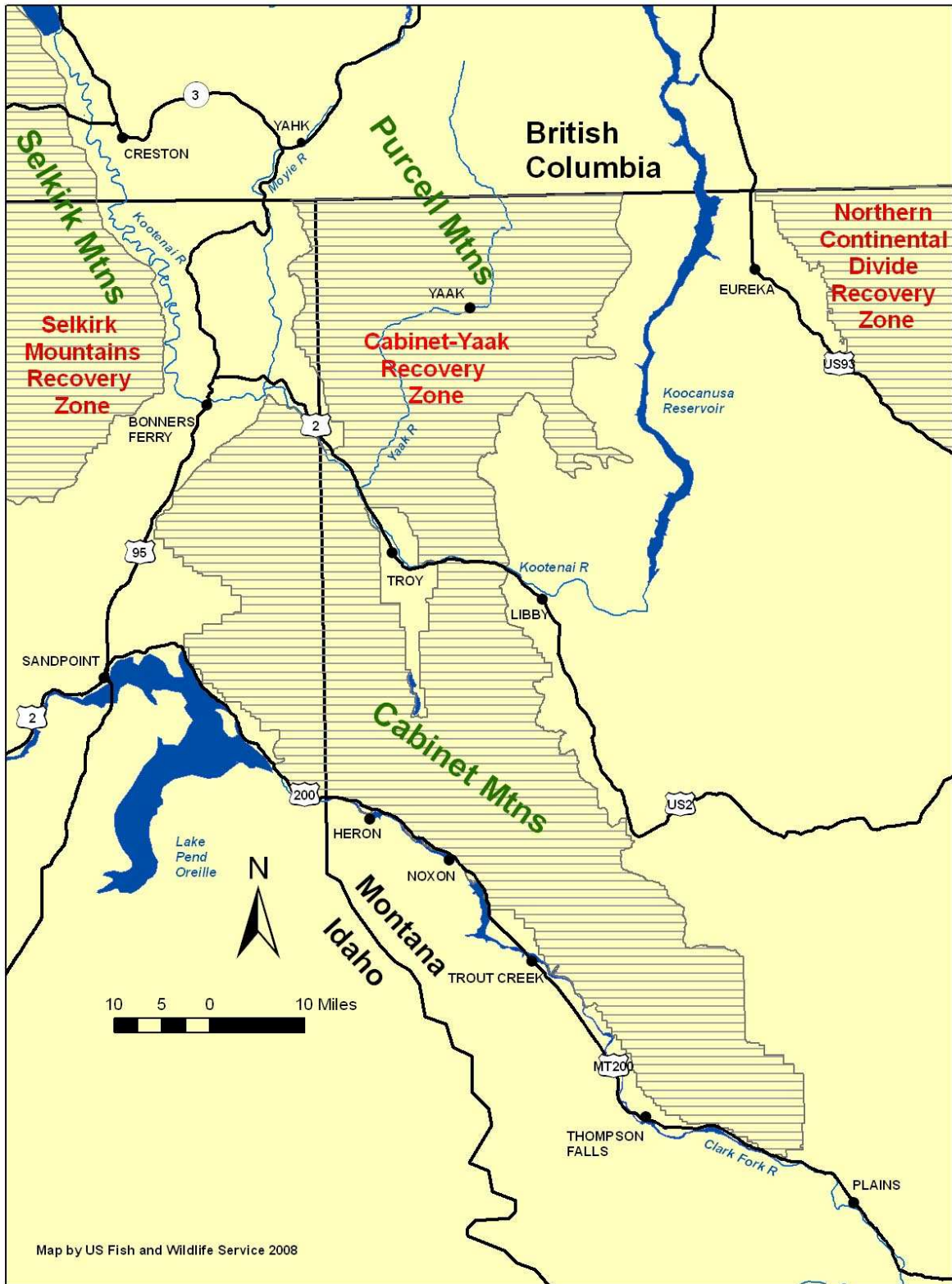


Figure 2: Map of communities in and near the CYE

## RESULTS

Responsive Management conducted the survey during July and August of 2007 with 502 completed interviews (Table 1). The participation rate (i.e. the number of individuals actually contacted) was 84.5%. Forty-four individuals (7% of those contacted) declined to participate in the survey and 48 individuals (8% of those contacted) terminated the survey after the interview began. Individuals with a well-formed opinion on the survey topic may have been more likely to complete the entire survey (Davis and Morgan 2005).

TYPE OF CALL	NUMBER
Completed Interviews	502
Terminated Interviews	48
Refusals	44
Answering Machines	345
<b>Total Eligible Numbers</b>	<b>939</b>
Not Eligible	28
Disconnected Numbers	1,431
Business/Government Numbers	362
Deaf/Language Barrier Calls	6
<b>Total Not Eligible Numbers</b>	<b>1,827</b>

**Table 1: Summary of Attempted Contacts made by Responsive Management in 2007**

### Knowledge and opinions of grizzly bears

Respondents generally believed that grizzly bears are a symbol of our national heritage and therefore should be preserved (Figure 3). Fifty-four percent of respondents also believed that grizzly bears are very dangerous to humans (Figure 4). The belief that grizzly bears are very dangerous to humans was cross-tabulated with questions that asked the respondent's age, opinions on the amount of meat in a grizzly bears diet, and on the relative abundance of grizzly bears in the CYE (Figures 5, 6 & 7). Except for the youngest and eldest age groups, there were few considerable differences between age categories for those who agreed or disagreed that grizzly bears were dangerous. Respondents who believed that meat is a large component of a grizzly bears diet and that grizzly bears are more abundant now than 100 years ago appear more likely to agree that grizzly bears are very dangerous to humans.

Respondents accurately indicated that the most likely reasons grizzly bears would attack a person are to protect a bear cub (39%), a result of a surprise encounter (38%), or because it was seeking or protecting a food source (31%) (Figure 8). The majority of respondents (40%) were unable to determine the number of people in the lower 48 states that are injured or killed by grizzly bears every year. However, 17% accurately stated that the number was 2-3 people (Figure 9). Eighty-seven percent of respondents correctly stated that killing a grizzly bear in defense of human life was legal (Figure 10).

Grizzly bears are a symbol of the American frontier and should be preserved as part of our national heritage. Do you agree or disagree with this statement?

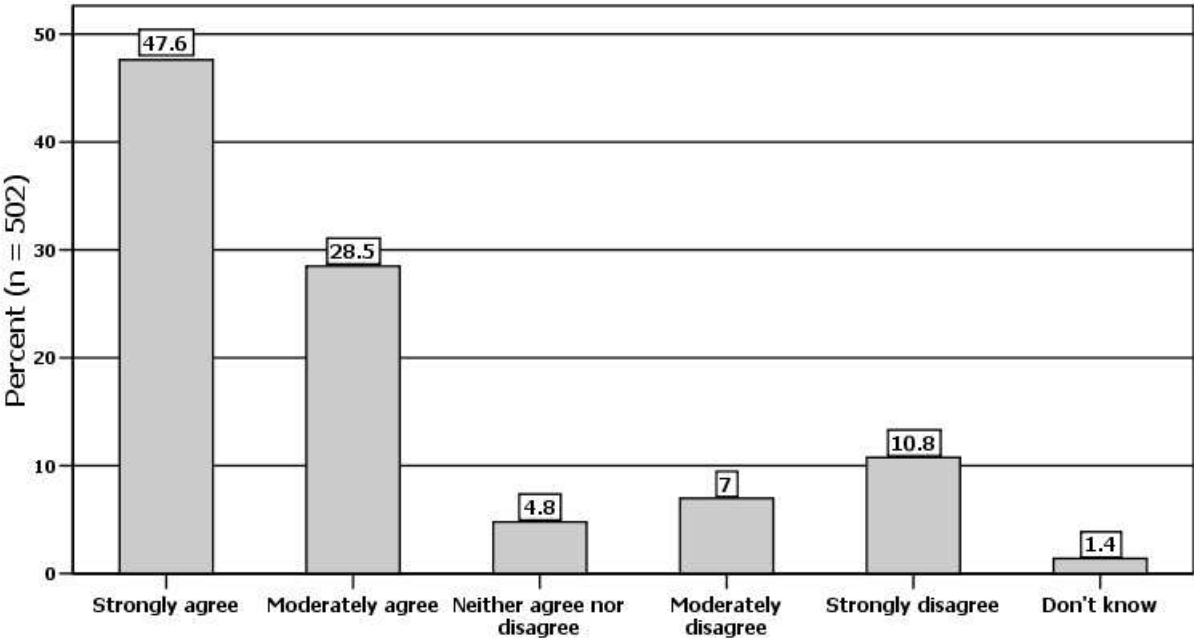


Figure 3: Grizzly bears are a symbol of national heritage

Grizzly bears are very dangerous to humans. Do you agree or disagree with this statement?

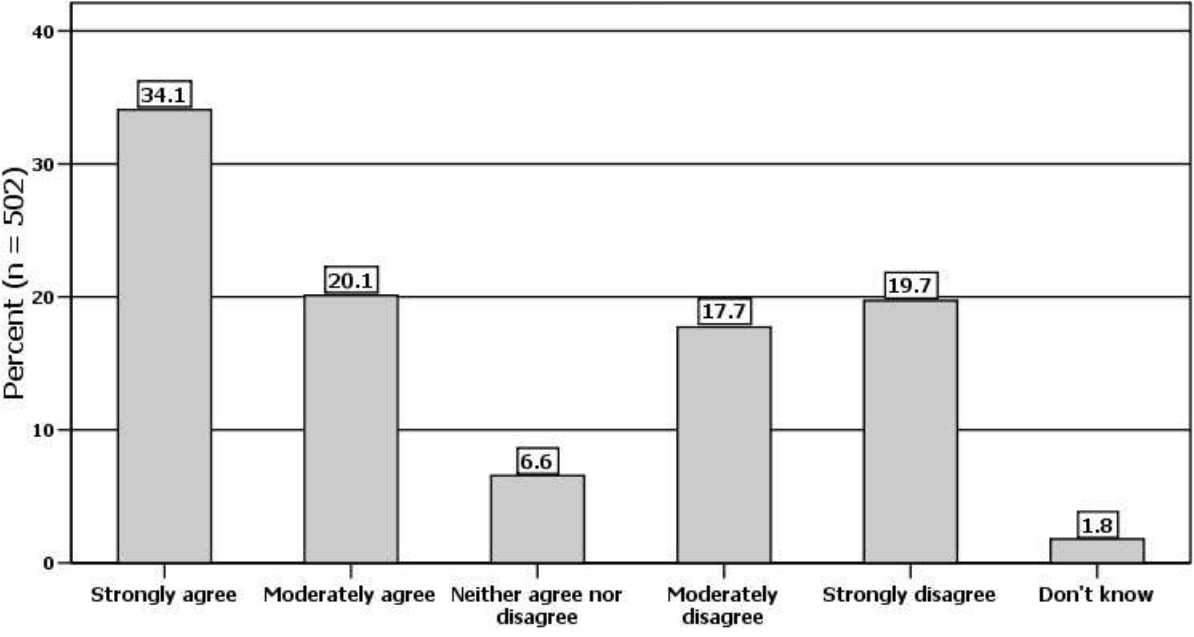


Figure 4: Grizzly bears are dangerous to humans

Grizzly bears are very dangerous to humans. Do you agree or disagree with this statement?

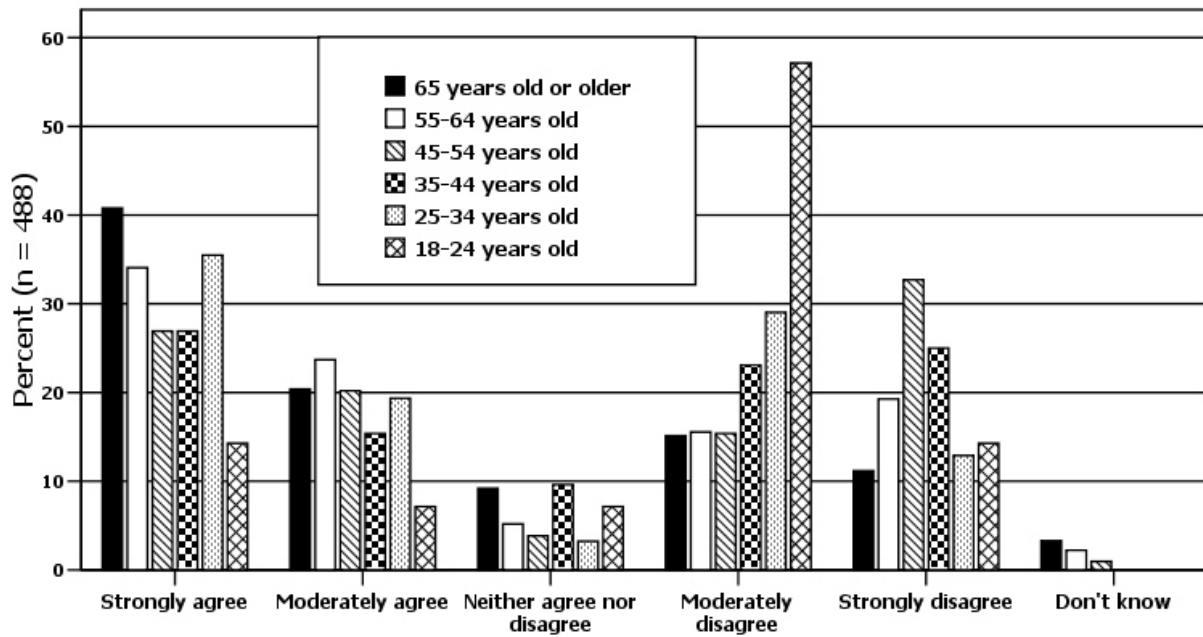


Figure 5: Dangerous compared to age

Grizzly bears are very dangerous to humans. Do you agree or disagree with this statement?

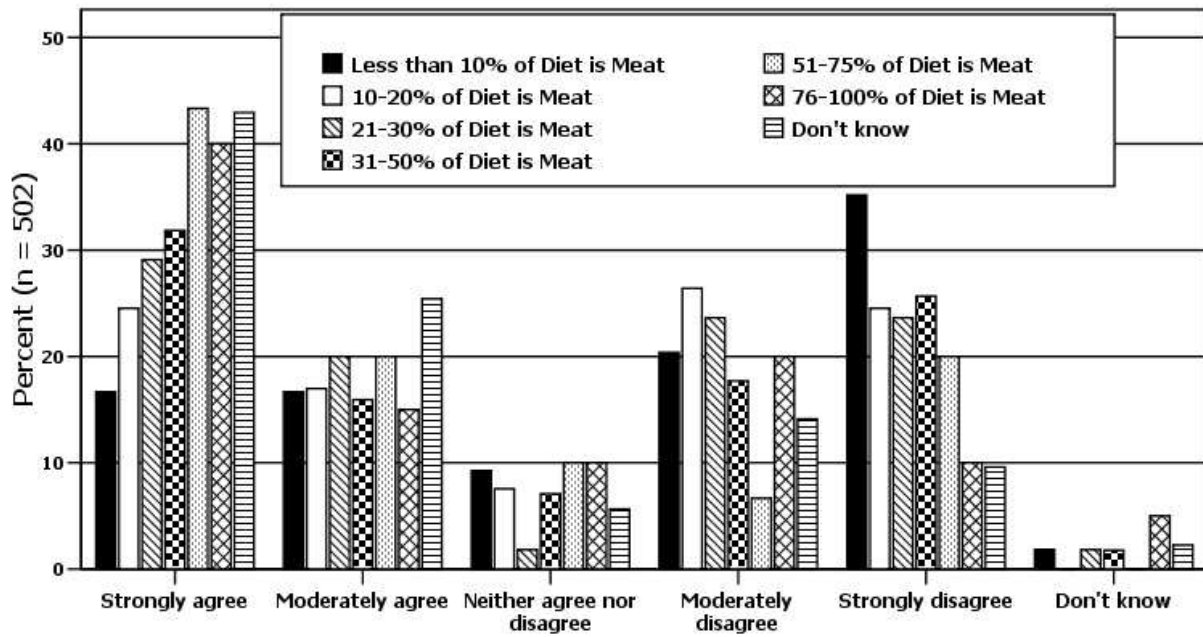


Figure 6: Dangerous compared to meat in diet



Grizzly bears are very dangerous to humans. Do you agree or disagree with this statement?

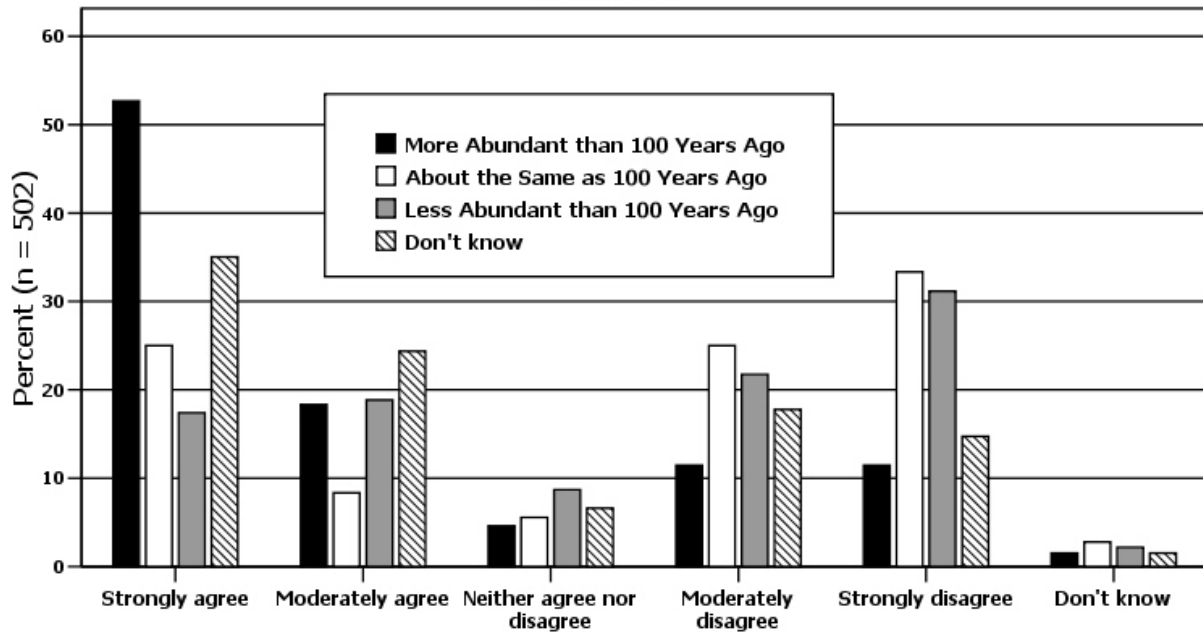


Figure 7: Dangerous compared to abundance

In your opinion, what are the most likely reasons a grizzly bear may injure or kill a human?

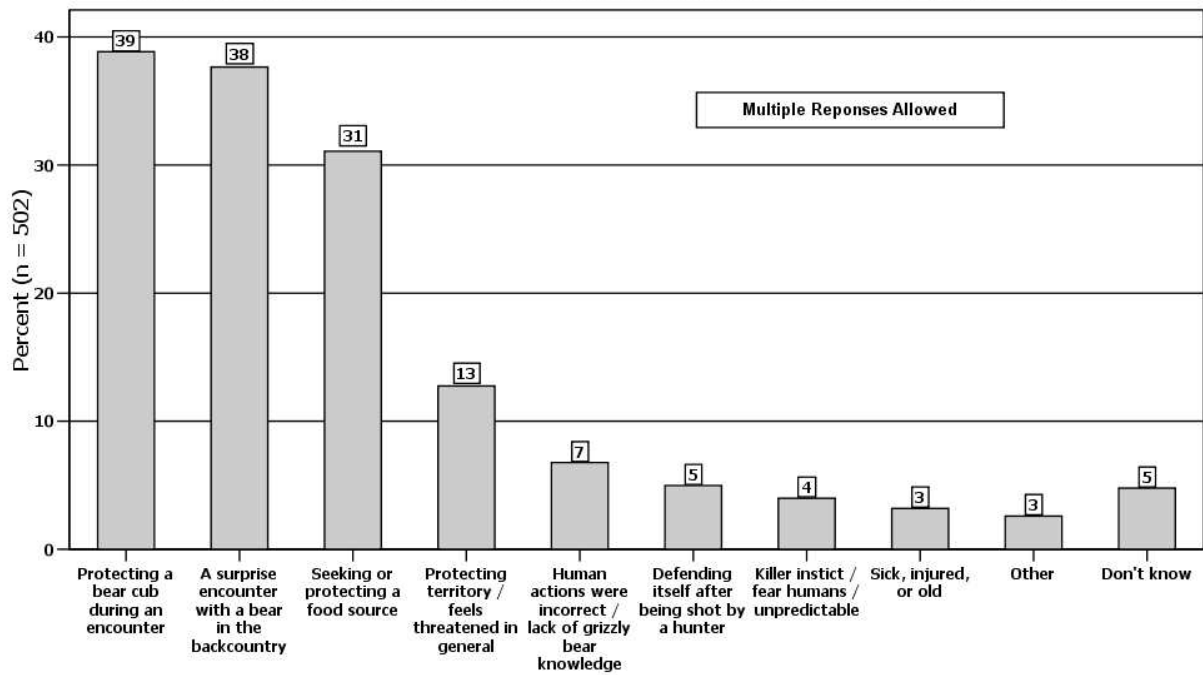


Figure 8: Reasons for injury to humans

How many people would you say are injured or killed by grizzly bears in the lower 48 states every year? Please do not include numbers from Alaska or Canada.

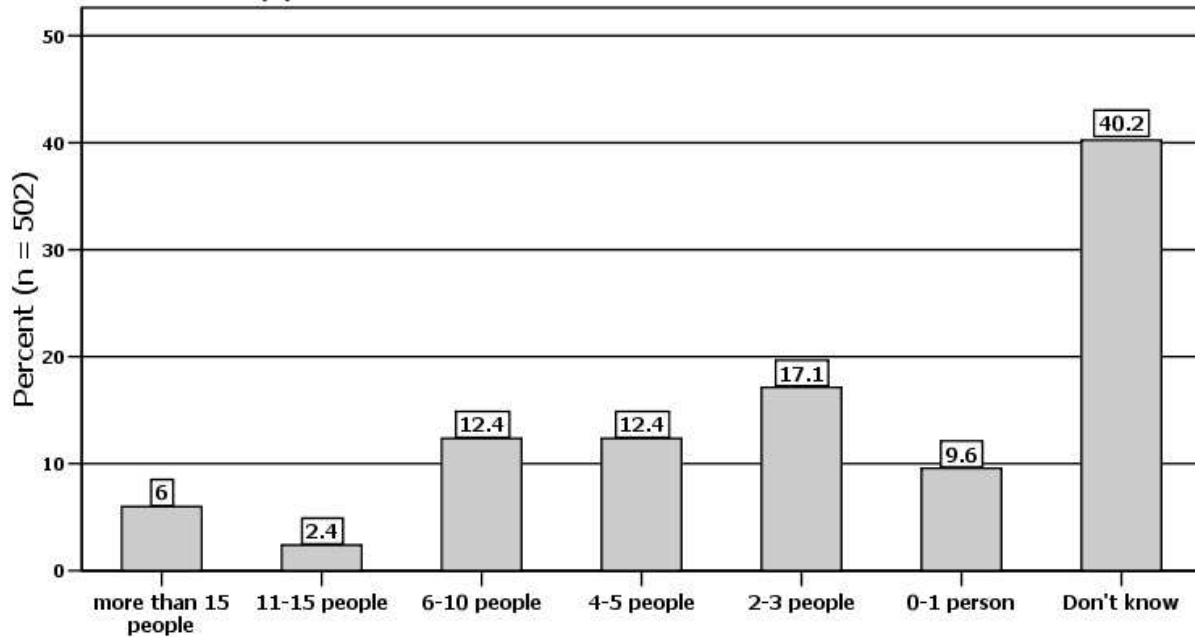


Figure 9: People injured or killed each year

Grizzly bears are protected under the Endangered Species Act. Do you think it is legal or illegal to kill a grizzly bear in defense of human life?

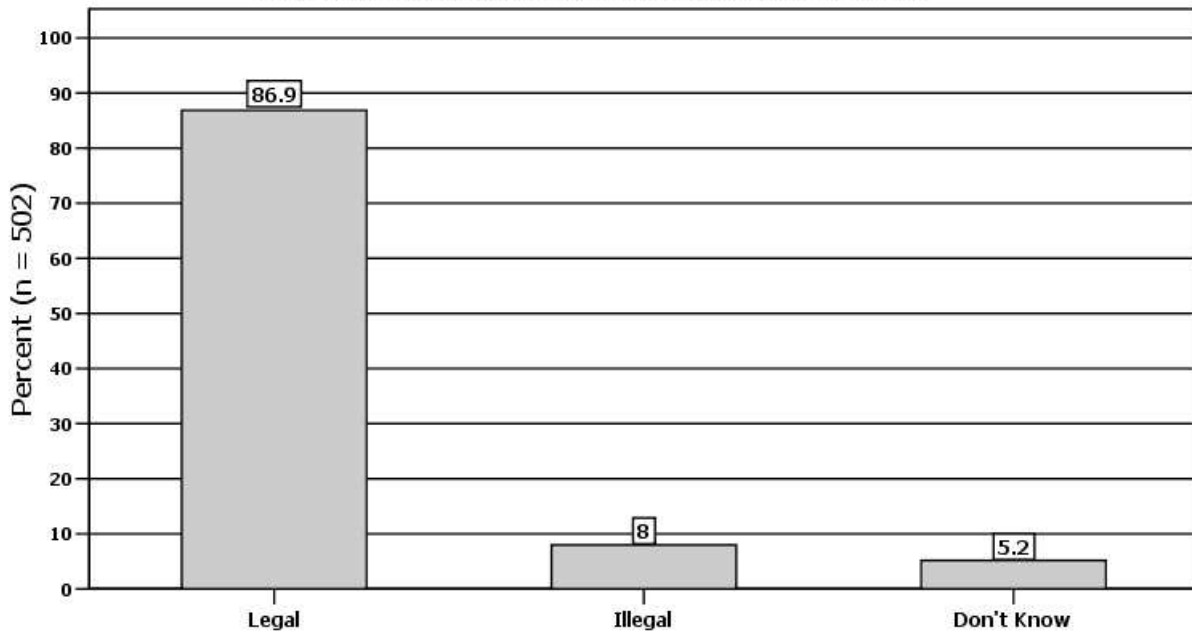


Figure 10: Legal or illegal to kill under the ESA

### Grizzly bears in the CYE

Forty percent of respondents believed they have seen a grizzly bear in the CYE (Figure 11) and 35% of those believe they have seen one within the last year. Seventy percent of respondents believed that grizzly bears have an inherent right to live in the CYE (Figure 12). When the question was phrased in a negative context the response was similar (Figure 13). The belief that grizzly bears have an inherent right to live in the CYE was cross-tabulated with questions that asked the respondent's age, awareness of road restrictions, family forest dependency, opinion on the amount of meat in a grizzly bears diet and on the relative abundance of grizzly bears in the CYE (Figures 14, 15, 16, 17 & 18). At the level of agree or disagree, there did not seem to be considerable differences between age groups or family forest dependency. Respondents who were aware of road restrictions appear less likely to agree that grizzly bears have a right to live in the CYE. Respondents that believed meat was a large component of a grizzly bears diet also appeared to be slightly less supportive of grizzly bears right to live in the CYE. Respondents that believed grizzly bears are more abundant now than 100 years ago were less supportive of a grizzly's inherent right to live in the CYE than those that believed grizzly bears to be less abundant than 100 years ago.

Studies suggest that meat in the diet of grizzly bears in the CYE is typically 10-20% annually. Eleven percent of respondents accurately identified this as the amount of meat in a grizzly bear's diet, while the majority (35%) of respondents said they did not know (Figure 19)

While 32% of respondents believe that there is sufficient habitat in the CYE to support more than the current number of grizzly bears, thirty-eight percent of respondents disagree (Figure 20).

When respondents were asked if grizzly bears were more abundant or less abundant today than they were 100 years ago, the majority (39%) said they did not know. Twenty-six percent thought that grizzly bears were more abundant, but 27% accurately responded that grizzly bears are less abundant (Figure 21). Opinions on the relative abundance of bears in the CYE was cross-tabulated with questions that asked the respondents awareness of road restrictions, family dependency upon forestry, and opinions on the amount of meat in a grizzly bears diet to examine trends in the responses (Figures 22,23 & 24). Respondents that were very aware of road restrictions were somewhat more likely to respond that grizzly bears are more abundant now than 100 years ago than those respondents less aware of road restrictions. Twice the number of respondents who stated that their families were dependent on forestry appeared to believe grizzly bears are more abundant in the CYE now, compared to families that are not forestry dependent. Respondents that believed that meat makes up a large proportion of a grizzly bears diet appeared to be somewhat more likely to believe that grizzly bears are more abundant now than they were 100 years ago.

Sixty-four percent of respondents supported having grizzly bears in the CYE, with 24% in opposition (Figure 25). When those opposed to grizzly bears in the CYE were asked to state a reason why, 46% felt that grizzly bears are dangerous animals and 25% felt that it was too difficult to manage or coexist with grizzly bears (Figure 26). Fifty-seven percent of respondents stated that they derive satisfaction from just knowing grizzly bears are in the CYE (Figure 27). Opinions on support of grizzly bears in the CYE were cross-tabulated with questions that asked the respondents age, awareness of road restrictions, family dependency upon forestry, opinions

on the amount of meat in a grizzly bears diet and opinions on the relative abundance of grizzly bears in the CYE now compared to 100 years ago to examine trends in the responses (Figures 28, 29, 30, 31 & 32). At the level of support or opposition (regardless of whether it was strong or moderate), support for grizzly bears in the CYE appeared to decrease as age of the respondent increased. There were few outstanding differences from respondents who were aware of road restrictions, family forest dependency, or from the opinions on the percentage of meat in a grizzly bears diet. There was dramatically greater support for grizzly bears in the CYE from those respondents who believe that grizzly bears are less abundant now than 100 years ago. When asked about their feelings towards grizzly bears, 36% stated that they liked knowing that grizzly bears were in the area (Figure 33). Of those that support having grizzly bears in the area, 35% said that grizzly bears are part of nature and deserve to live (Figure 34). Fifty-eight percent of respondents disagreed with the statement that grizzly bears from the Cabinet Mountains and Yaak Valley kill many livestock (Figure 35).

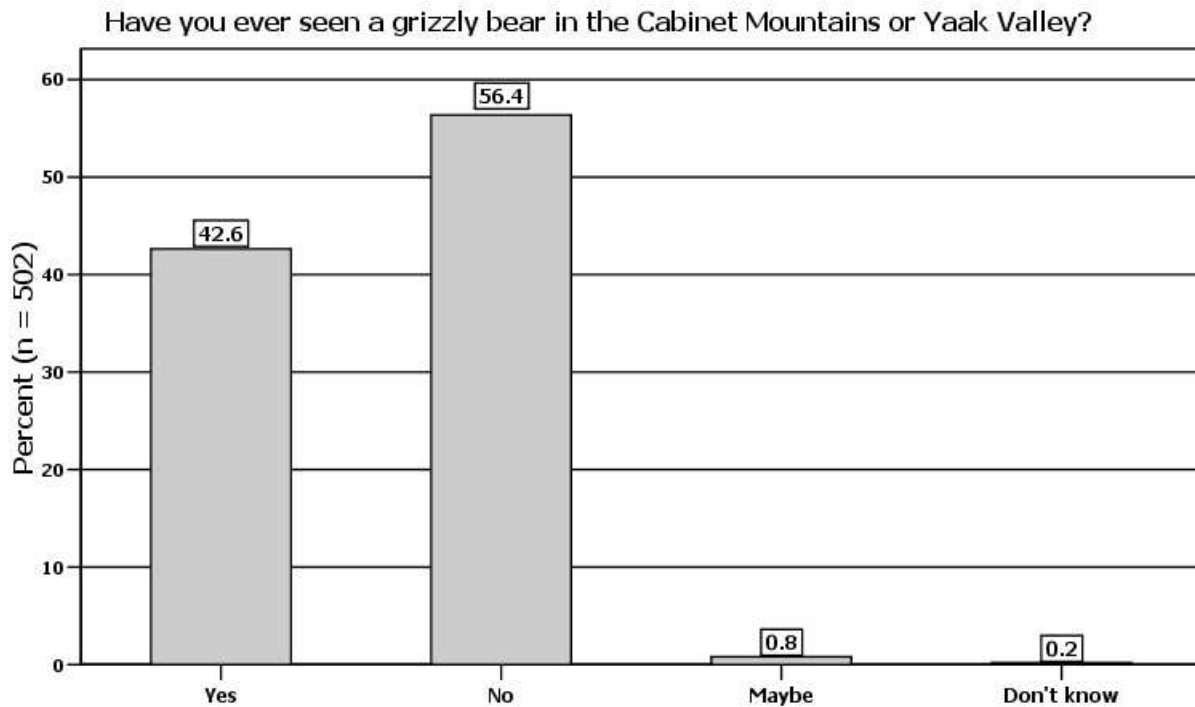


Figure 11: Grizzly bear sighting by respondents

Grizzly bears were here before humans and have an inherent right to live in the Cabinet Mountains and Yaak Valley. Do you agree or disagree with this statement?

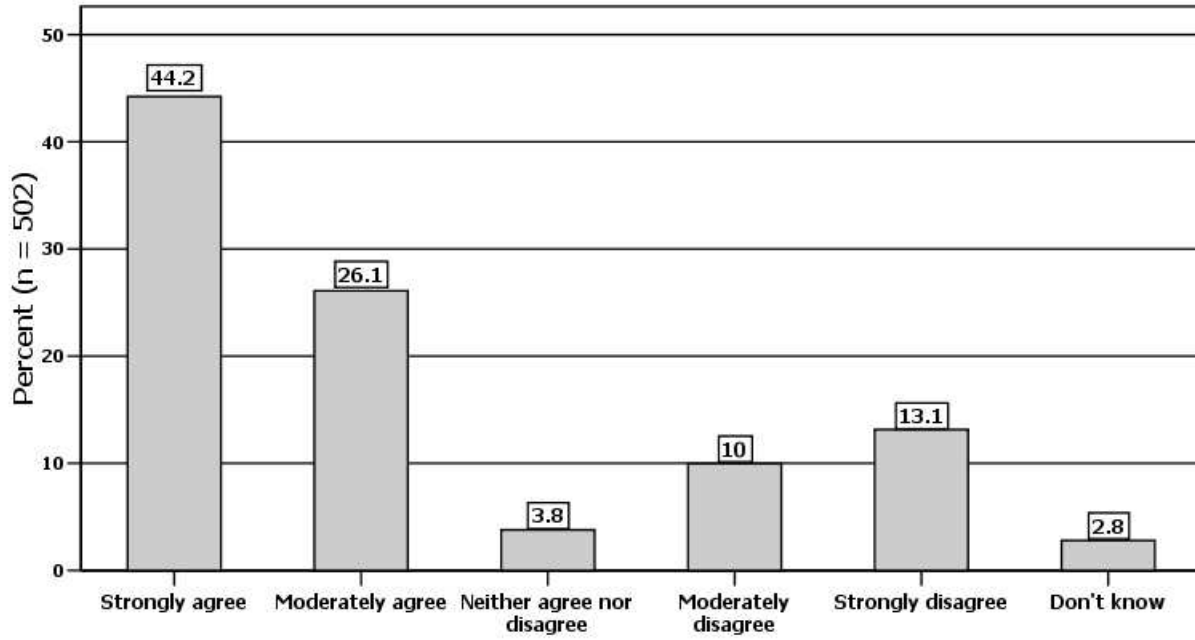


Figure 12: Inherent right to live in CYE

Grizzly bears do not belong in the Cabinet Mountains and Yaak Valley. Do you agree or disagree with this statement?

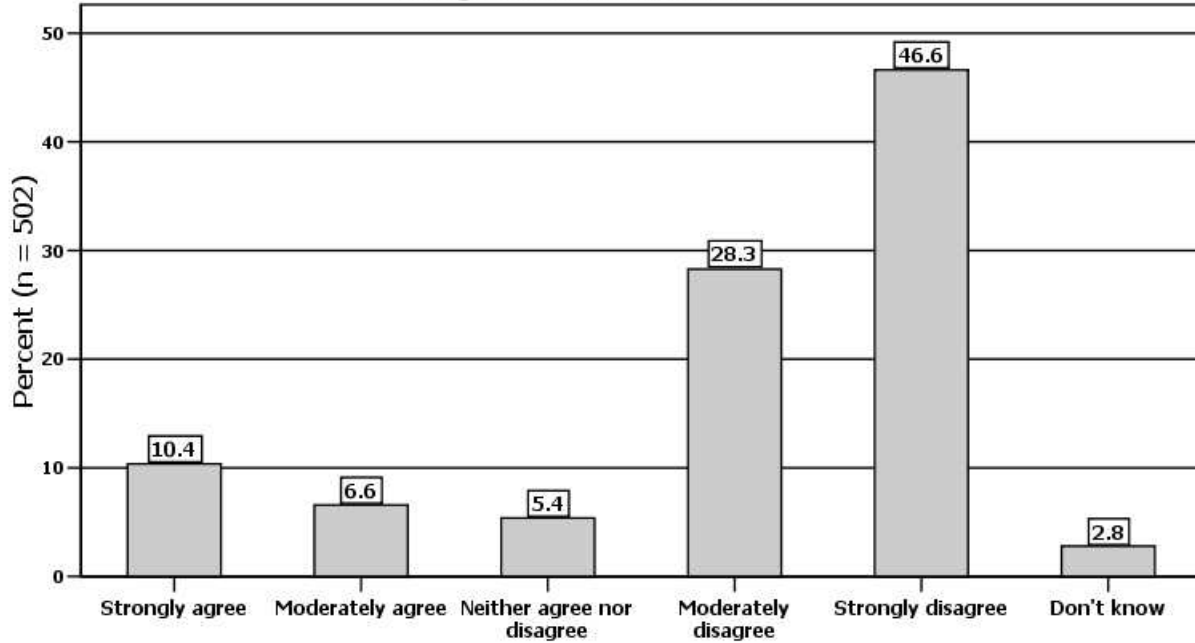


Figure 13: Grizzly bears do not belong in the CYE

Grizzly bears were here before humans and have an inherent right to live in the Cabinet Mountains and Yaak Valley. Do you agree or disagree with this statement?

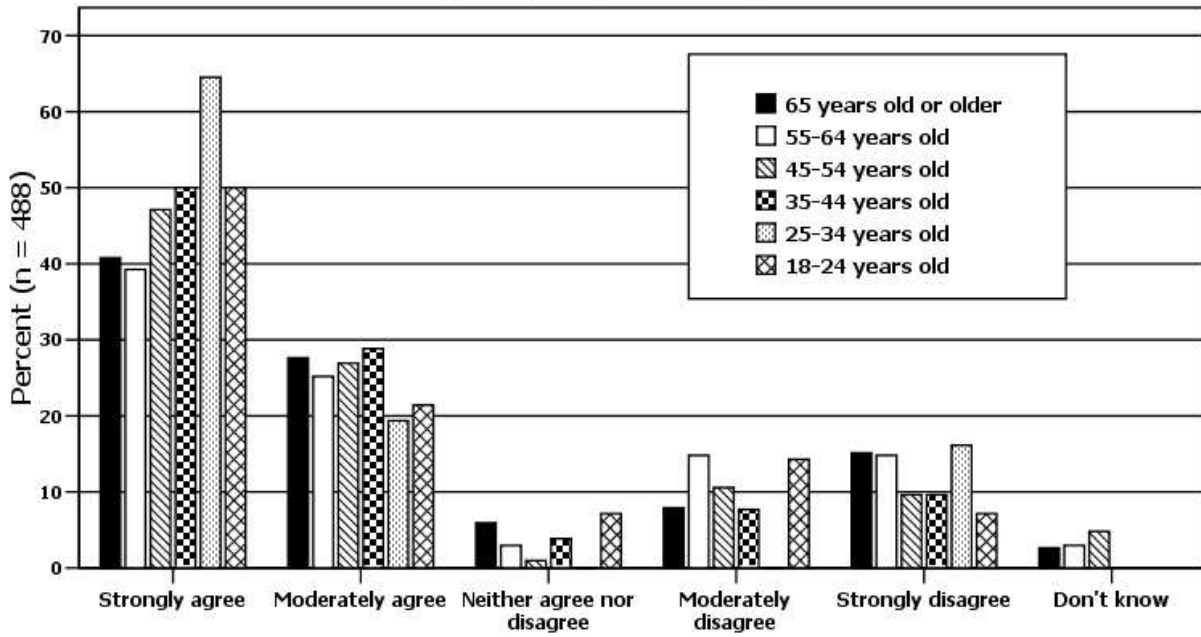


Figure 14: Inherent right compared to age

Grizzly bears were here before humans and have an inherent right to live in the Cabinet Mountains and Yaak Valley. Do you agree or disagree with this statement?

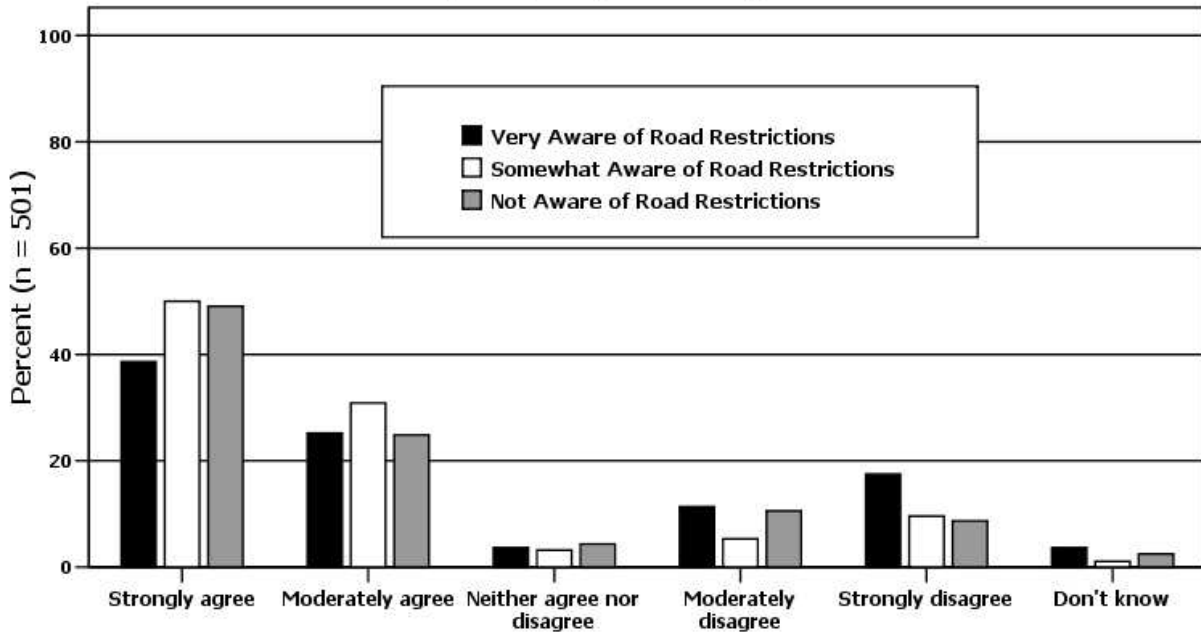


Figure 15: Inherent right compared to awareness of road restrictions

Grizzly bears were here before humans and have an inherent right to live in the Cabinet Mountains and Yaak Valley. Do you agree or disagree with this statement?

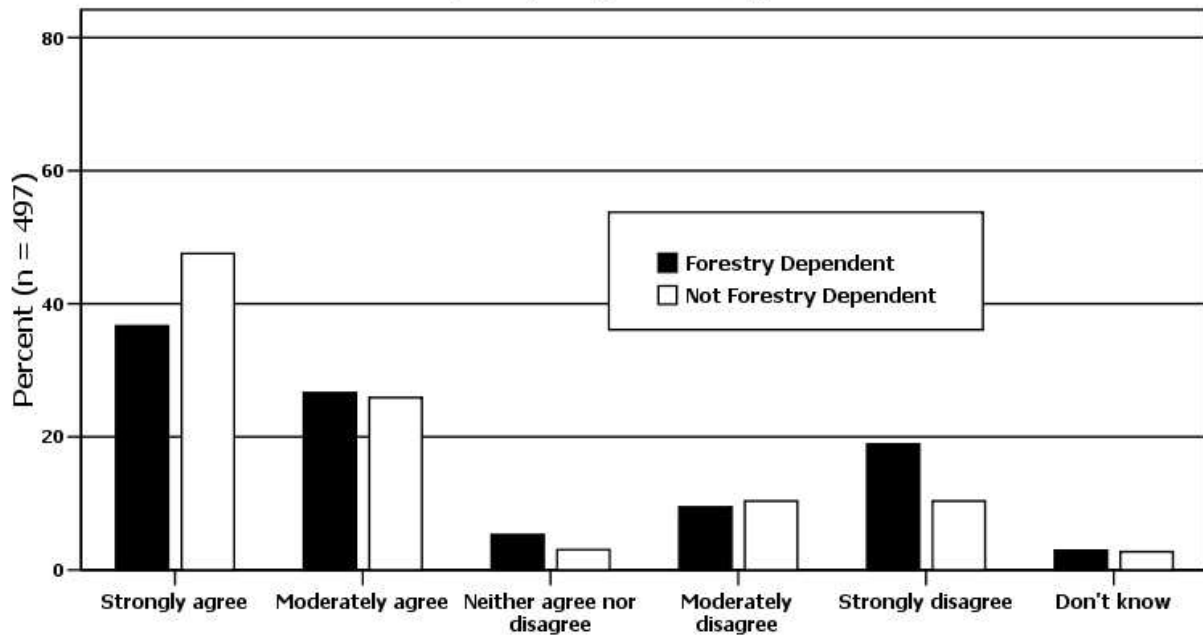


Figure 16: Inherent right compared to forestry dependence

Grizzly bears were here before humans and have an inherent right to live in the Cabinet Mountains and Yaak Valley. Do you agree or disagree with this statement?

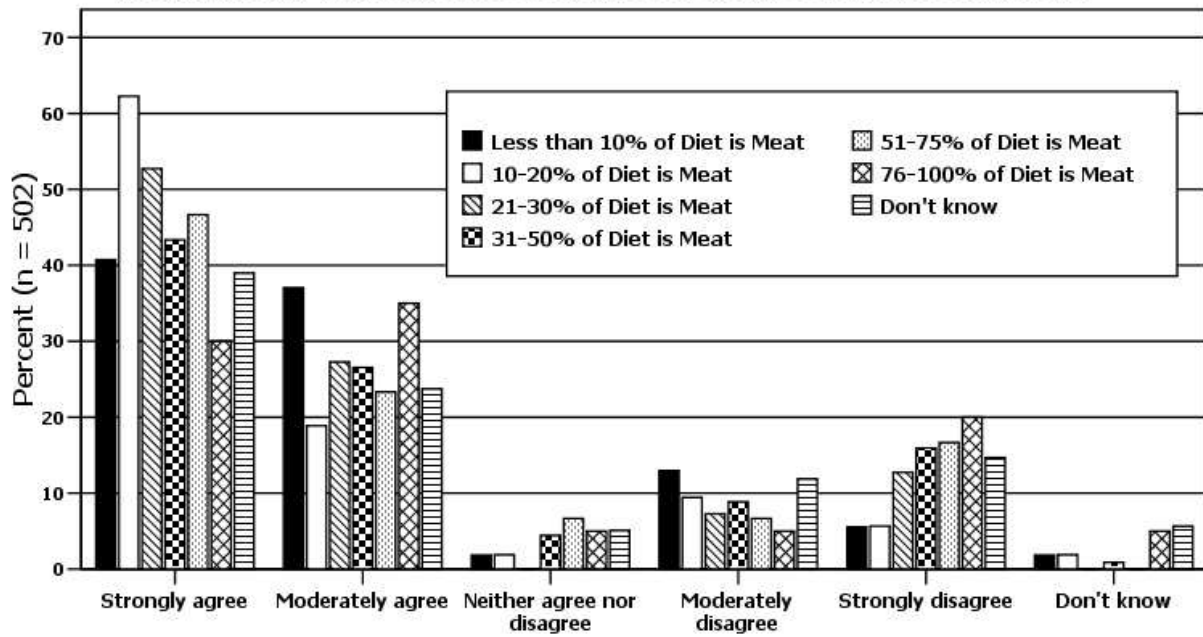


Figure 17: Inherent right compared to meat in diet

Grizzly bears were here before humans and have an inherent right to live in the Cabinet Mountains and Yaak Valley. Do you agree or disagree with this statement?

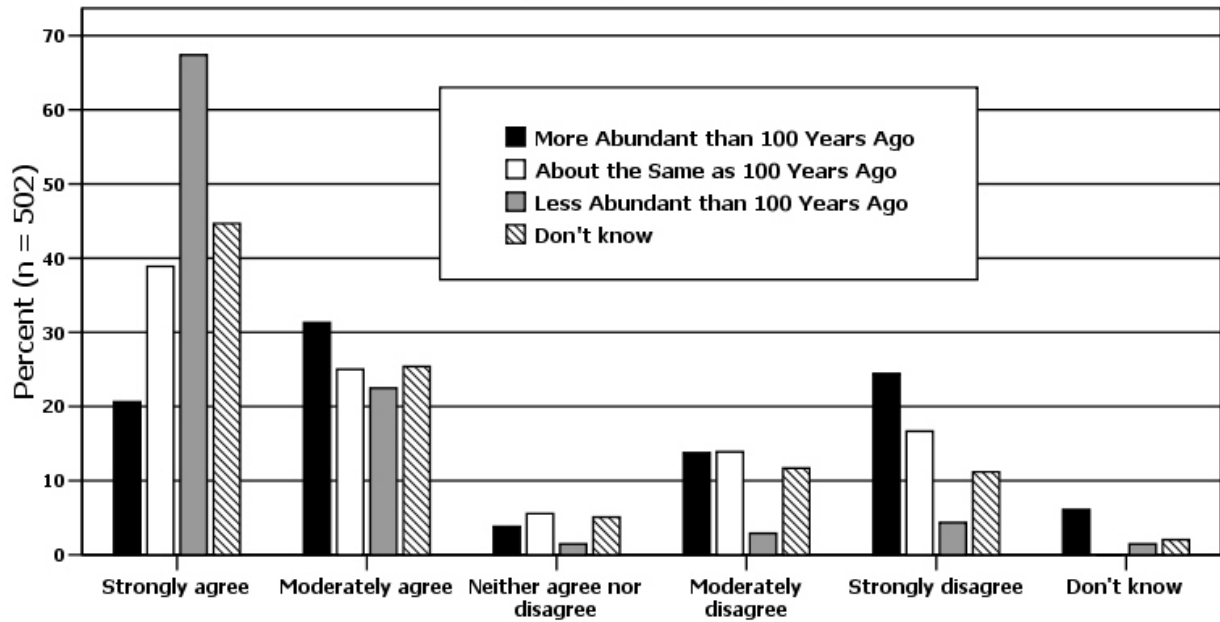


Figure 18: Inherent right compared to abundance of grizzly bears

For grizzly bears in the Cabinet Mountains and Yaak Valley, what percent of their diet do you think is meat?

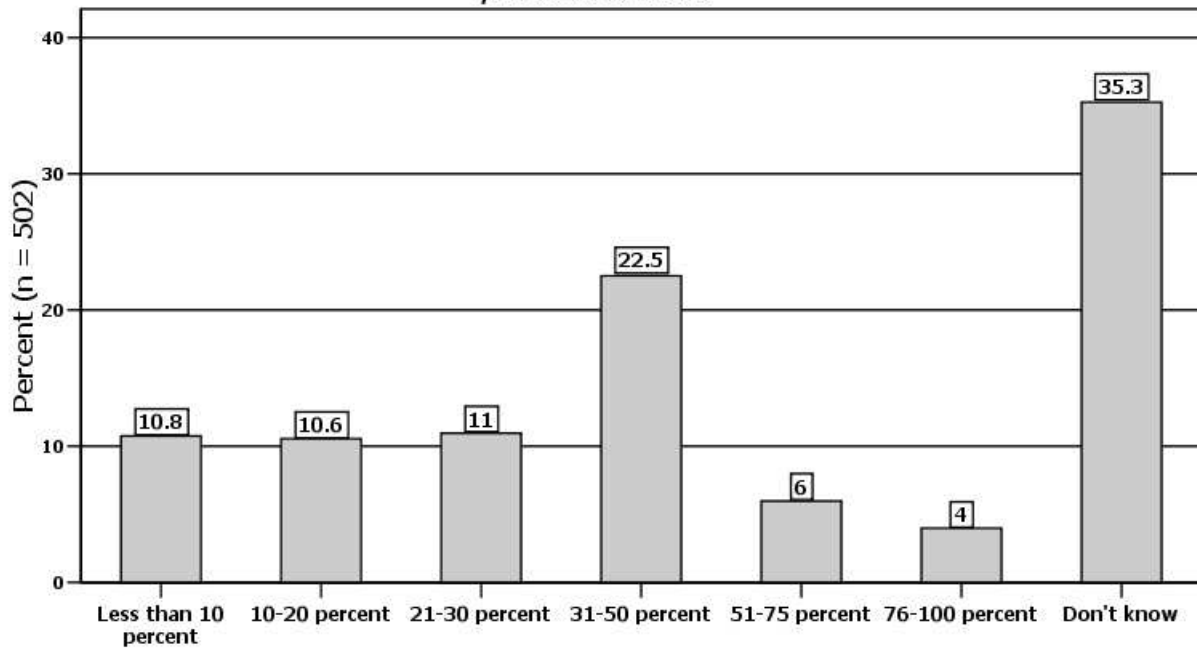


Figure 19: Percent of meat in diet



The habitat in the Cabinet Mountains and Yaak Valley can support more grizzly bears than are currently there now. Do you agree or disagree with this statement?

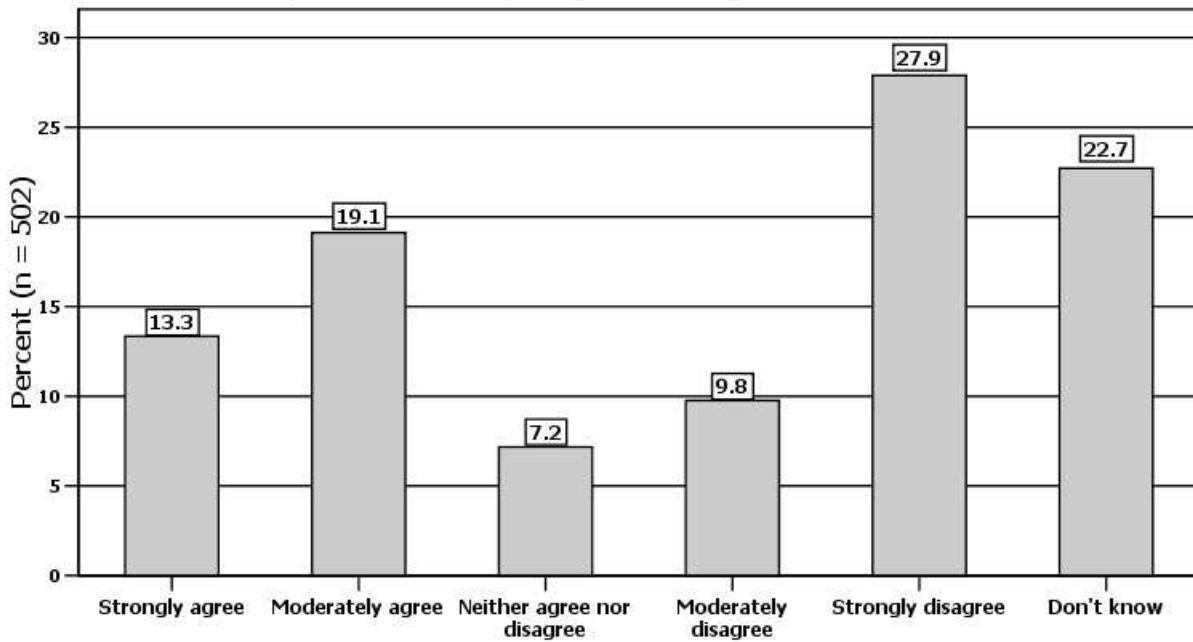


Figure 20: Habitat in CYE can support more grizzly bears

Would you say grizzly bears are more abundant, about the same, or less abundant in the Cabinet Mountains and Yaak Valley today than they were 100 years ago?

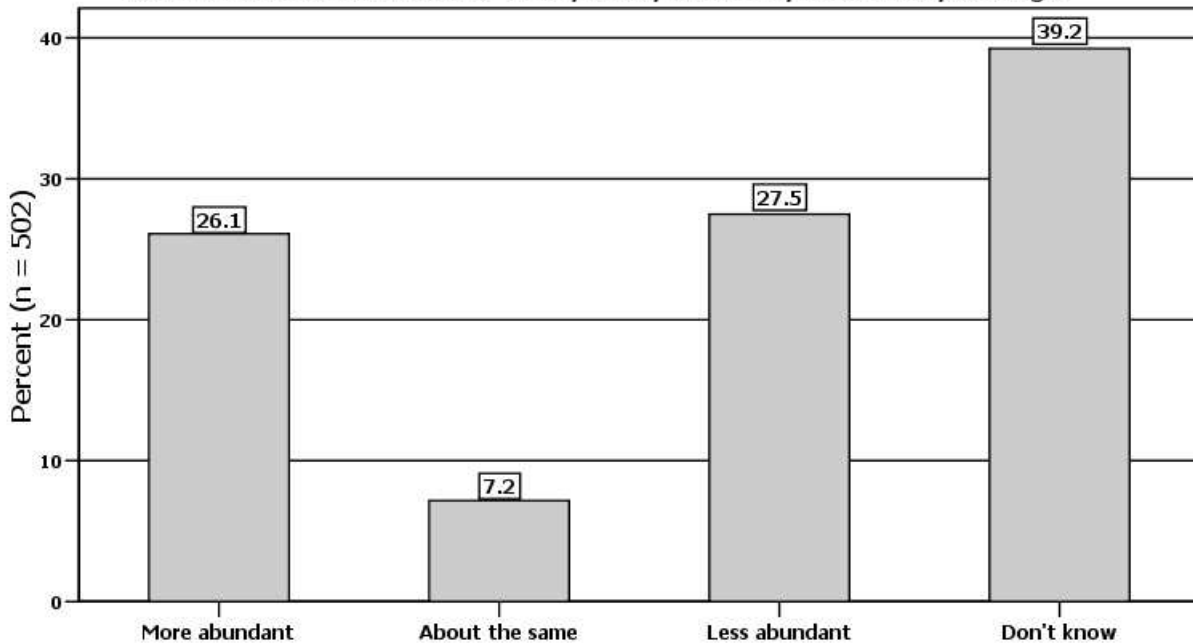


Figure 21: Grizzly bears are more or less abundant

Would you say grizzly bears are more abundant, about the same, or less abundant in the Cabinet Mountains and Yaak Valley today than they were 100 years ago?

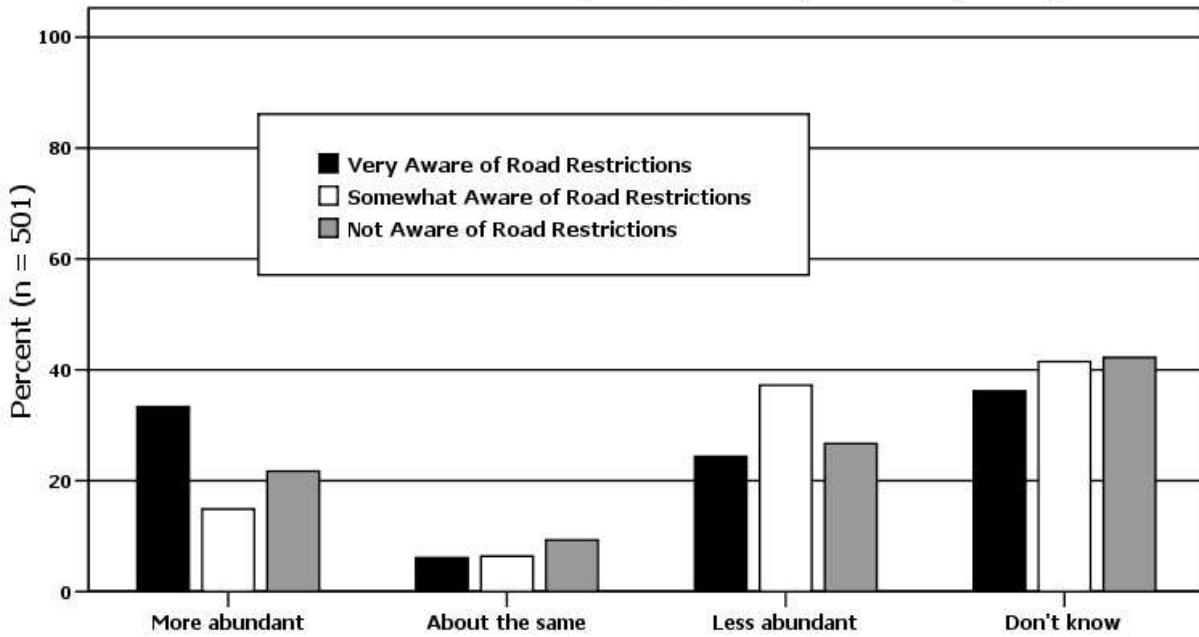


Figure 22: Abundance compared to awareness of road restrictions

Would you say grizzly bears are more abundant, about the same, or less abundant in the Cabinet Mountains and Yaak Valley today than they were 100 years ago?

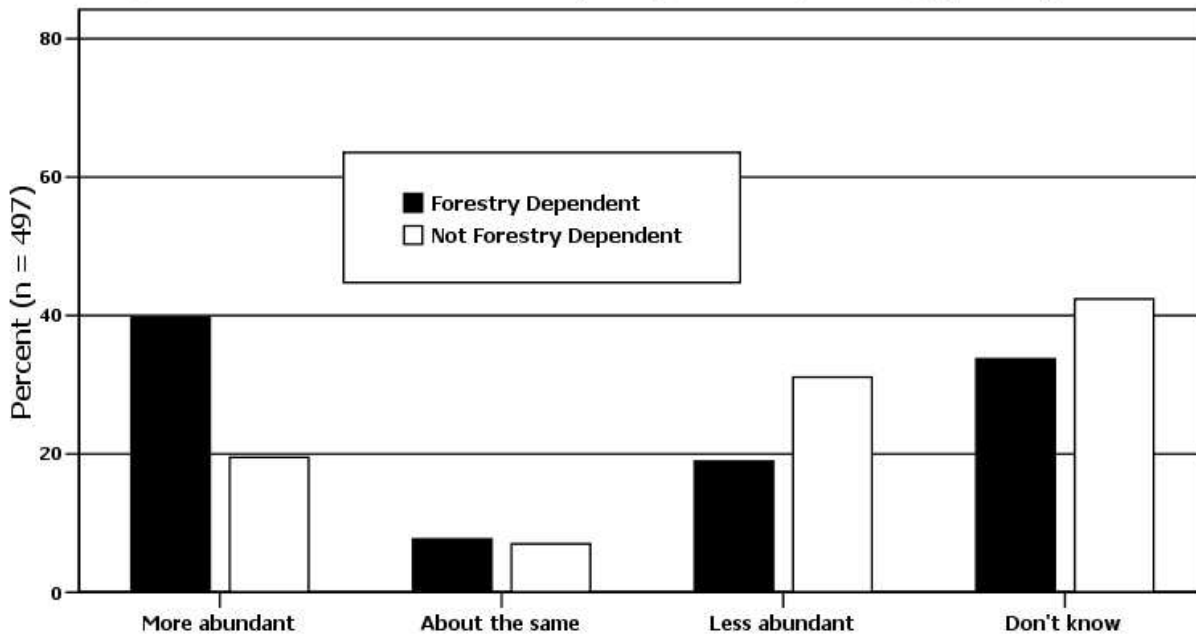


Figure 23: Abundance compared to forestry dependence

Would you say grizzly bears are more abundant, about the same, or less abundant in the Cabinet Mountains and Yaak Valley today than they were 100 years ago?

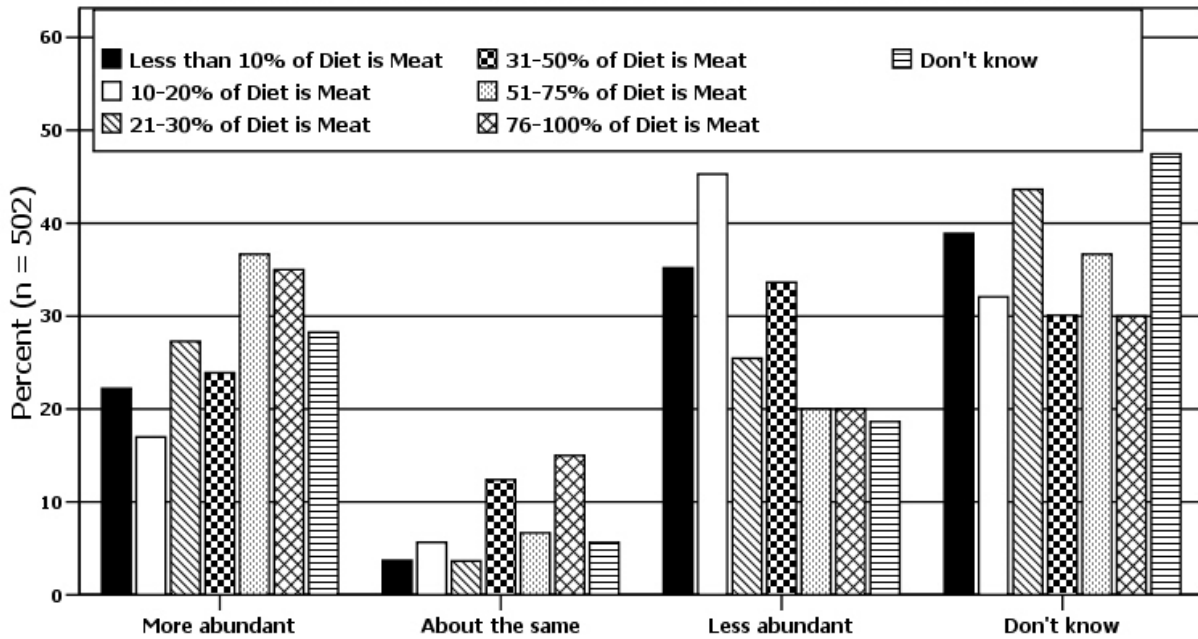


Figure 24: Abundance compared to meat in diet

In general, do you support or oppose having grizzly bears in the Cabinet Mountains and Yaak Valley?

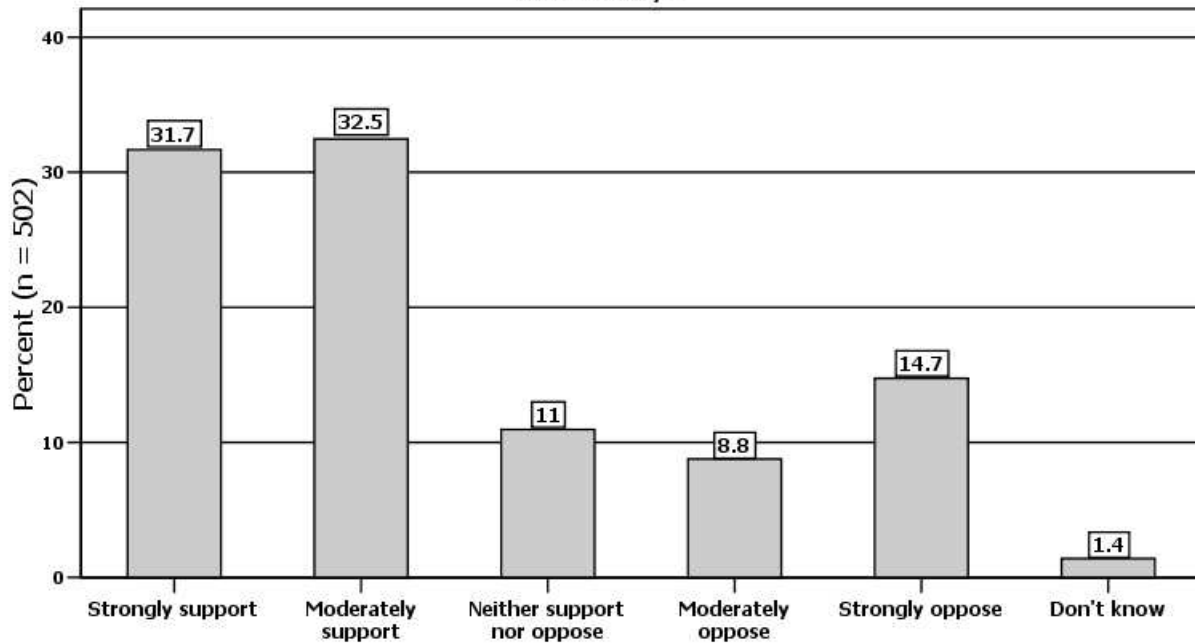


Figure 25: Support for having grizzly bears in the CYE

Why do you oppose having grizzly bears in the Cabinet Mountains and Yaak Valley? (Asked of those who oppose having grizzly bears in the Cabinet Mountains and Yaak Valley)

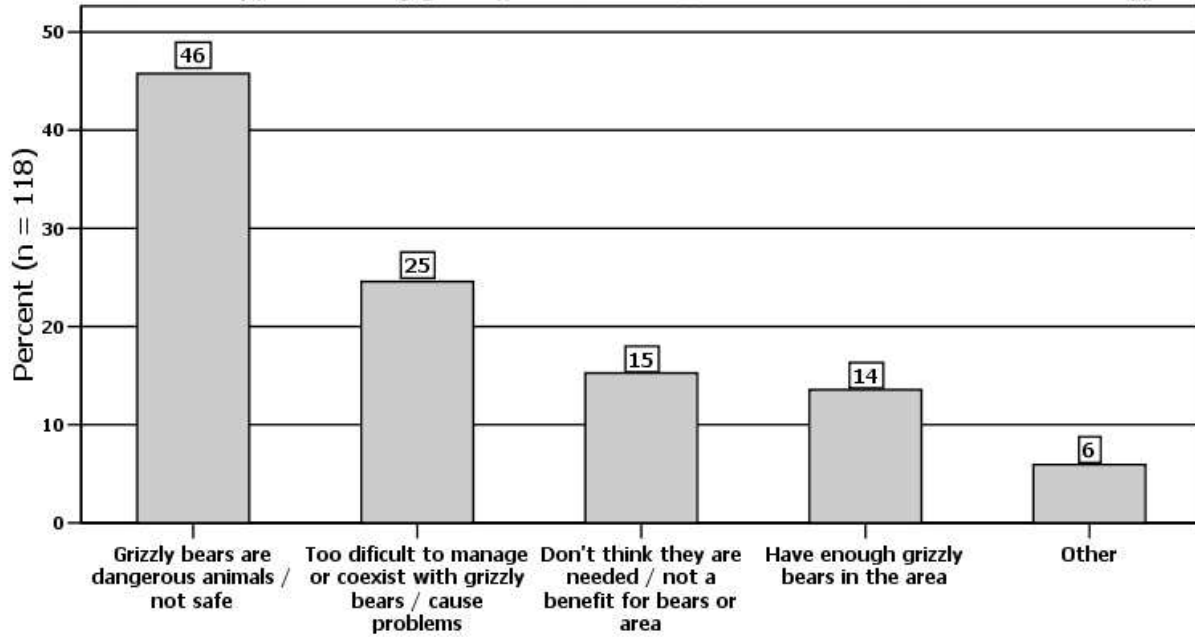


Figure 26: Why oppose having grizzly bears

I derive satisfaction from just knowing that grizzly bears are present in the Cabinet Mountains and Yaak Valley. Do you agree or disagree with this statement?

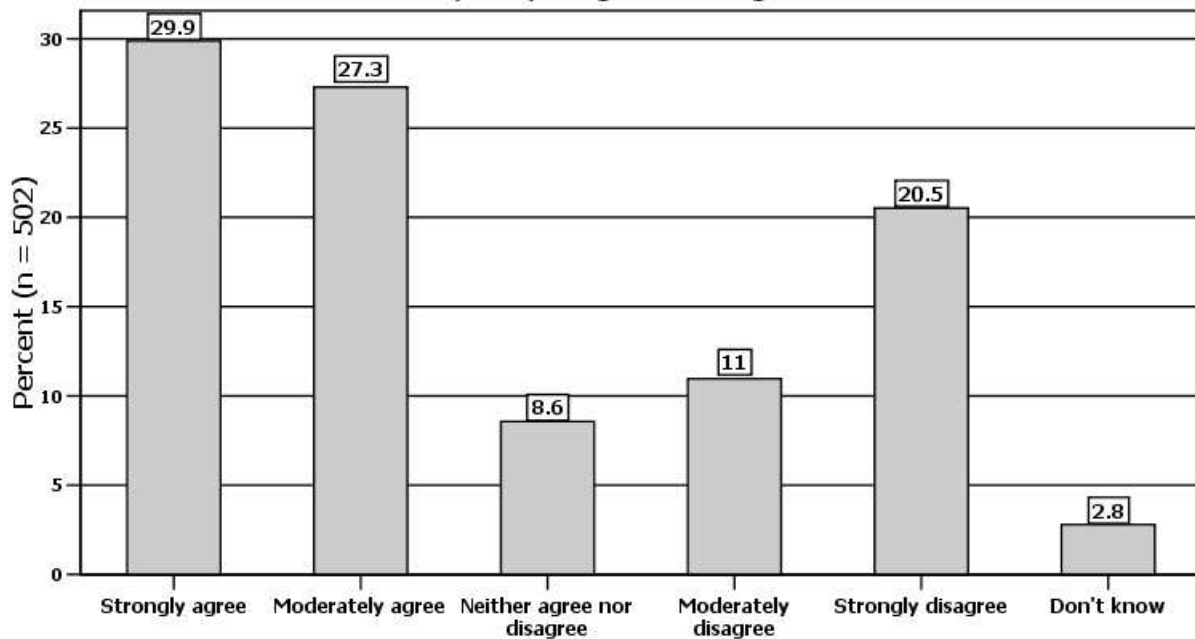


Figure 27: Satisfaction from knowing grizzly bears are in CYE

In general, do you support or oppose having grizzly bears in the Cabinet Mountains and Yaak Valley?

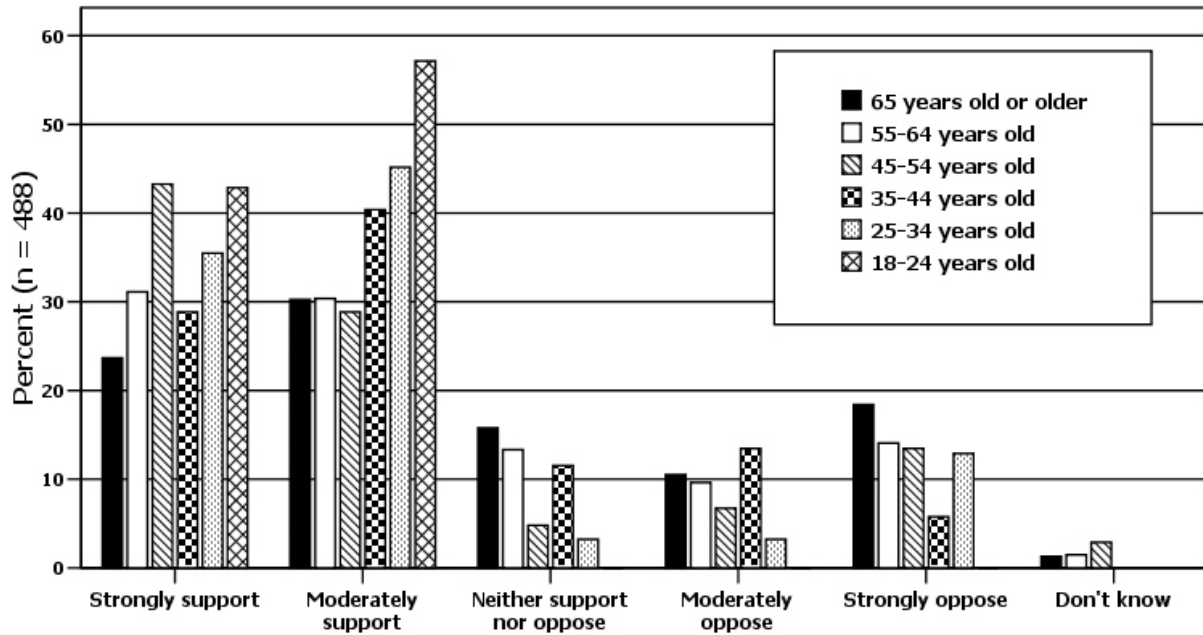


Figure 28: Support compared to age

In general, do you support or oppose having grizzly bears in the Cabinet Mountains and Yaak Valley?

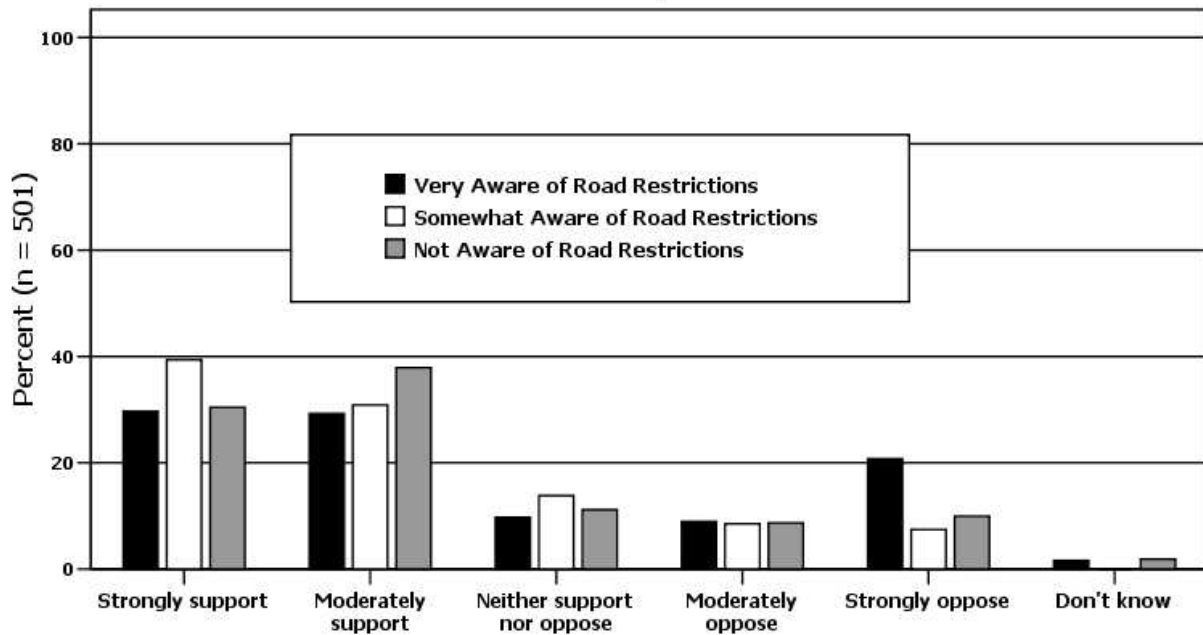


Figure 29: Support compared to awareness of road restrictions

In general, do you support or oppose having grizzly bears in the Cabinet Mountains and Yaak Valley?

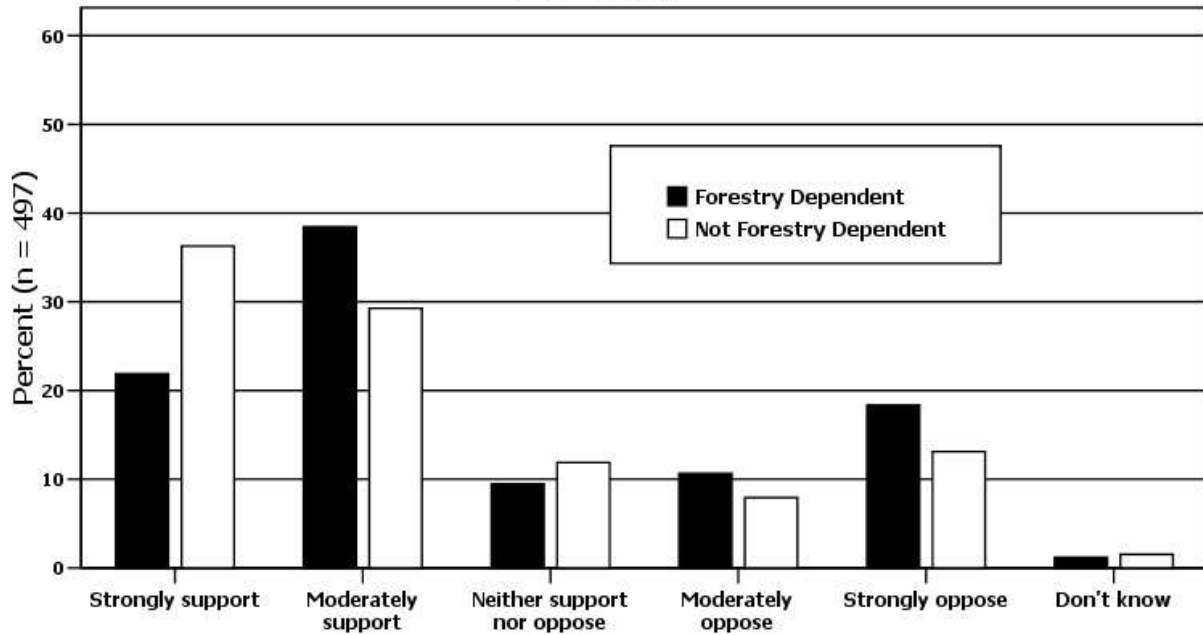


Figure 30: Support compared to forestry dependence

In general, do you support or oppose having grizzly bears in the Cabinet Mountains and Yaak Valley?

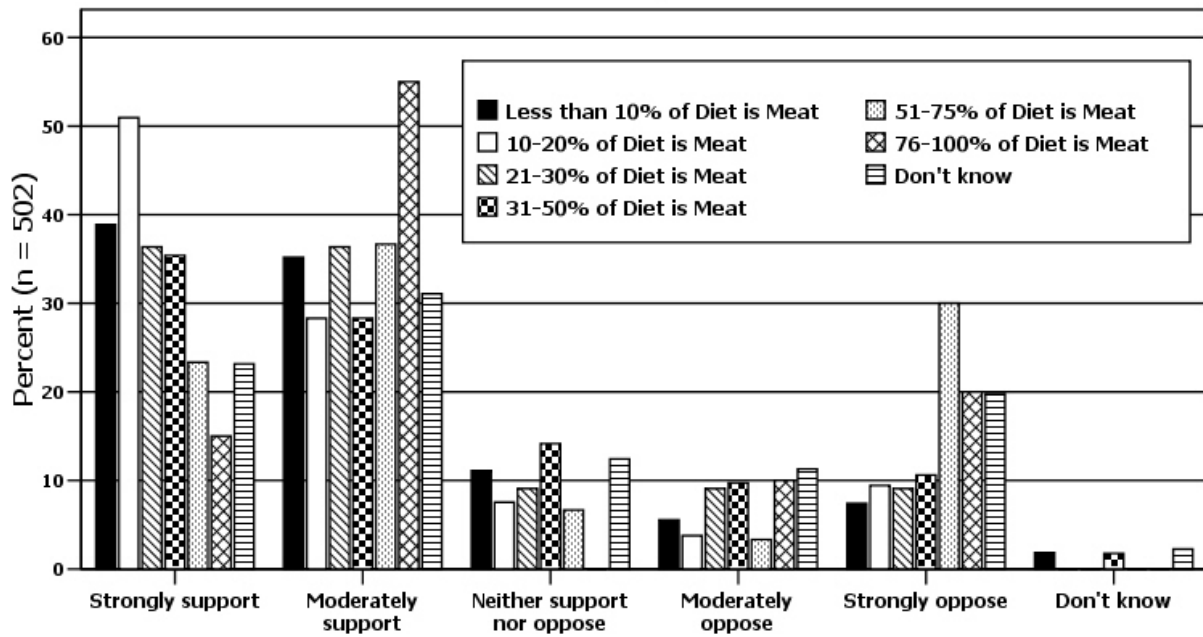


Figure 31: Support by meat in diet

In general, do you support or oppose having grizzly bears in the Cabinet Mountains and Yaak Valley?

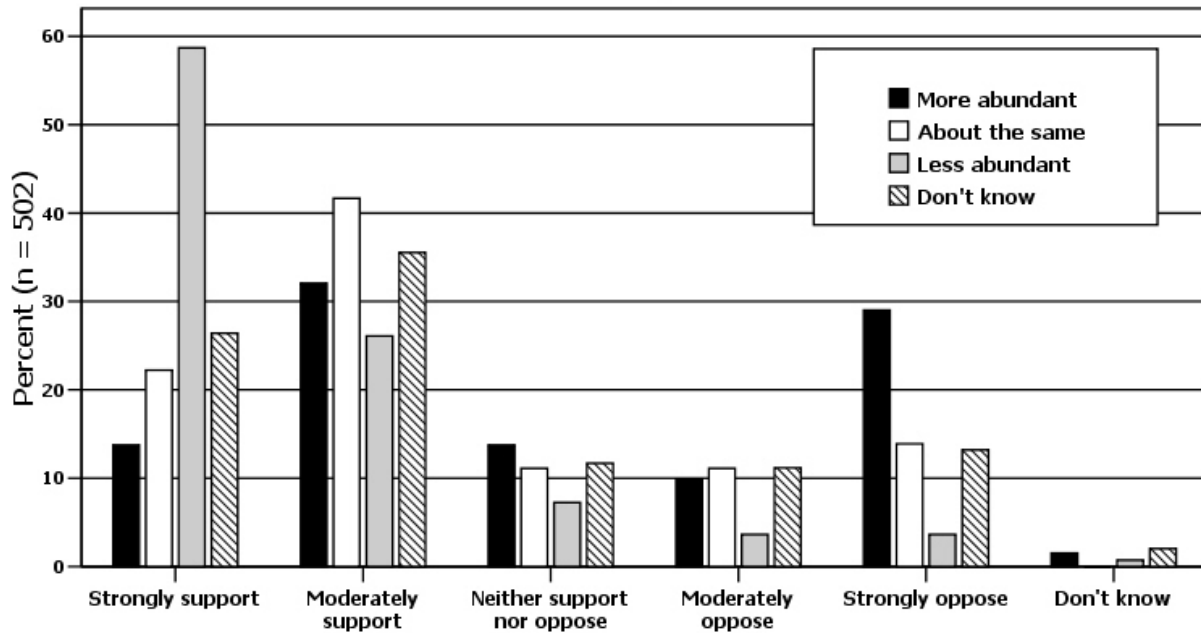


Figure 32: Support compared to abundance

Generally, which of the following statements best describes your feelings about grizzly bears in the Cabinet Mountains and Yaak Valley?

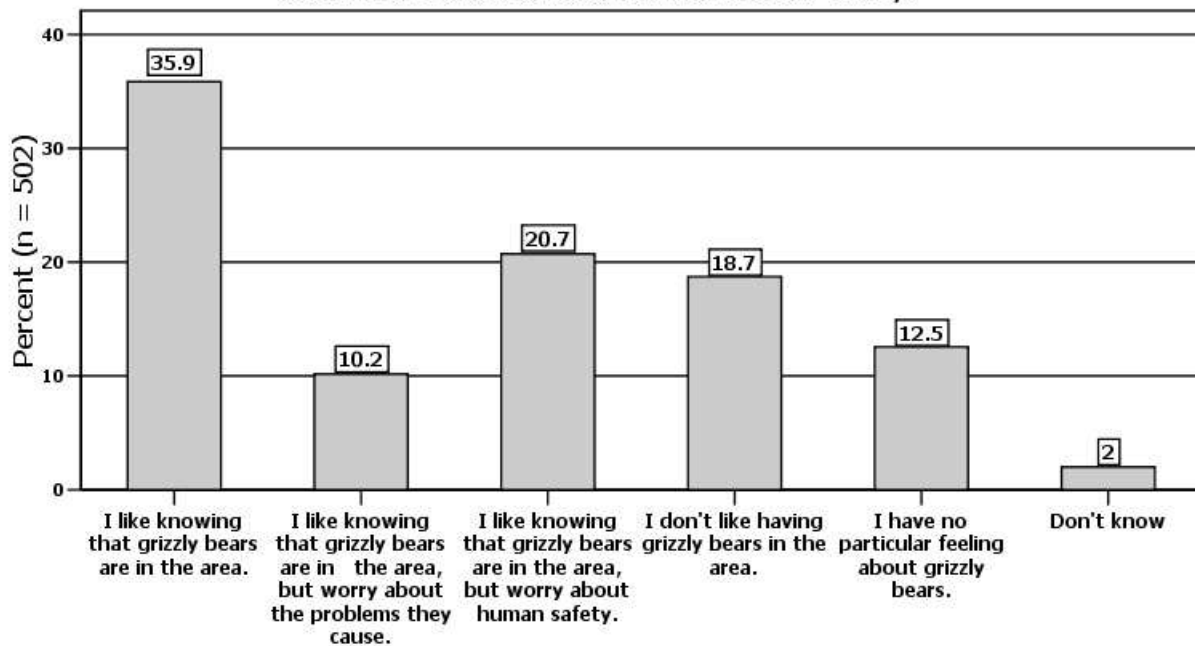


Figure 33: Feelings about grizzly bears in CYE

Why do you support having grizzly bears in the Cabinet Mountains and Yaak Valley? (Asked of those who support having grizzly bears in the Cabinet Mountains and Yaak Valley)

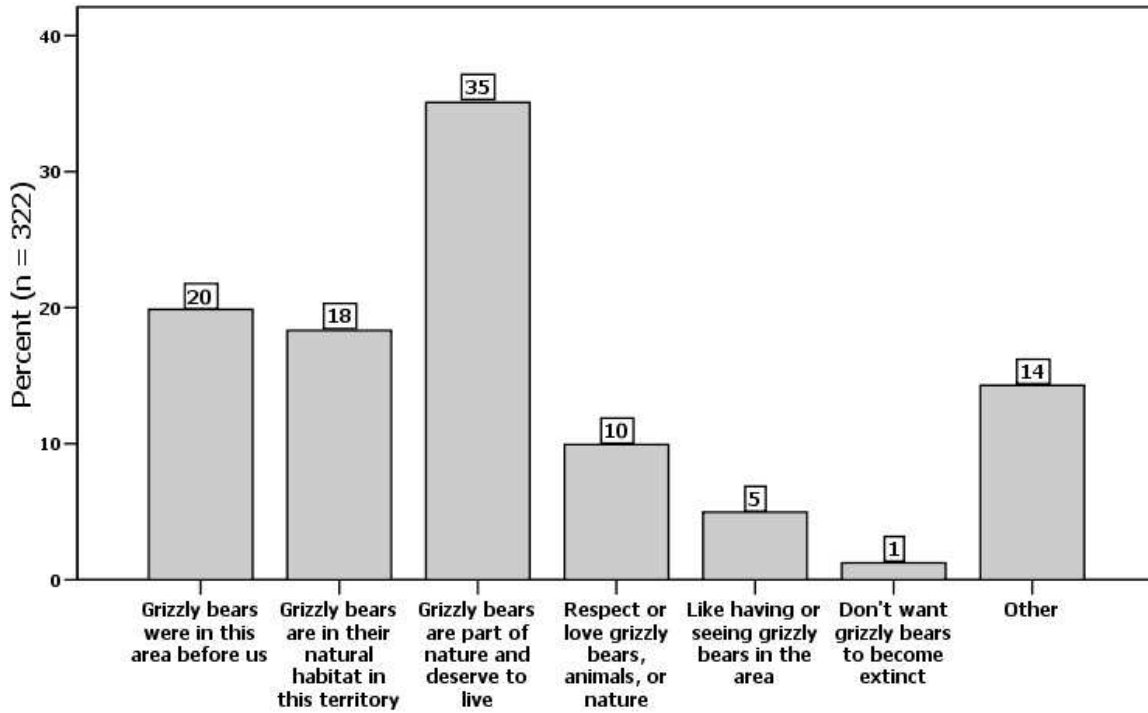


Figure 34: Why support grizzlies in CYE

Grizzly bears from the Cabinet Mountains and Yaak Valley kill many livestock. Do you agree or disagree with this statement?

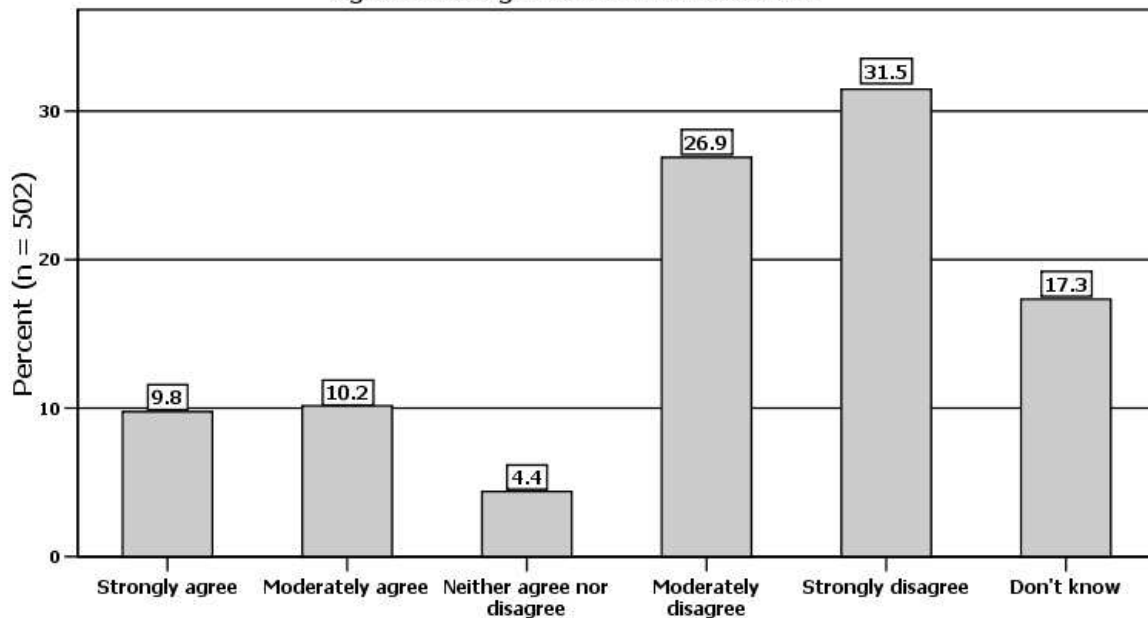


Figure 35: Bears from CYE kill livestock



### Grizzly bear recovery efforts

The majority of respondents have heard about the grizzly bear recovery program in the CYE (Figure 36) and stated that they support grizzly bear recovery efforts in the CYE (Figure 37). Support for recovery in the CYE was cross-tabulated with questions that asked the respondent's age, awareness of road restrictions, family dependency upon forestry, opinions on the relative abundance of grizzly bears, and opinions on the amount of meat in a grizzly bear's diet to examine any trends in responses (Figures 38, 39, 40, 41 & 42). At the level of support or opposition there were few noteworthy differences in age of respondent or awareness of road restrictions. Families dependent upon forestry appeared somewhat more likely to oppose recovery efforts. Respondents that believed bears were more abundant in the CYE today compared with 100 years ago were more likely to be in opposition to recovery efforts and respondents that believed there were less bears now than 100 years ago were more likely to support recovery efforts. Respondents that believed meat was a large component of a grizzly bears diet appeared less likely to support recovery and that opposition became stronger as the perceived proportion of meat in the diet increased. Support for grizzly bears was also cross-tabulated with where respondents receive their information on grizzly bears (Figure 44).

Respondent support for recovery efforts outside of the CYE was similar to support for grizzly bear recovery inside the CYE. However, opposition to grizzly bear recovery outside the CYE declined while the neither support nor oppose and don't know responses increased (Figure 43).

Support for grizzly bear recovery in the CYE declined when respondents were asked about the recovery goal of 100 grizzly bears (Figure 45). Opinions on support for the recovery goal in the CYE was cross-tabulated with questions that asked the respondents age, awareness of road restrictions, family dependency upon forestry, opinions on the relative abundance of grizzly bears, and opinions on the amount of meat in a grizzly bear's diet (Figures 46, 47, 48, 49 & 50). Respondents older than 55 years old, those very aware of road restrictions, those whose families are dependent upon forestry, and those who believe grizzly bears are more abundant now than 100 years ago appeared to be more likely to oppose the recovery goal of 100 grizzly bears. Respondents that believed meat was a large component of a bear's diet were less supportive of the recovery goal, which became stronger as the perceived portion of meat in the diet increased.

A majority of respondents (62%) were aware that four grizzly bears were added to the Cabinet Mountains during 1990-1994 (Figure 51). However, awareness declined to (45%) when asked about the two grizzly bears added in 2005 and 2006 (Figure 52). Respondents' awareness of the bears added to the Cabinet Mountains in 1990-1994 and 2005-2006 was cross-tabulated with the age of respondents. The 25-34 year old group appeared to be the least aware of bears being added than other age groups (Figures 53 & 54).

Support for recovery increased if it could be done without adding additional bears (Figure 55). This question was cross-tabulated with questions that asked the respondent's age, awareness of road restrictions, family dependency upon forestry, opinions on the relative abundance of grizzly bears in the CYE and opinions on the amount of meat in a grizzly bear's diet (Figures 56, 57, 58, 59 & 60). The group that remained in opposition was that group whose respondents believed grizzly bears are more abundant now than 100 years ago.

Prior to this survey, would you say you heard a great deal, a moderate amount, a little, or nothing about this grizzly bear recovery program?

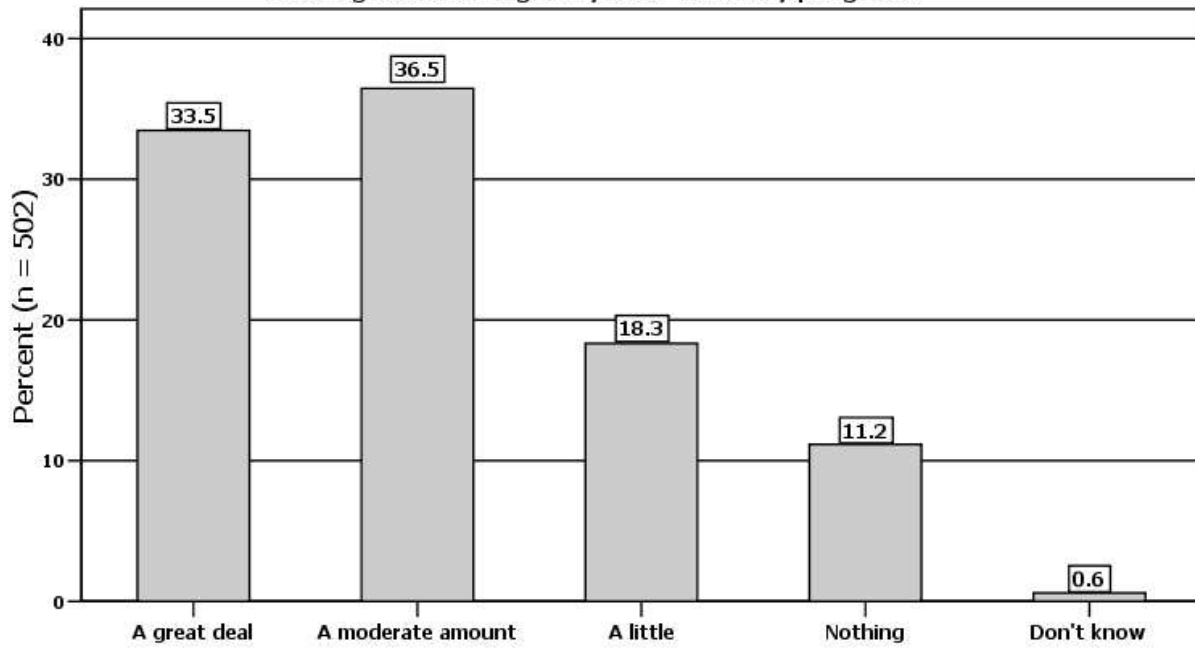


Figure 36: Knowledge of the grizzly bear recovery program

In general, do you support or oppose grizzly bear recovery efforts in the Cabinet Mountains and Yaak Valley?

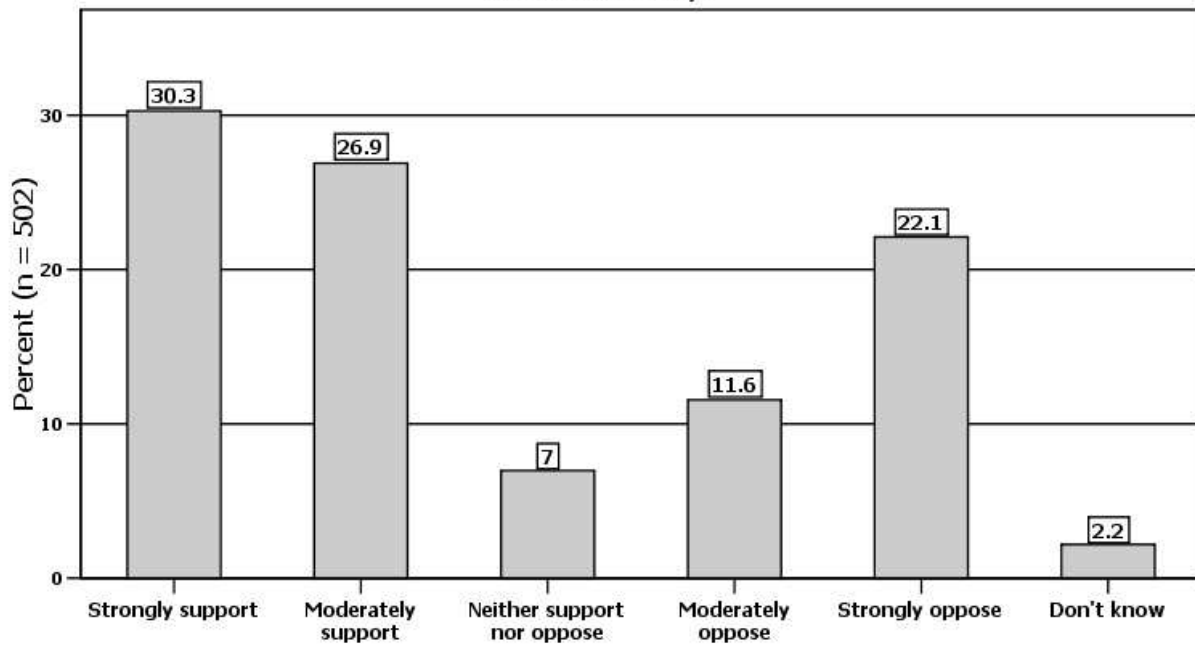


Figure 37: Support for grizzly bear recovery

In general, do you support or oppose grizzly bear recovery efforts in the Cabinet Mountains and Yaak Valley?

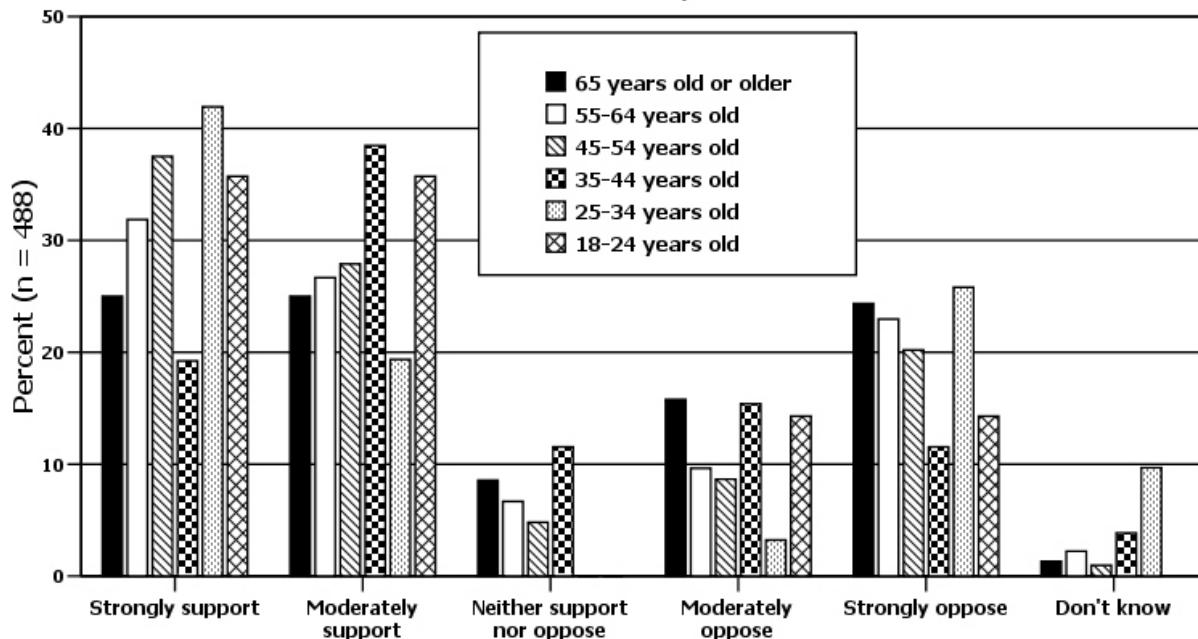


Figure 38: Recovery support compared to age

In general, do you support or oppose grizzly bear recovery efforts in the Cabinet Mountains and Yaak Valley?

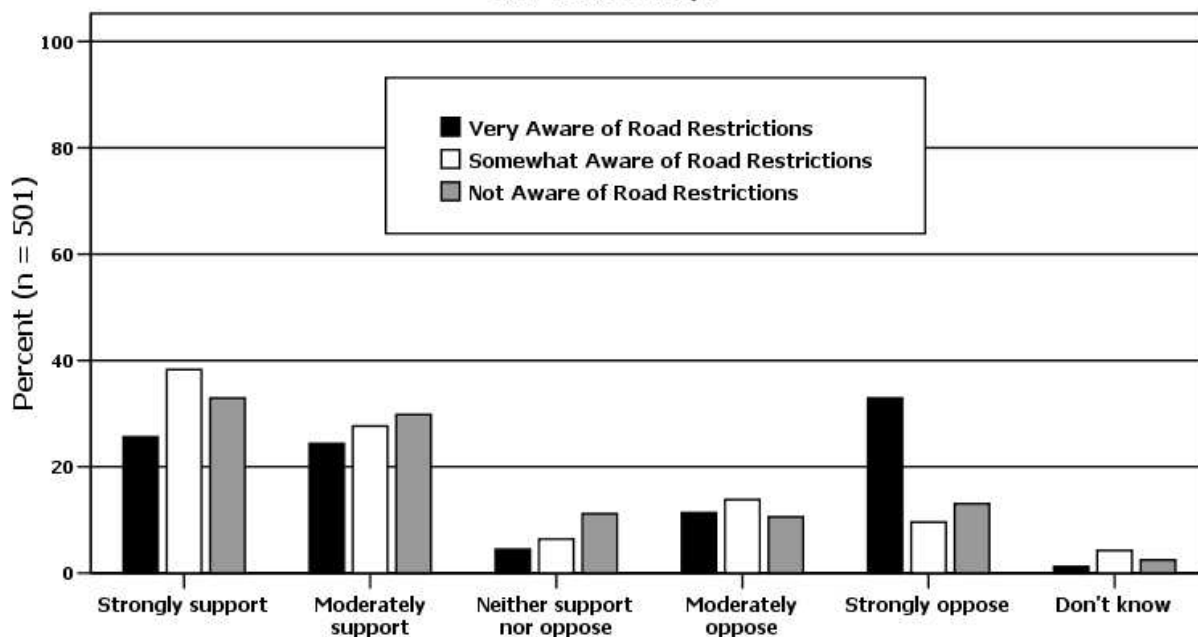


Figure 39: Recovery support compared to awareness of road restrictions

In general, do you support or oppose grizzly bear recovery efforts in the Cabinet Mountains and Yaak Valley?

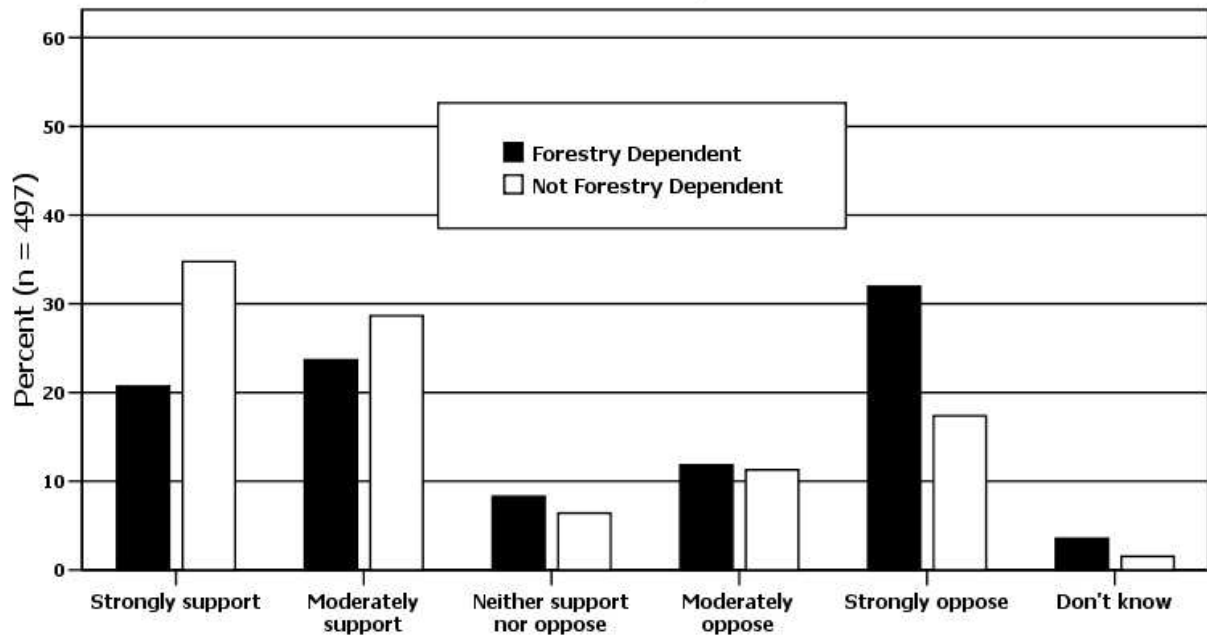


Figure 40: Recovery support compared to forestry dependence

In general, do you support or oppose grizzly bear recovery efforts in the Cabinet Mountains and Yaak Valley?

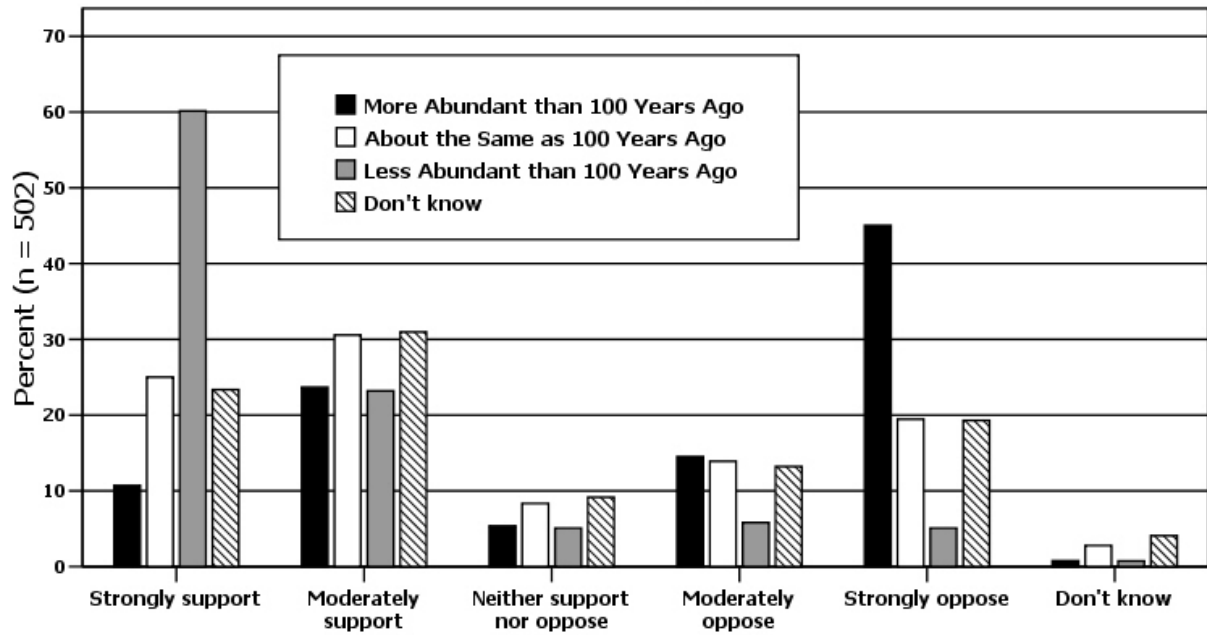


Figure 41: Recovery support compared to abundance

In general, do you support or oppose grizzly bear recovery efforts in the Cabinet Mountains and Yaak Valley?

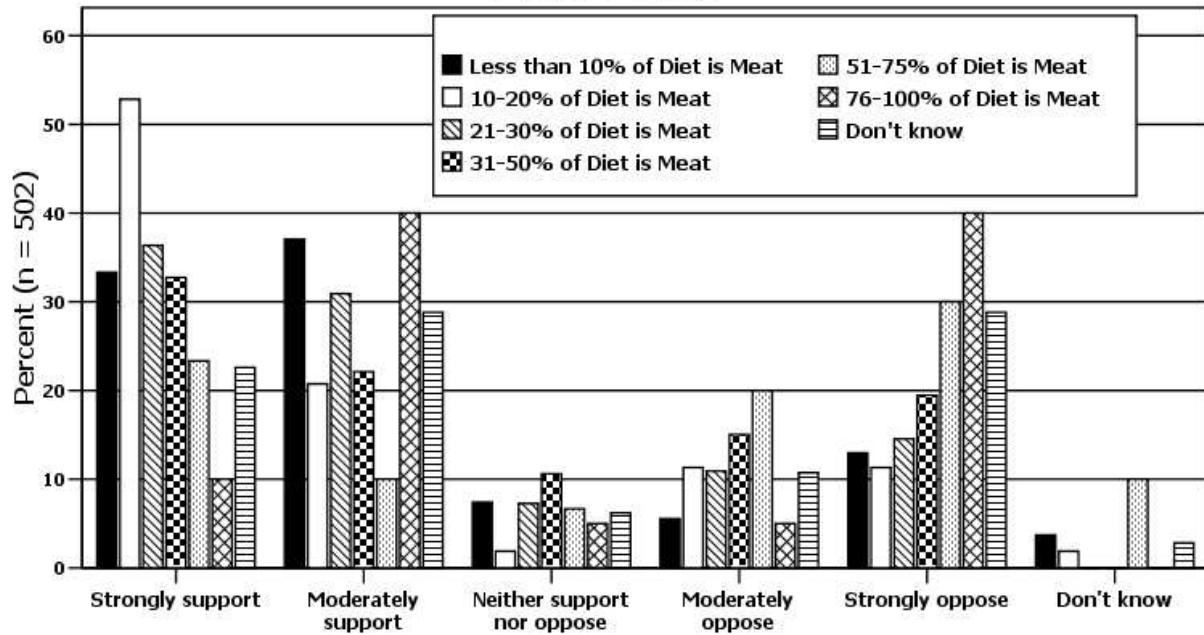


Figure 42: Recovery support compared to meat in diet

Do you support or oppose grizzly bear recovery efforts in areas outside of the Cabinet Mountains and Yaak Valley?

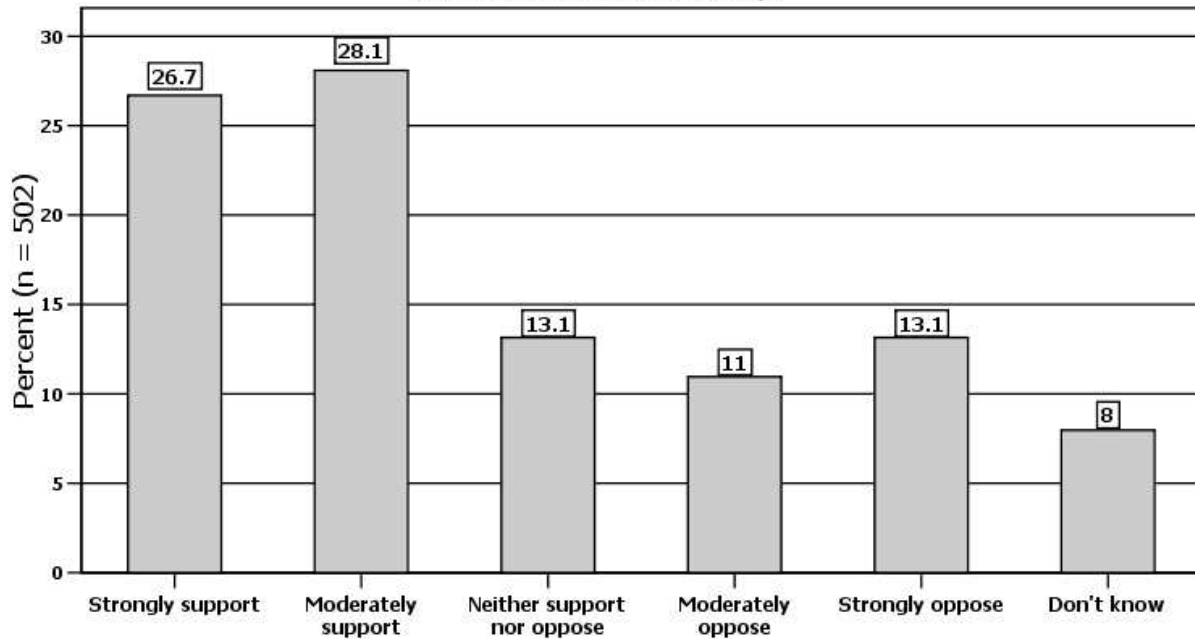


Figure 43: Support for recovery outside of the CYE

In general, do you support or oppose grizzly bear recovery efforts in the Cabinet Mountains and Yaak Valley?

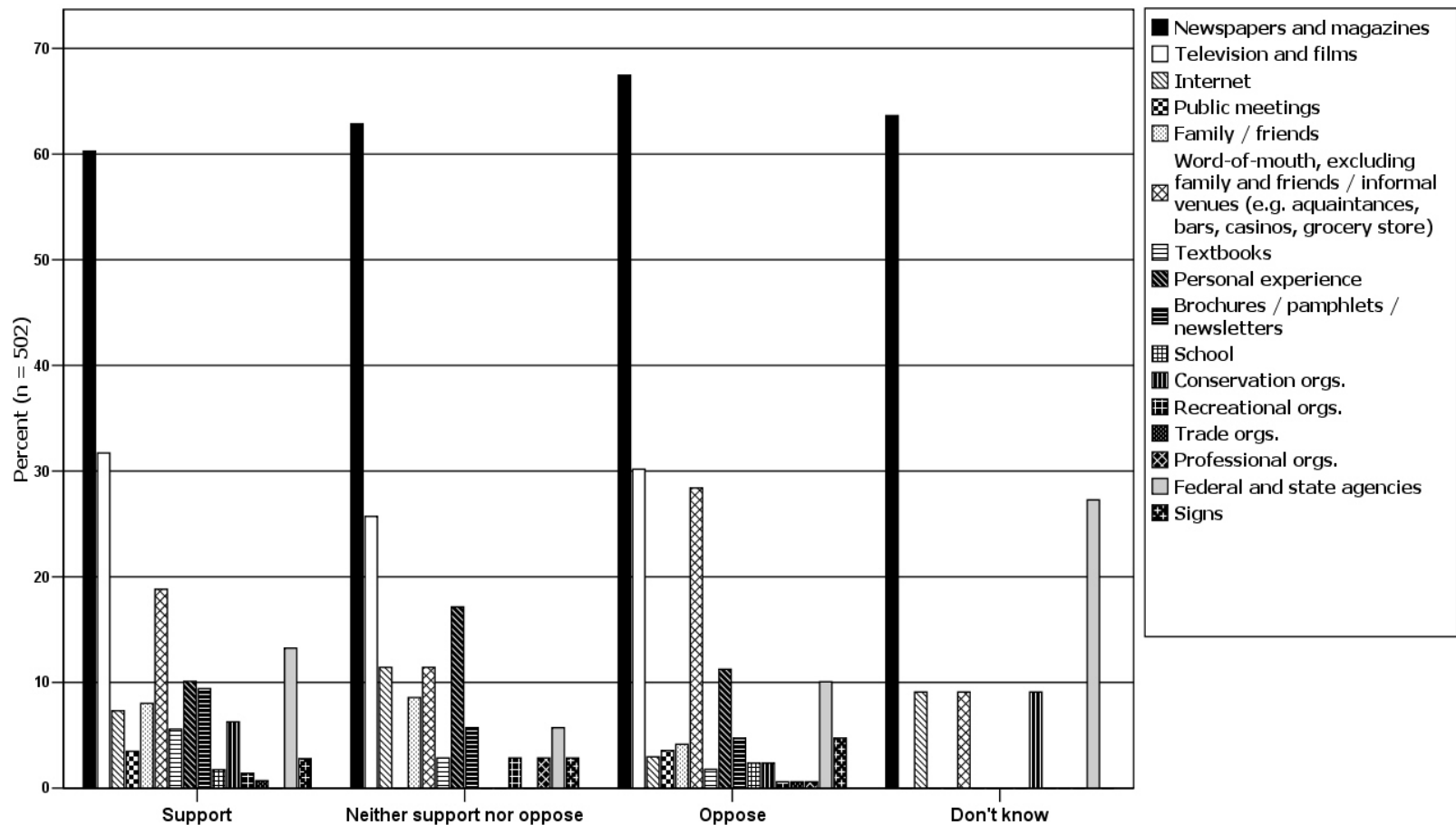


Figure 44: Support compared to information sources

Currently, there are approximately 30 to 40 grizzly bears in the Cabinet Mountains and Yaak Valley. Biologists have determined that a population of about 100 bears in the Cabinet Mountains and Yaak Valley will be considered a successfully recovered population for this area. Do you support or oppose having a total population of about 100 grizzly bears in the Cabinet Mountains and Yaak Valley?

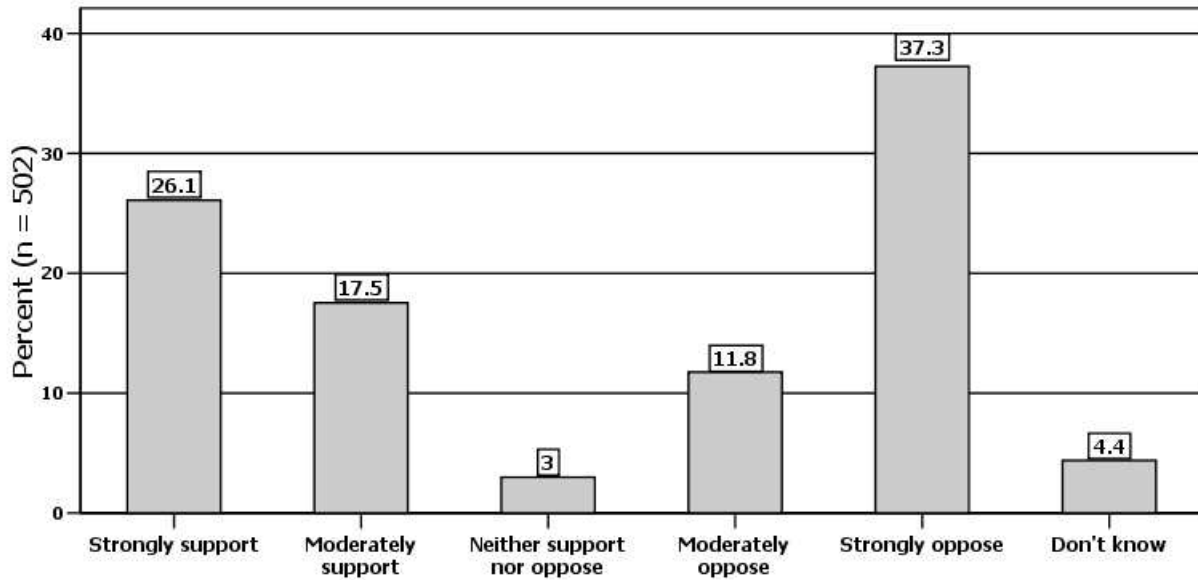


Figure 45: Support for recovery targets

Currently, there are approximately 30 to 40 grizzly bears in the Cabinet Mountains and Yaak Valley. Biologists have determined that a population of about 100 bears in the Cabinet Mountains and Yaak Valley will be considered a successfully recovered population for this area. Do you support or oppose having a total population of about 100 grizzly bears in the Cabinet Mountains and Yaak Valley?

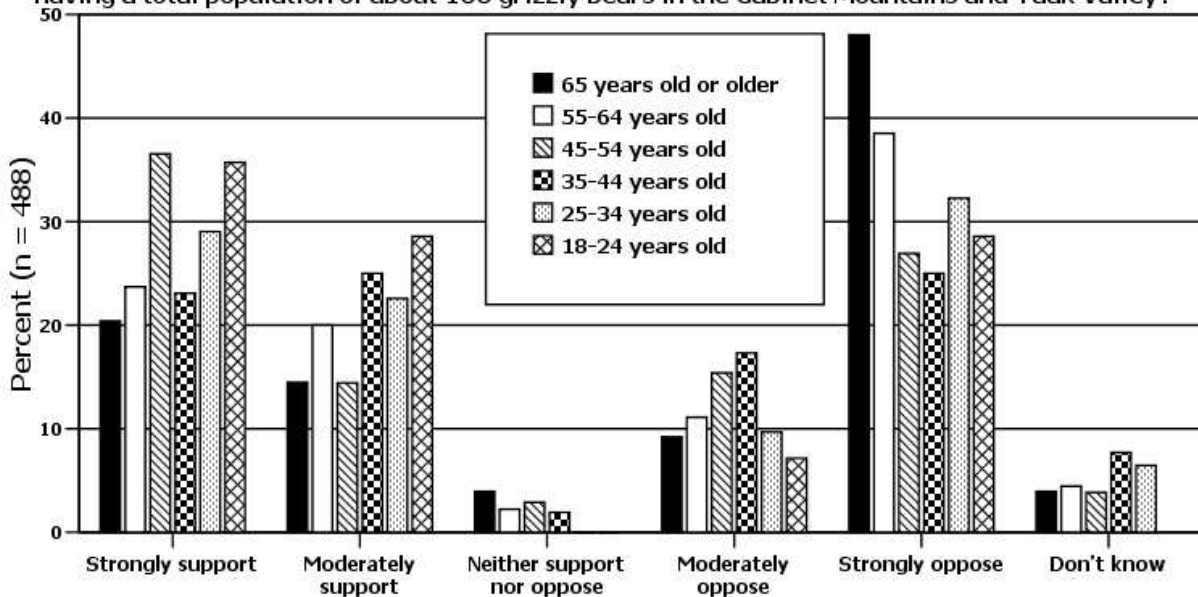


Figure 46: Support for recovery target compared by age

Currently, there are approximately 30 to 40 grizzly bears in the Cabinet Mountains and Yaak Valley. Biologists have determined that a population of about 100 bears in the Cabinet Mountains and Yaak Valley will be considered a successfully recovered population for this area. Do you support or oppose having a total population of about 100 grizzly bears in the Cabinet Mountains and Yaak Valley?

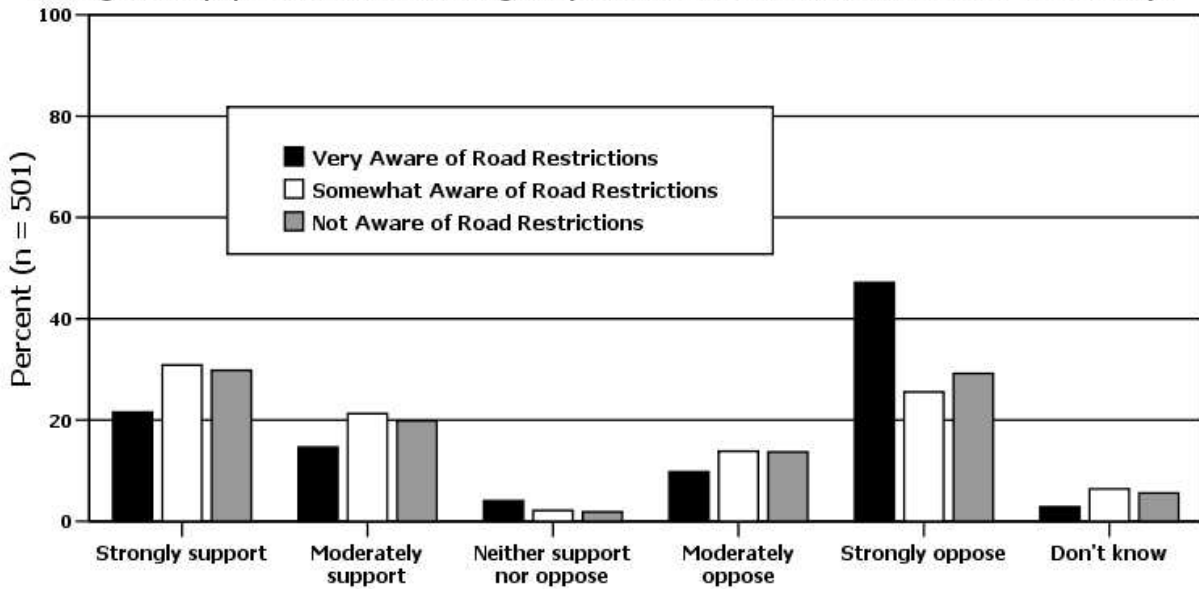


Figure 47: Support for recovery target compared to awareness of road restriction

Currently, there are approximately 30 to 40 grizzly bears in the Cabinet Mountains and Yaak Valley. Biologists have determined that a population of about 100 bears in the Cabinet Mountains and Yaak Valley will be considered a successfully recovered population for this area. Do you support or oppose having a total population of about 100 grizzly bears in the Cabinet Mountains and Yaak Valley?

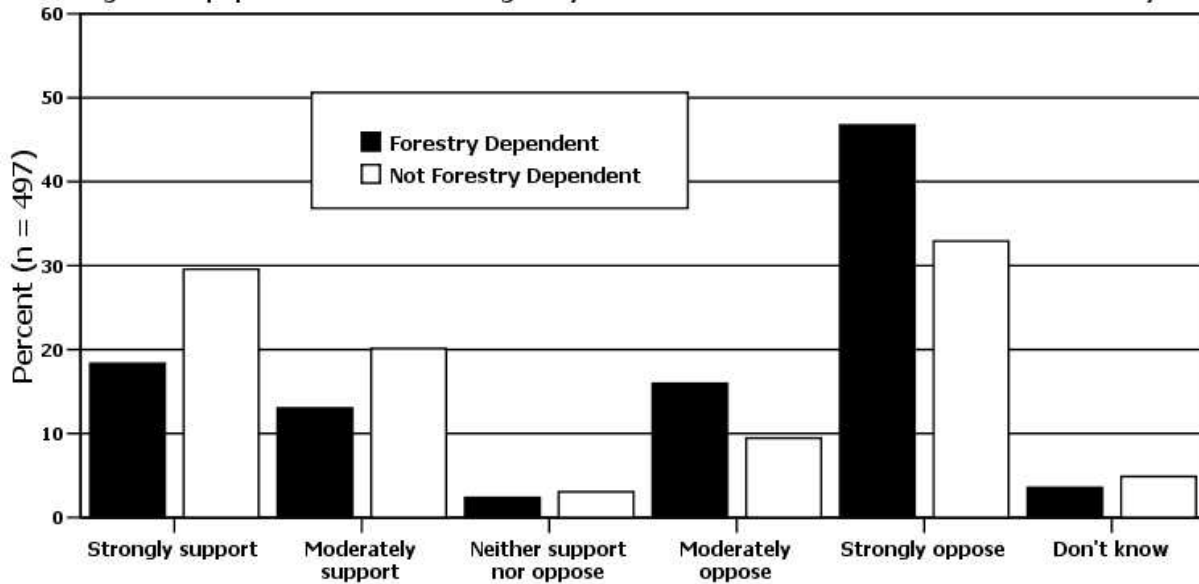


Figure 48: Support for recovery target compared to forestry dependence



Currently, there are approximately 30 to 40 grizzly bears in the Cabinet Mountains and Yaak Valley. Biologists have determined that a population of about 100 bears in the Cabinet Mountains and Yaak Valley will be considered a successfully recovered population for this area. Do you support or oppose having a total population of about 100 grizzly bears in the Cabinet Mountains and Yaak Valley?

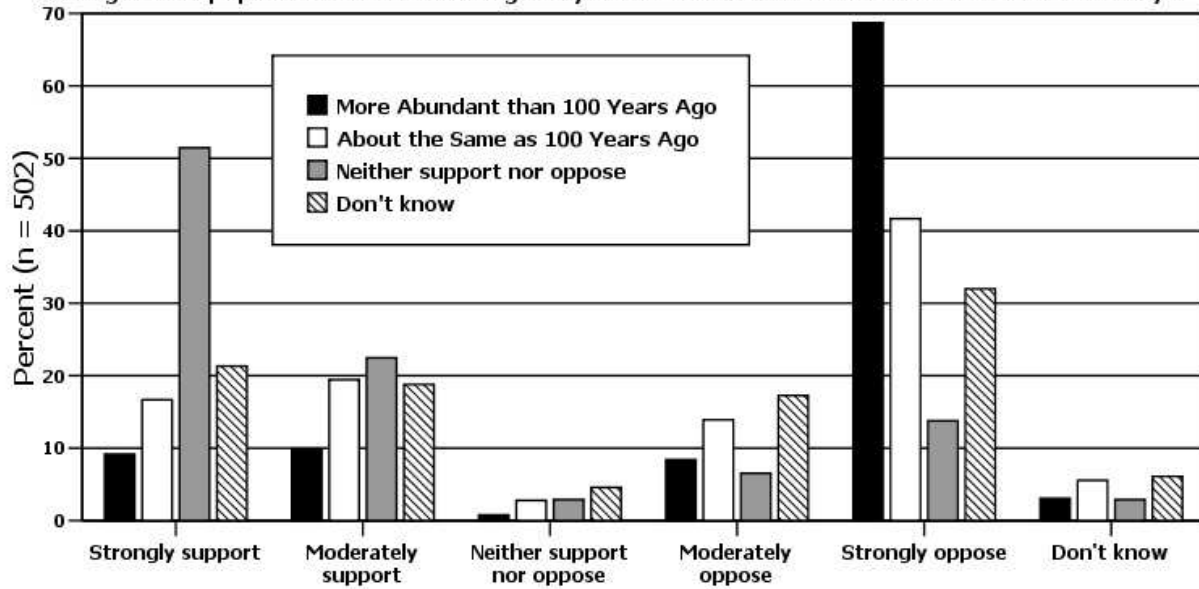


Figure 49: Support for recovery target compared to abundance

Currently, there are approximately 30 to 40 grizzly bears in the Cabinet Mountains and Yaak Valley. Biologists have determined that a population of about 100 bears in the Cabinet Mountains and Yaak Valley will be considered a successfully recovered population for this area. Do you support or oppose having a total population of about 100 grizzly bears in the Cabinet Mountains and Yaak Valley?

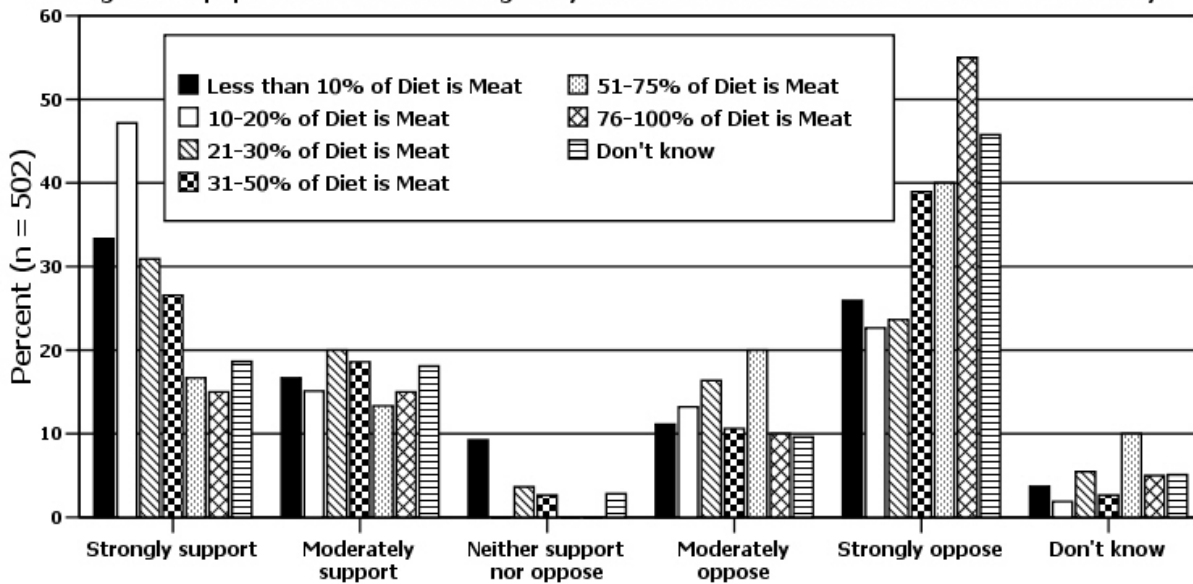


Figure 50: Support for recovery target compared to meat in diet

Prior to this survey, how aware were you that four grizzly bears were added to the Cabinet Mountains between 1990 and 1994 as part of the recovery program?

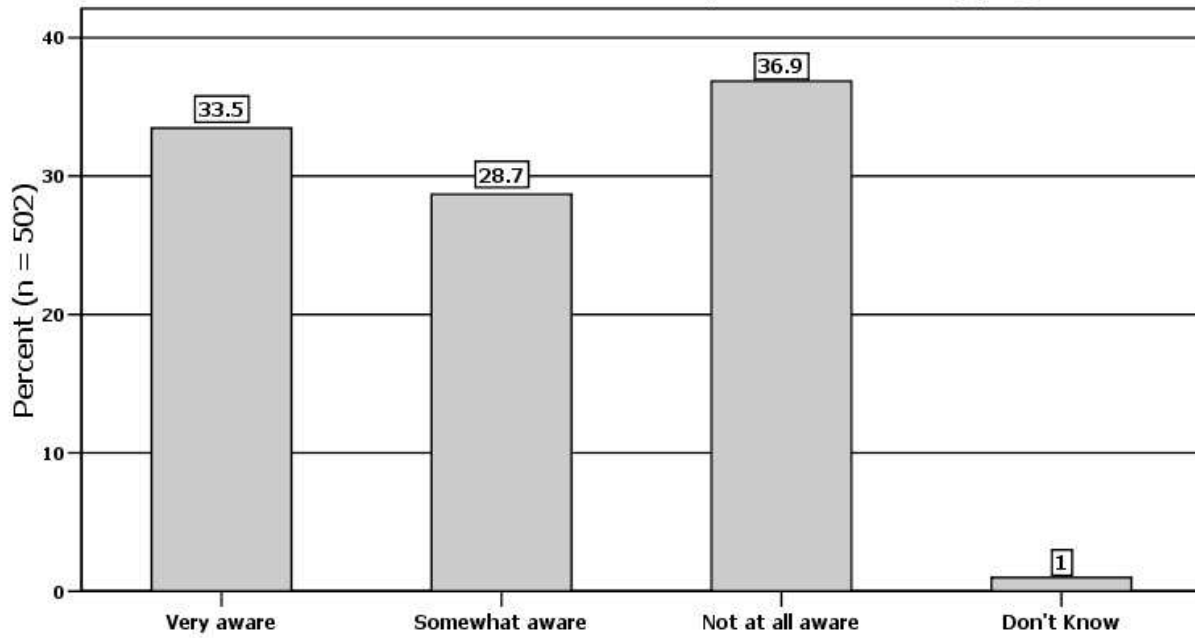


Figure 51: Awareness of augmentation efforts in 1990-1994

How aware were you that two more bears have been added to the Cabinet Mountains since 2005?

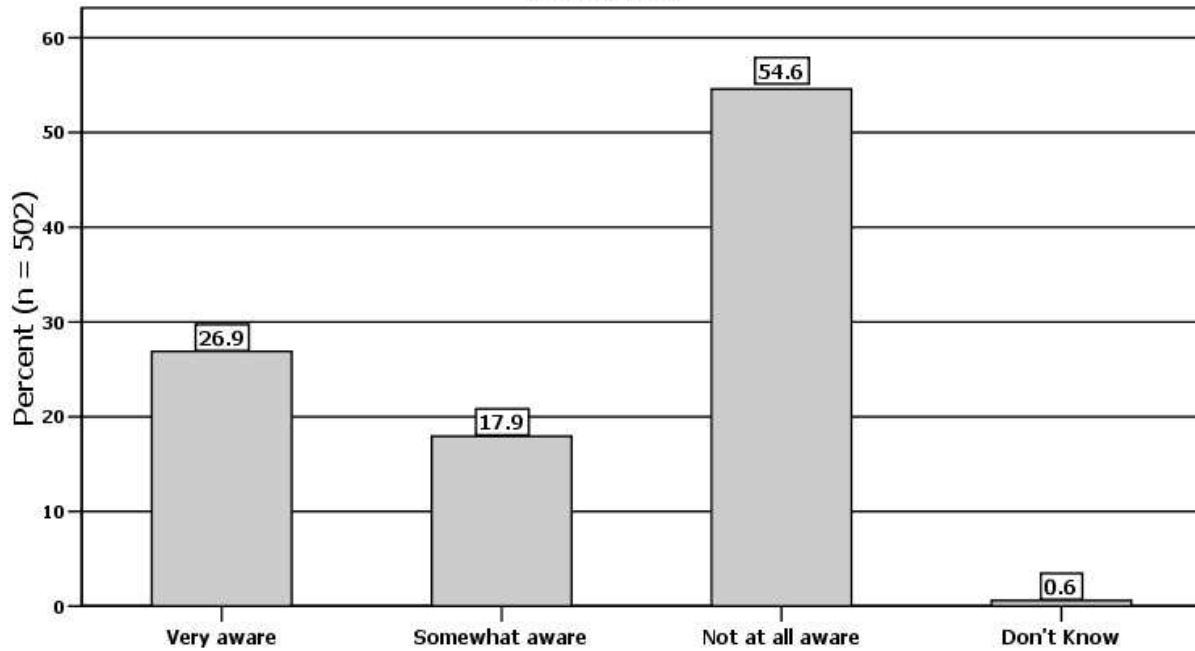


Figure 52: Awareness of augmentation efforts in 2005

Prior to this survey, how aware were you that four grizzly bears were added to the Cabinet Mountains between 1990 and 1994 as part of the recovery program?

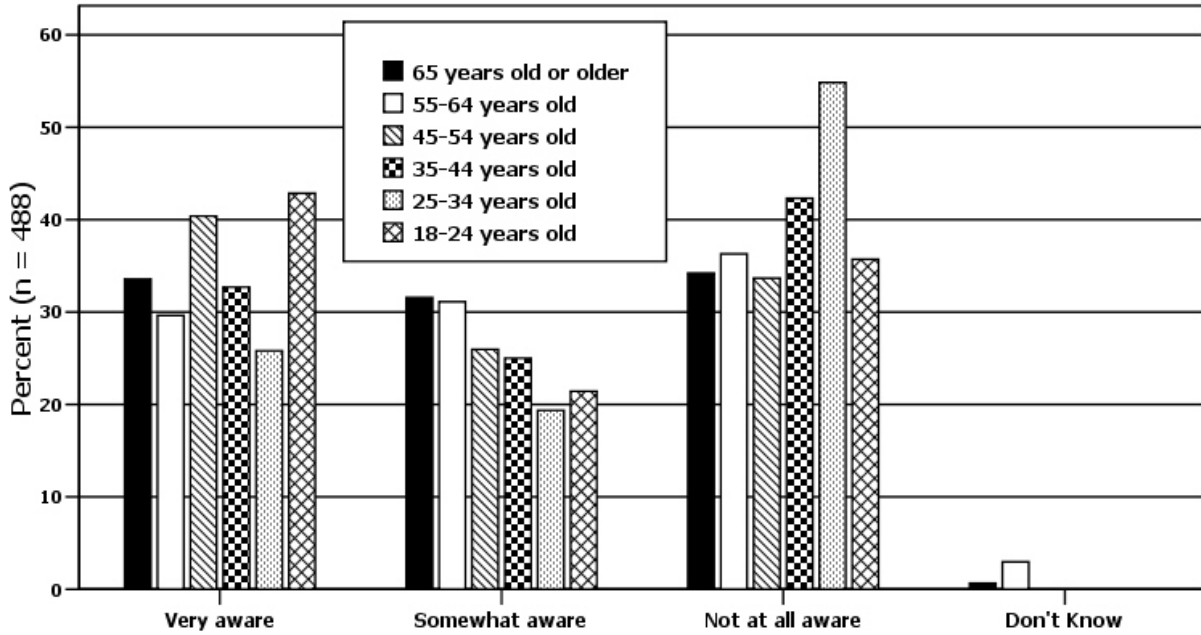


Figure 53: Awareness of augmentation in 1990-94 compared to age

How aware were you that two more bears have been added to the Cabinet Mountains since 2005?

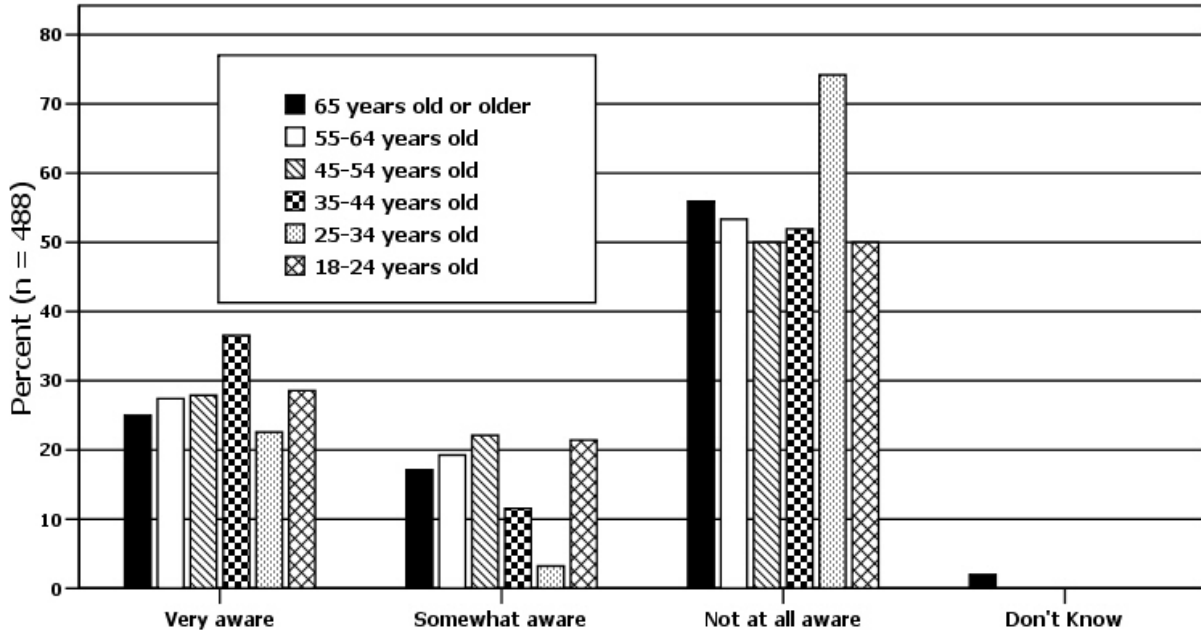


Figure 54: Awareness of augmentation in 2005 compared to age

Would you support or oppose grizzly bear recovery in the Cabinet Mountains and Yaak Valley if it could be done without adding additional bears to the Cabinet Mountains?

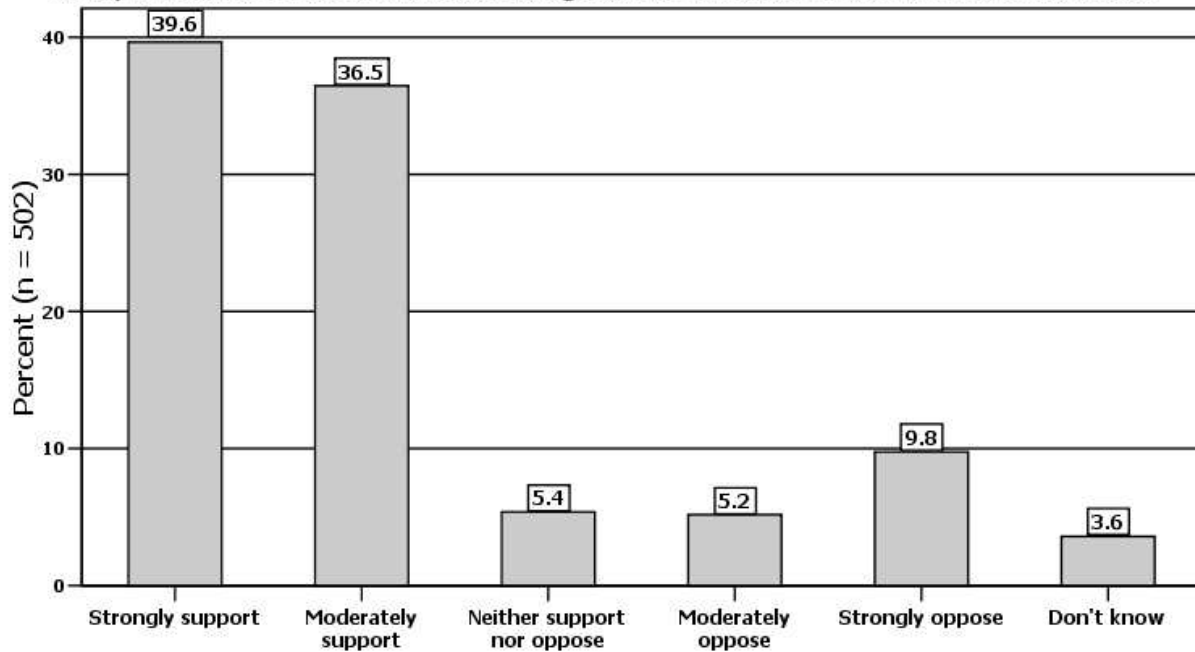


Figure 55: Support for recovery without augmentation

Would you support or oppose grizzly bear recovery in the Cabinet Mountains and Yaak Valley if it could be done without adding additional bears to the Cabinet Mountains?

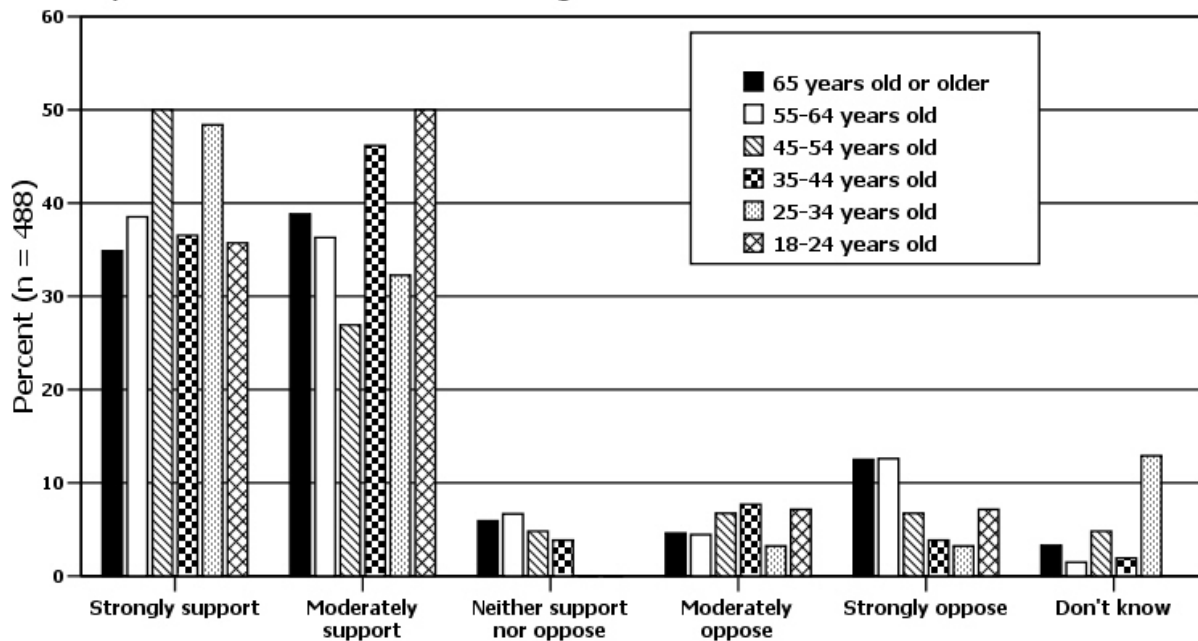


Figure 56: Support for recovery without augmentation compared to age

Would you support or oppose grizzly bear recovery in the Cabinet Mountains and Yaak Valley if it could be done without adding additional bears to the Cabinet Mountains?

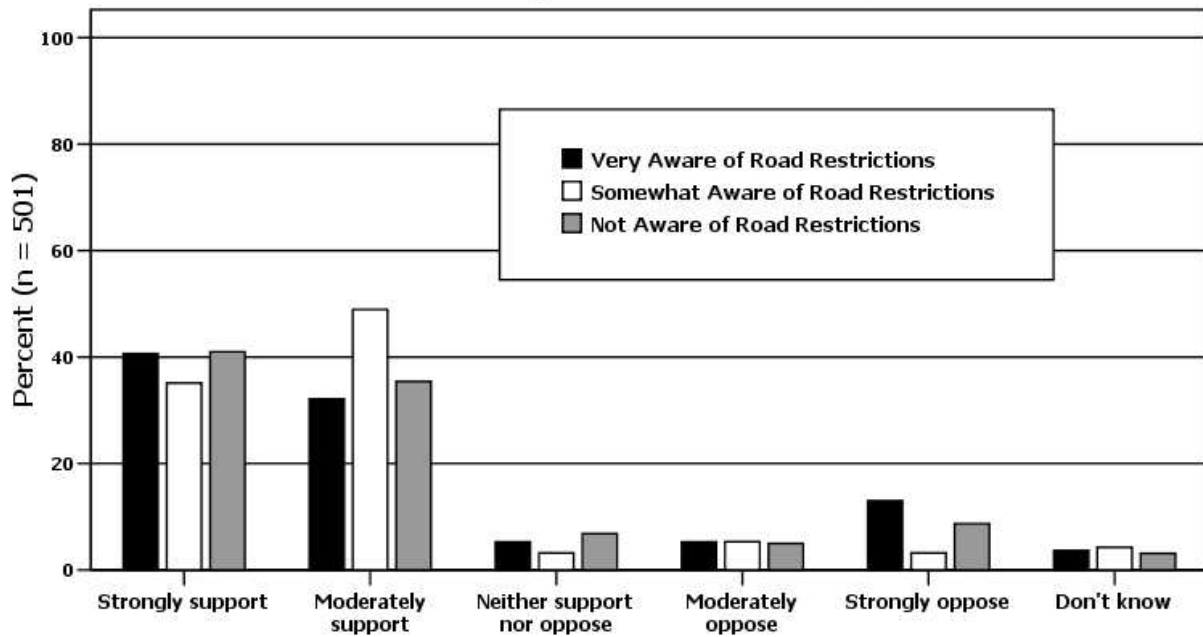


Figure 57: Support for recovery without augmentation compared to awareness of road restrictions

Would you support or oppose grizzly bear recovery in the Cabinet Mountains and Yaak Valley if it could be done without adding additional bears to the Cabinet Mountains?

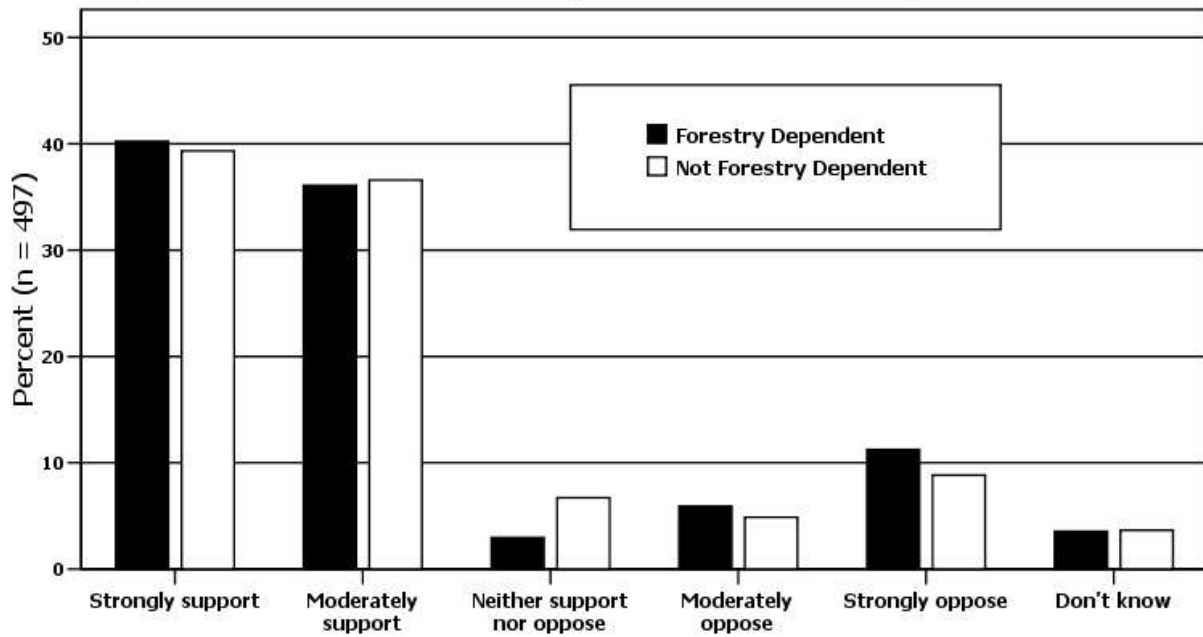


Figure 58: Support for recovery without augmentation compared to forestry dependence

Would you support or oppose grizzly bear recovery in the Cabinet Mountains and Yaak Valley if it could be done without adding additional bears to the Cabinet Mountains?

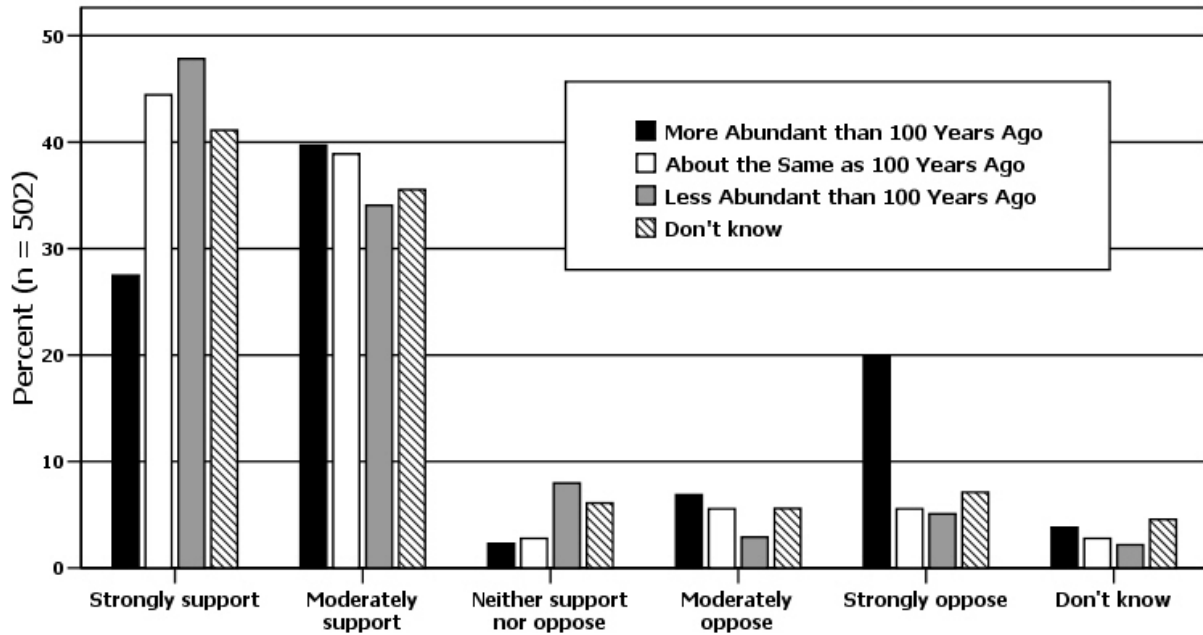


Figure 59: Support for recovery without augmentation compared to abundance

Would you support or oppose grizzly bear recovery in the Cabinet Mountains and Yaak Valley if it could be done without adding additional bears to the Cabinet Mountains?

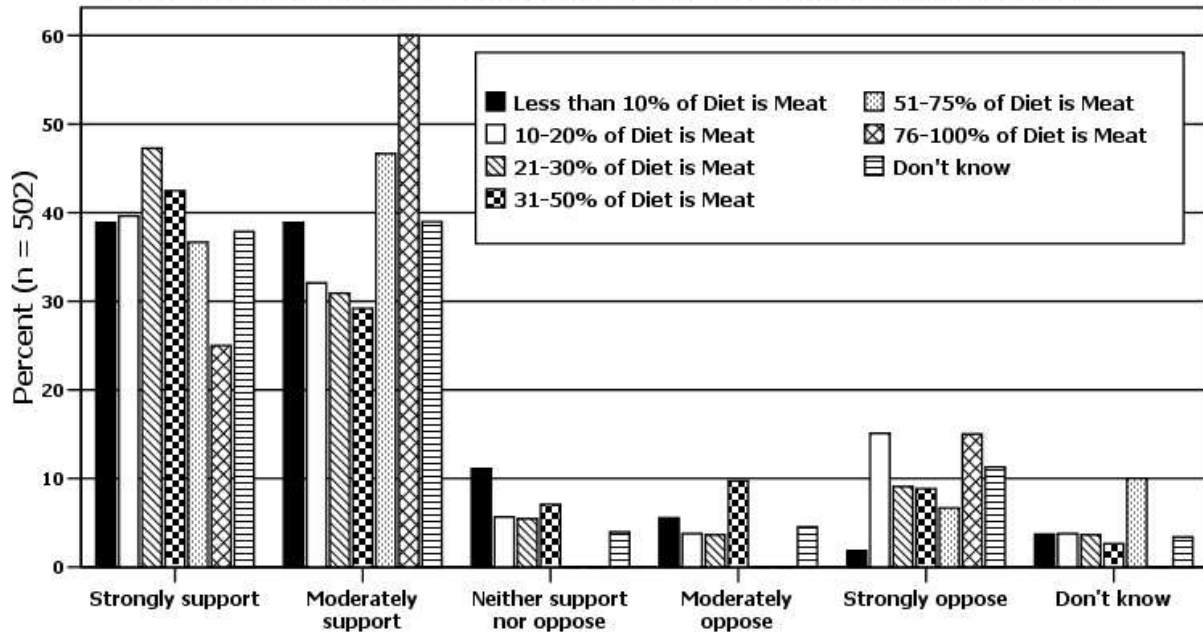


Figure 60: Support for recovery without augmentation compared to meat in diet

### Recreation activities

When asked about the type of activities they participate in within the CYE, the majority responded that they primarily fish, hike, hunt and camp. Twenty-six percent of respondents stated that they had not participated in any outdoor activities in the CYE in the last two years (Figure 61). The majority of respondents spend most of their time recreating in the Cabinet Mountains, however, 26% felt they spend an equal amount of time in both the Cabinet Mountains and the Yaak Valley (Figure 62). While recreating in bear country the three most common food storage methods were hanging food in a tree, storing food in a camper or vehicle, and using a bear-resistant container (Figure 63).

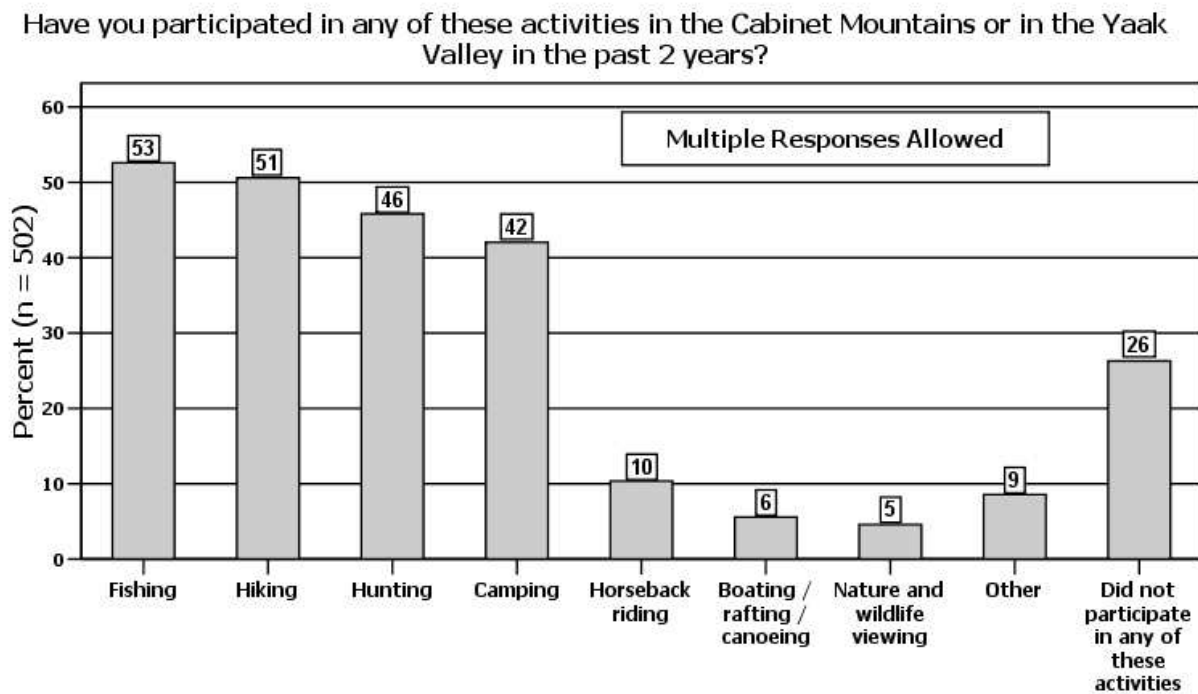


Figure 61: Recreational activities in the CYE

Do you participate in these activities mostly in the Cabinet Mountains, mostly in Yaak Valley, or both about equally? (Asked of those who participated in an activity in the Cabinet Mountains or Yaak Valley.)

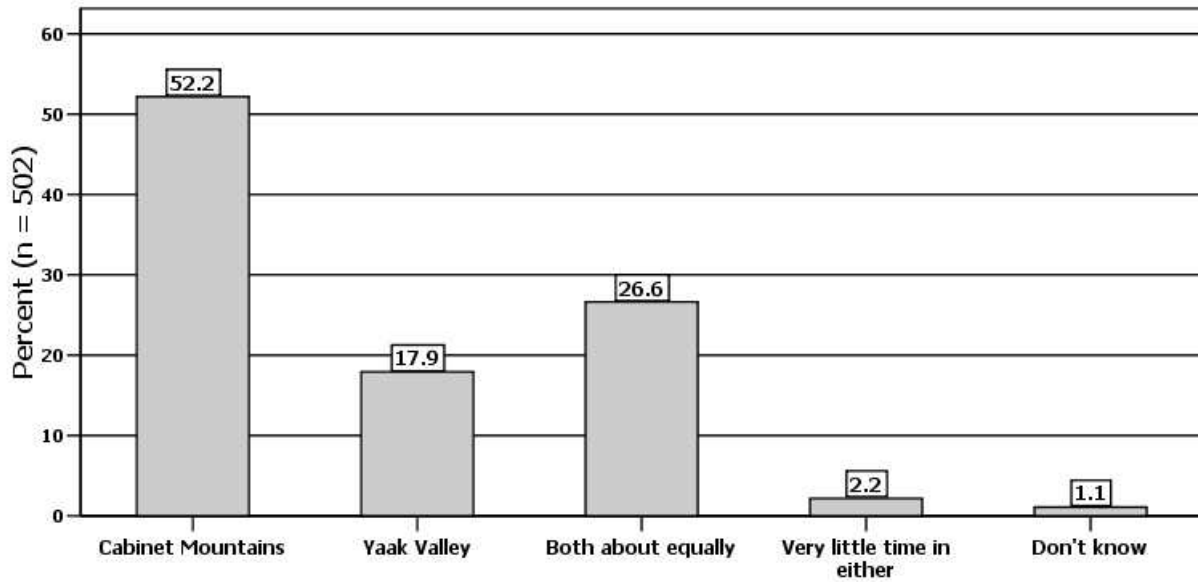


Figure 62: Where do you recreate

How do you typically store food and garbage when you are in bear country?

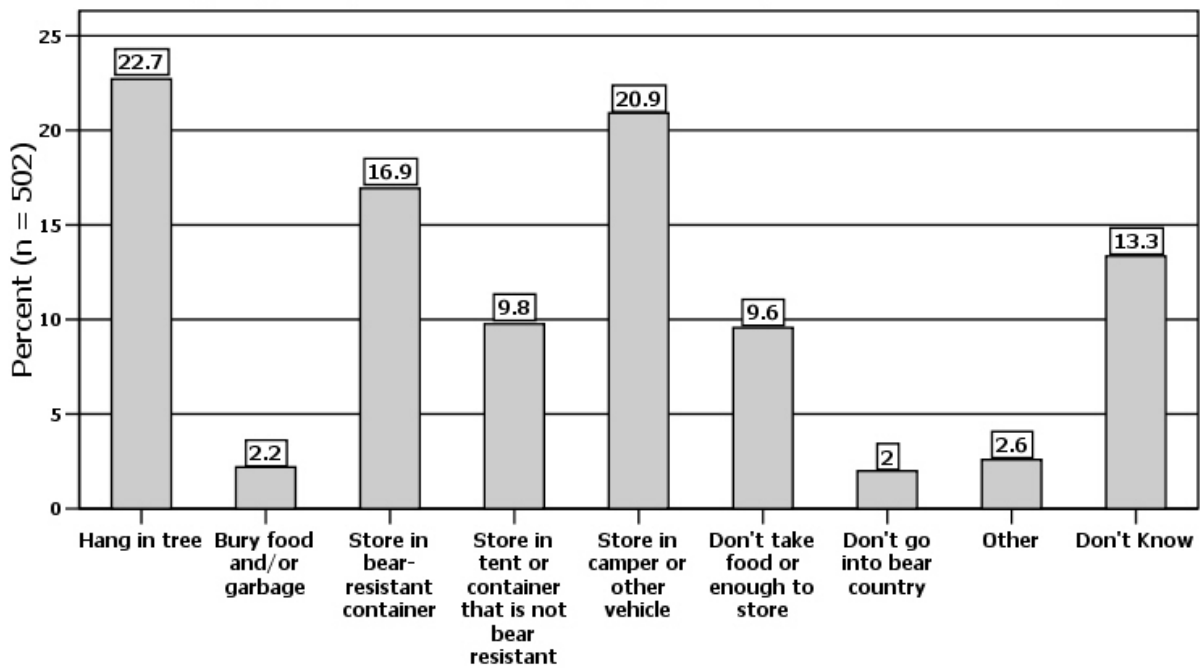


Figure 63: Food and garbage storage



### Management activities

Sixty-nine percent of respondents stated that grizzly bear recovery efforts have not negatively affected their outdoor activities or employment (Figure 64). Of the 30% who felt they had been negatively affected, they cited access problems due to road restrictions as the primary reason (Figure 65). Sixty-eight percent of respondents stated they were aware of current road restrictions in the CYE, while 32% of respondents stated that they were not aware of current road restrictions (Figure 66). Respondent's awareness of current road restrictions was cross-tabulated with questions that asked the respondents age and gender (Figures 67 & 68). The youngest age group appeared less aware of road restrictions than all other age groups and women were generally less aware of road restrictions than men.

Of respondents who were aware of the road restrictions, 35% said the restrictions were a major problem, 27% said they were a minor problem, and 37% said that they did not consider the restrictions to be a problem (Figure 69). Of those that said road restrictions were a problem, 50% said that restrictions made it more difficult to hunt and fish (Figure 70). When asked about support for current road restrictions 49% supported and 42% opposed them (Figure 71). Respondents were also asked if they would consider supporting additional road restrictions if it could benefit grizzly bear recovery, 58% of respondents were opposed to this idea and 31% supported this (Figure 72).

Nearly all respondents agreed that residents and visitors could prevent most conflicts with grizzly bears (Figure 73). Sixty-two percent of respondents would support changes in garbage disposal methods to prevent conflicts with grizzly bears (Figure 74). When changes in garbage disposal methods were cross-tabulated with a belief on the relative abundance of grizzly bears, there was greater support among respondents who believed that grizzly bears are less abundant now than 100 years ago (Figure 75).

Seventy-four percent of respondents felt that wildlife managers should promptly trap and relocate any grizzly bears seen in residential areas (Figure 76). Forty-nine percent of respondents stated that grizzly bears that act aggressively towards humans should be relocated elsewhere, while 31% felt they should be destroyed (Figure 77).

Respondents appeared to generally believe that biologists provide the public with accurate information on grizzly bears in the CYE. However, 30% stated they did not feel accurate information is provided by biologists (Figure 78). The majority of respondents agreed that local citizens should be involved in major decisions about grizzly bear recovery in the CYE (Figure 79) and agreed that residents would, in turn, be willing to work with wildlife agencies on grizzly bear recovery efforts (Figure 80). Sixty-five percent of respondents also felt that wildlife managers should allow hunting of grizzly bears in the CYE once the population is recovered (Figure 81).

If a program were available to compensate ranchers for livestock losses due to grizzly bears in the Cabinet Mountains and Yaak Valley, 62% of respondents would support recovery (Figure 82).

Is there anything related to grizzly bear recovery efforts in the Cabinet Mountains and Yaak Valley that has reduced the quality of your outdoor activities, prevented you from participating in outdoor activities as much as you would like, or negatively affected your employment?

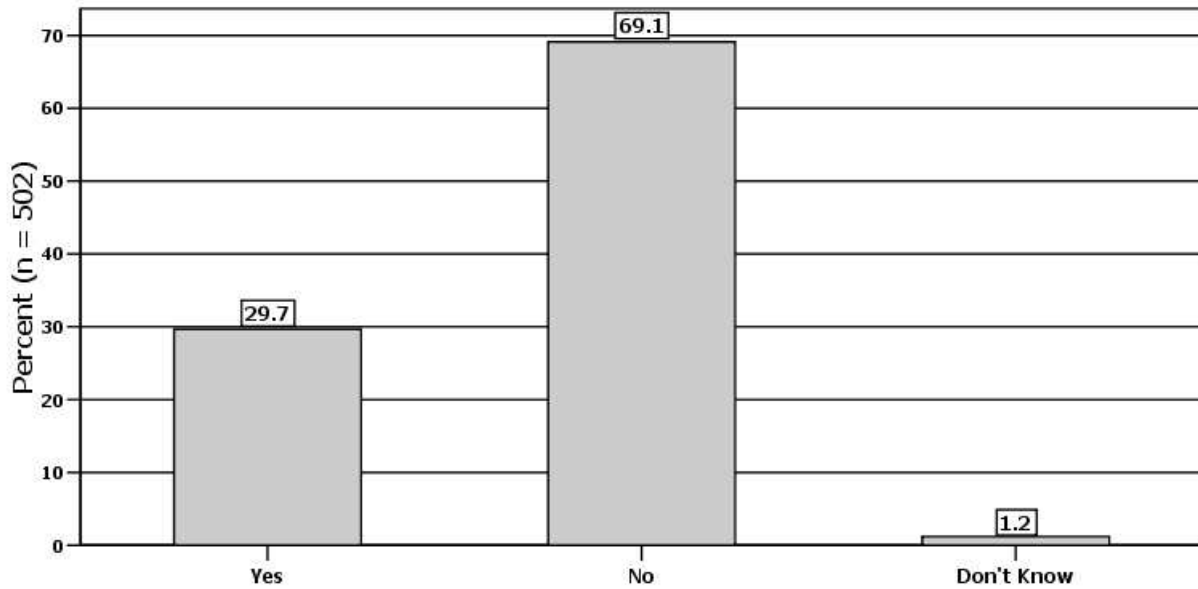


Figure 64: Has recovery affected lifestyle

Reason grizzly bear recovery has reduced your quality of outdoor activities or negatively affected your employment. (Asked of those who indicated that grizzly bear recovery has reduced quality of outdoor activities or affected employment.)

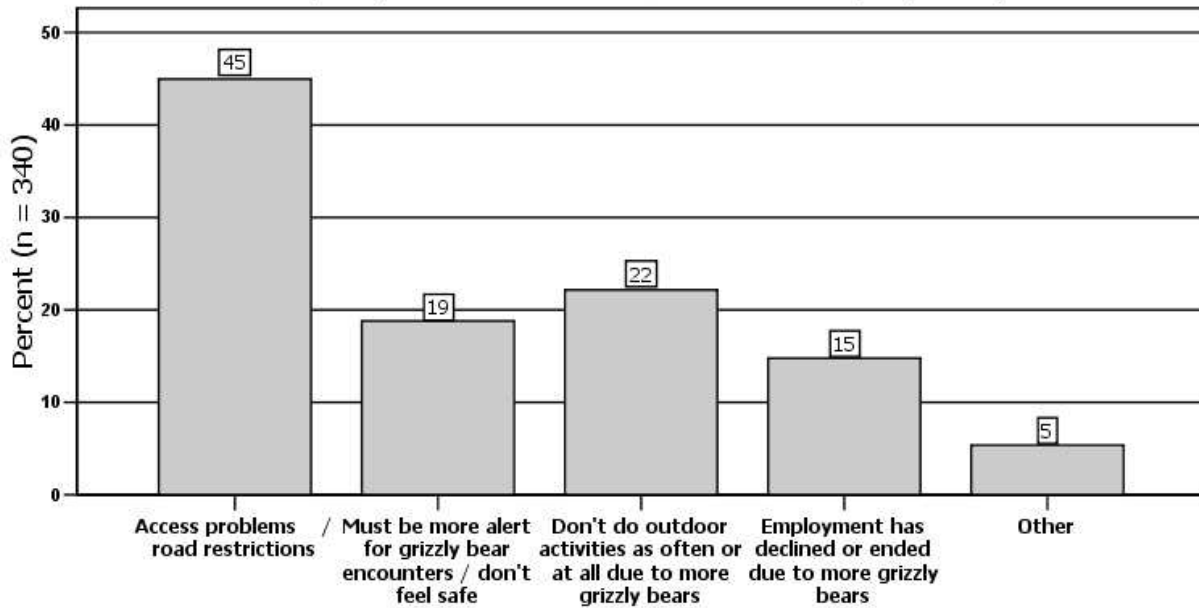


Figure 65: Reason recovery affects lifestyle

Currently, there are some road restrictions due in part to grizzly bear recovery in the Cabinet Mountains and Yaak Valley. Prior to this survey, how aware were you of current road restrictions due to grizzly bear recovery in the Cabinet Mountains and Yaak Valley?

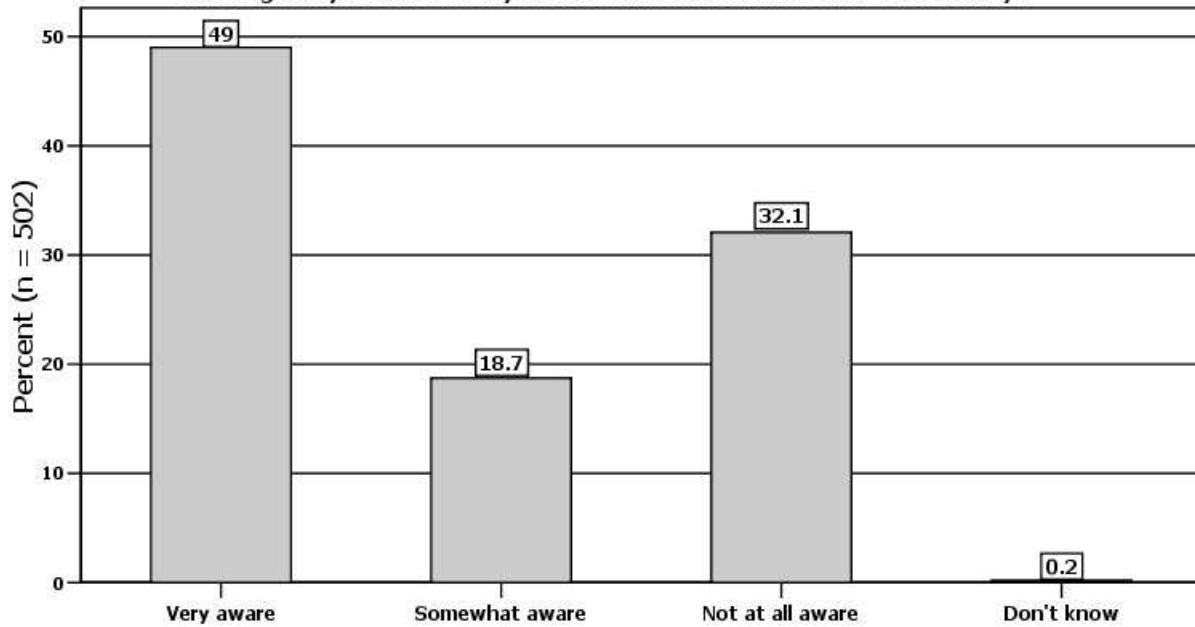


Figure 66: Awareness of road restrictions

Currently, there are some road restrictions due in part to grizzly bear recovery in the Cabinet Mountains and Yaak Valley. Prior to this survey, how aware were you of current road restrictions due to grizzly bear recovery in the Cabinet Mountains and Yaak Valley?

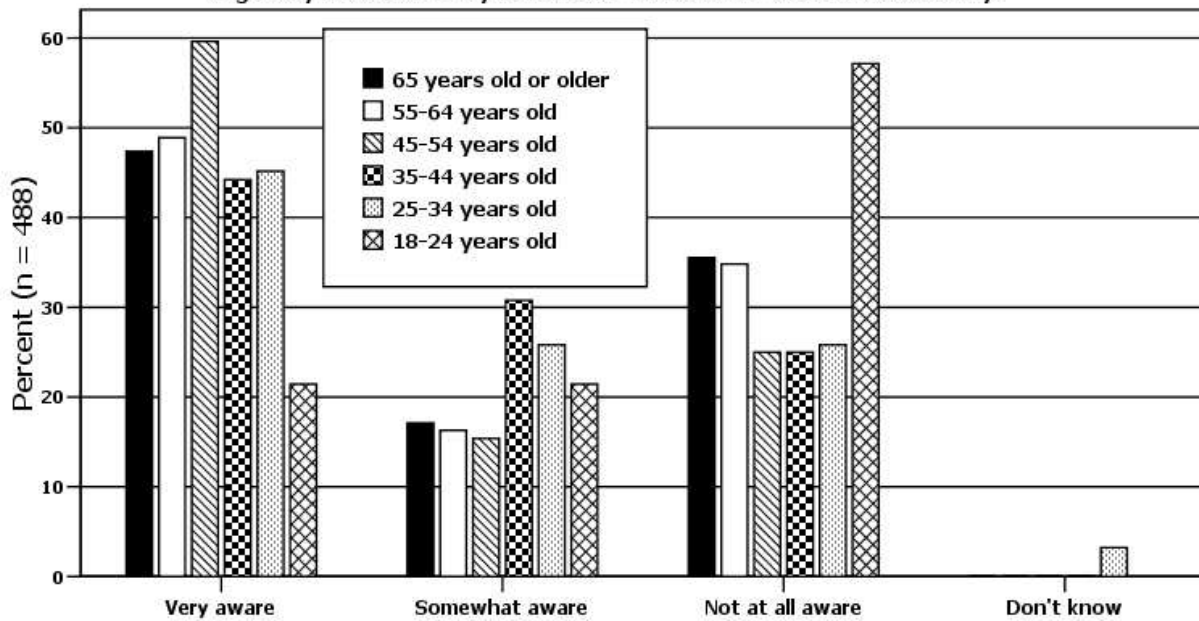


Figure 67: Awareness of road restrictions compared to age

Currently, there are some road restrictions due in part to grizzly bear recovery in the Cabinet Mountains and Yaak Valley. Prior to this survey, how aware were you of current road restrictions due to grizzly bear recovery in the Cabinet Mountains and Yaak Valley?

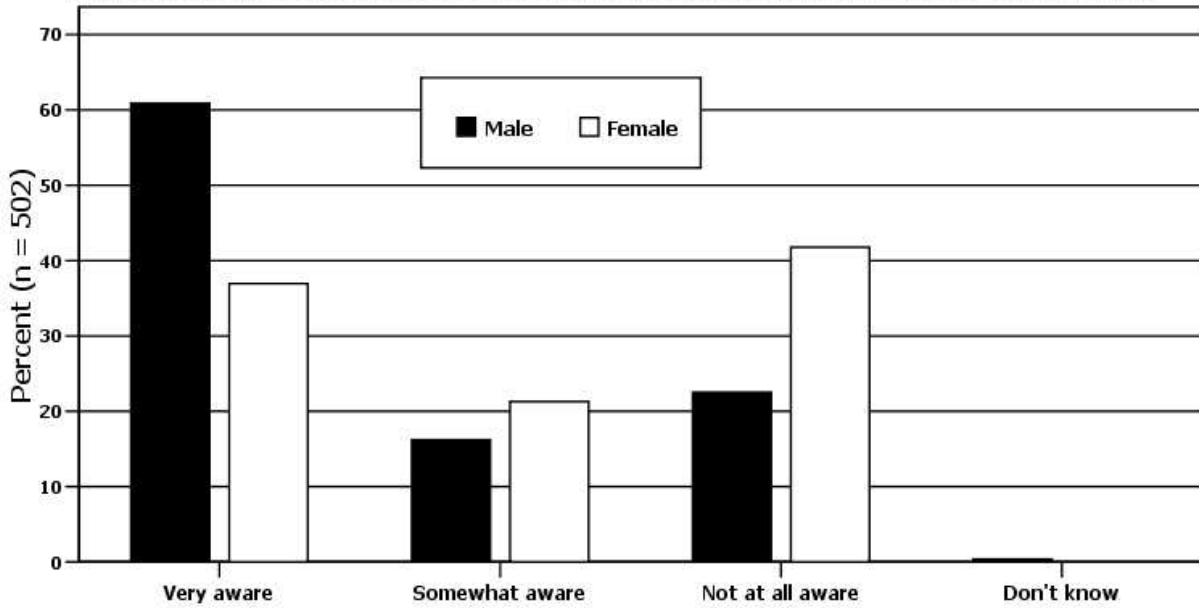


Figure 68: Awareness of road restrictions compared to age

For you personally, would you say these road restrictions are a major problem, a minor problem, or not a problem at all? (Asked of those who are aware of current road restrictions due to grizzly bear recovery in the Cabinet Mountains and Yaak Valley.)

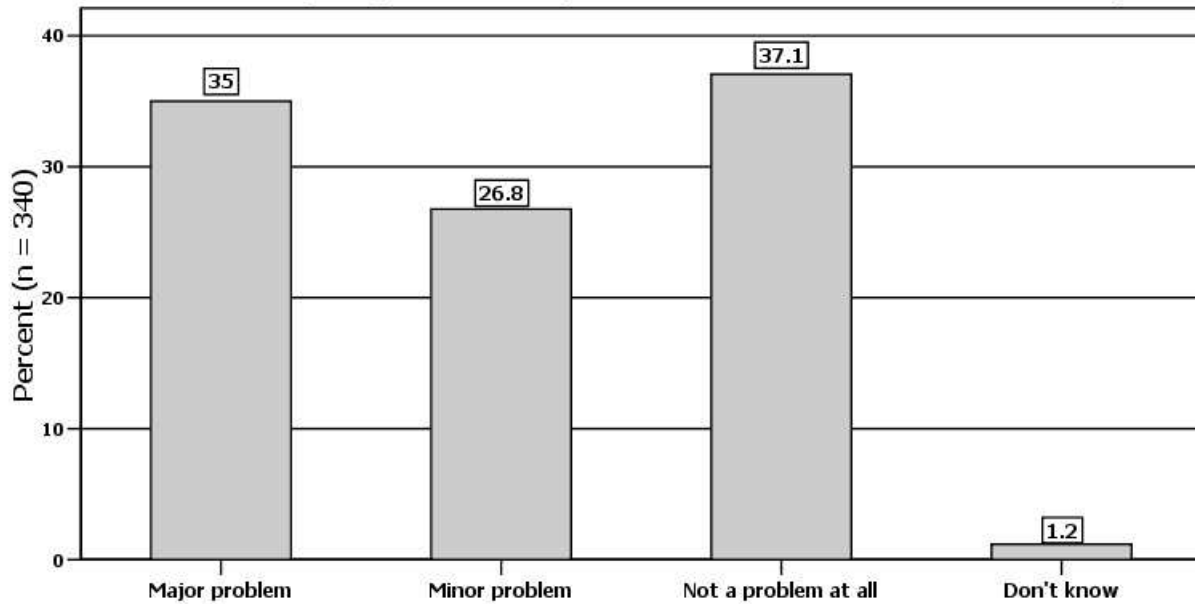


Figure 69: Are road restrictions a problem

Why are the current road restrictions a problem for you? (Asked of those who say the road restrictions are a problem)

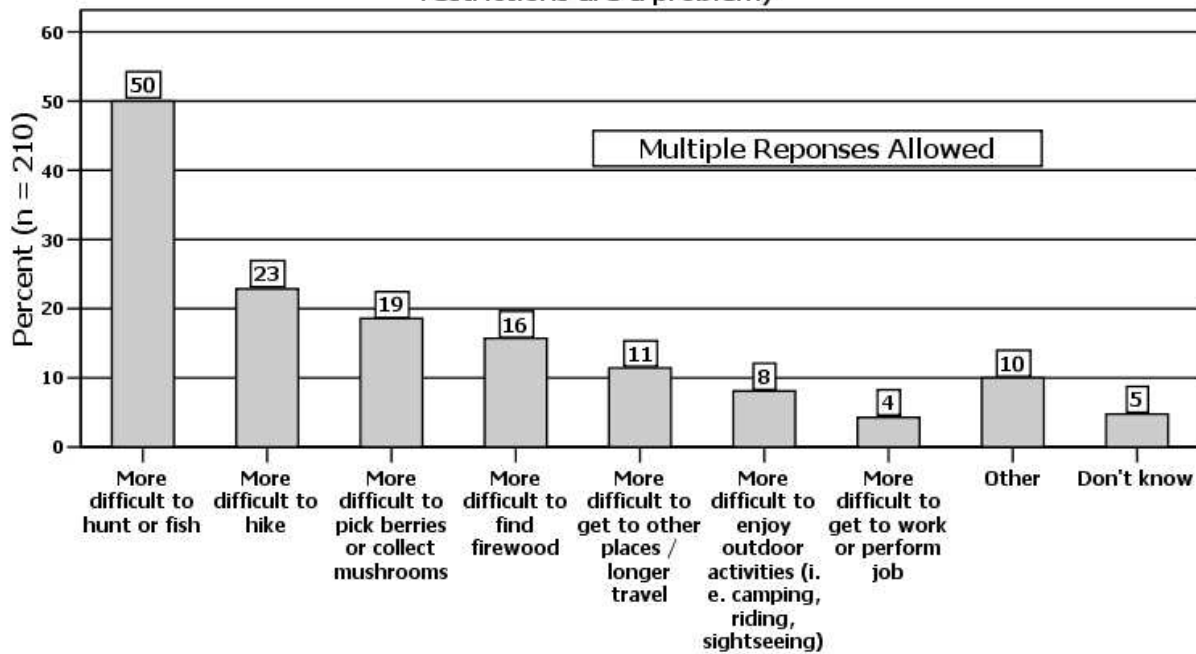


Figure 70: Reasons why road restrictions are a problem

Biologists have determined that some road restrictions are necessary for grizzly bear recovery. Knowing this, do you support or oppose the current road restrictions for the purpose of grizzly bear recovery?

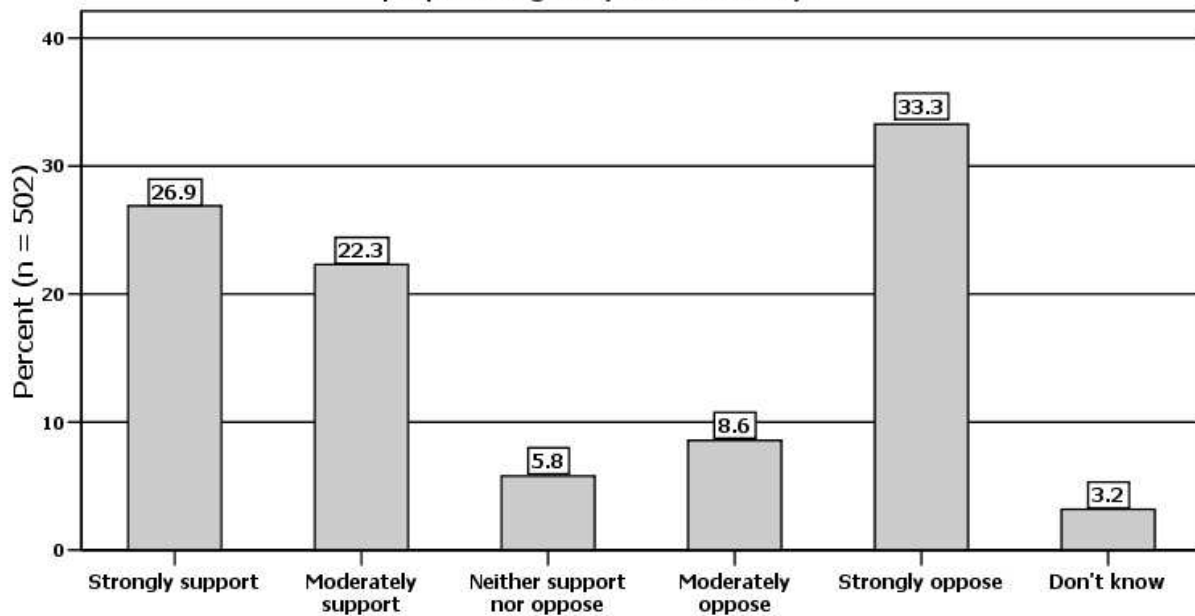


Figure 71: Support for current road restrictions

Would you support or oppose more road restrictions in the Cabinet Mountains and Yaak Valley if it were found that the restrictions would benefit grizzly bear recovery?

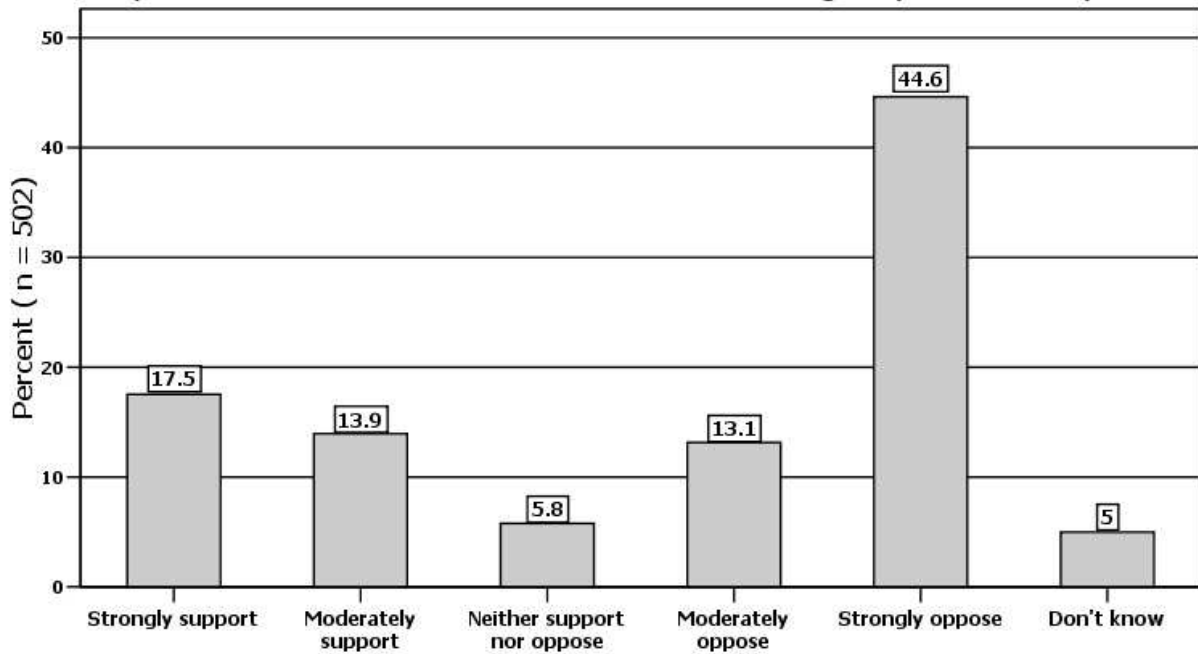


Figure 72: Support for more road restrictions

Residents and visitors to the Cabinet Mountains and Yaak Valley can prevent most conflicts with grizzly bears by taking a few precautions. Do you agree or disagree with this statement?

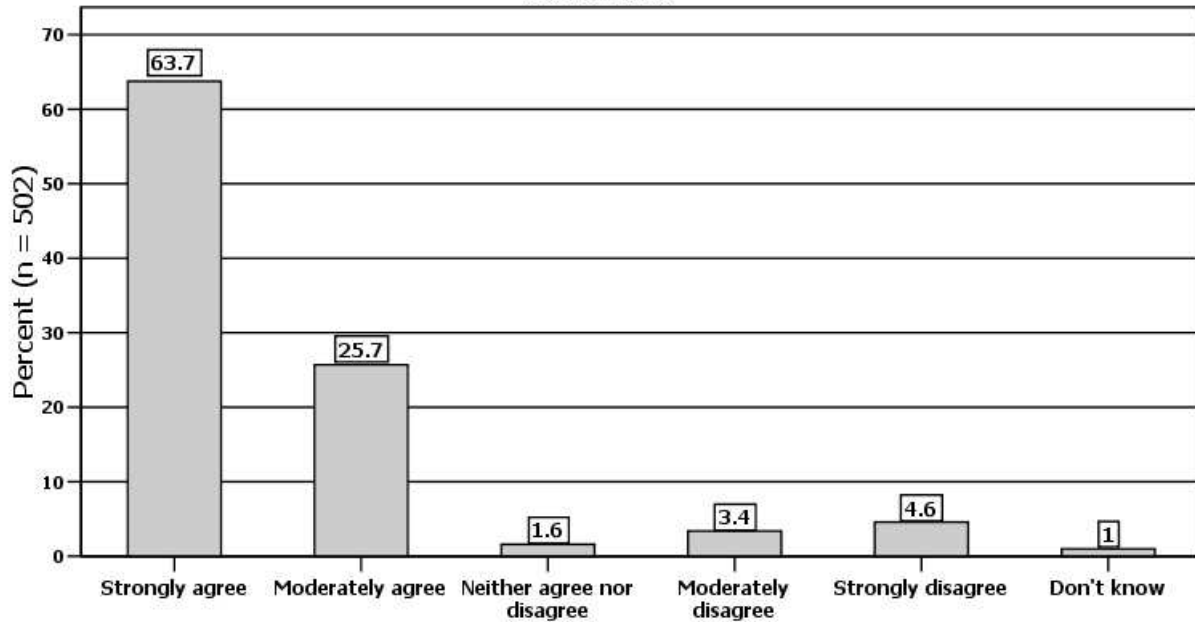


Figure 73: Residents can prevent conflicts

If changes to current garbage disposal methods were required to prevent problems with grizzly bears, would you support or oppose grizzly bear recovery in the Cabinet Mountains and Yaak Valley?

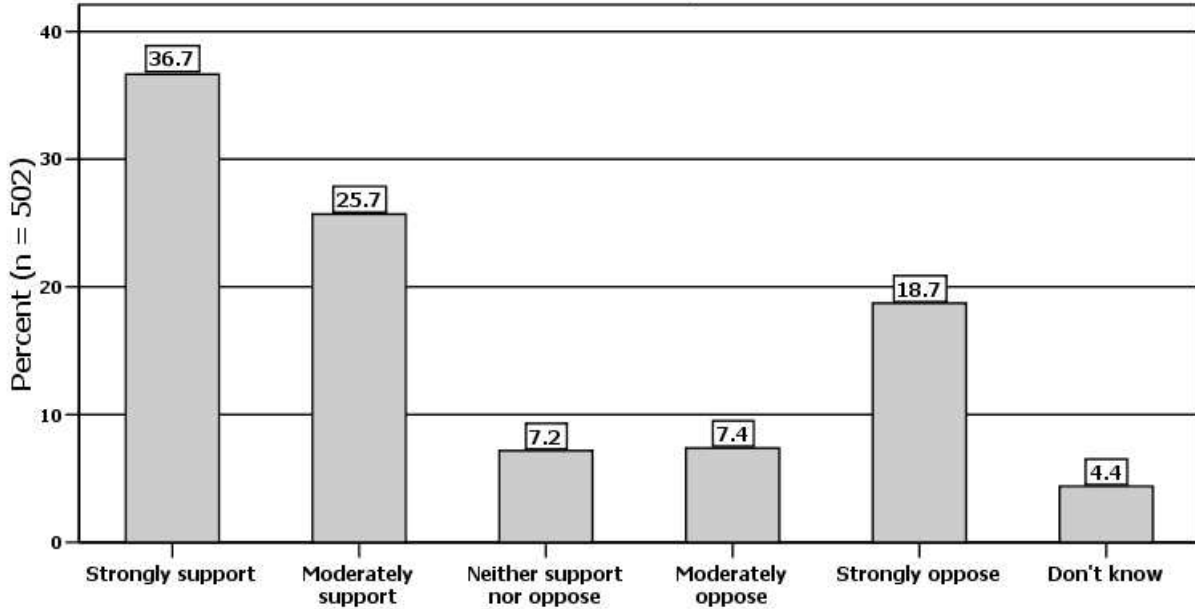


Figure 74: Changes to disposal methods

If changes to current garbage disposal methods were required to prevent problems with grizzly bears, would you support or oppose grizzly bear recovery in the Cabinet Mountains and Yaak Valley?

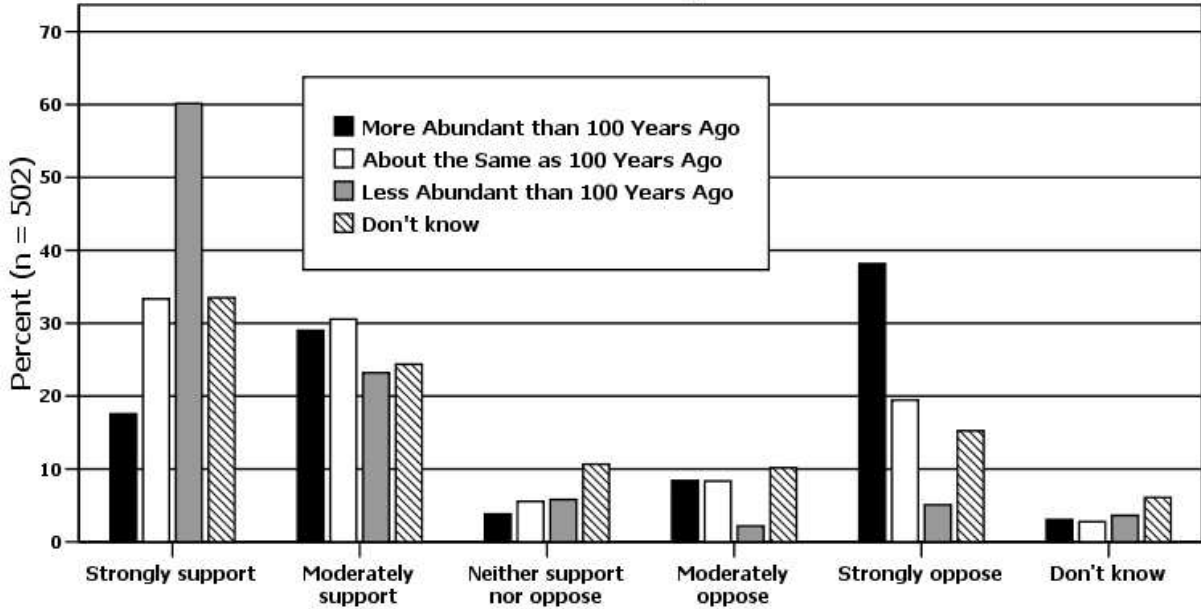


Figure 75: Changes to garbage disposal compared to abundance

Wildlife managers should promptly trap and relocate any grizzly bears seen in residential areas. Do you agree or disagree with this statement?

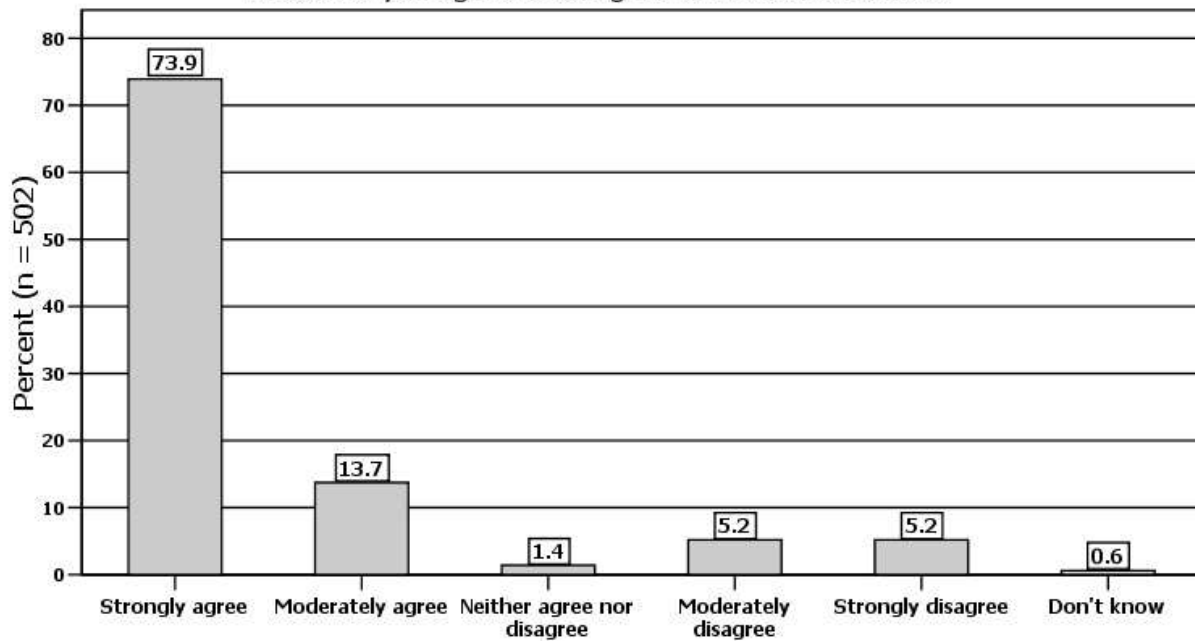


Figure 76: Relocation in residential areas

Generally, wildlife managers promptly remove any grizzly bears that act aggressively towards humans. In your opinion, should grizzly bears that act aggressively toward humans be relocated or destroyed?

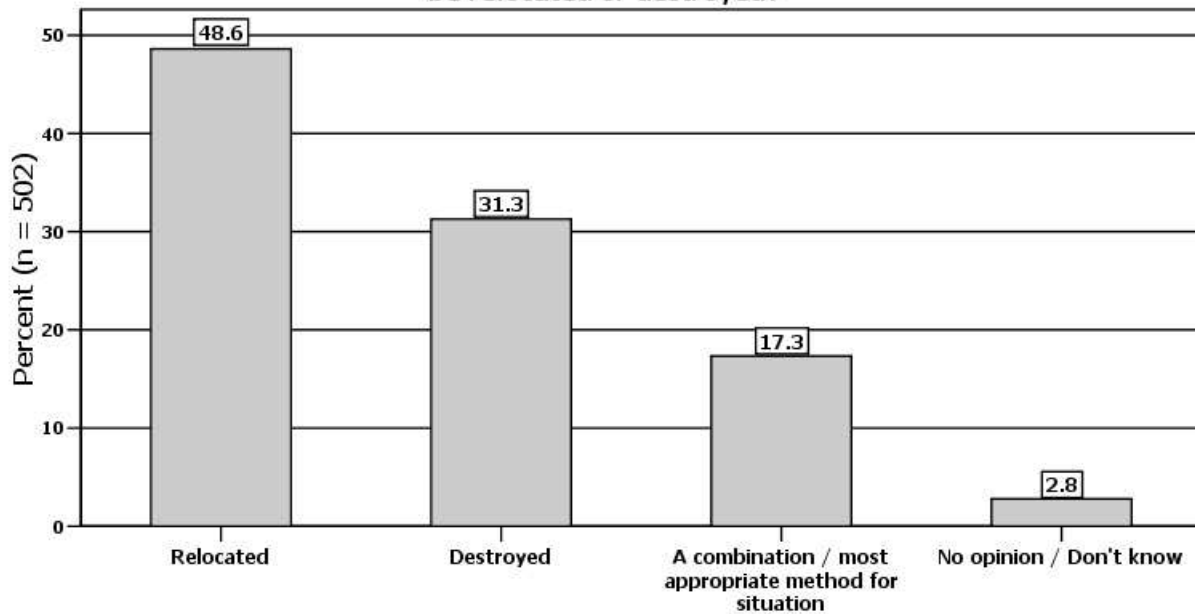


Figure 77: Removal of aggressive animals



Biologists provide accurate information to the public for understanding and managing the grizzly bear population in the Cabinet Mountains and Yaak Valley. Do you agree or disagree with this statement?

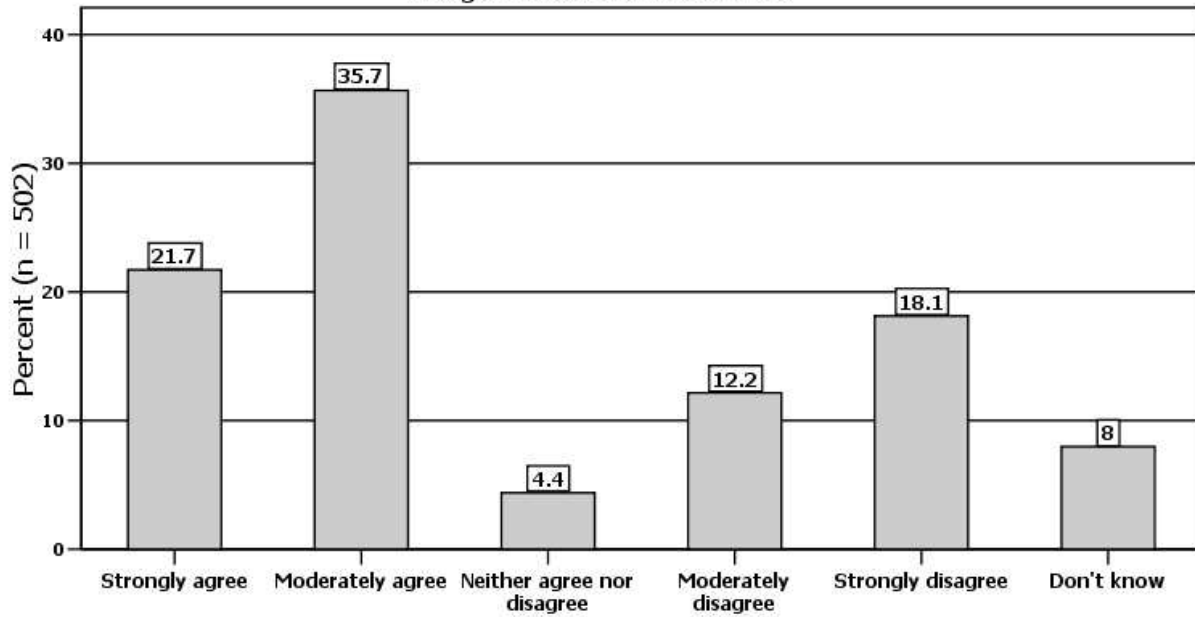


Figure 78: Information from biologists

Wildlife managers should involve local citizens in all major decisions about grizzly bear recovery in the Cabinet Mountains and Yaak Valley. Do you agree or disagree with this statement?

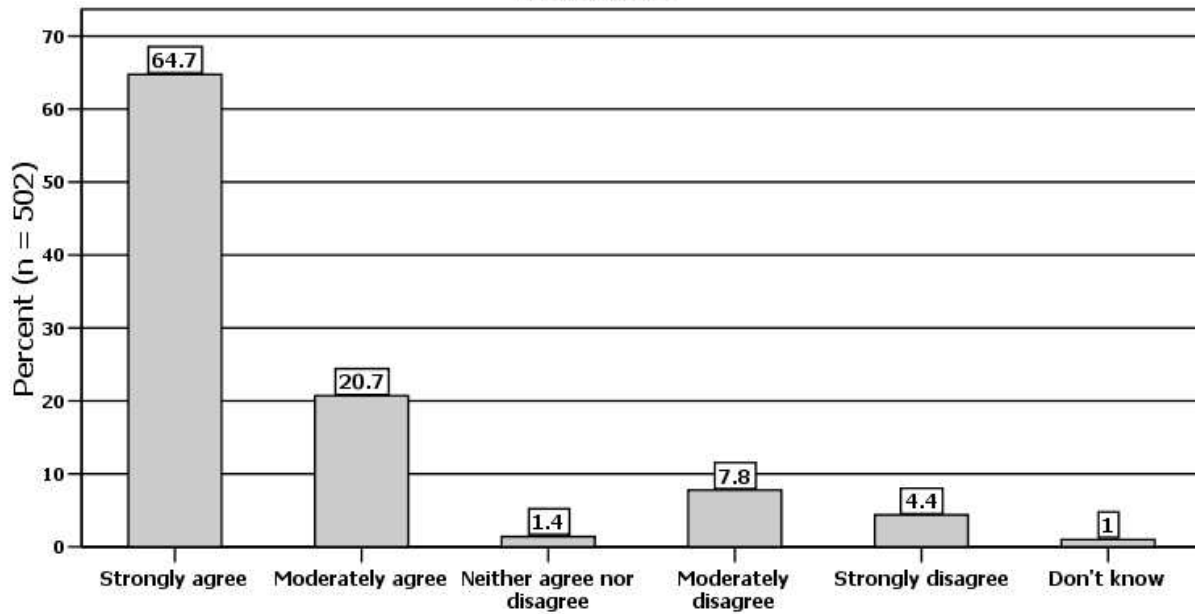


Figure 79: Citizens involved in decision making

Residents of the Cabinet Mountains and Yaak Valley will be willing to work with wildlife management agencies to determine the best way to recover grizzly bears. Do you agree or disagree with this statement?

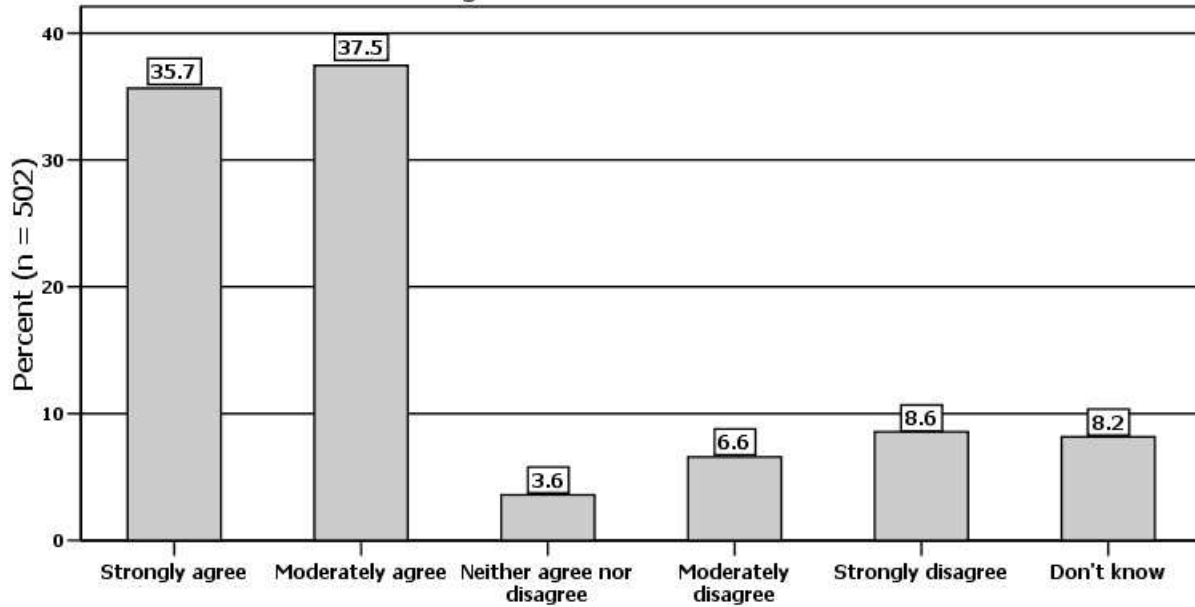


Figure 80: Residents willing to work with managers

Once the grizzly bear population has recovered in the Cabinet Mountains and Yaak Valley, do you agree or disagree that agency wildlife managers should allow grizzly bears to be hunted?

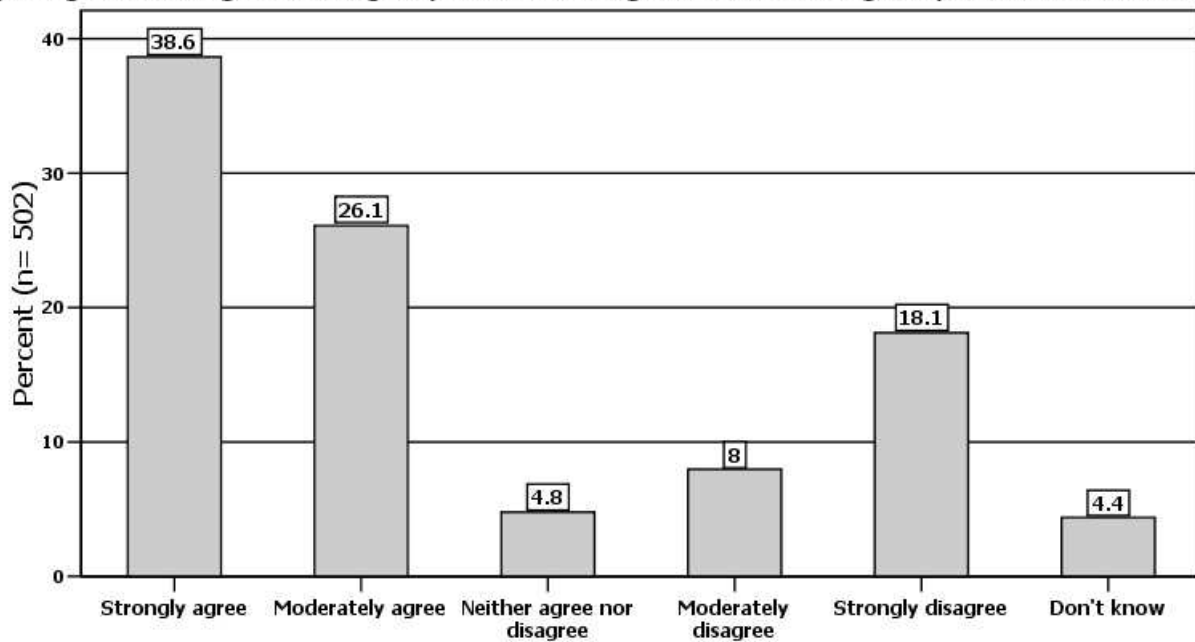


Figure 81: Hunting after recovery

If a program were available to compensate ranchers for livestock losses due to grizzly bears, would you support or oppose grizzly bear recovery in the Cabinet Mountains and Yaak Valley?

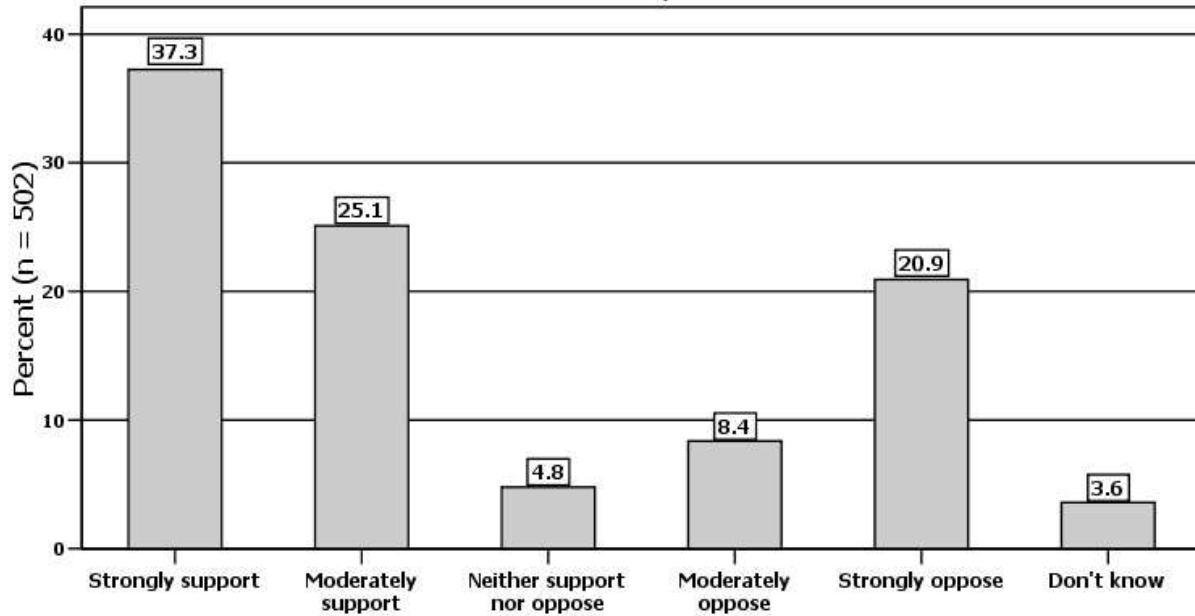


Figure 82: Compensation for ranchers

Information sources

Newspapers and magazines, followed by television/film and word-of-mouth, were the most common sources of information on grizzly bears (Figure 83).

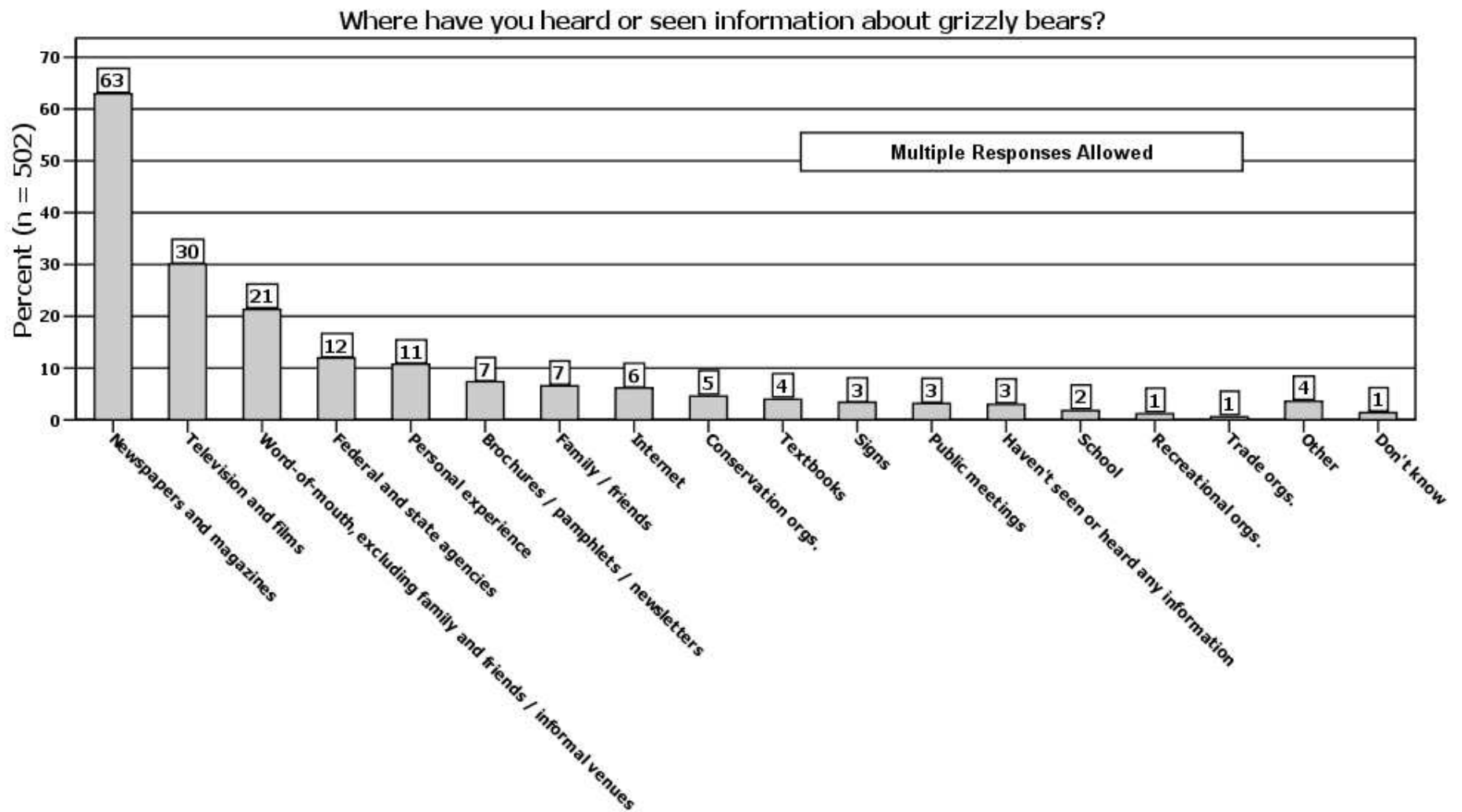


Figure 83: Information sources

## Demographics

Ninety-five percent of respondents consider themselves to be full-time residents of their respective county (Figure 84). Families that are at least partly dependent upon forest related industries made up 65% of the respondents (Figure 85) and were mostly related to the logging industry (Figure 86). Respondents age, gender, level of education, town and county were also collected (Figures 87, 88, 89, 90 & 91).

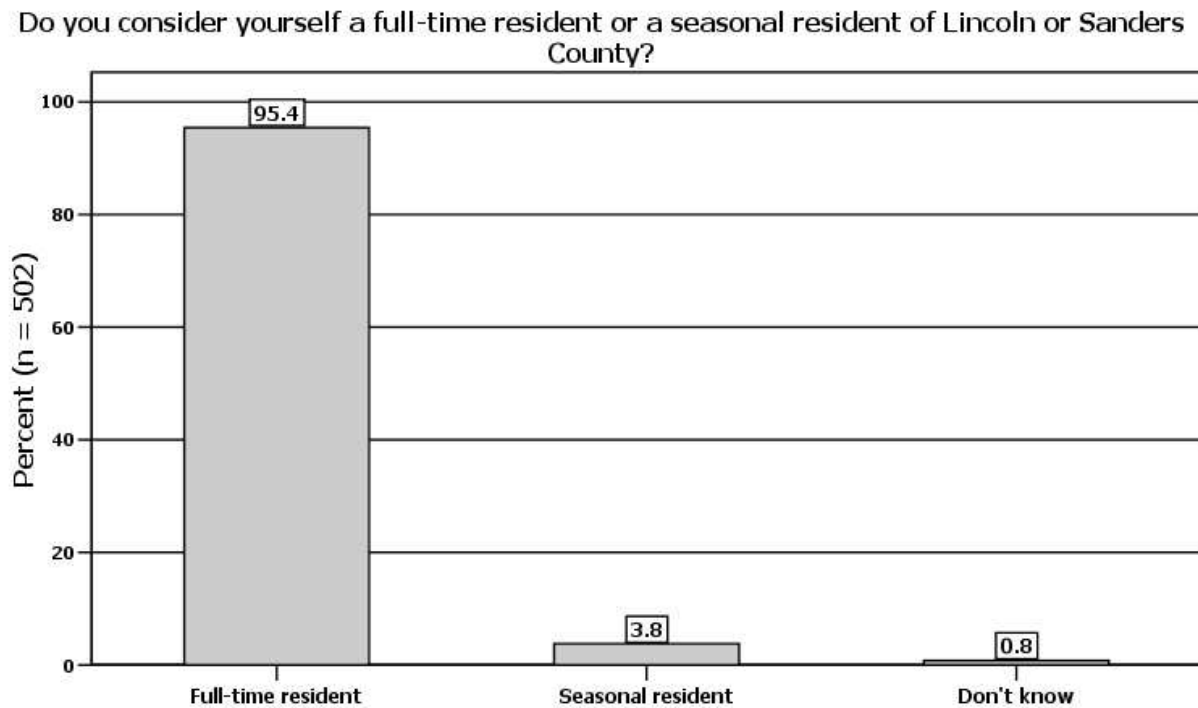


Figure 84: Full time resident

Has your or your family's income been wholly or partly dependent on the forest or a forestry related industry in the Cabinet Mountains or Yaak Valley at any time in the past 5 years?

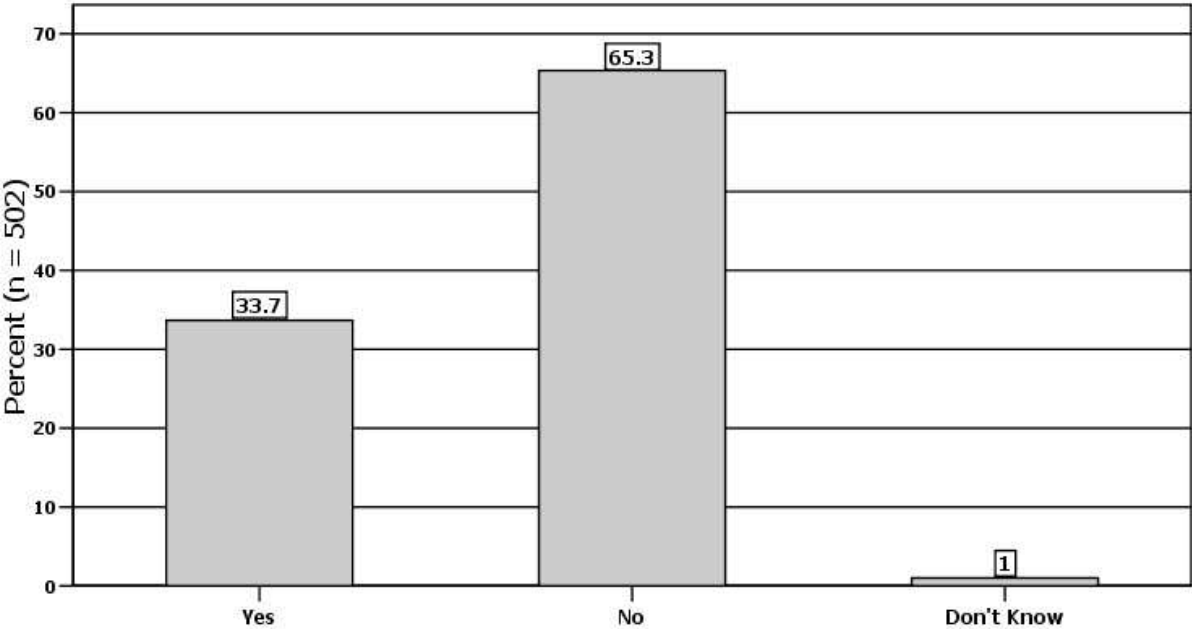


Figure 85: Family dependency on forestry

What activity or job did you or someone else in your family do that was dependent on the forest or was forestry related in the Cabinet Mountains or Yaak Valley? (Asked of those who had a job or whose family member had a job that was dependent on the forest or was forestry related)

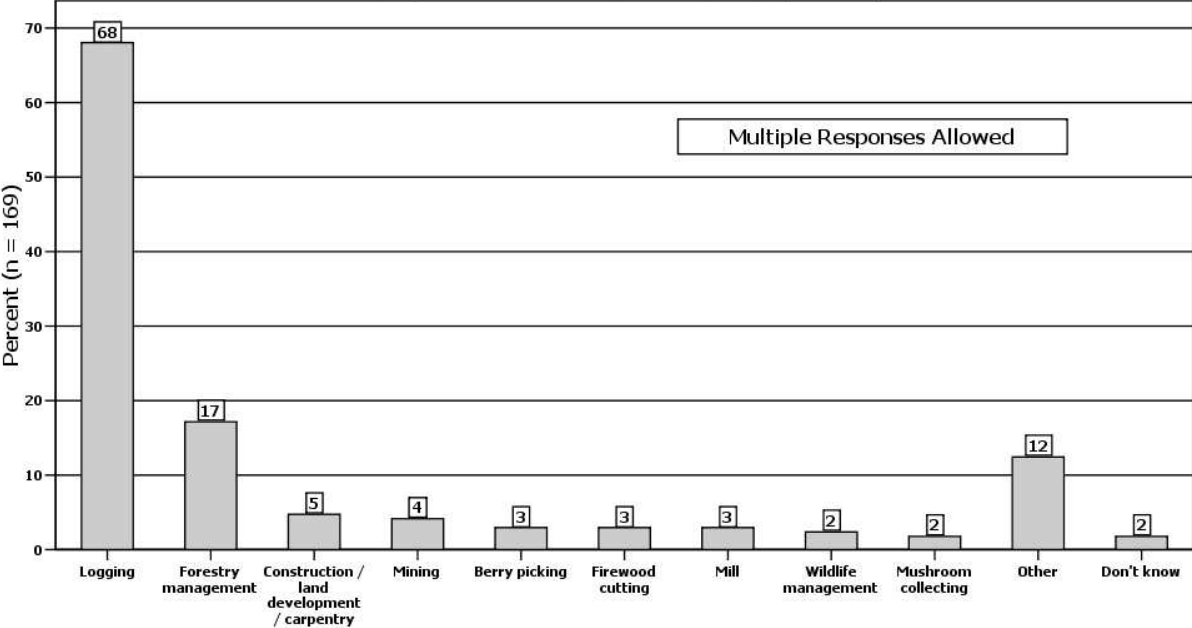
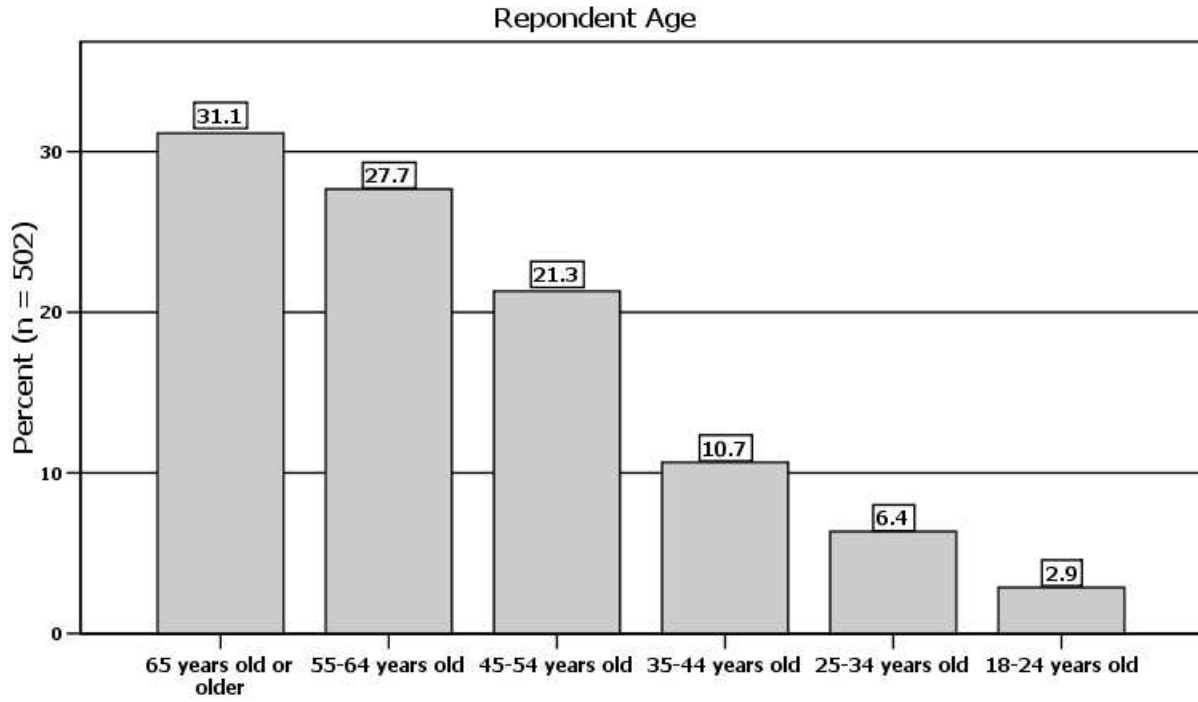
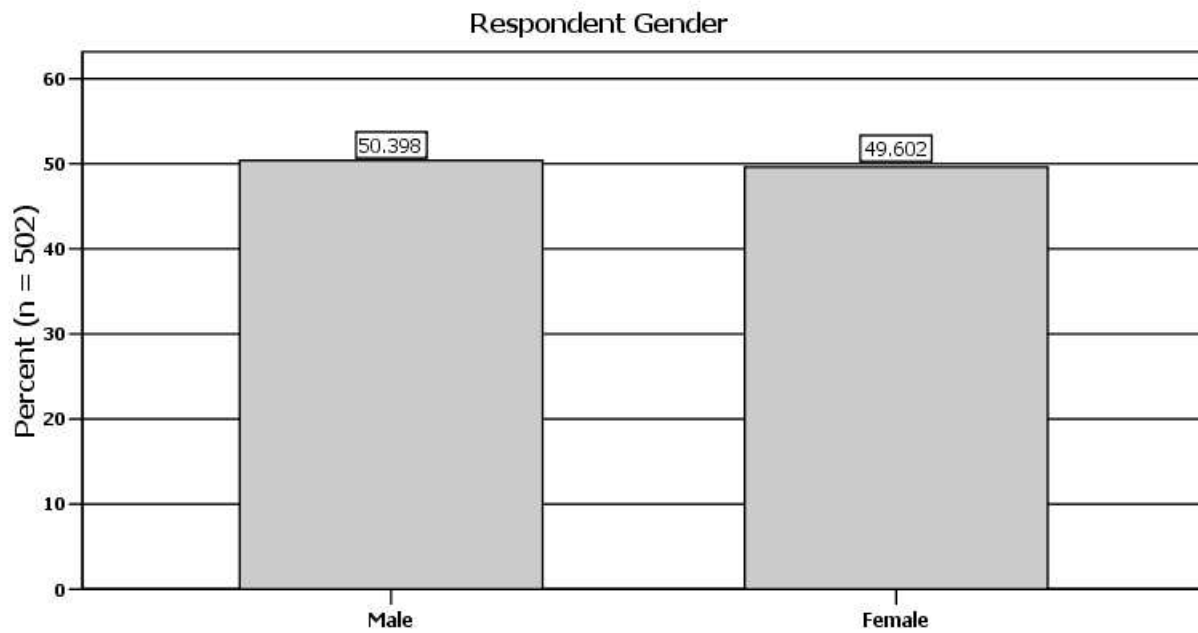


Figure 86: Type of forest related employment



**Figure 87: Age of respondents**



**Figure 88: Gender of respondents**

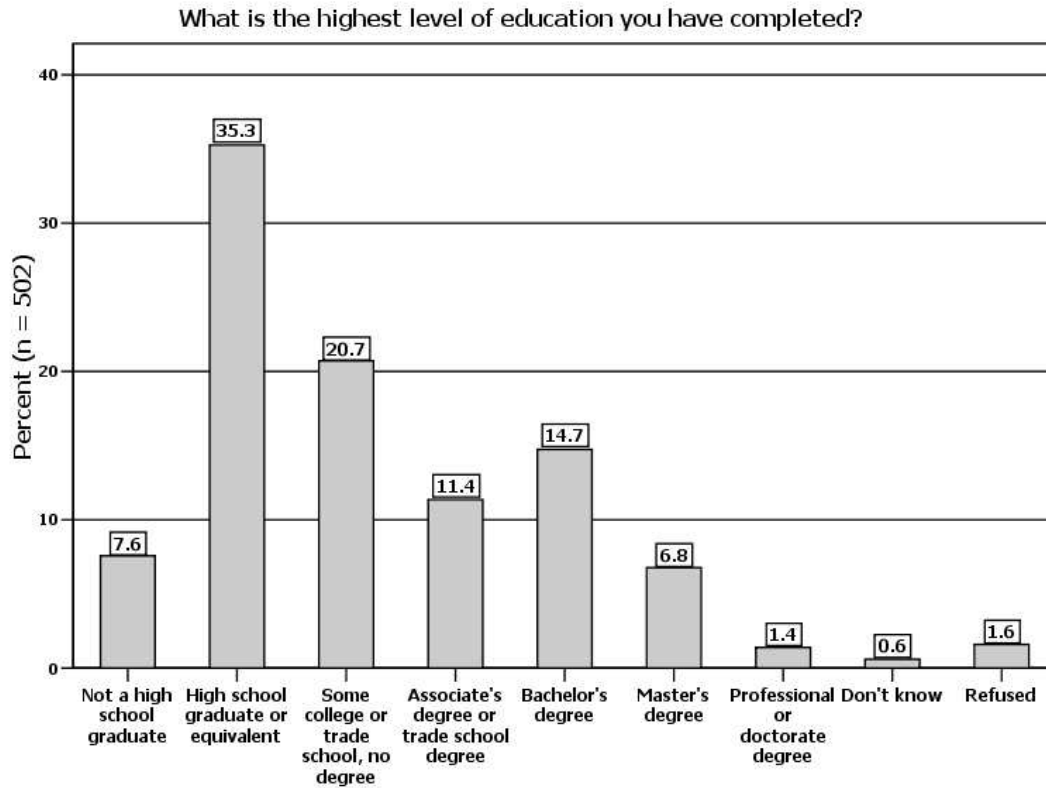


Figure 89: Education level

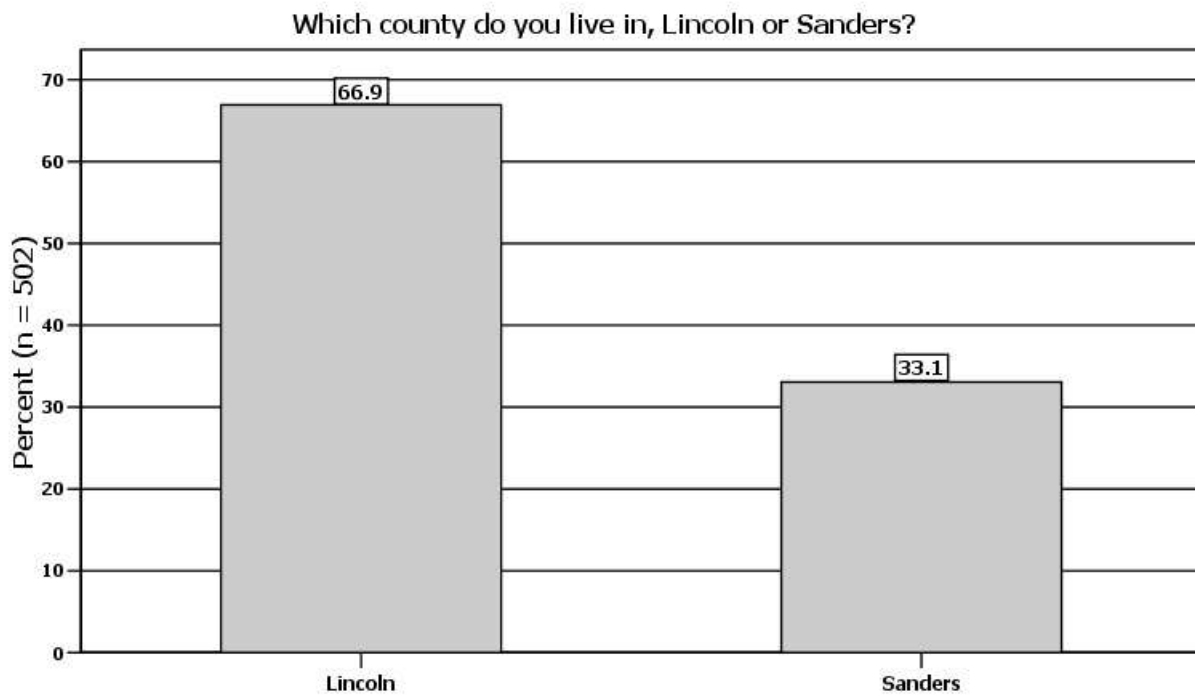
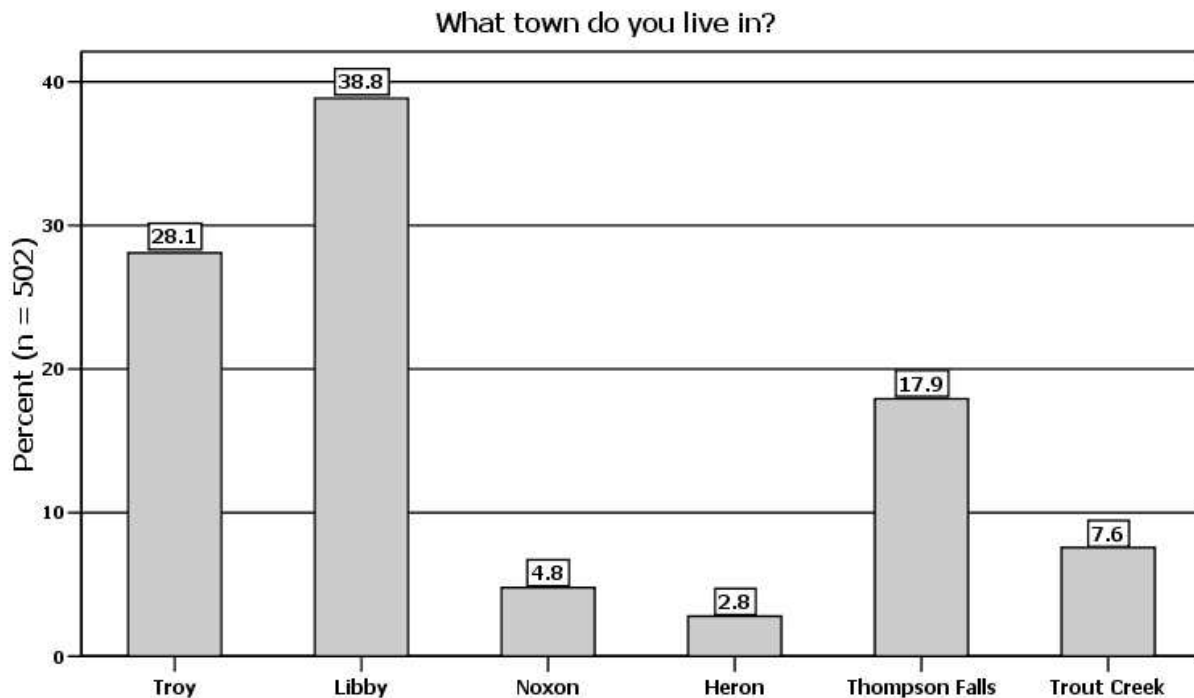


Figure 90: County of residence





**Figure 91: Town of residence**

Age biased sampling and the Survey Findings

Younger age groups demonstrated more support for grizzly bears and recovery efforts in the CYE. However, despite efforts to prevent survey bias, respondents under 44 years of age were under sampled and respondents over 55 years of age were over sampled when compared to proportions present in each county during the 2000 US Census (Figure 92).

We examined the effect of this over or under sampling by developing a weighting factor (census percentage for each age group divided by the survey percentage for the same group). This factor was applied to the raw survey counts for each age group to develop adjusted counts and new percentages were calculated for three key questions (Figures 93, 94, 95). Adjusted percentages produced slightly higher levels of support and less opposition (strong and moderate) for having grizzly bears, recovery of grizzly bears, and the recovery goal of 100 grizzly bears in the CYE. These differences between raw and adjusted values ranged from 1.1 to 4.2 percent and were generally within the margin of error of this survey (plus or minus 4 percent). Therefore we conclude that the potential bias associated with age distribution in the sample was minor and had little effect on overall survey results or trends.

**Age of Respondents Compared with Census Data**

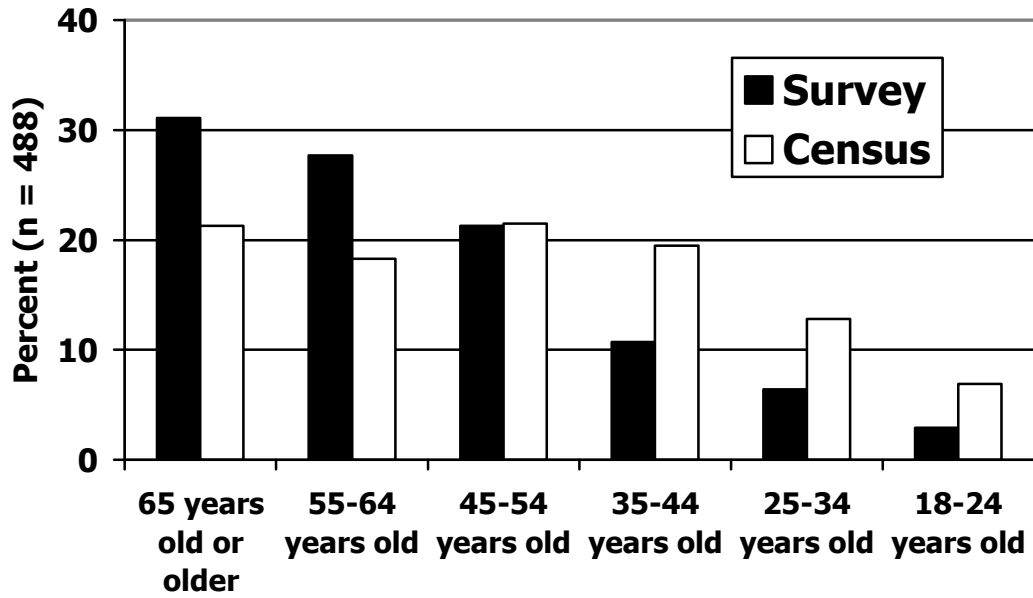


Figure 92: Age of Respondents vs. 2000 Census

**In general, do you support or oppose having grizzly bears in the Cabinet Mountains and Yaak Valley?**

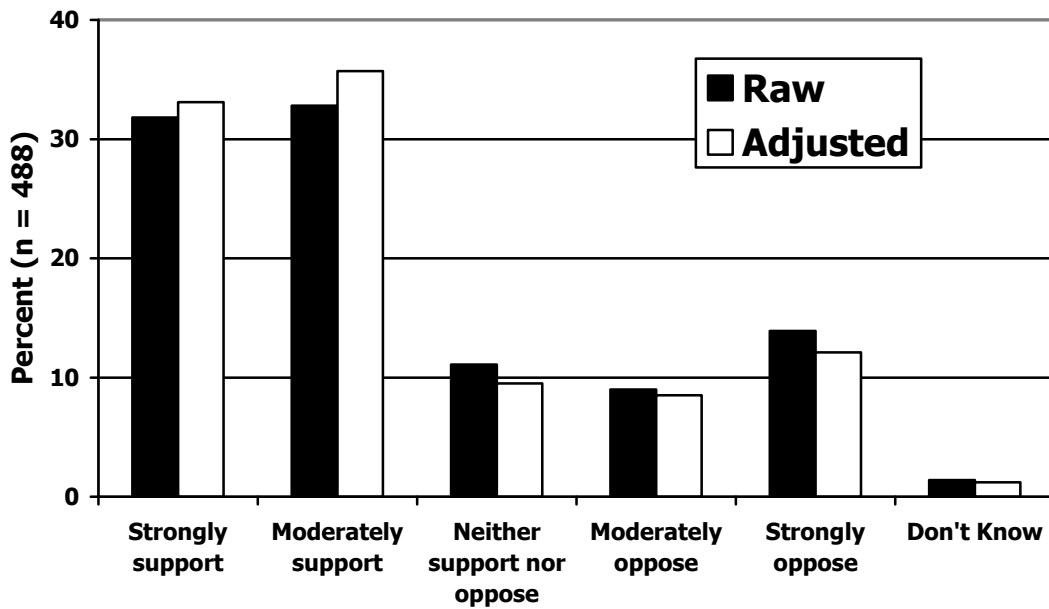


Figure 93: Weighted average for age compared to having grizzly bears in CYE

**In general, do you support or oppose grizzly bear recovery efforts in the Cabinet Mountains and Yaak Valley?**

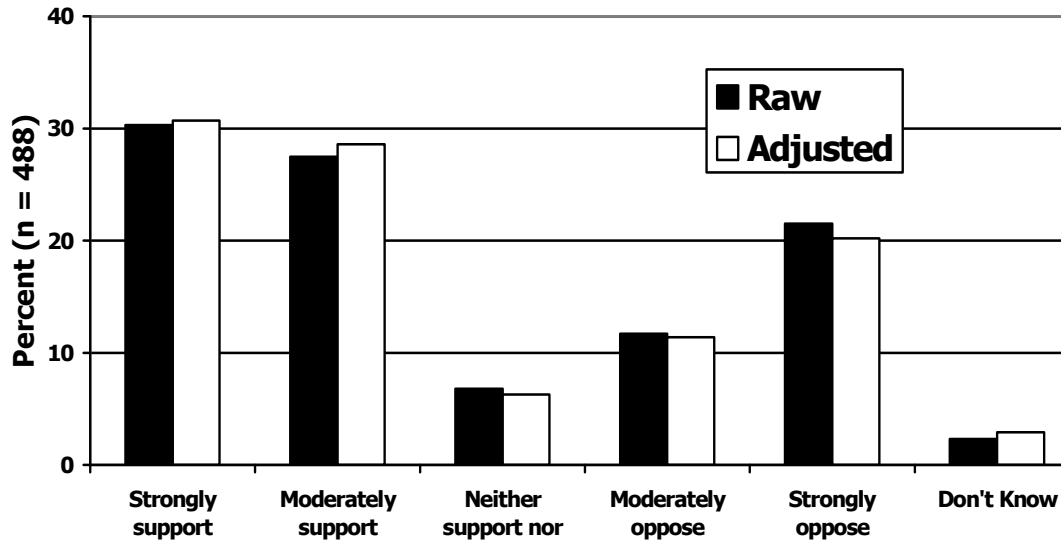


Figure 94: Weighted average for age compared to recovery

**Currently, there are approximately 30 to 40 grizzly bears in the Cabinet Mountains and Yaak Valley. Biologists have determined that a population of about 100 bears in the Cabinet Mountains and Yaak Valley will be considered a successfully recovered population for this area. Do you support or oppose having a total population of about 100 grizzly bears in the Cabinet Mountains and Yaak Valley?**

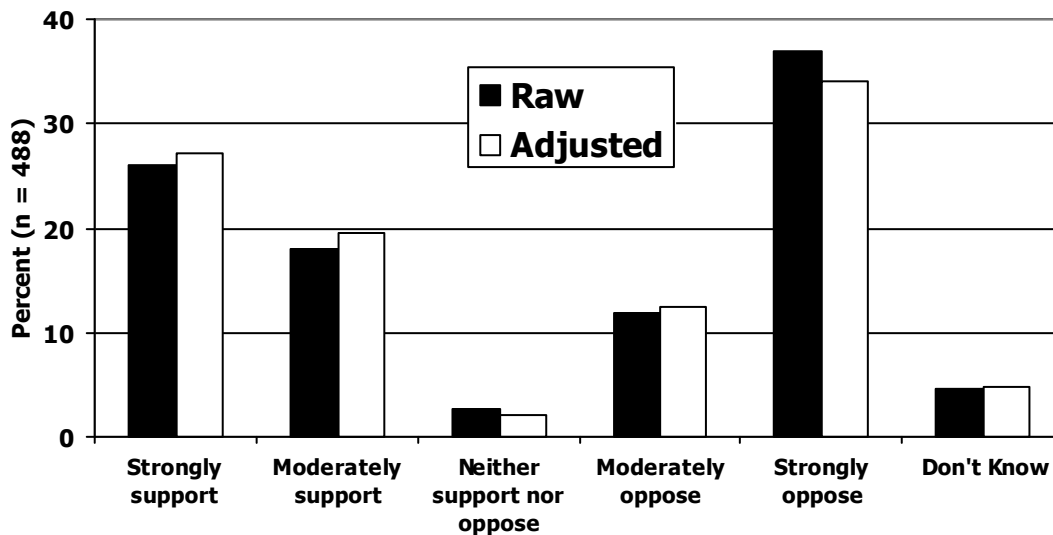


Figure 95: Weighted average for age compared to recovery targets

## DISCUSSION

Although, 54% of respondents believed that grizzly bears can be dangerous to humans, the majority still appeared to feel that grizzly bears belong in the CYE and should be preserved as a symbol of our national heritage. Fear of grizzly bears appeared to be the primary reason why some respondents oppose having them in the CYE. While respondents were aware of the most common reasons why a grizzly bear might attack a human, the majority stated that they did not know how many people are actually attacked or killed by grizzlies each year in the lower 48 states. While residents of the CYE may be worried about bear encounters they do not appear to know the frequency of grizzly bear related injuries and deaths. We were unable to locate a documented grizzly bear related human injury or death in the CYE in the last 35 years, albeit both bears and people in this area exist in relative low densities. In Glacier National Park, a place where a higher density of both people and bears exist, there were less than 3 grizzly bear related human injuries per year and 5 deaths in the 14 year period between 1980-1994 (Gniadek & Kendall 1998). We do not attempt to suggest that fear of grizzly bears is inappropriate, but that the fear should be placed in an appropriate context.

Grizzly bears that have obtained human food and/or have become conditioned to people may be more likely to cause human conflicts and subsequent injuries (USFWS 2000). Fortunately, most respondents felt that humans can prevent most conflicts with grizzly bears and most also stated that they would even accept changes in current garbage disposal methods if it would help prevent problems with grizzly bears. If educational efforts can demonstrate to residents that using simple techniques for living safely in grizzly bear country can prevent conflicts before they occur, fear of having grizzly bears in the CYE may be reduced.

Respondents generally did not know the amount of meat typically consumed by grizzly bears in the CYE. Those who believed that meat comprised a large portion of a grizzly bears diet were more likely to oppose grizzly bear recovery efforts in the CYE and their opposition increased as the perceived proportion of meat in the diet increased. The amount of meat consumed by grizzly bears in the CYE is considerably less than that of grizzlies living in Alaska and northern Canada. However, a good portion of television and film media on grizzly bears comes from Alaska, which may skew the local perception of grizzly bear diet in the CYE.

Respondents appeared uncertain about current abundance of grizzly bears in the CYE as opposed to 100 years ago. Grizzly bears have been federally listed species for over 30 years in part because their numbers in the lower 48 states are assumed to be far lower than population numbers of the early 1900's (MFWP 2006). Results suggest a difference in support between respondents that believe grizzly bears in the CYE are more abundant now than 100 years and those that believe they are less abundant.

Recent outreach and education efforts by local bear managers and biologists have revealed that many people in Lincoln and Sanders Counties appear to be unaware that grizzly bears share their habitat with other bears and do not actively defend a territory like other carnivore species will, such as wolves. Those respondents who felt there is not enough habitat for more than the current number of grizzly bears in the CYE may be unaware that grizzly bears will share habitat

throughout a given year. This in turn may dissuade them from supporting grizzly bear recovery efforts in the CYE, and the population goal of 100 bears.

The level of support and recovery of grizzly bears in areas other than the CYE was similar to support of grizzly bears in the CYE. However, respondents were less opposed to grizzly bears in areas outside of the CYE, suggesting that residents in this area may be more likely to feel indifferent or uninterested about grizzly bear issues in areas other than where they live.

One of the primary goals of the survey was to determine the level of support for grizzly bear recovery in the CYE area. The level of support revealed in the survey provides valuable information but it was interesting to see that the level of support decreased dramatically for the intended grizzly bear population goal of 100 bears, which is two to three times greater than the current estimated number of grizzly bears in the CYE (Kasworm et al. 2007). The grizzly bear recovery plan for the CYE states that one of the criteria for the recovery of grizzly bears in the area is to achieve the population goal of 100 bears and will utilize augmentation as one of the strategies to achieve the goal (USFWS 1993). Augmentation efforts in the CYE consist of capturing young female grizzly bears with no history of human conflicts from areas with higher bear densities and releasing them into the Cabinet Mountains to help bolster the population. Despite efforts to inform the public of these efforts through local news releases, the survey suggested that respondents were less aware of recently transplanted bear than they were of bears released during augmentation efforts in the early 1990's. Although augmentation has been determined to be a necessary strategy for recovery efforts in the CYE (USFWS 1993), the level of support from respondents increased if recovery could be done without augmentation. Managers apparently need to address concerns residents have with augmentation and redirect efforts on the distribution of augmentation information.

In public meetings held in Lincoln and Sanders Counties during the past decade, one of the primary objections to grizzly bear recovery efforts were those related to motorized vehicle restrictions on some forest roads. Therefore, it was surprising to discover that one third of respondents said that they were not even aware of current road restrictions due in part to grizzly bear recovery efforts. This might be explained if a number of these survey respondents arrived in the area after road restrictions were first implemented in the 1980's. Unfortunately, information on how long respondents have been living in the area was not collected as part of the survey. The youngest age group was also less aware of road restrictions, as they may be too young to have been affected by restrictions set in place during the 1980s and early 1990s.

In the 1995 Social Assessment for the Kootenai National Forest, Lincoln County residents were both in support and opposed to road closures on public lands. Those who supported road closures were concerned for wildlife and did not feel as though their hunting or recreational opportunities were limited by the lack of motorized access. Those who opposed road closures were opposed to the manner in which the agency closed roads (without public participation) than the road closures themselves. Many were also upset by limited motorized access to popular berry picking, firewood gathering or hunting locations as a result of closures (USFS 1995).

Respondents who felt that road restrictions were a problem for them cited limited access for recreational activities as their primary reason, but few indicated that the restrictions have

negatively affected their employment. Despite this, respondents whose families are dependent on forestry related industries appeared to be more likely to oppose road restrictions as a result of grizzly bear recovery efforts.

## **CONCLUSION AND MANAGEMENT IMPLICATIONS**

Respondents to this survey provided their opinions on a number of key questions regarding grizzly bear recovery and management in the CYE. While a majority of respondents indicated support for recovery of grizzly bears in the CYE, there was much concern over specific management actions proposed to achieve recovery. Road restrictions, population augmentation, and population goals are particularly controversial aspects. Greater respondent knowledge of augmentation efforts during the early 1990's than the more recent effort during the last 3 years point to a need for better efforts in keeping the local public informed. Additional information on a variety of grizzly bear related issues might benefit the community and their understanding of management practices.

Several responses regarding grizzly bear biology, such as food habits, abundance, and human injury rates indicate a need to continue to address misconceptions about basic grizzly bear biology. The grizzly bear conflict specialist position recently created by Montana Fish, Wildlife & Parks provides an opportunity to increase the information and education ability of the agencies. The most often cited sources of information from the public were newspapers, magazines, television and film. These sources probably offer the best mass media opportunities to reach the local public. This survey may also serve as a baseline to compare the effectiveness of future information efforts.

Future surveys conducted on similar topics, would benefit from local community involvement when designing the survey questionnaire, thus enabling the surveyors to address local concerns more accurately, while establishing credibility with those segments of the population that do not support such efforts. In addition, future surveys should be designed to gather data about the respondent's length of residency in the targeted area. Such information would help managers better understand their target population and the type of responses received by individuals who have lived in the area for different lengths of time. This information would help outreach and education efforts to focus the message towards appropriate audiences.

## Appendix A. Survey Questionnaire

### *Introduction:*

Hello, my name is \_\_\_\_\_, and I'm calling to ask some questions about grizzly bears in northwest Montana. I am not selling anything or asking for donations. Do you have a few minutes to answer some questions? (IF ASKED: I'm calling on behalf of the Cabinet-Yaak Grizzly Bear Outreach Project.)

First, I am going to read a list of activities and I would like to know if you have participated in each one in the Cabinet Mountains or in the Yaak Valley in the past 2 years.

1. Have you participated in any of these activities in the past 2 years?  
(CHECK ALL THAT APPLY)

- 1. Camping
- 2. Hiking
- 3. Hunting
- 4. Fishing
- 5. Horseback riding
- 6. Other
- 7. Did not participate in any of these activities
- 8. Don't know

2. Do you participate in these activities mostly in the Cabinet Mountains, mostly in the Yaak Valley, or both about equally?  
(CHECK ONLY ONE ANSWER)

- 1. Cabinet Mountains
- 2. Yaak Valley
- 3. Both about equally
- 4. Very little time in either
- 5. Don't know

3. How do you TYPICALLY store food and garbage when you are in bear country? (IF ASKED: While participating in outdoor and/or recreational activities in bear country.) (IF MORE THAN ONE METHOD: Which one method do you use the most?)  
(CHECK ONLY ONE ANSWER)

- 1. Hang in a tree
- 2. Bury food and/or garbage
- 3. Store in bear-resistant container
- 4. Store in tent
- 5. Store in a camper or other vehicle
- 6. Other
- 7. Don't Know

Next, I have some questions about grizzly bears in the Cabinet Mountains and Yaak Valley in general.

4. Would you say grizzly bears are more abundant, about the same, or less abundant in the Cabinet Mountains and Yaak Valley today than they were 100 years ago?

(CHECK ONLY ONE ANSWER)

- 1. More abundant
- 2. About the same
- 3. Less abundant
- 4. Don't know

5. For grizzly bears in the Cabinet Mountains and Yaak Valley, what percent of their diet do you think is meat?

(ENTER ? FOR DON'T KNOW)

\_\_\_|\_\_\_|\_\_\_|%

6. Have you ever seen a grizzly bear in the Cabinet Mountains or Yaak Valley?

(CHECK ONLY ONE ANSWER)

- 1. Yes
- 2. No
- 3. Maybe (not sure if it was a grizzly bear)
- 4. Don't know

7. Have you seen a grizzly bear in the Cabinet Mountains or Yaak Valley WITHIN THE PAST 12 MONTHS?

(CHECK ONLY ONE ANSWER)

- 1. Yes
- 2. No
- 3. Maybe (not sure if it was a grizzly bear)
- 4. Don't Know

8. Generally, which of the following statements best describes your feelings about grizzly bears in the Cabinet Mountains and Yaak Valley? (READ LIST)

(CHECK ONLY ONE ANSWER)

- 1. I like knowing that grizzly bears are in the area.
- 2. I like knowing that grizzly bears are in the area, but worry about problems they cause.
- 3. I like knowing that grizzly bears are in the area, but worry about human safety.
- 4. I don't like having grizzly bears in the area.
- 5. I have no particular feeling about grizzly bears.
- 6. Don't know

9. In general, do you support or oppose having grizzly bears in the Cabinet Mountains and Yaak Valley? (READ SCALE AS NECESSARY; PROMPT FOR DEGREE)

(CHECK ONLY ONE ANSWER)

- 1. Strongly support
- 2. Moderately support
- 3. Neither support nor oppose



- 4. Moderately oppose
- 5. Strongly oppose
- 6. Don't know

10. Why do you support having grizzly bears in the Cabinet Mountains and Yaak Valley?

---

11. Why do you oppose having grizzly bears in the Cabinet Mountains and Yaak Valley?

---

Next, I'm going to read several statements about grizzly bears and I'd like you to tell me if you agree or disagree with each statement.

12. Grizzly bears are a symbol of the American frontier and should be preserved as part of our national heritage. Do you agree or disagree with this statement? (IF ASKED: Grizzly bears in general, not just in the Cabinet Mountains and Yaak Valley.)

(CHECK ONLY ONE ANSWER)

- 1. Strongly agree
- 2. Moderately agree
- 3. Neither agree nor disagree
- 4. Moderately disagree
- 5. Strongly disagree
- 6. Don't know

13. Grizzly bears are very dangerous to humans. Do you agree or disagree with this statement?

(CHECK ONLY ONE ANSWER)

- 1. Strongly agree
- 2. Moderately agree
- 3. Neither agree nor disagree
- 4. Moderately disagree
- 5. Strongly disagree
- 6. Don't know

14. The habitat in the Cabinet Mountains and Yaak Valley can support more grizzly bears than are currently there now. Do you agree or disagree with this statement?

(CHECK ONLY ONE ANSWER)

- 1. Strongly agree
- 2. Moderately agree
- 3. Neither agree nor disagree
- 4. Moderately disagree
- 5. Strongly disagree
- 6. Don't know

15. Grizzly bears do not belong in the Cabinet Mountains and Yaak Valley. Do you agree or disagree with this statement?

(CHECK ONLY ONE ANSWER)

- 1. Strongly agree
- 2. Moderately agree
- 3. Neither agree nor disagree
- 4. Moderately disagree
- 5. Strongly disagree
- 6. Don't know

16. Grizzly bears were here before humans and have an inherent right to live in the Cabinet Mountains and Yaak Valley. Do you agree or disagree with this statement?

(CHECK ONLY ONE ANSWER)

- 1. Strongly agree
- 2. Moderately agree
- 3. Neither agree nor disagree
- 4. Moderately disagree
- 5. Strongly disagree
- 6. Don't know

17. Grizzly bears from the Cabinet Mountains and Yaak Valley kill many livestock. Do you agree or disagree with this statement?

(CHECK ONLY ONE ANSWER)

- 1. Strongly agree
- 2. Moderately agree
- 3. Neither agree nor disagree
- 4. Moderately disagree
- 5. Strongly disagree
- 6. Don't know

18. I derive satisfaction from just knowing that grizzly bears are present in the Cabinet Mountains and Yaak Valley. Do you agree or disagree with this statement?

(CHECK ONLY ONE ANSWER)

- 1. Strongly agree
- 2. Moderately agree
- 3. Neither agree nor disagree
- 4. Moderately disagree
- 5. Strongly disagree
- 6. Don't know

19. Residents and visitors to the Cabinet Mountains and Yaak Valley can prevent most conflicts with grizzly bears by taking a few precautions. Do you agree or disagree with this statement?

(CHECK ONLY ONE ANSWER)

- 1. Strongly agree
- 2. Moderately agree
- 3. Neither agree nor disagree
- 4. Moderately disagree
- 5. Strongly disagree
- 6. Don't know

Except in the Yellowstone area, grizzly bears in the lower 48 states of the United States are listed as a threatened species under the U.S. Endangered Species Act. They lived throughout western Montana and other western states until the early 1900s, when bear populations were reduced dramatically by people. An inter-agency effort has been underway for 30 years to recover and maintain a viable population of grizzly bears in northwest Montana. (IF ASKED: The lower 48 states of the United States do NOT include Alaska or Canada.)

20. Prior to this survey, would you say you heard a great deal, a moderate amount, a little, or nothing about this grizzly bear recovery program?

(CHECK ONLY ONE ANSWER)

- 1. A great deal
- 2. A moderate amount
- 3. A little
- 4. Nothing
- 5. Don't know

The Cabinet Mountains and Yaak Valley are part of this recovery program.

21. In general, do you support or oppose grizzly bear recovery efforts in the Cabinet Mountains and Yaak Valley?

(CHECK ONLY ONE ANSWER)

- 1. Strongly support
- 2. Moderately support
- 3. Neither support nor oppose
- 4. Moderately oppose
- 5. Strongly oppose
- 6. Don't know

22. Do you support or oppose grizzly bear recovery efforts in areas outside of the Cabinet Mountains and Yaak Valley?

(CHECK ONLY ONE ANSWER)

- 1. Strongly support
- 2. Moderately support
- 3. Neither support nor oppose
- 4. Moderately oppose
- 5. Strongly oppose
- 6. Don't know

Now I have some questions about more specific issues related to grizzly bear recovery. (IF RESPONDENT INSISTS HE/SHE SUPPORTS/OPPOSES GRIZZLY BEAR RECOVERY OVERALL, LET HIM/HER KNOW WE WOULD STILL LIKE TO RECORD HIS/HER OPINIONS ON AND AWARENESS OF THE FOLLOWING ISSUES RELATED TO GRIZZLY BEAR RECOVERY)

23. Currently, there are approximately 30 to 40 grizzly bears in the Cabinet Mountains and Yaak Valley. Biologists have determined that a population of about 100 bears in the Cabinet Mountains and Yaak Valley will be considered a successfully recovered population for this area. Do you support or oppose having a total population of about 100 grizzly bears in the Cabinet Mountains and Yaak Valley?

(CHECK ONLY ONE ANSWER)

- 1. Strongly support
- 2. Moderately support
- 3. Neither support nor oppose
- 4. Moderately oppose
- 5. Strongly oppose
- 6. Don't know

24. Prior to this survey, how aware were you that four grizzly bears were added to the Cabinet Mountains between 1990 and 1994 as part of the recovery program?

(CHECK ONLY ONE ANSWER)

- 1. Very aware
- 2. Somewhat aware
- 3. Not at all aware
- 4. Don't Know

25. How aware were you that two more bears have been added to the Cabinet Mountains since 2005?

(CHECK ONLY ONE ANSWER)

- 1. Very aware
- 2. Somewhat aware
- 3. Not at all aware
- 4. Don't Know

26. Would you support or oppose grizzly bear recovery in the Cabinet Mountains and Yaak Valley if it could be done without adding additional bears to the Cabinet Mountains?

(CHECK ONLY ONE ANSWER)

- 1. Strongly support
- 2. Moderately support
- 3. Neither support nor oppose
- 4. Moderately oppose
- 5. Strongly oppose
- 6. Don't know

27. Currently, there are some road restrictions due in part to grizzly bear recovery in the Cabinet Mountains and Yaak Valley. Prior to this survey, how aware were you of current road restrictions due to grizzly bear recovery in the Cabinet Mountains and Yaak Valley? (IF ASKED: Road restrictions occur for a variety of reasons including grizzly bear recovery but also for reasons such as big game habitat, fish habitat, erosion, protection, economics, etc.)

(CHECK ONLY ONE ANSWER)

- 1. Very aware
- 2. Somewhat aware
- 3. Not at all aware
- 4. Don't know

28. For you personally, would you say these road restrictions are a major problem, a minor problem, or not a problem at all?

(CHECK ONLY ONE ANSWER)

- 1. Major problem
- 2. Minor problem
- 3. Not a problem at all
- 4. Don't know

29. Why are the current road restrictions a problem for you?

(CHECK ALL THAT APPLY)

- 1. Cannot access land / more difficult to hunt
- 2. Cannot access land / more difficult to pick berries
- 3. Cannot access land / more difficult to collect mushrooms
- 4. Cannot access land / more difficult to find firewood
- 5. Cannot access land / more difficult to hike
- 6. Other
- 7. Don't know

30. Biologists have determined that some road restrictions are necessary for grizzly bear recovery. Knowing this, do you support or oppose the current road restrictions for the purpose of grizzly bear recovery?

(CHECK ONLY ONE ANSWER)

- 1. Strongly support
- 2. Moderately support
- 3. Neither support nor oppose
- 4. Moderately oppose
- 5. Strongly oppose
- 6. Don't know

31. Would you support or oppose more road restrictions in the Cabinet Mountains and Yaak Valley if it were found that the restrictions would benefit grizzly bear recovery?

(CHECK ONLY ONE ANSWER)

- 1. Strongly support
- 2. Moderately support
- 3. Neither support nor oppose
- 4. Moderately oppose
- 5. Strongly oppose
- 6. Don't know

32. If changes to current garbage disposal methods were required to prevent problems with grizzly bears, would you support or oppose grizzly bear recovery in the Cabinet Mountains and Yaak Valley?

(CHECK ONLY ONE ANSWER)

- 1. Strongly support
- 2. Moderately support
- 3. Neither support nor oppose
- 4. Moderately oppose
- 5. Strongly oppose
- 6. Don't know

33. If a program were available to compensate ranchers for livestock losses due to grizzly bears, would you support or oppose grizzly bear recovery in the Cabinet Mountains and Yaak Valley?

(CHECK ONLY ONE ANSWER)

- 1. Strongly support
- 2. Moderately support
- 3. Neither support nor oppose
- 4. Moderately oppose
- 5. Strongly oppose
- 6. Don't know

34. Is there anything related to grizzly bear recovery efforts in the Cabinet Mountains and Yaak Valley that has reduced the quality of your outdoor activities, prevented you from participating in outdoor activities as much as you would like, or negatively affected your employment?

(CHECK ONLY ONE ANSWER)

- 1. Yes
- 2. No
- 3. Don't Know

Biologists and wildlife managers are responsible for coordinating and implementing grizzly bear recovery in the Cabinet Mountains and Yaak Valley. I am going to read several statements about biologists and wildlife managers. Please tell me if you agree or disagree with each statement.

35. Biologists provide accurate information to the public for understanding and managing the grizzly bear population in the Cabinet Mountains and Yaak Valley. Do you agree or disagree with this statement?

(CHECK ONLY ONE ANSWER)

- 1. Strongly agree
- 2. Moderately agree
- 3. Neither agree nor disagree
- 4. Moderately disagree
- 5. Strongly disagree
- 6. Don't know

36. Wildlife managers should involve local citizens in all major decisions about grizzly bear recovery in the Cabinet Mountains and Yaak Valley. Do you agree or disagree with this statement?

(CHECK ONLY ONE ANSWER)

- 1. Strongly agree
- 2. Moderately agree
- 3. Neither agree nor disagree
- 4. Moderately disagree
- 5. Strongly disagree
- 6. Don't know

37. Residents of the Cabinet Mountains and Yaak Valley will be willing to work with wildlife management agencies to determine the best way to recover grizzly bears. Do you agree or disagree with this statement?

(CHECK ONLY ONE ANSWER)

- 1. Strongly agree
- 2. Moderately agree
- 3. Neither agree nor disagree
- 4. Moderately disagree
- 5. Strongly disagree
- 6. Don't know

38. Once the grizzly bear population has recovered in the Cabinet Mountains and Yaak Valley, do you agree or disagree that agency wildlife managers should allow grizzly bears to be hunted?

(CHECK ONLY ONE ANSWER)

- 1. Strongly agree
- 2. Moderately agree
- 3. Neither agree nor disagree
- 4. Moderately disagree
- 5. Strongly disagree
- 6. Don't know

39. Wildlife managers should promptly trap and relocate any grizzly bears seen in residential areas. Do you agree or disagree with this statement?

(CHECK ONLY ONE ANSWER)

- 1. Strongly agree
- 2. Moderately agree
- 3. Neither agree nor disagree
- 4. Moderately disagree
- 5. Strongly disagree
- 6. Don't know

Next, I have a few questions about human interaction with grizzly bears.

40. Generally, wildlife managers promptly remove any grizzly bears that act aggressively towards humans. In your opinion, should grizzly bears that act aggressively toward humans be relocated or destroyed?

(CHECK ONLY ONE ANSWER)

- 1. Relocated
- 2. Destroyed
- 3. A combination / most appropriate method for situation
- 4. No opinion / Don't know

41. In your opinion, what are the most likely reasons a grizzly bear may injure or kill a human.

(CHECK ALL THAT APPLY)

- 1. Defending itself after being shot by a hunter
- 2. Seeking or protecting a food source
- 3. A surprise encounter with a bear in the backcountry
- 4. Protecting a bear cub during an encounter
- 5. Other
- 6. Don't know

42. Grizzly bears are protected under the Endangered Species Act. Do you think it is legal or illegal to kill a grizzly bear in defense of human life?

(CHECK ONLY ONE ANSWER)

- 1. Legal
- 2. Illegal
- 3. Don't Know

43. How many people would you say are injured or killed by grizzly bears in the lower 48 states every year? Please do not include numbers from Alaska or Canada.

\_\_\_\_ people

44. Where have you heard or seen information about grizzly bears? (IF ASKED: Not limited to Cabinet Mts.)

(CHECK ALL THAT APPLY)

- 1. Haven't seen or heard any information
- 2. Newspapers and magazines
- 3. Television and films
- 4. Internet
- 5. Public meetings
- 6. Family / friends
- 7. Word-of-mouth, excluding family and friends / informal
- 8. Venues (e.g., acquaintances, bars, casinos, grocery store)
- 9. Personal experience
- 10. Brochures
- 11. School
- 12. Conservation orgs.
- 13. Recreational orgs. (e.g., Backcountry Horsemen or ATV club)
- 14. Trade orgs. (e.g., Farm Bureau or Montana Logging Assoc.)



- 15. Professional orgs. (e.g., Realtors Association)
- 16. Federal and state agencies
- 17. Other
- 18. Don't know

Great, we are almost finished. I just have a few final background questions to help us analyze the results.

45. Do you consider yourself a full-time resident or a seasonal resident of Lincoln or Sanders County?

(CHECK ONLY ONE ANSWER)

- 1. Full-time resident
- 2. Seasonal resident
- 3. Don't know

46. Has your or your family's income been wholly or partly dependent on the forest or a forestry related industry in the Cabinet Mountains or Yaak Valley at any time in the past 5 years?

(CHECK ONLY ONE ANSWER)

- 1. Yes
- 2. No
- 3. Don't Know

47. What activity or job did you or someone else in your family do that was dependent on the forest or was forestry related in the Cabinet Mountains or Yaak Valley?

(CHECK ALL THAT APPLY)

- 1. Logging
- 2. Forestry management
- 3. Wildlife management
- 4. Berry picking
- 5. Mushroom collecting
- 6. Firewood cutting
- 7. Other
- 8. Don't know

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

- 1. Not a high school graduate
- 2. High school graduate or equivalent
- 3. Some college or trade school, no degree
- 4. Associate's degree or trade school degree
- 5. Bachelor's degree
- 6. Master's degree
- 7. Professional or doctorate degree (e.g., M.D. or Ph.D.)
- 8. Don't know
- 9. Refused

49. Finally, may I ask your age?

|\_|\_|\_| years old

That's the end of the survey. Thanks for your time and cooperation. If you have any additional comments, I can record them here.

**OBSERVE AND RECORD RESPONDENT'S GENDER.**

**(CHECK ONLY ONE ANSWER)**

1. Male

2. Female

3. Don't know

**Appendix B. Comments provided by survey respondents**

If they leave the native bears alone the population will be fine, they should not be planted. I am for road closures for all the wildlife, not just the bears.
Usually stupidity is the cause of most bear attacks.
Trails for backwoods (that are open) are not wide enough or safe enough. A lot of business is gone, and there is not much work in the area.
They think there are no bears now, but if they start bringing more, their population would be over-abundant.
Leave the grizzly population at 35.
Common sense needs to be applied while in the woods, if grizzly bears are present or not.
Thanks for taking the time to do a survey of this type. We need this to protect our wildlife.
I strongly support any sort of nature recovery program as long as it is balanced with human needs.
I like doing this and I like grizzlies.
I appreciate that someone is help making people aware of this. An education program needs to be instituted. I love grizzly bears and enjoy seeing them.
I think road restrictions are not fair to recreationists and are not for bear recovery only.
I wish the Fish and Wildlife Department would let people know what they're doing and what their mission is about grizzly bear management.
I believe that the proposed rock creek mine shouldn't happen.
Wildlife in general benefits from the logging industry: more food grows in logged areas, and they can get out in the sun. I think that grizzly bears should be delisted. The rest of the U.S. should have no say in how Montana handles its wildlife.
I am concerned because my husband was in logging; he is 80 now.
Logging trucks can go into blocked off areas; I think hunters should be able to in hunting season.
I'd like to see no further closure of access due to grizzly recovery, and I think that humans and grizzlies can interact well.
Do not add more grizzlies.
I love the wilderness and the pristine-ness of the Cabinets and Yaak Valley, but more people are moving in, and there will be conflicts. People aren't educated about bears, and the bears will pay for it.
I just think it's important for people to keep in mind that this is the bear's country, and we need to respect them, and that is why I support relocation as opposed to killing them.
Corridor on map: bears are coming through corridor to Canada for 1,000 years; biggest problem is development and people [population] growing so rapidly in the corridor area, and bears are still traveling this way. Use your common sense. Livestock kill rate < 10%.
I think they should not put grizzly bears where they are not there naturally.
The grizzlies' natural habitat is further north, and this has been documented in native American folklore. We have space for bears.
I think they don't need to close so many roads. We need to learn to live with the bears; they are not always a problem.
I think bears need to be protected. They have a right to be in any mountain range in Montana. Also, watch out because ranchers will report sick, dead animals as being mauled by bears.

I grew up here. The bears that were here are one thing, but I object to bringing them in. I can't even imagine what it would be like to have 100 bears here! I don't fully trust the information coming from the bear project people, just lip service.
Everyone is an expert, including people who don't know anything. We need to trust the people in charge of these things.
Yellowstone and Glacier Park have plenty of bears; they don't need more around here. Leave them up in BC.
No more gates!
I think there's a place for them, but people belong on the earth too.
Do a closer study; there are more bears than you think.
I think the state should stay out of it and leave the grizzly bears alone.
I don't worry about the bears.
No, I don't like the road closures, nor do many other people.
The populations should maintain themselves just naturally, if the habitat can support it. Don't keep re-introducing animals if the habitat won't sustain it.
I don't like the management of the bears.
We need to use a little sense and consider both bears and humans when thinking about grizzly bear recovery.
Eliminate more bears. Eliminate more wolves as well. The moose population is hurt by wolves.
Farmers should be compensated for the livestock grizzly bears kill.
I think it's a good study you're doing. I guess they are doing things to keep us safe, because we haven't seen any.
As long as we can hunt them when the population gets up, that would be okay. I don't want to leave my home just because there's a bear around.
I do not want the grizzly bears on the Yaak. Grizzly bears do not like to be seen, so the road closings are not needed. Also, I think 100 bears in the area are too much.
If they are bringing the grizzly and wolves back, why not bring the dinosaurs back and let them chew on a few people?
I wish people would understand what a wilderness area is. People just don't know what's allowed and what's not, etc. We're in a depressed area. There are a lot of outside forces affecting us that we can't control.
Protect people from these bears.
Locals kill some of them.
The bears that are brought in shouldn't be park bears. Wild bears only should be brought in so they aren't used to being fed.
Push for awareness more.
I don't like grizzly bears. Recovery program is one-sided.
Move the grizzly to the city where development can deal with them.
They are spending too much of taxpayers' money; they raised hunting fees. It is hard on retired hunters. Fish & Game are the biggest thieves ever; poor management.
What is this study and grizzly recovery costing the taxpayers? Is this taking away from other things that we need to do out here?
Introducing a species and worsening an economy is wrong.

I support the grizzly bear recovery, and I love the grizzly bears. They have their place, and humans shouldn't impose.
I love bears.
Get rid of them.
I support bear hunting if there is a limited drawing for tags and no dogs are allowed.
The whole thing is silly—trying to create something to keep people out of the woods, too many people for a healthy bear population.
I think nature can take care of itself, and if there are laws preventing killing bears, we wouldn't have to worry.
Do not add more bears.
Recovery efforts are fine, but no more bears in mountains and valley.
I'd like to see open season on grizzly bears! I disagree with the government putting bears back; the long-time locals will tell you they don't belong here; it's unsafe. Shoot them on sight.
I don't mind the bears, but I want to feel safe.
I really do think human safety comes before the animals.
Bears should not be relocated to where people are living.
There are too many gates.
I don't like road closures that are 12 miles long. I don't mind 2 or 3 miles, but I don't want the closures to affect snowmobiling.
People should not allow problem bears from other areas to be relocated into the Cabinet Mountains and/or the Yaak Valley.
I was born and raised here, and we never heard of grizzly bears.
I don't like the road closures. They should not have released the bear near Spar Lake.
I hope this helps get them out of the area.
I think they don't need to transplant any more; we have enough.
Keep them in mountains.
I am pleased that I am a part of this survey. Some surveys are so pointless, but I am glad this is being done. We should all be better informed about the grizzlies in our area.
I strongly support grizzly bear recovery; 100 bears are not enough.
I don't believe that this place can handle 100 bears, and I do not think any bears should be planted. I think that if they just put in one tag a year, it would save the bears because then they would be scared of humans.
All these studies won't make a lot of difference, because people in Congress and left-wing people will do what they please.
Bears should live in this area.
I don't think they were going to go extinct; just double the amount and watch them for 5 years instead of adding more than double.
There are too many bears; the grizzly bear recovery program not working.
I am concerned about having enough space for the grizzlies.
I do not like wildlife agencies tying together the Yaak and the Cabinet.
Get rid of the grizzlies!
You have to manage grizzlies because there are problems when grizzlies and humans interact.
There are at least 80 grizzlies.
I don't mind the grizzlies, but we don't need 100 shoved down our throats.

Treat bears like bears and give them respect and they won't bother you.
Grizzlies aren't as endangered as people think/say they are.
I think we should definitely make room for the wildlife, and they were here first, and we benefit from the efforts to conserve wildlife. The erosion goes down, the water quality is up, and we have a better balanced ecosystem with the bear.
We have dominion over bears, not vice-versa.
People are more important than bears.
I just get real concerned about some of these recovery things, and I'm mostly for them, except for bears and wolves because of conflicts between people and wildlife. They just go overboard. You can't keep them just in certain areas.
We have enough grizzly bears and we don't need anymore, and keep the restrictions the way they are. We don't need to really do anything as far as restrictions, and if they do reach that level of recovery to allow hunting, maybe one or two.
Grizzly bears are part of our heritage. They should be in this area, and they're just another piece of the wilderness, and everything that comes with it should be there, like the bears. I support the grizzly bears.
I wish they would quit bringing problem bears in. They are still a problem.
Information should be more available.
God put us here and put man on top of the totem pole, and if man is replaced, then there's something wrong.
I don't like the idea of trying to restore and put the grizzly back in here.
I think they could spend the money in better ways to improve human life than worrying about the grizzly bears; there more important things than grizzly bears.
We should not relocate bears forcefully.
I think you have to be very careful about overcrowding the Cabinets because it is steep and rugged, and the bear tend to migrate down into populated areas.
People outside our area who dictate what should happen with grizzlies should have them moved to their own backyard.
Get with local people and use them as a resource for better management; I support the recovery program as long as non-native bears are not transplanted here.

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