

Oregon Deer and Elk Hunters' Attitudes Toward Big Game Management and Hunting Opportunities



Photo credits: Oregon Dept. of Fish and Wildlife

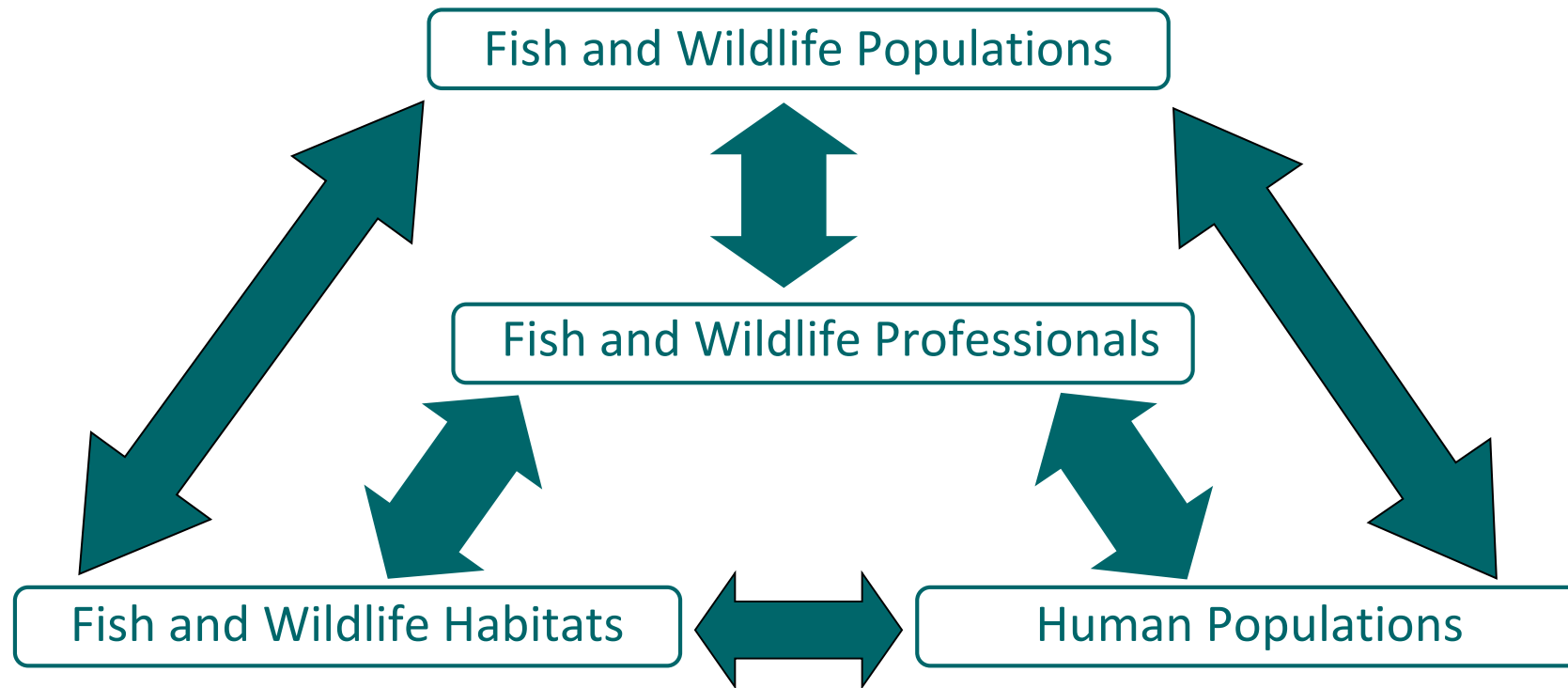
Presented to the Oregon Department of Fish and Wildlife Commission

September 13, 2019

Mark Damian Duda, Executive Director, Responsive Management

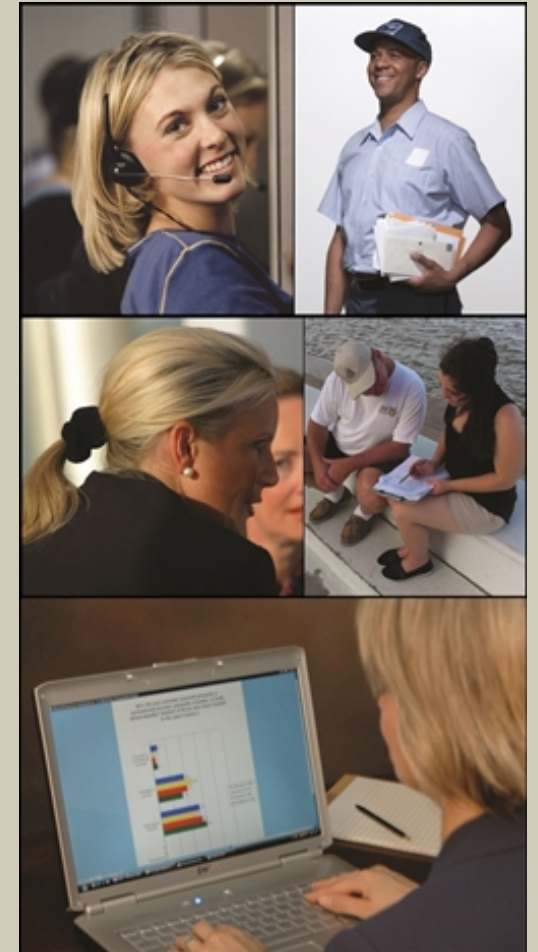
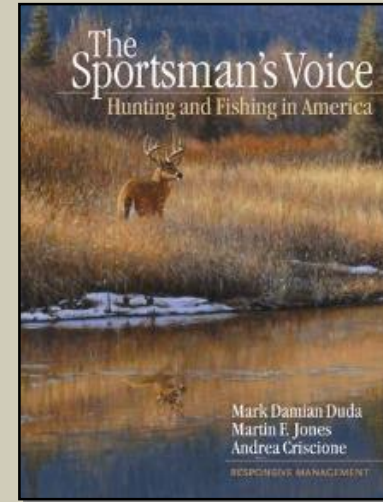


Focus of Fish and Wildlife Management

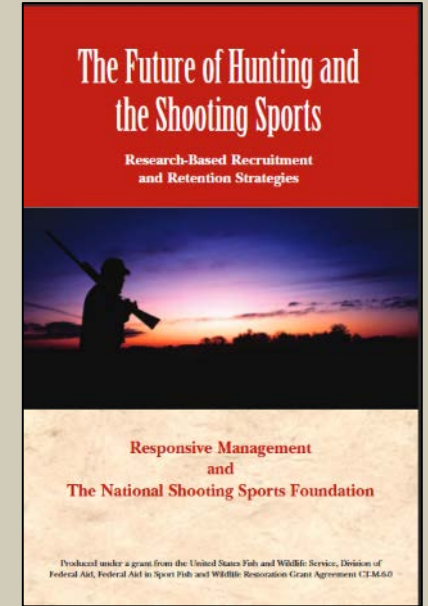
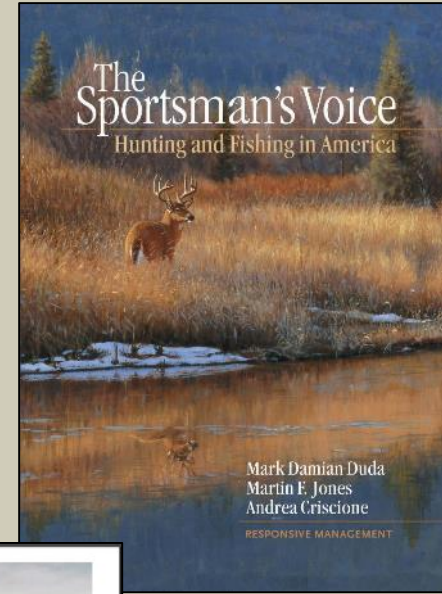
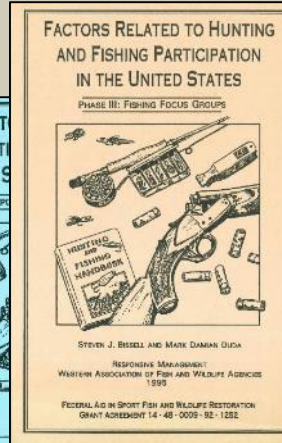
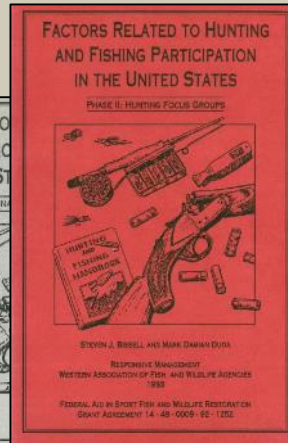
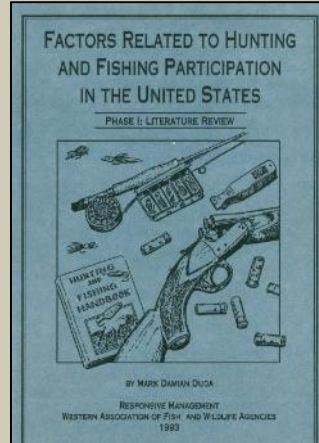
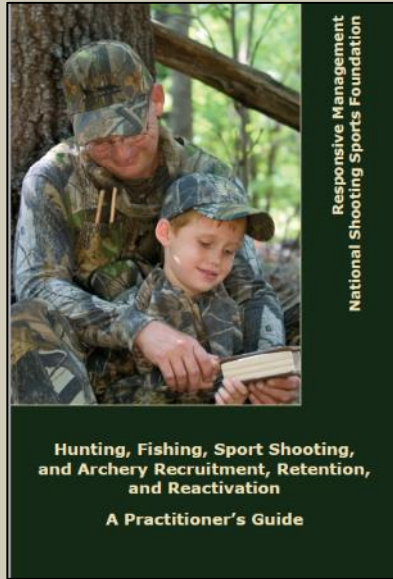


About Responsive Management

- Research firm specializing in natural resource and outdoor recreation issues
- 30 years of continuous survey research projects
- More than 1,000 human dimensions studies
- Almost \$70 million in human dimensions research
- Research in 50 states and 15 countries
- Research conducted for every state fish and wildlife agency and federal resource agency
- Research for all major NGOs, including RBFF, NSSF, NRA, ASA, ATA, Ducks Unlimited, Trout Unlimited, and more
- Research for industry leaders, such as Winchester, Vista Outdoor (Bushnell, Primos, Federal Premium, etc.), Trijicon, Yamaha, and more
- Data collection for the nation's top universities: Clemson University, Colorado State University, Duke University, Penn State University, Rutgers University, Stanford University, University of Southern California, and many more



Responsive Management Books, Major Reports, Articles, and Peer-Reviewed Journal Articles



TELEPHONE SURVEY: MARK DAMIAN DUDA & ERIC C. YOUNG
MULTIVARIATE ANALYSES: SUSANNE THORNTON & THOMAS FRIEDMAN

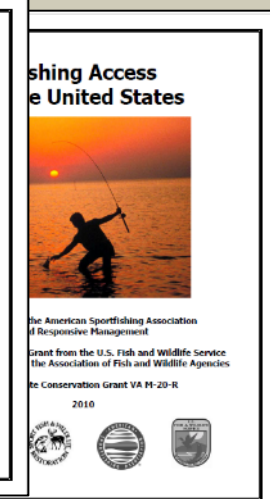
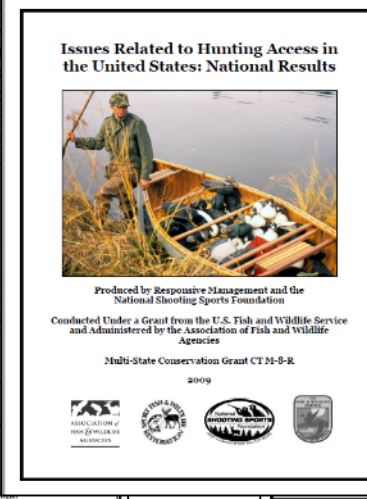
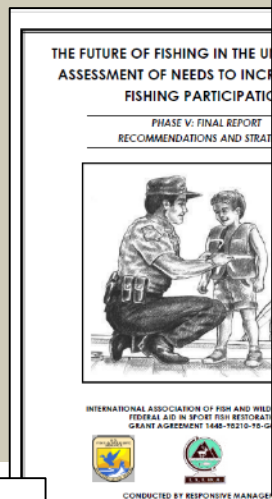
RESPONSIVE MANAGEMENT
WESTERN ASSOCIATION OF FISH AND WILDLIFE AGENCIES
1995

FEDERAL AID IN SPORT FISH AND WILDLIFE RESTORATION
GRANT AGREEMENT 14-48-0009-92-1252

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ERIC C. YOUNG

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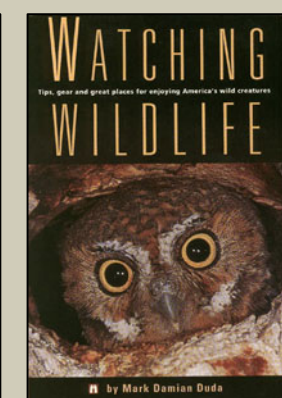
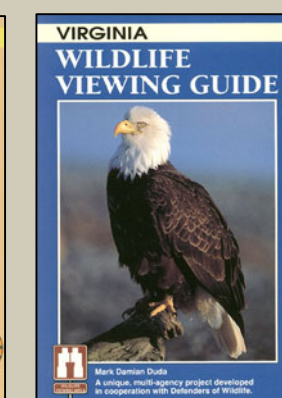
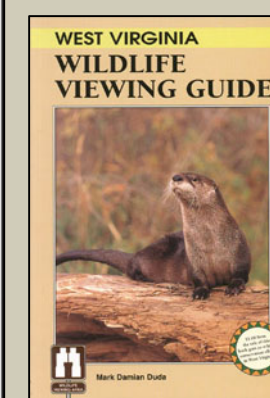


needs such as transportation or public lands.

As cited in "Hunting: Considerations to Wildlife Conservation Success Stories," hunting has helped many of the most remarkable conservation success stories. Through the lands made available by the Private Landowners Act, the national deer population has increased from less than 500,000 in 1900 to more than 7 million today. The wood duck, conversely, has increased to 5.5 million today. The Rocky Mountain quail has increased from 400,000 individuals in 1920 to about a million today. And while just 25,000 turkeys roamed North America in 1920, their number has hit 80,000 today. The resurgence of these populations has been possible without hunters and their economic bottom to wildlife conservation.

Hunter's funds also have helped to bring back non-game species such as the bald eagle, the osprey and the brown pelican, to name only a few. In addition to the millions of acres of wildlife habitat that have been conserved throughout North America—an amount more than any other nation on earth—hunting has helped to ensure the survival of many of our most iconic species. Finally, the annual overall economic impact from and sport shooting (a closely related activity that with hunting totals more than \$10 billion). The figures are not just in dollars and cents, and local, state and federal economies associated with hunting expenditures. It also includes the many jobs, many of which are created in rural areas where they are needed most.

For all these reasons, it is vital that Americans have the opportunity to hunt. Unfortunately, the number of hunters has declined significantly in the past 50 years. In fact, the number of hunters has declined by more than 50 percent since 1970. This decline has led to a loss of hunting revenue, which in turn has led to a loss of funding for wildlife conservation programs. It is essential that we take steps to reverse this trend and ensure that future generations have the opportunity to enjoy the benefits of hunting and fishing.



Presentation Overview

- **Survey Methodology**
- **The Public Input Process: Things to Keep in Mind**
- **Equipment Used for Hunting**
- **Hunting Locations**
- **Motivations for Hunting**
- **Satisfaction with Hunting**
- **Constraints to Hunting Participation**
- **Opinions on Regulatory Issues**
- **Youth Hunting**



Photo credits: Oregon Dept. of Fish and Wildlife



Survey Methodology

Survey Methodology

- Survey conducted to determine the practices and opinions of deer and elk hunters in Oregon
- Scientific, probability-based multi-modal survey (contact by mail, email, and telephone)



Sample	Sample Size	Population Size	Sampling Error
Deer Hunters	1,070	276,319	+/- 2.99
Elk Hunters	1,107	246,496	+/- 2.94

- Results reported at 95% confidence interval
- Crosstabulations of survey results by:
 - Equipment used most often to hunt
 - Region of residence
 - Age
 - Avidity
- Survey conducted January - February 2019

Dear Oregon Hunter, Public input is important, and we want your feedback on hunting in Oregon. You are one of a small number of licensed hunters randomly chosen to participate in this study. You can take the survey online at www.wildlifestudy.org or call toll free **844-836-9364** to have a professional interviewer ask you the survey questions. You will be asked for your access number, which can be found above your name.


Responsive Management, a research firm specializing in natural resource and outdoor recreation issues, is conducting this study for the ODFW. For more information about this study please contact Responsive Management at research@responsivemanagement.com

Oregon Department of Fish and Wildlife
c/o Responsive Management
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Harrisonburg, VA 22801

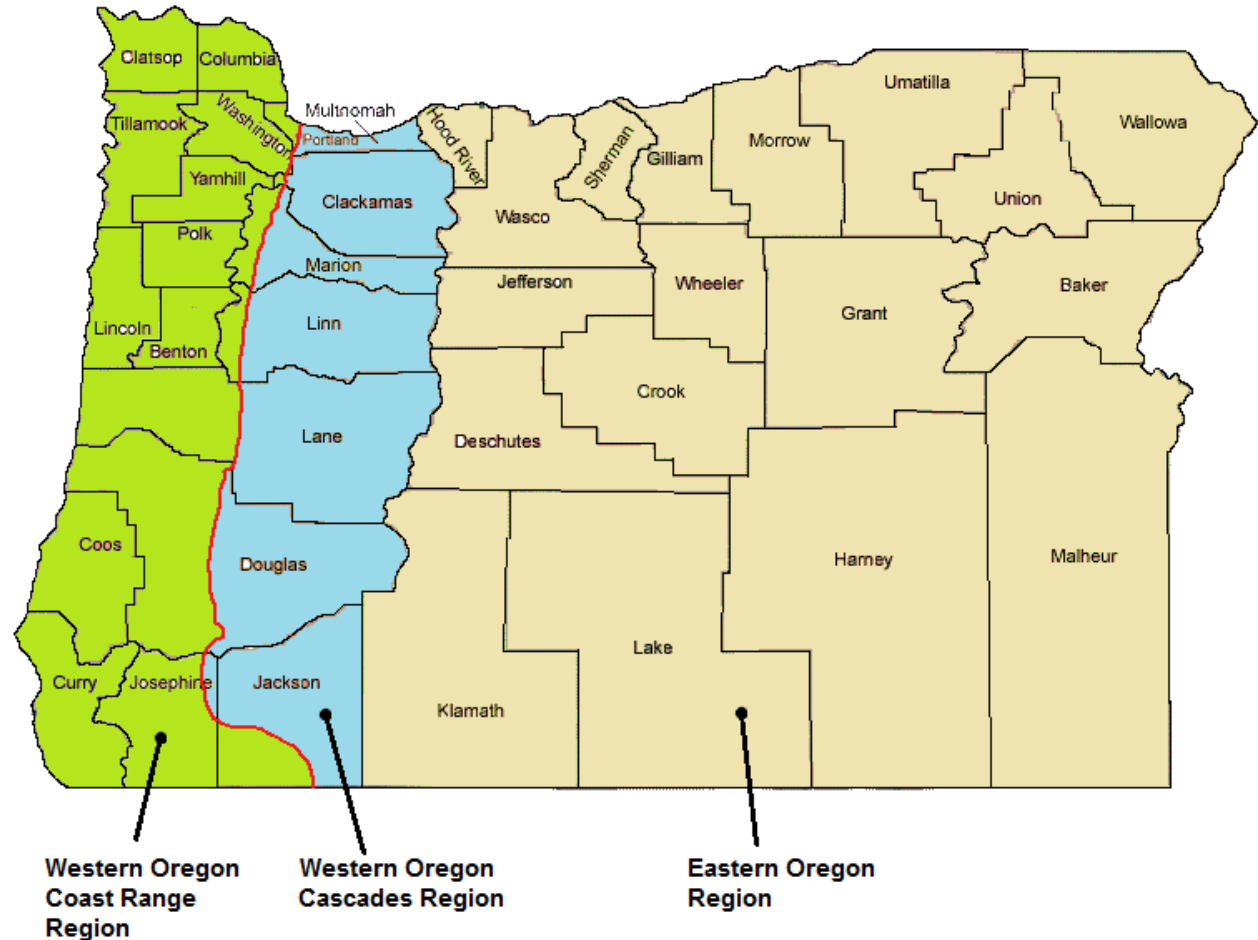
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OREGON DEPARTMENT OF FISH AND WILDLIFE

Tell us about your Oregon deer and elk hunting experiences and opinions on hunting in Oregon. The easiest way to take the survey now is online at:
www.wildlifestudy.org
Please have your access code ready.



Regions for Oregon Elk and Deer Hunter Study



- Survey sample was stratified by region
- Goal was to survey at least 500 deer hunters and 500 elk hunters from the Eastern Region and a similar number from the Western Regions combined
- Within each region, the sample was drawn proportional to the type of contact information included in the license database (email, phone, mailing address)

Overview of Probability-Based Scientific Survey

- Because respondents were randomly selected, the results are truly representative of the study populations (Oregon elk hunters and Oregon deer hunters)
- Survey was NOT opt-in or left online for anyone to respond to
 - Non-probability survey sampling is inherently biased
- Every licensed hunter in the database had an opportunity to be selected for the survey, regardless of contact information available
- A random sample was drawn from the license database, and hunters were contacted based on the contact information available
- By pulling the sample proportional to the contact information in the database:
 - No single contact mode biased the survey
 - Every hunter had an equal opportunity to participate in the survey



Photo credit: Oregon Dept. of Fish and Wildlife

Probability-based Sample:
Also known as a random sample, because every person in the population of interest has a known, non-zero chance of being selected for the sample.

—Pew Research Center

The Public Input Process: Things to Keep in Mind

Input at public meetings often does not reflect the actual attitudes and opinions of the public and/or stakeholders.



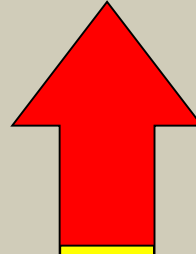
Comparing a Convenience Sample Against a Random Sample of Duck Hunters
MARK G. ALESSI AND CRAIG A. MILLER
Human Dimensions of Wildlife: An International Journal
Volume 17, Issue 2, 2012

Abstract

State wildlife agencies frequently host public meetings to gather feedback from stakeholders. We investigated differences between duck hunters attending public open houses and duck hunters statewide regarding changes in the regulatory framework for duck hunting seasons in Illinois. We administered two separate surveys to investigate potential differences between attendees at the open houses and a random sample of waterfowl hunters in Illinois. Open-house participants hunted significantly more days than mail-back participants and harvested more mallards than mail-back participants. Additionally, open-house participants hunted significantly more counties than mail-survey participants and had been hunting for more years. It is important that state wildlife agency managers understand participants in public meetings may not represent the general population, and interpreting input received from these forums should be used with caution.

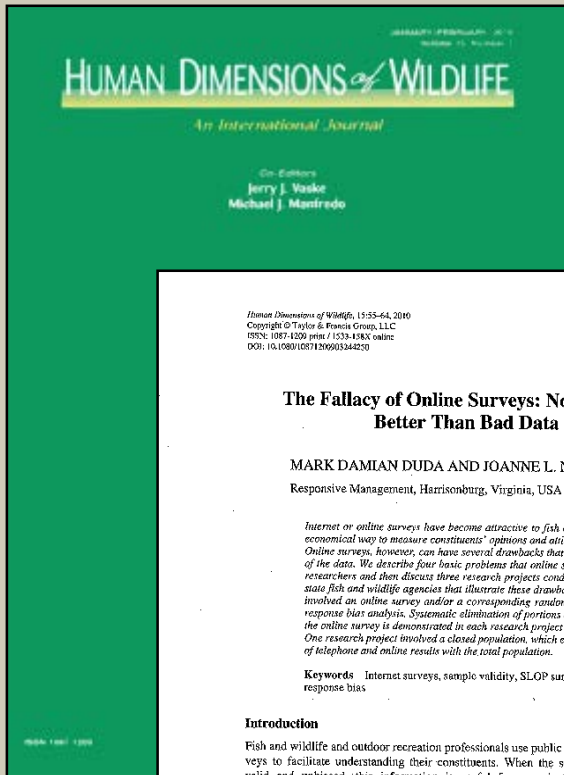
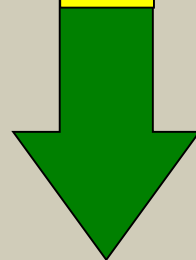
Online surveys often are not representative.

Worst



- Open-ended – placed on web, anyone can respond
- Online panel – respondents sign up in exchange for cash or other incentives
- Online panel – respondents contacted and invited to participate
- Database with partial email addresses (e.g., most current databases of hunting and fishing licenses, boater registrations)
- Database with full coverage (e.g., agency employee databases)
- Web used as part of multi-modal survey

Best



Human Dimensions of Wildlife, 15:55-64, 2010
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DOI: 10.1080/15271222.2010.534420

Routledge
Taylor & Francis Group

The Fallacy of Online Surveys: No Data Are Better Than Bad Data

MARK DAMIAN DUDA AND JOANNE L. NOBILE

Responsive Management, Harrisonburg, Virginia, USA

Internet or online surveys have become attractive to fish and wildlife agencies as an economical way to measure constituents' opinions and attitudes on a variety of issues. Online surveys, however, can have several drawbacks that affect the scientific validity of the data. We describe four basic problems that online surveys currently present to researchers and then discuss three research projects conducted in collaboration with state fish and wildlife agencies that illustrate these drawbacks. Each research project involved an online survey and/or a corresponding random telephone survey or non-response bias analysis. Systematic elimination of portions of the sample population in the online survey is demonstrated in each research project (i.e., the definition of bias). One research project involved a census population, which enabled a direct comparison of telephone and online results with the total population.

Keywords Internet surveys, sample validity, SLOP surveys, public opinion, non-response bias

Introduction

Fish and wildlife and outdoor recreation professionals use public opinion and attitude surveys to facilitate understanding their constituents. When the surveys are scientifically valid and unbiased, this information is useful for organizational planning. Survey research, however, costs money. Given the current budgetary climate and the uncertainty of the future, organizations are looking for ways to save money. Strategic planning and human dimensions information-gathering are no exception.

Online surveys are becoming increasingly popular as information-gathering tools. Marketing companies offer online surveys at seemingly reasonable rates. Online surveys appear to be easy to set up and administer in-house, can save time and money, and provide immediate results. Unfortunately, online surveys seldom provide scientifically valid, accurate, and legally defensible data. Recent collaborative research conducted by Responsive Management and three state fish and wildlife agencies provides clear examples of how online surveys can produce inaccurate, unreliable, and biased data. There are four main reasons for this: (a) sample validity, (b) non-response bias, (c) stakeholder bias, and (d) unverified respondents.

The challenges that online surveys present to obtaining scientifically valid survey results have been pointed out by others. Dillman, Smyth, and Christian (2009), for example, cite the lack of standardization regarding e-mail address structure and how e-mail addresses are created, the absence of an online equivalent to the random digit dialing (RDD) algorithm for random selection of telephone numbers, and respondents' varying

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Public forums often are not representative.



DISCUSSION FORUMS **THE RESEARCH PROCESS** **THE RESEARCH TEAM** **NEWS AND LINKS** **CONTACT US**

Planning for the Future of Wyoming's Fish and Wildlife

Welcome to the Wyoming Game and Fish Department's Strategic Plan Public Input Forum.

Over the coming year, the Wyoming Game and Fish Department will embark on a major research study to develop a new agency-wide strategic plan. As part of the planning and development process, the Department will be conducting substantial new research to understand Wyoming residents' attitudes toward agency priorities and management issues of concern in the state.

We want to hear from you! This website has been established as a dedicated forum in which residents may communicate with one another and share feedback with the Wyoming Game and Fish Department—all comments will be read and considered as part of the development of the new strategic plan. **Visitors will be able to post comments on this website until June 2018.**

Please bookmark this page and remember to check back for updates regarding the study progress and findings from the research!

Click through below to access the discussion forums on specific Wyoming Game and Fish Department topics:



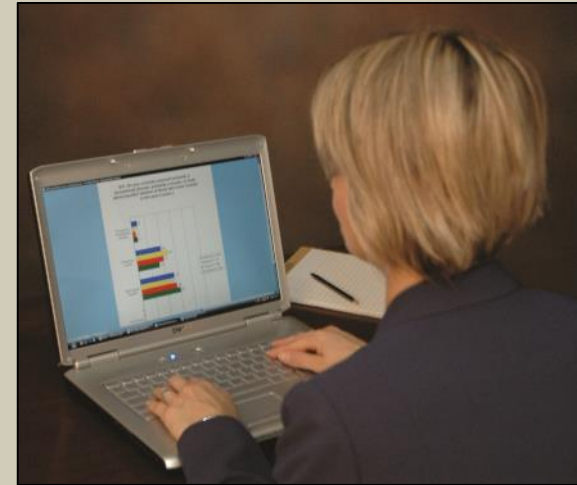
Mark your calendars! This February, the Wyoming Game and Fish Department and its research partner Responsive Management will be hosting a series of public meetings in the following locations:

The loudest constituents may not always reflect the majority.

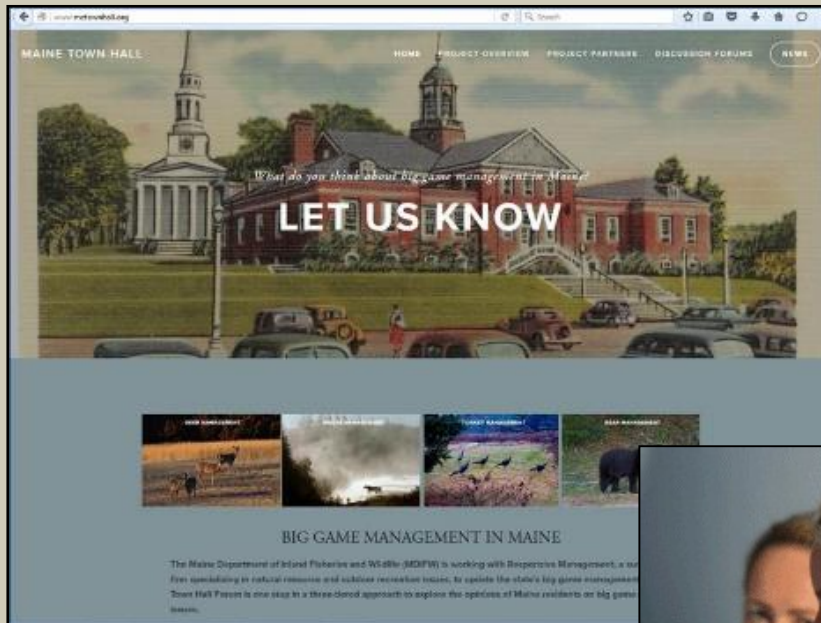


- **Comments at public meetings and in online forums tell a different story than probability-based random samples**

Remember that scientific and non-scientific assessments of public opinion often paint a different picture.



It's important to use the full range of research techniques to assess public opinions and attitudes.

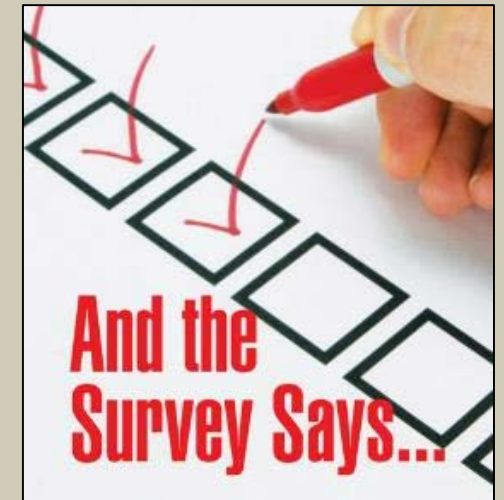


- Scientific surveys and focus groups are critical, but public meetings and online forums (non-scientific methods) allow opportunities for *all* to provide input
- However, relying *only* on non-scientific methods can lead agencies away from majority views and preferences

Citizens groups and public input should not take the place of scientific data.



- Citizens groups should remain data-driven

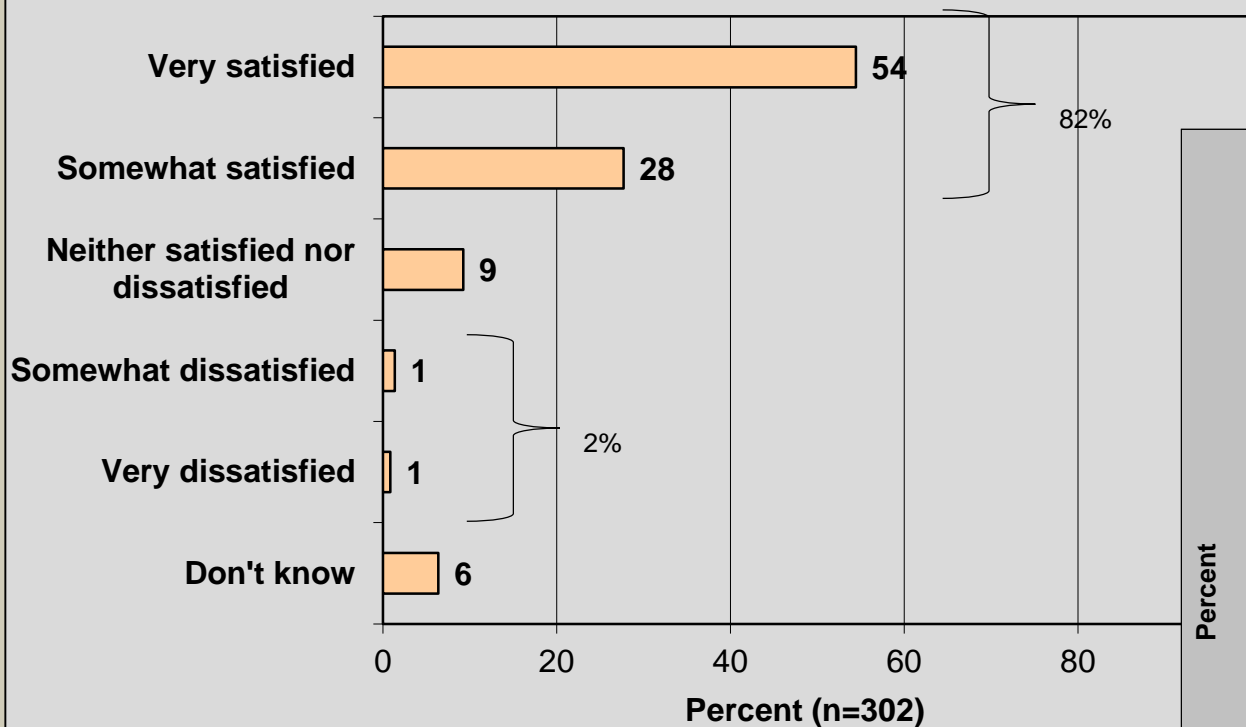


Public support for fish and wildlife agencies is often silent but strong.

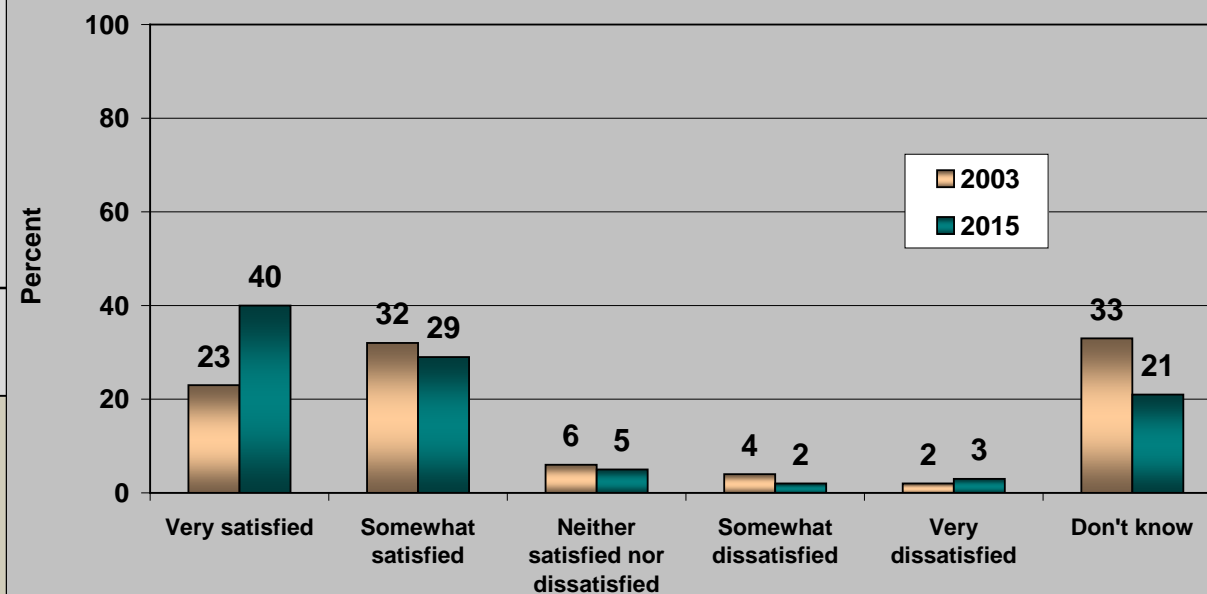
- Agencies tend to hear only from the dissatisfied



**Q34. Overall, are you satisfied or dissatisfied with Arkansas Wildlife Officers' law enforcement efforts in the past 2 years?
(Residents)**



Q200. Overall, are you satisfied or dissatisfied with the Maine Department of Inland Fisheries and Wildlife as a governmental agency, or do you not know?



Agencies should recognize their own credibility and use it accordingly.

- **Surveys can help clarify the extent to which the public trusts the state agency**



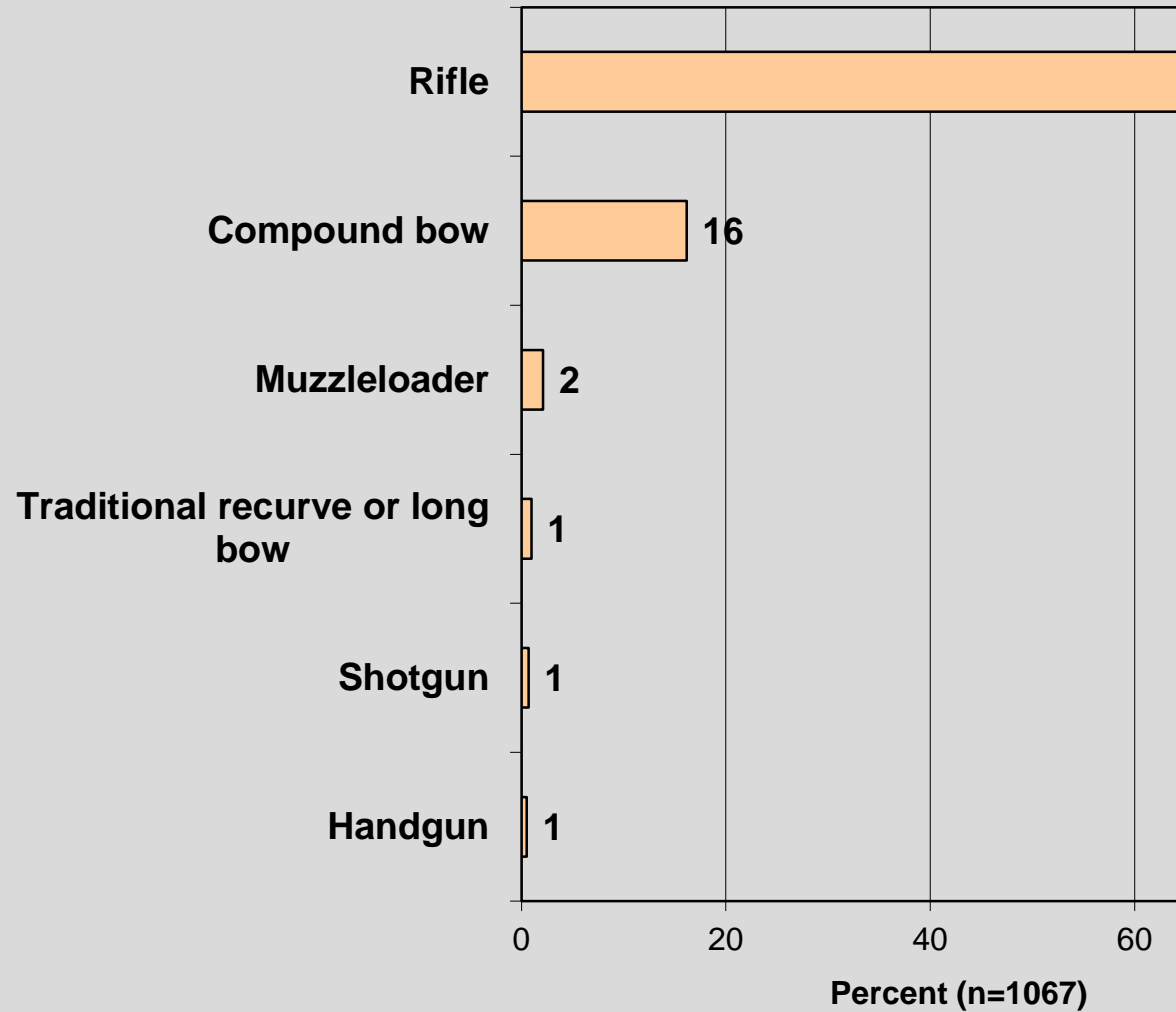
Photo credit: Oregon Dept. of Fish and Wildlife

Survey Results

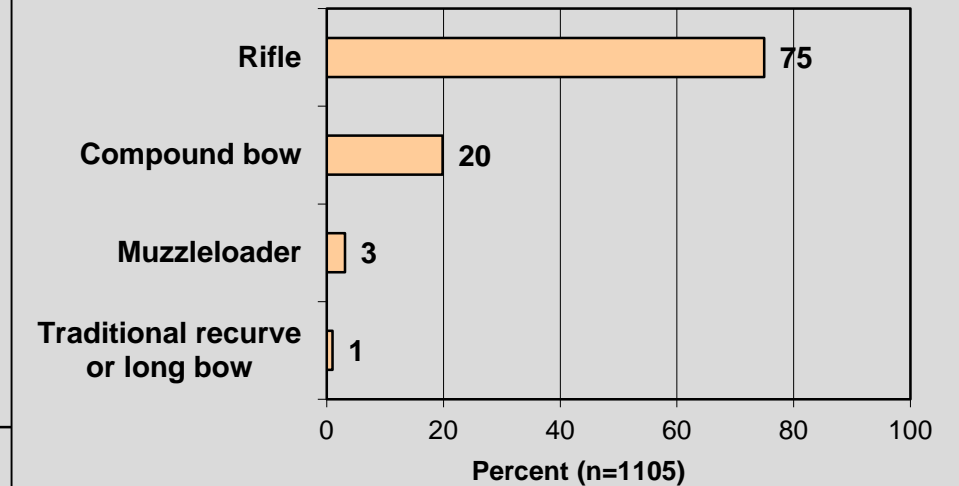
Equipment Used for Hunting

- **The majority of Oregon's hunters prefer to hunt with a rifle, followed by a compound bow.**
- **Very few hunters prefer to hunt with a muzzleloader or traditional recurve or long bow (only 1% use the latter).**

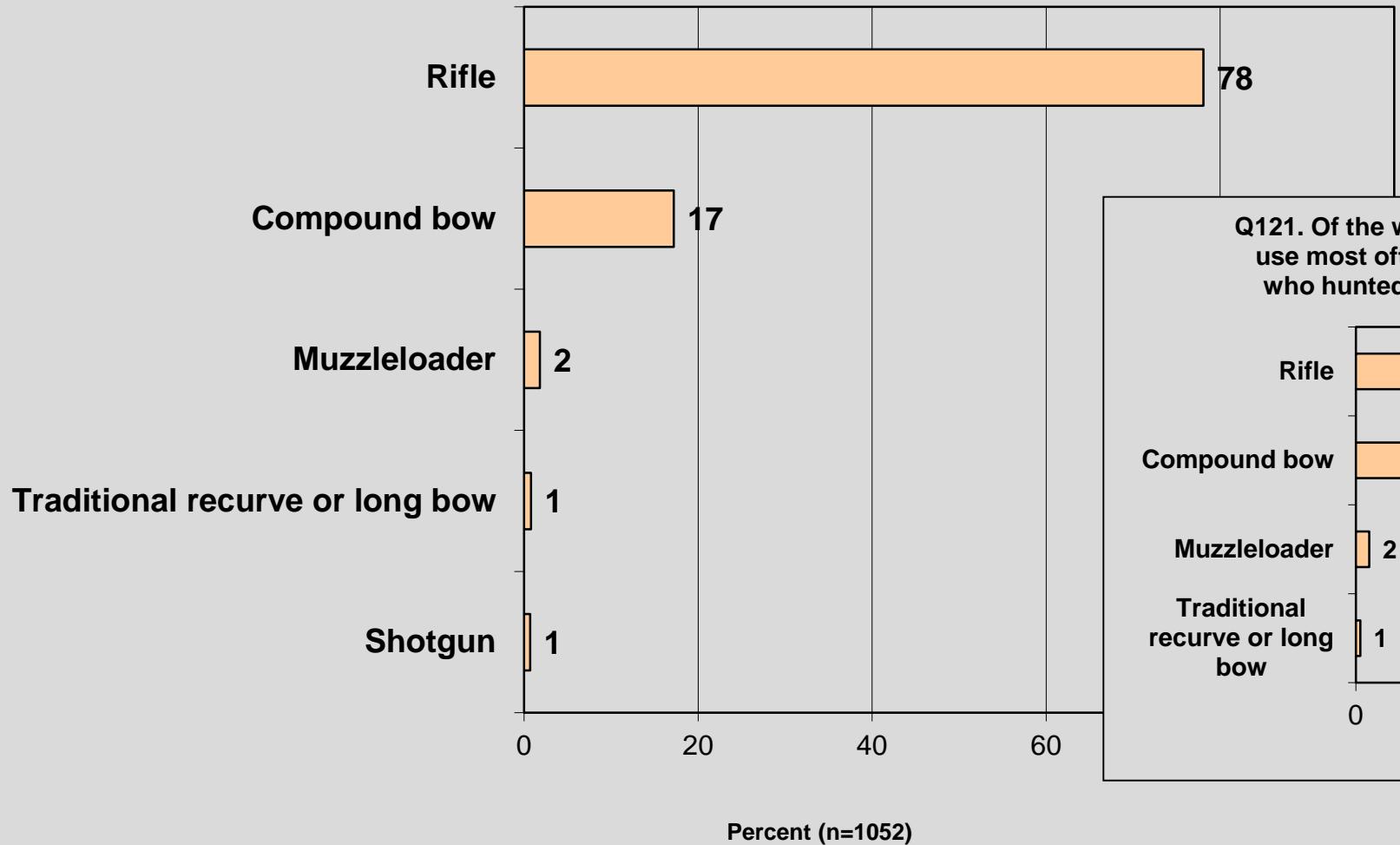
Q122. Of all weapons allowed, which one weapon would you most prefer to use to hunt deer in Oregon? (Asked of all, including those who have not yet hunted deer in Oregon.) (Deer survey)



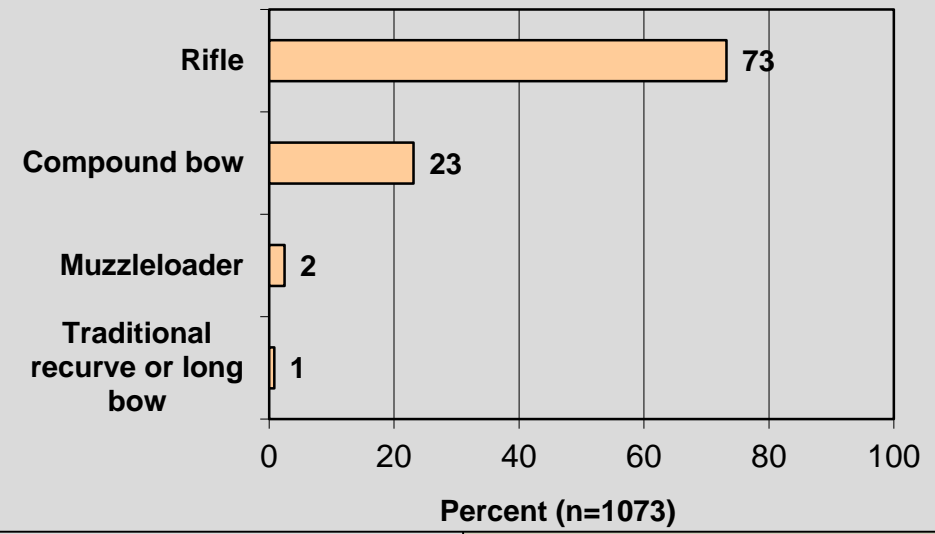
Q122. Of all weapons allowed, which one weapon would you most prefer to use to hunt elk in Oregon? (Asked of all, including those who have not yet hunted elk in Oregon.) (Elk survey)



Q121. Of the weapons you use, which one weapon do you use most often to hunt deer in Oregon? (Asked of those who hunted deer in Oregon at some time.) (Deer survey)



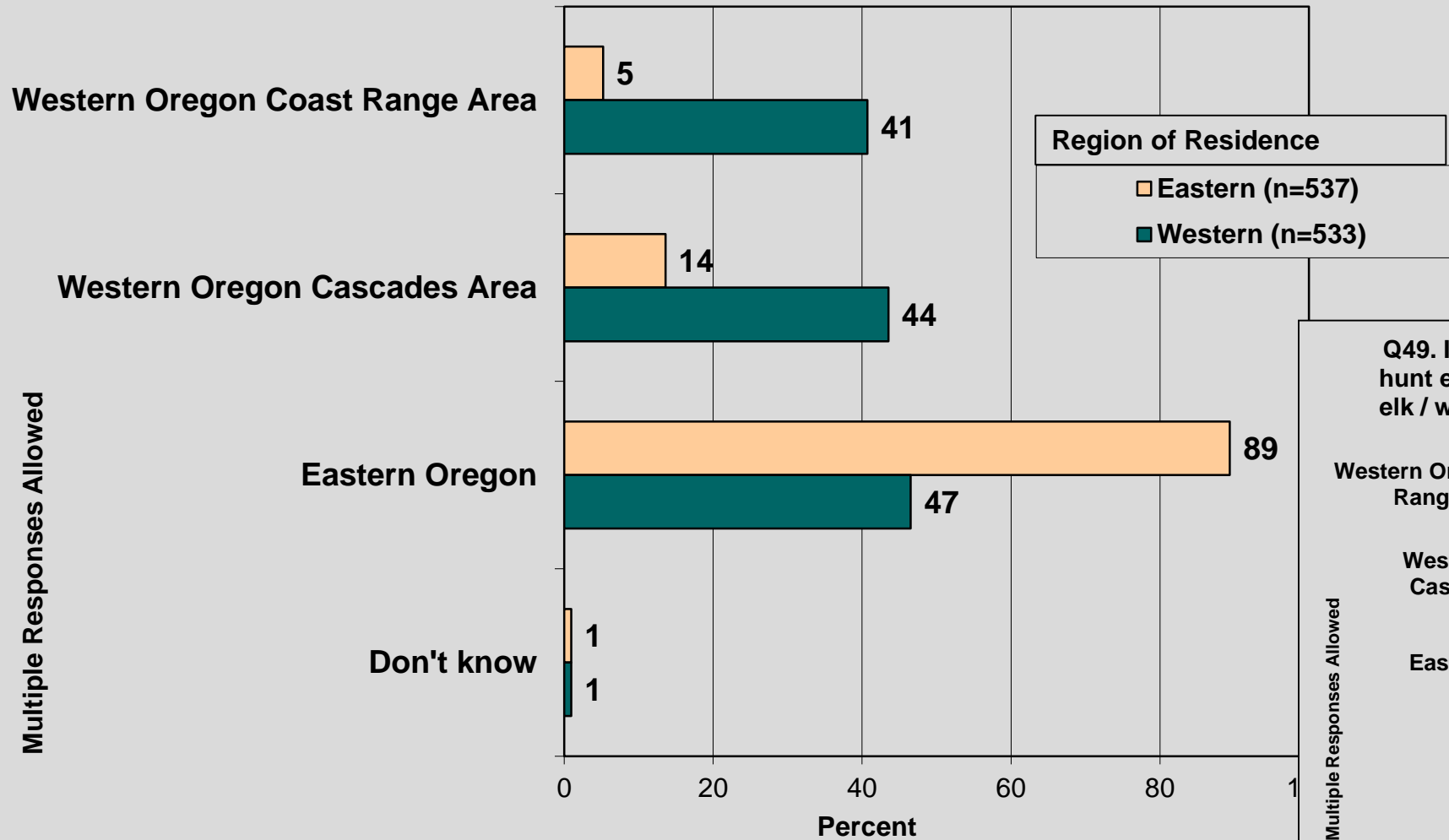
Q121. Of the weapons you use, which one weapon do you use most often to hunt elk in Oregon? (Asked of those who hunted elk in Oregon at some time.) (Elk survey)



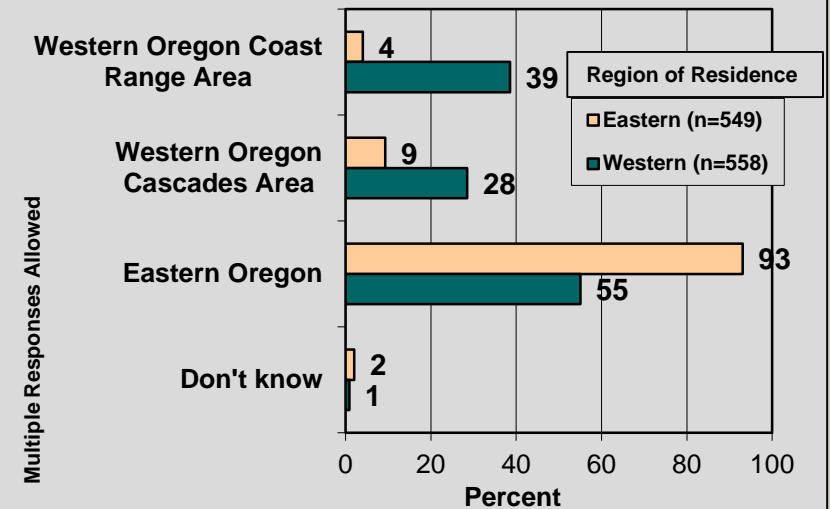
Hunting Locations

- **While western Oregon residents hunt both eastern and western Oregon, eastern Oregon residents rarely hunt western Oregon and take advantage of general seasons.**
- **Hunters primarily hunt public land. Among hunters that hunt on private land, most hunt on areas where permission is required.**

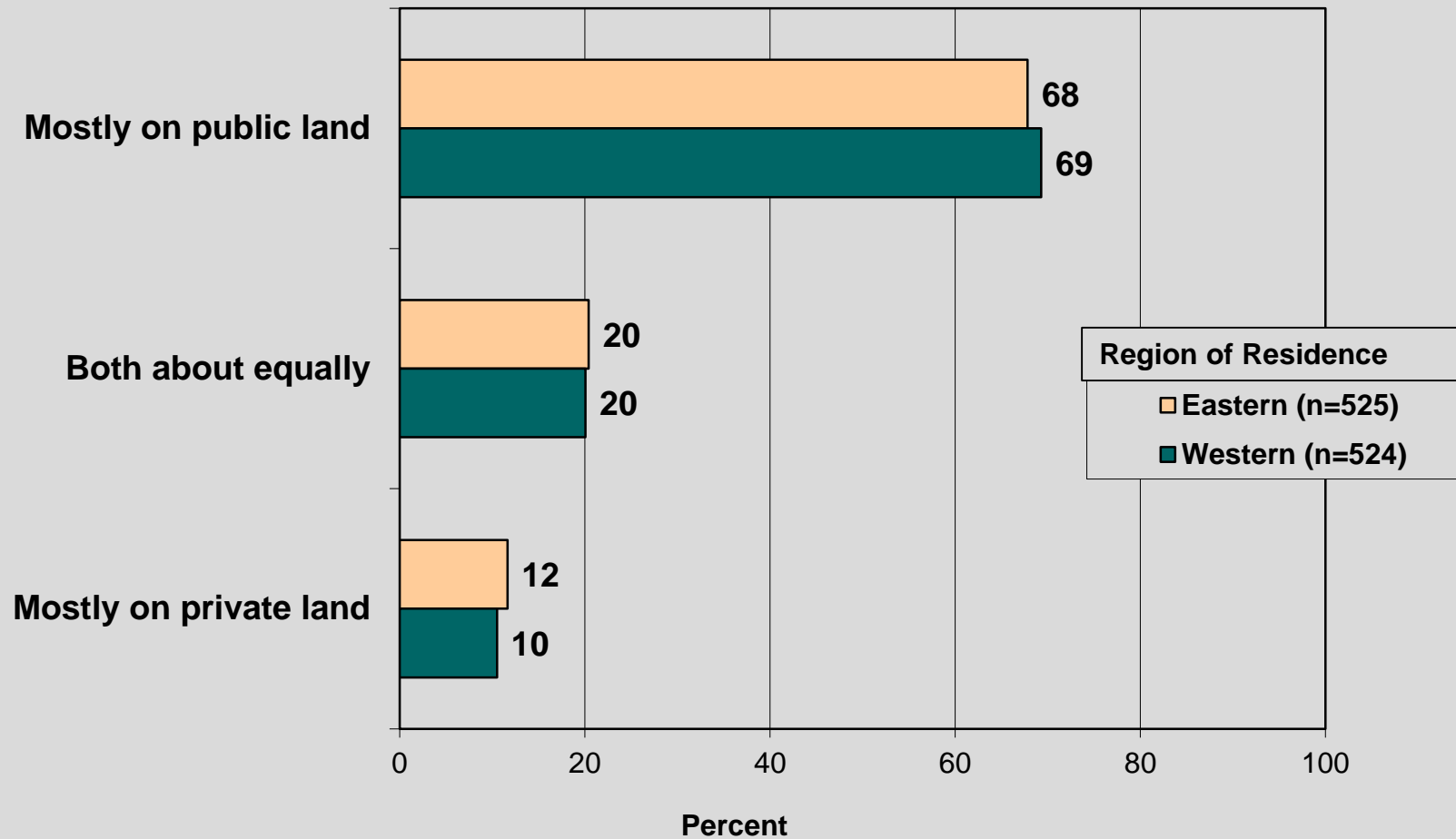
**Q45. In which of these three regions [did you hunt deer in the past 3 years / have you hunted deer / would you like to hunt deer]?
(Deer survey)**



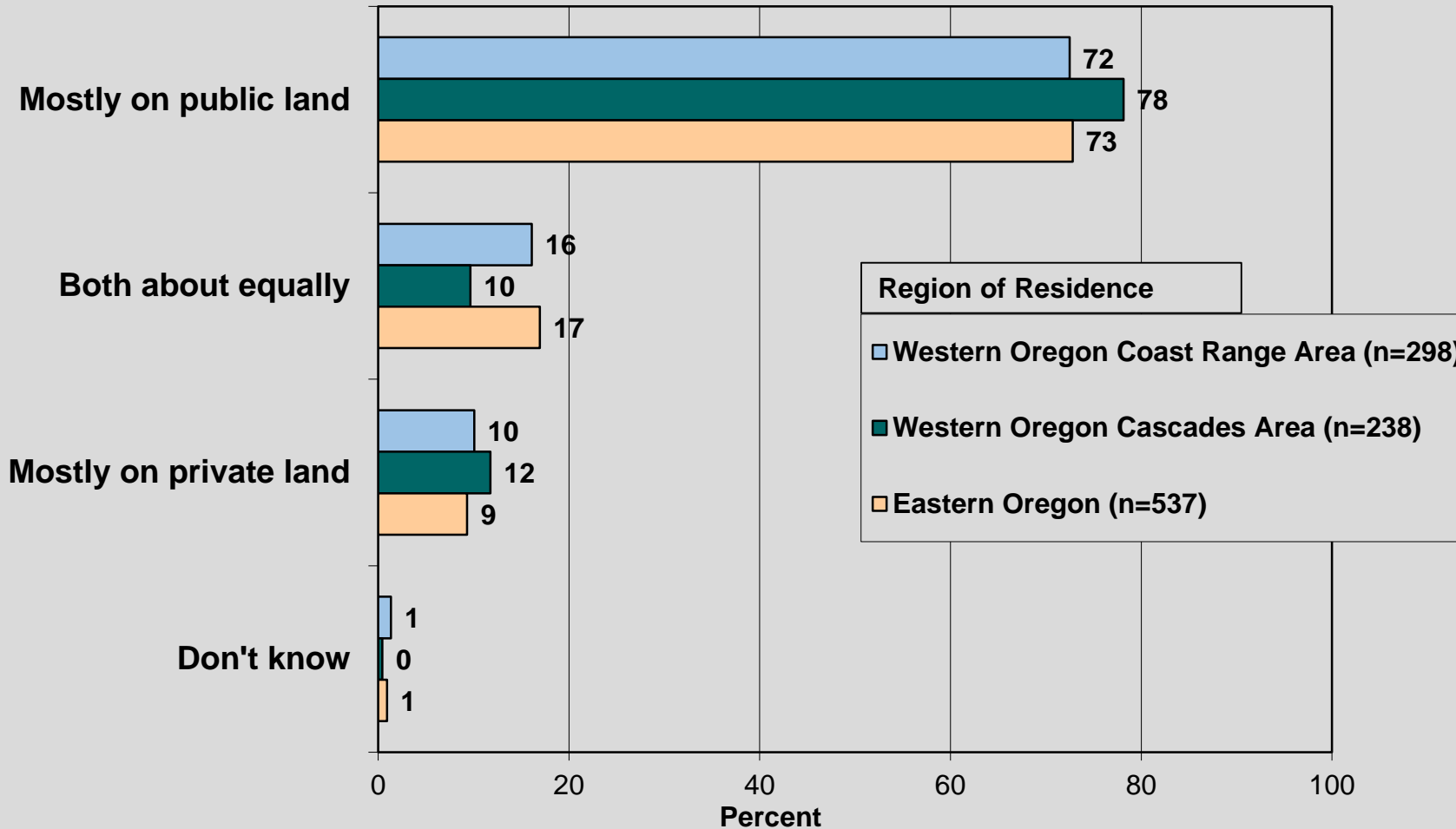
Q49. In which of these three regions [did you hunt elk in the past 3 years / have you hunted elk / would you like to hunt elk]? (Elk survey.)



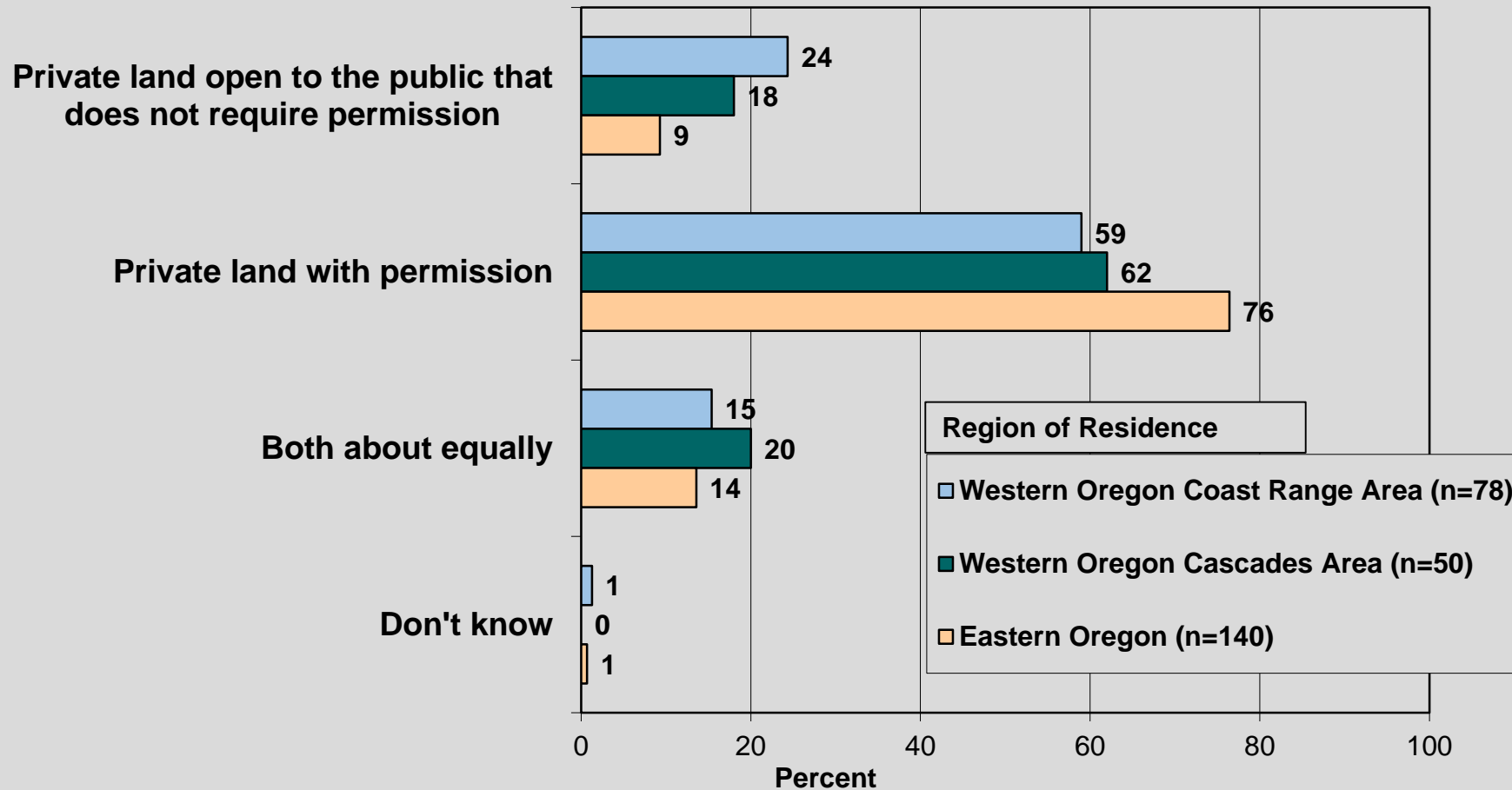
Q54. In Oregon, do you hunt deer mostly on public land, mostly on private land, or both about equally? (Asked of those who hunted deer in Oregon at some time.) (Deer survey)



Q54. In Oregon, do you hunt elk mostly on public land, mostly on private land, or both about equally? (Asked of those who hunted elk in Oregon at some time.) (Elk survey)



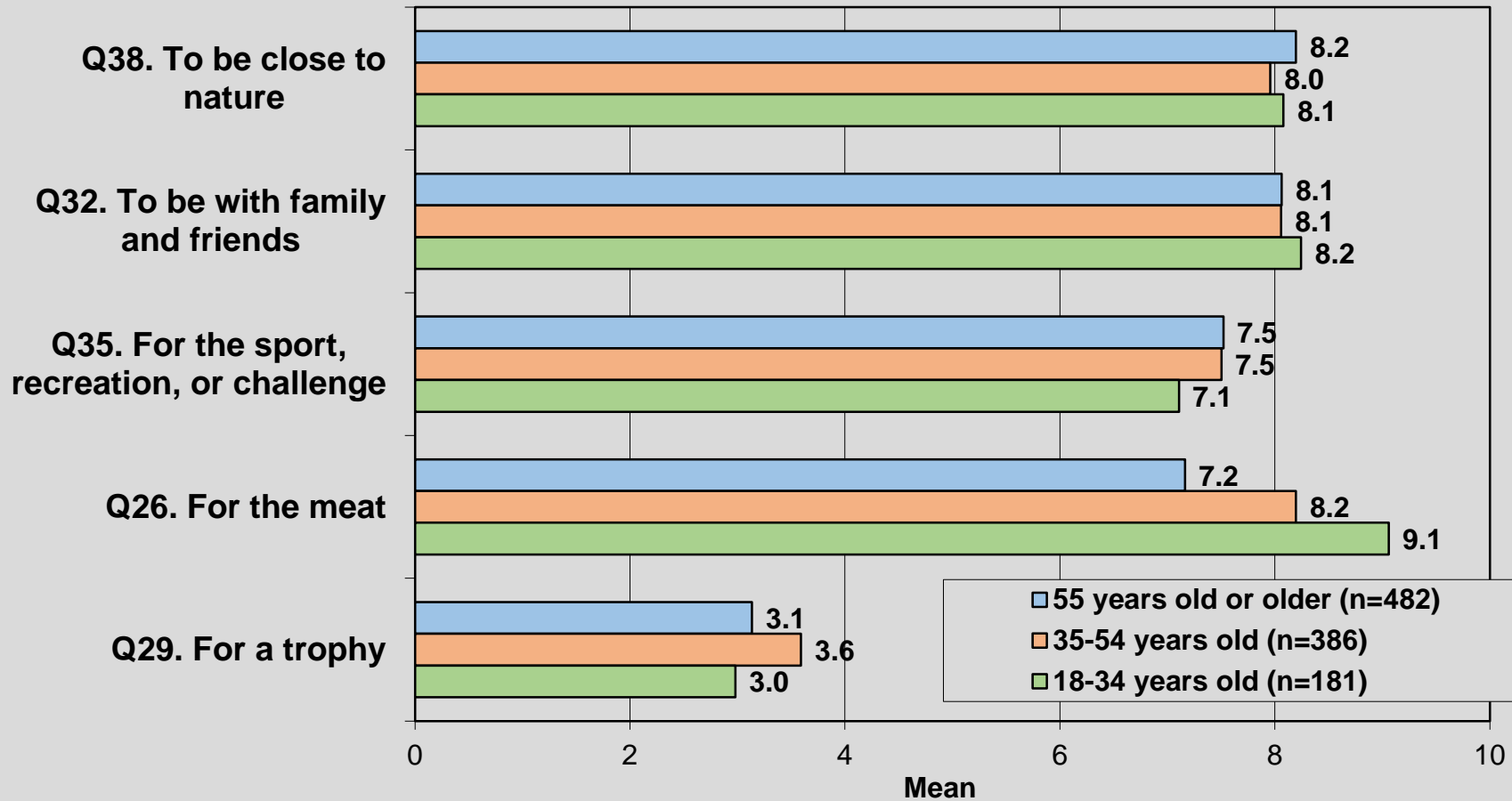
Q55. When you hunt elk on private land in Oregon, do you typically hunt on...? (Asked of those who hunted deer in Oregon at some time and did so mostly on private land or both public and private land about equally.) (Elk survey)



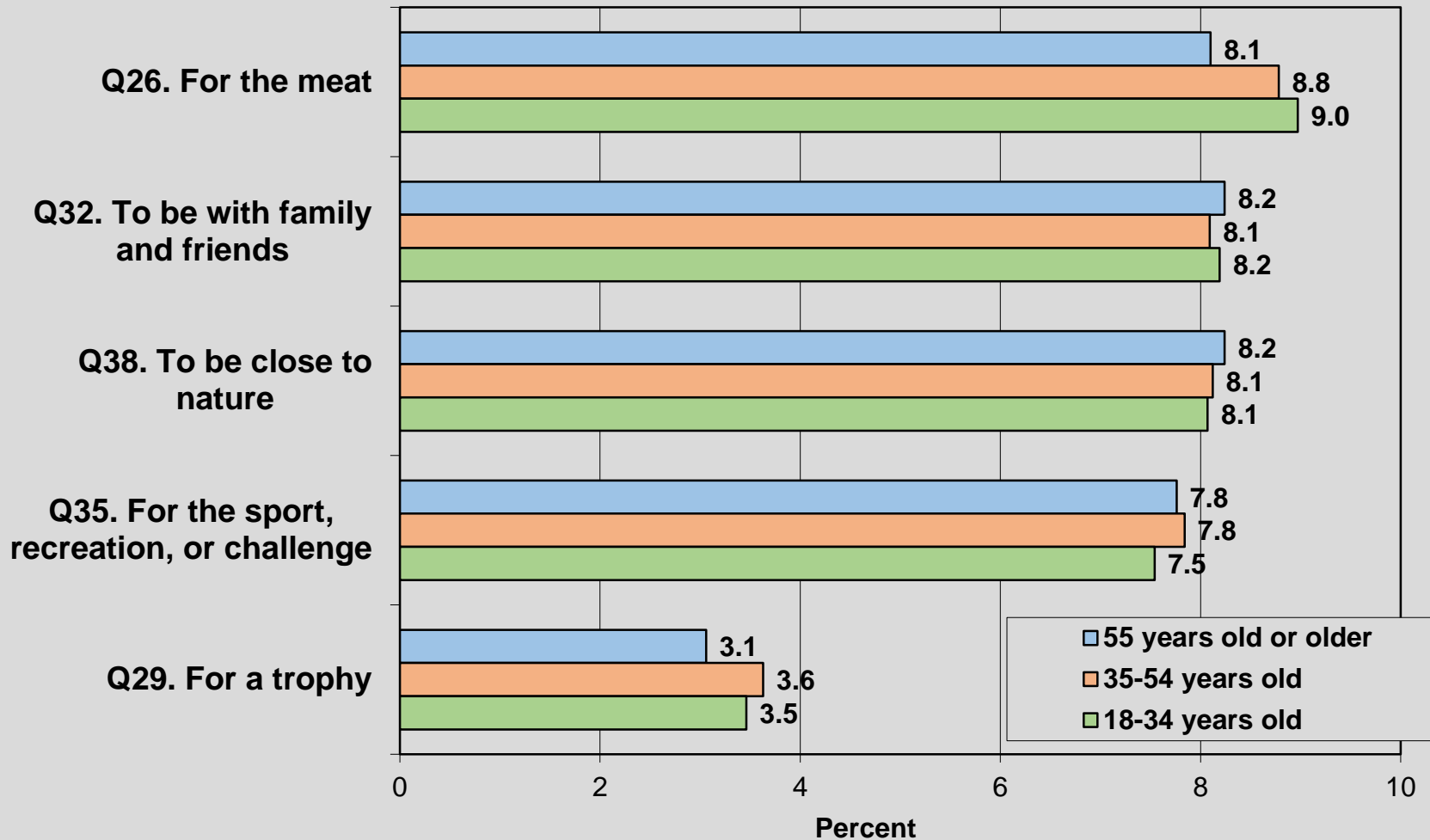
Motivations for Hunting

- **Oregon hunters' most important reasons for hunting are to be close to nature; to be with friends and family; for the sport, recreation, or challenge; and for the meat.**
- **Harvesting a trophy animal was very low on the ranking of reasons for hunting.**

**Q26-Q38. Mean ratings of importance of each of the following as a reason they [hunt / would like to hunt] deer in Oregon, on a scale of 0 to 10, where 0 is not at all important and 10 is extremely important.
(Deer survey)**



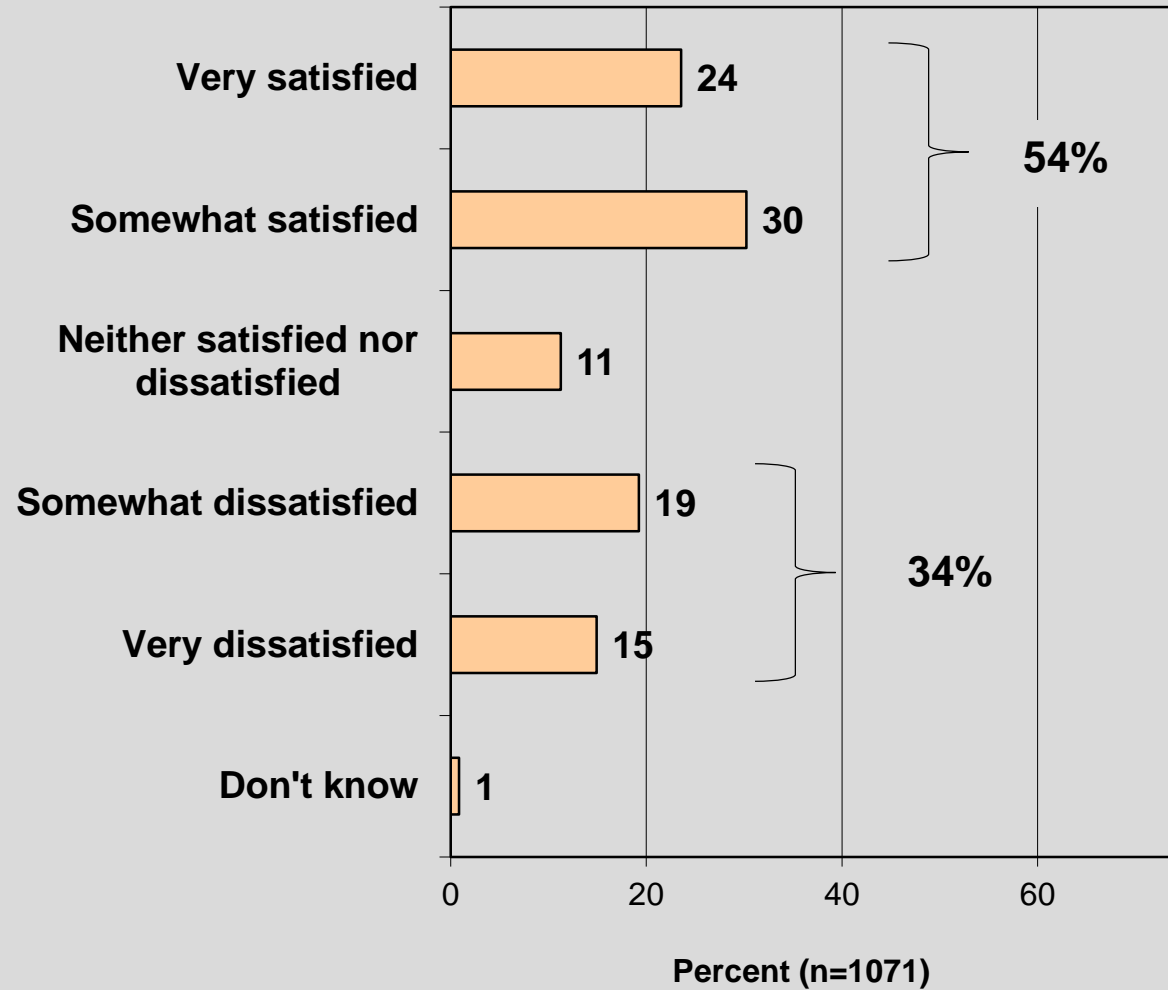
Q26-Q38. Mean ratings of importance of each of the following as a reason they [hunt / would like to hunt] elk in Oregon, on a scale of 0 to 10, where 0 is not at all important and 10 is extremely important. (Elk survey)



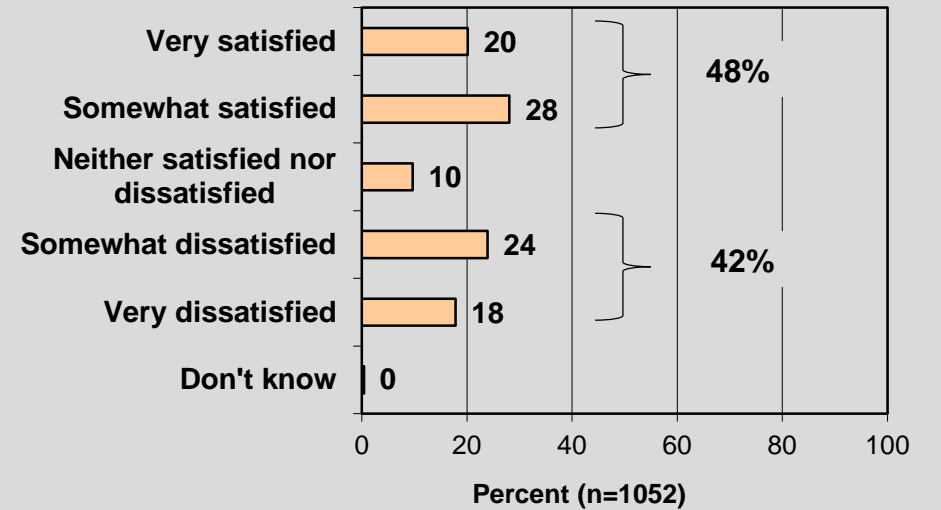
Satisfaction with Hunting

- **Although deer and elk hunters are more often satisfied than dissatisfied with their hunting in Oregon, dissatisfaction is substantial.**
 - **Lack of game is the most common reason for dissatisfaction among both deer and elk hunters, followed by access issues.**
- **Most important to deer and elk hunter satisfaction is simply being able to hunt every year, followed by having a higher or better chance of harvest success.**
- **However, deer and elk hunters agree that having the opportunity to hunt is more important than harvesting an animal.**

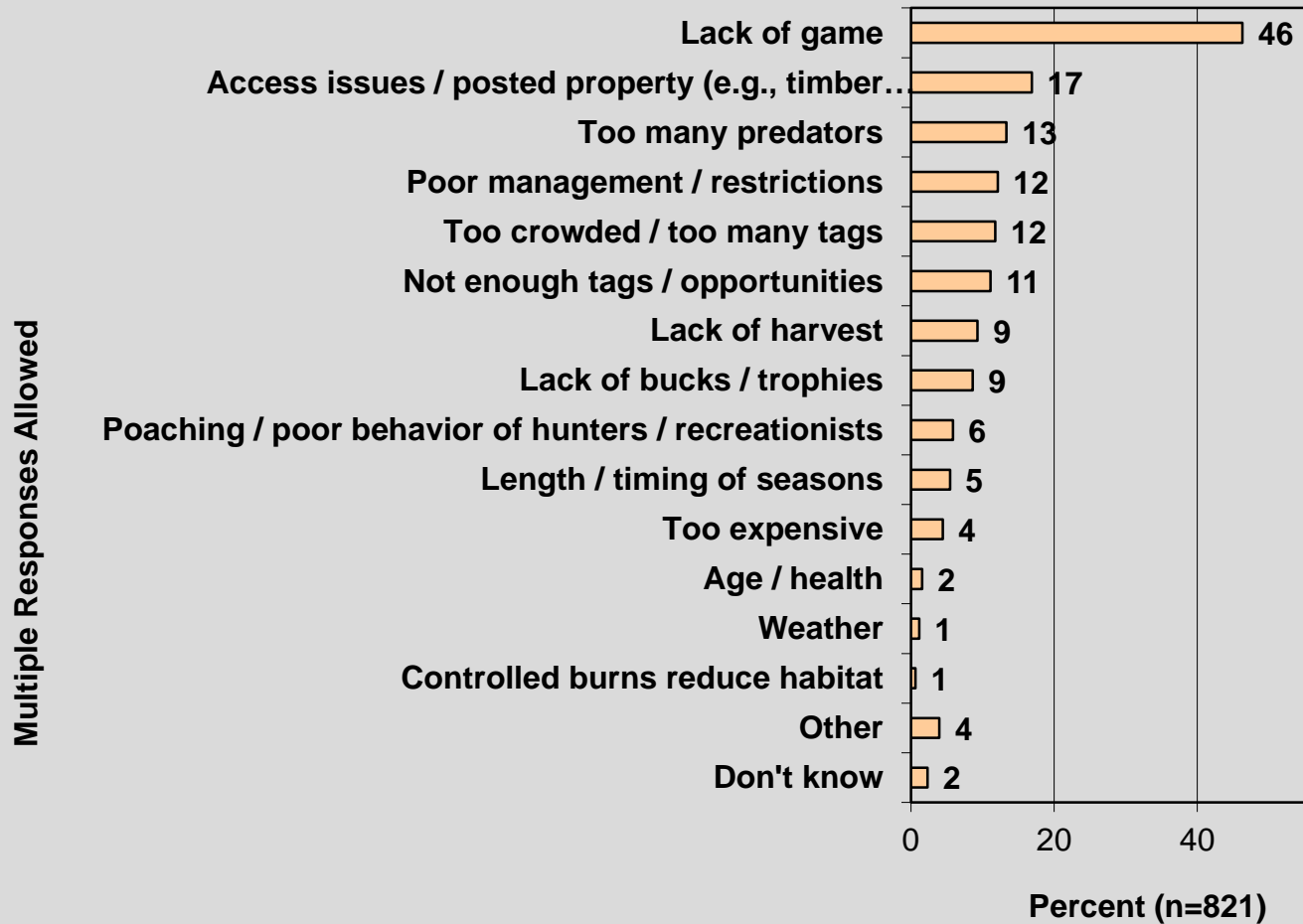
Q56. In general, how satisfied or dissatisfied are you with your elk hunting experiences in Oregon? (Asked of those who hunted elk in Oregon at some time.) (Elk survey)



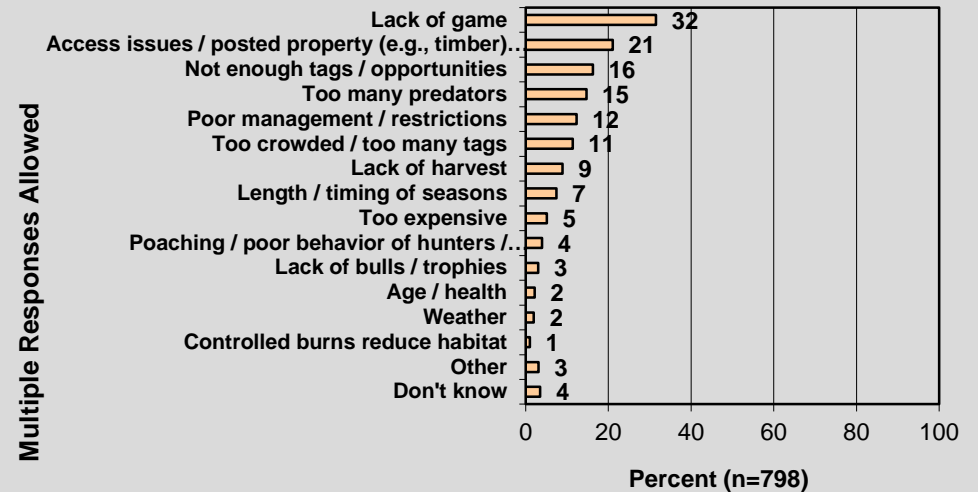
Q56. In general, how satisfied or dissatisfied are you with your deer hunting experiences in Oregon? (Asked of those who hunted deer in Oregon at some time.) (Deer survey)



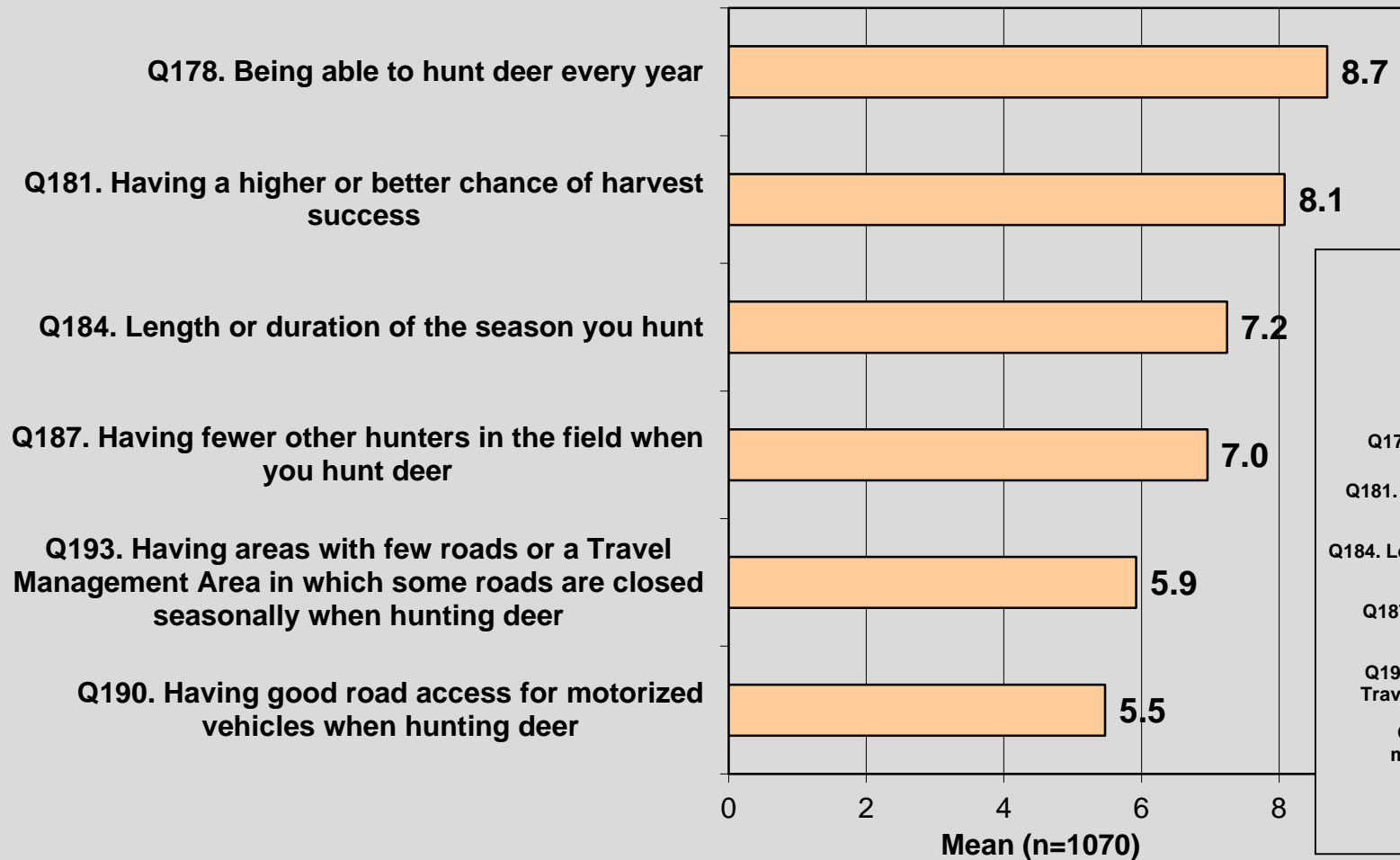
Q57. Why aren't you more satisfied with your deer hunting experiences in Oregon? (Asked of those who hunted deer in Oregon but are not very satisfied with the experiences.) (Deer survey)



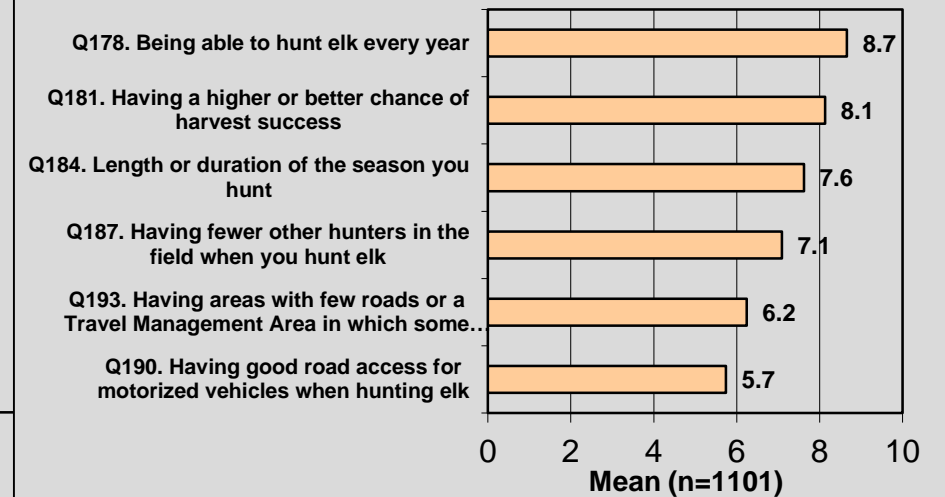
Q57. Why aren't you more satisfied with your elk hunting experiences in Oregon? (Asked of those who hunted elk in Oregon but are not very satisfied with the experiences.) (Elk survey)



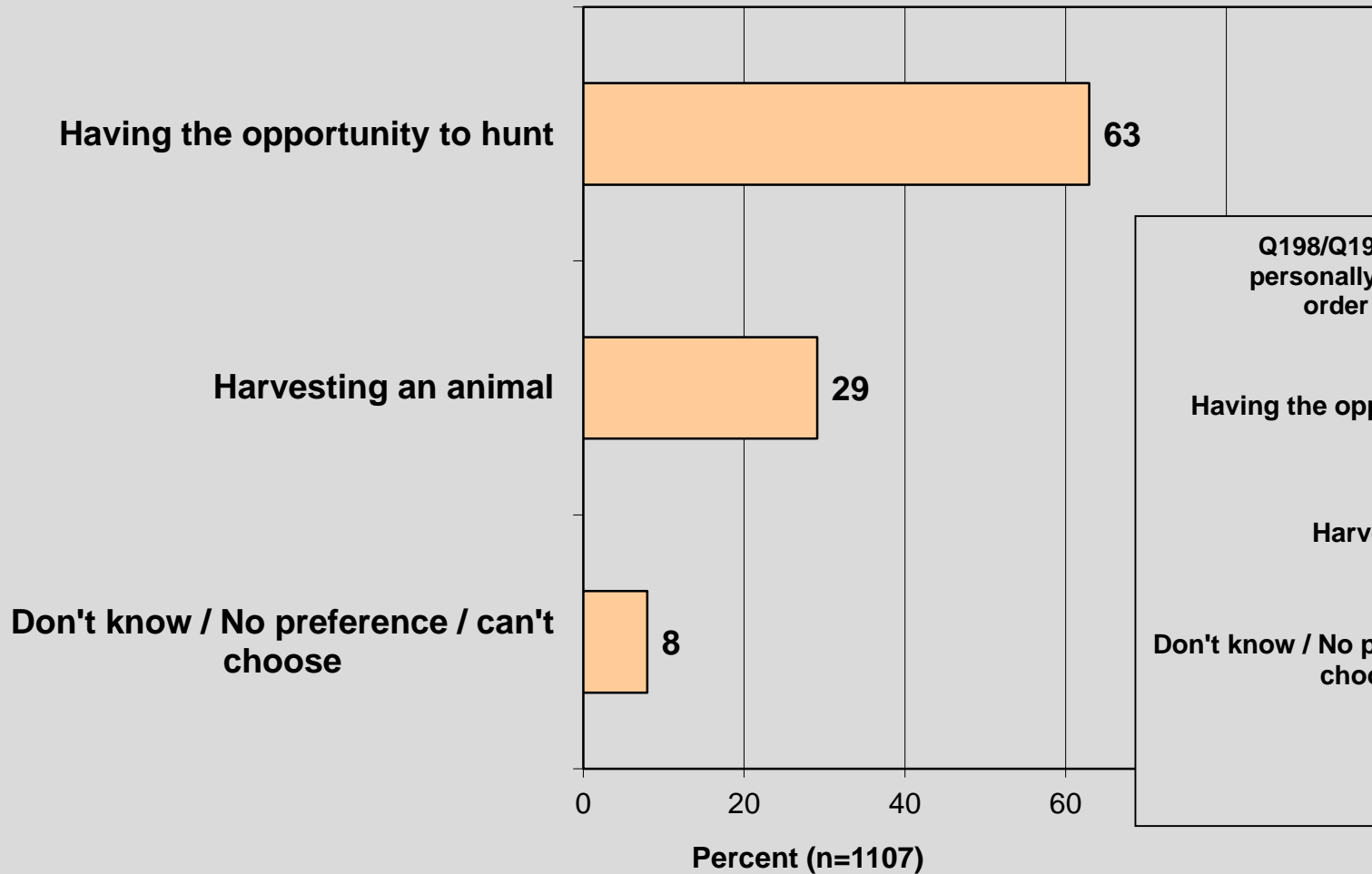
**Q178-Q193. Mean ratings of importance of each of the following to their satisfaction as a deer hunter in Oregon, on a scale of 0 to 10, where 0 is not at all important and 10 is extremely important.
(Deer survey)**



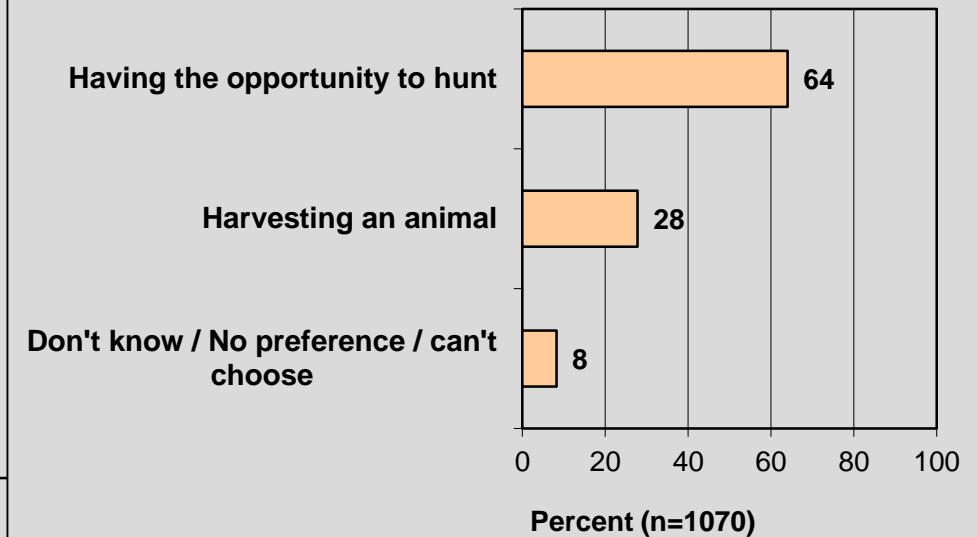
Q178-Q193. Mean ratings of importance of each of the following to their satisfaction as an elk hunter in Oregon, on a scale of 0 to 10, where 0 is not at all important and 10 is extremely important. (Elk survey)



Q201/Q202. In general, which is more important to you, personally, as an elk hunter in Oregon? [Note: response order switched in each question.] (Elk survey)



Q198/Q199. In general, which is more important to you, personally, as a deer hunter in Oregon? [Note: response order switched in each question.] (Deer survey)

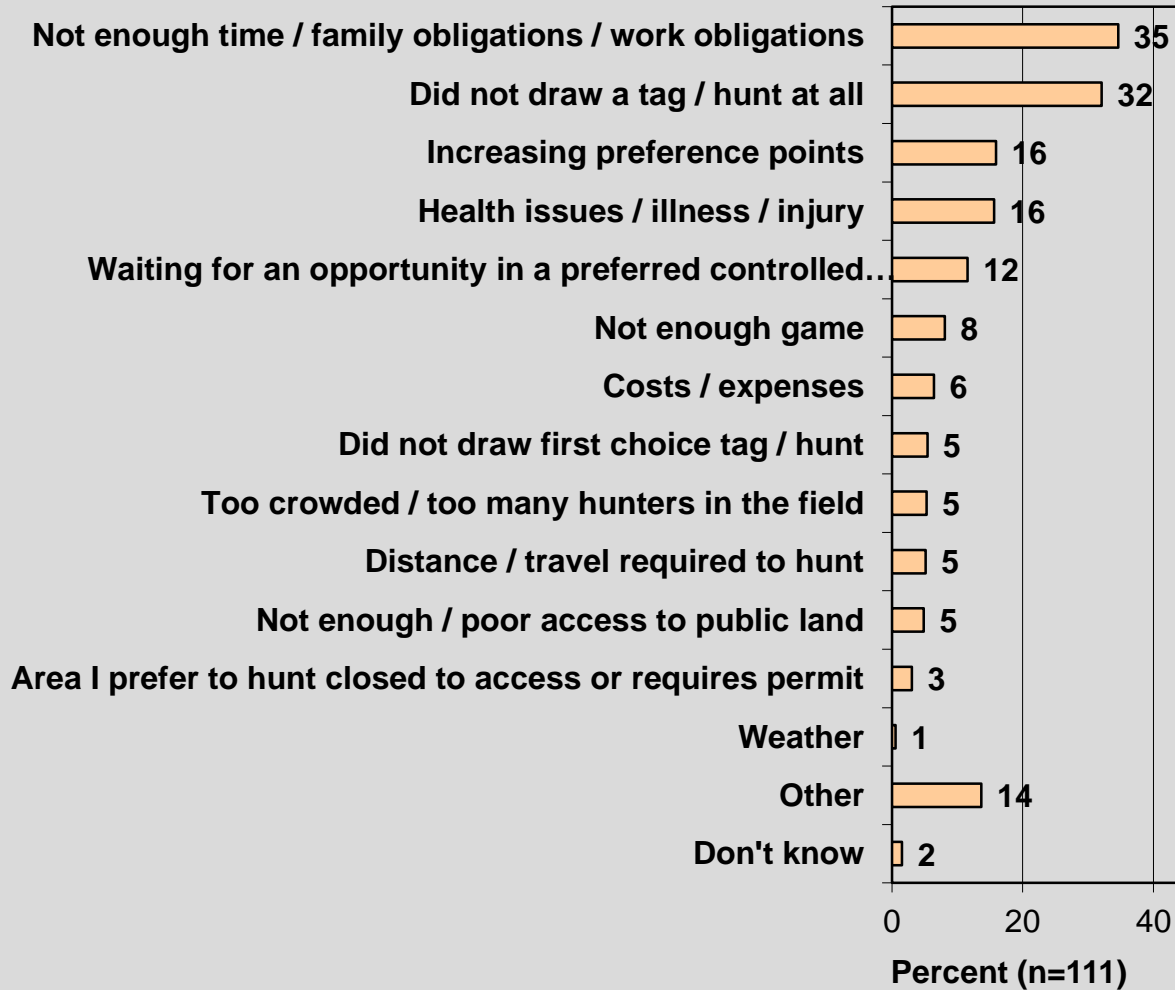


Constraints to Hunting Participation

- **The primary reason hunters did not go hunting was a lack of time due to work/family obligations, followed by not drawing a tag.**

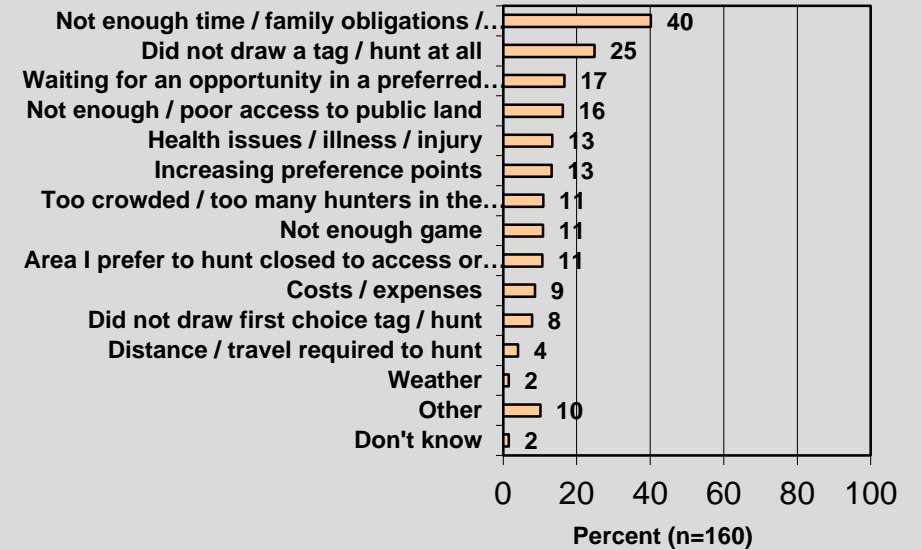
Q69. What are the main reasons you did not hunt deer in Oregon in the past 3 years? (Asked of those who did not hunt deer in Oregon in the past 3 years.) (Deer survey)

Multiple Responses Allowed



Q69. What are the main reasons you did not hunt elk in Oregon in the past 3 years? (Asked of those who did not hunt elk in Oregon in the past 3 years.) (Elk survey)

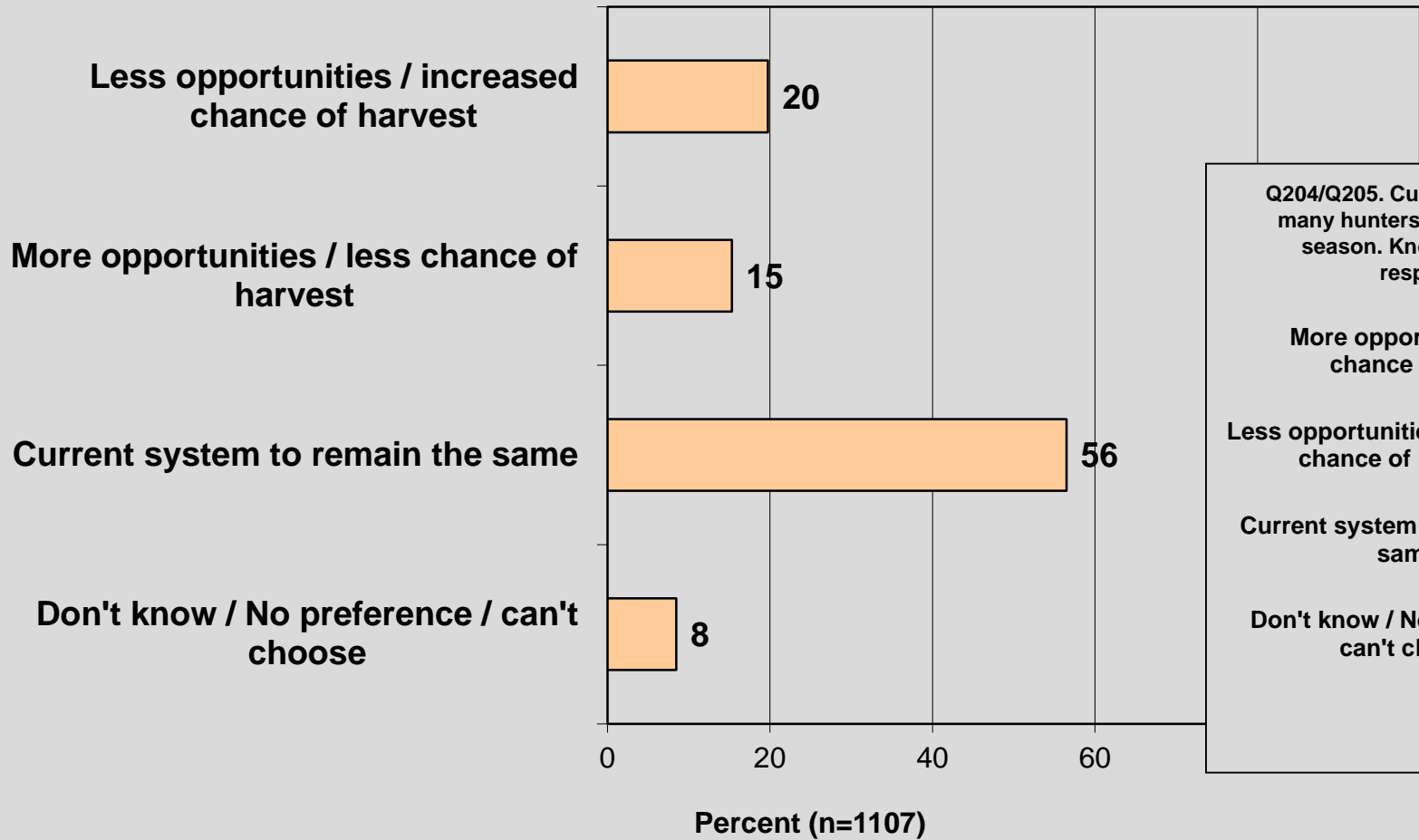
Multiple Responses Allowed



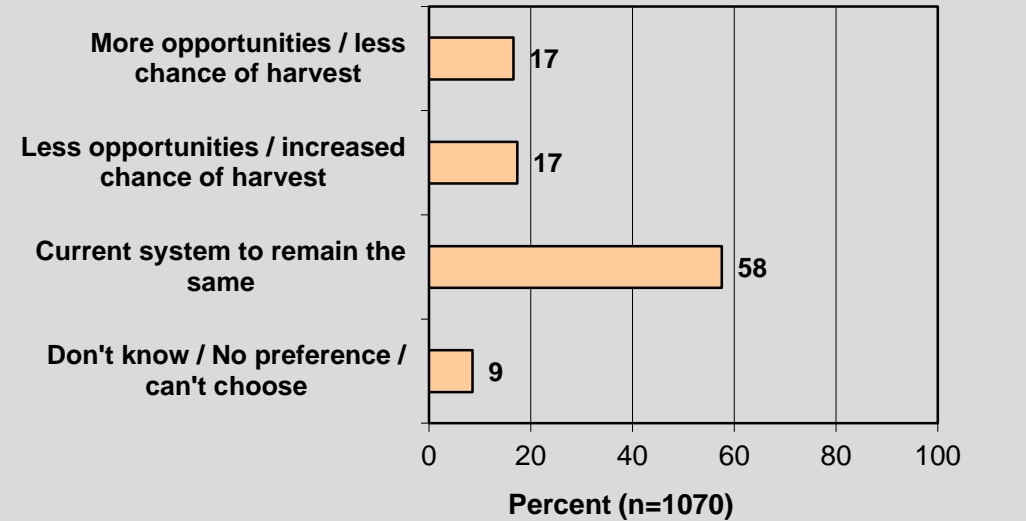
Opinions on Regulatory Issues

- **Both deer and elk hunters prefer the current system in which drawing tags for a controlled hunt means many hunters are not able to hunt every year unless they hunt a general season.**
- **Deer and elk hunters are split on the other options of less opportunities / increased chance of harvest, and more opportunities / less chance of harvest.**

Q204/Q205. Currently in Oregon, drawing elk tags for a controlled hunt means many hunters are not able to hunt elk every year unless they hunt a general season. Knowing this, which of the following do you most prefer? [Note: response order switched in each question.] (Elk survey)



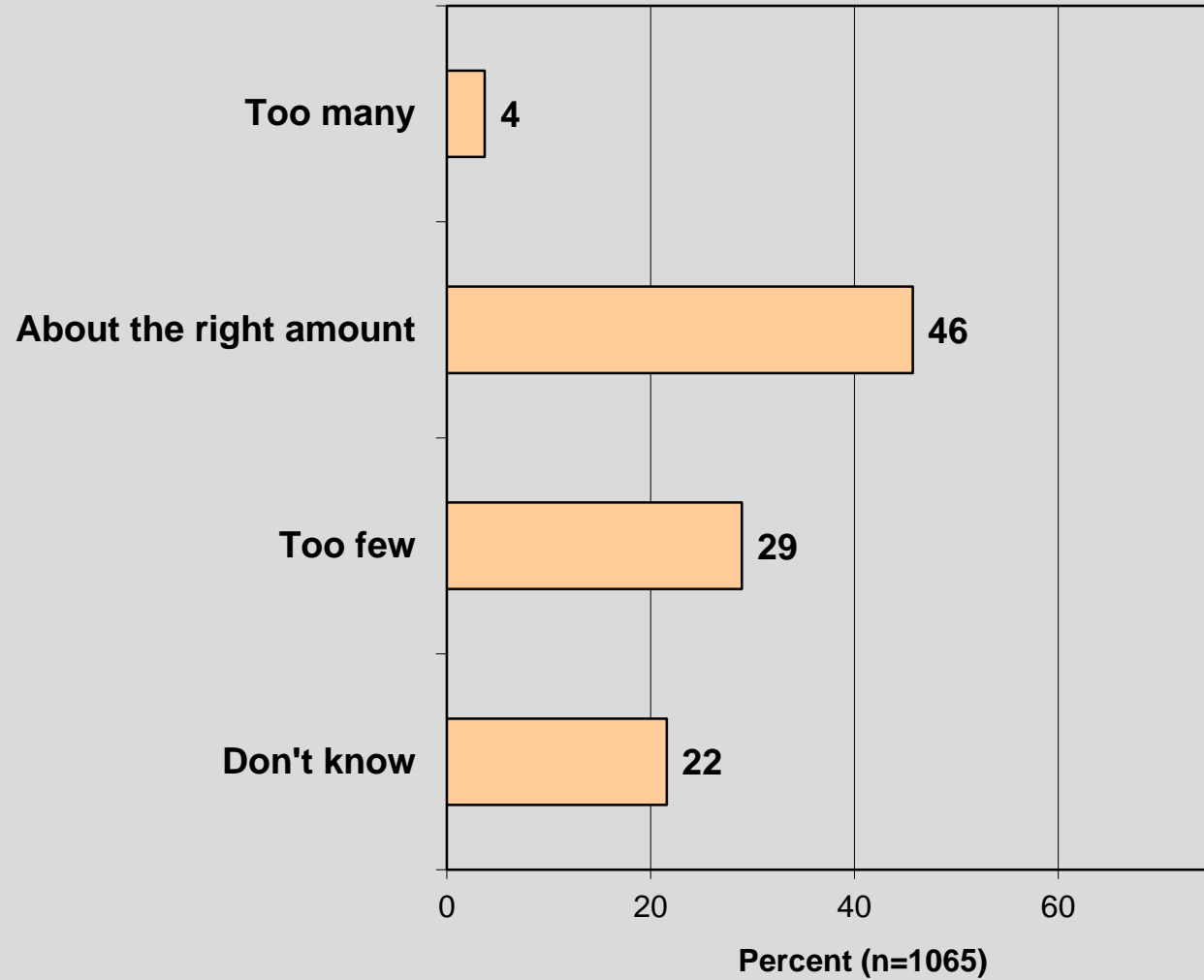
Q204/Q205. Currently in Oregon, drawing deer tags for a controlled hunt means many hunters are not able to hunt deer every year unless they hunt a general season. Knowing this, which of the following do you most prefer? [Note: response order switched in each question.] (Deer survey)



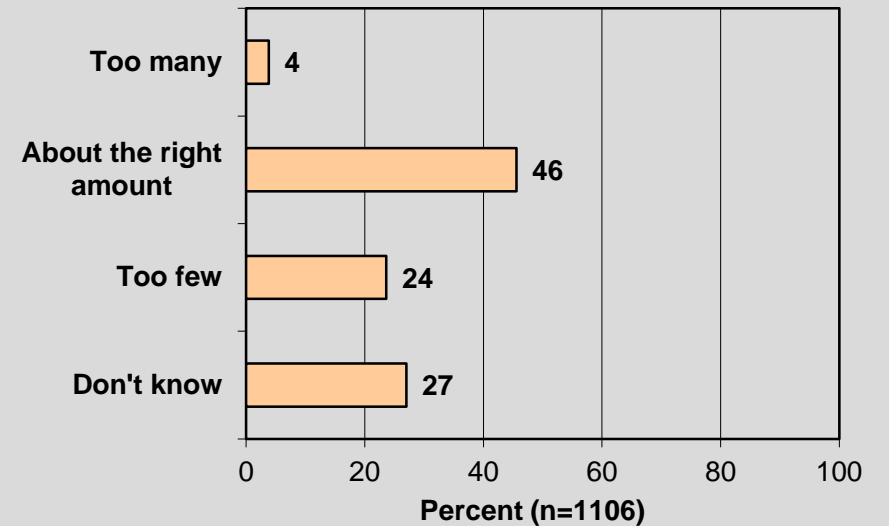
Youth Hunting

- **Most commonly, hunters think that there are about the right amount of opportunities for youth to hunt in Oregon.**
- **Regarding the importance of various aspects of youth hunting, simply providing more opportunities—to hunt in general but more importantly to hunt with family and friends—tops the list among both deer and elk hunters.**

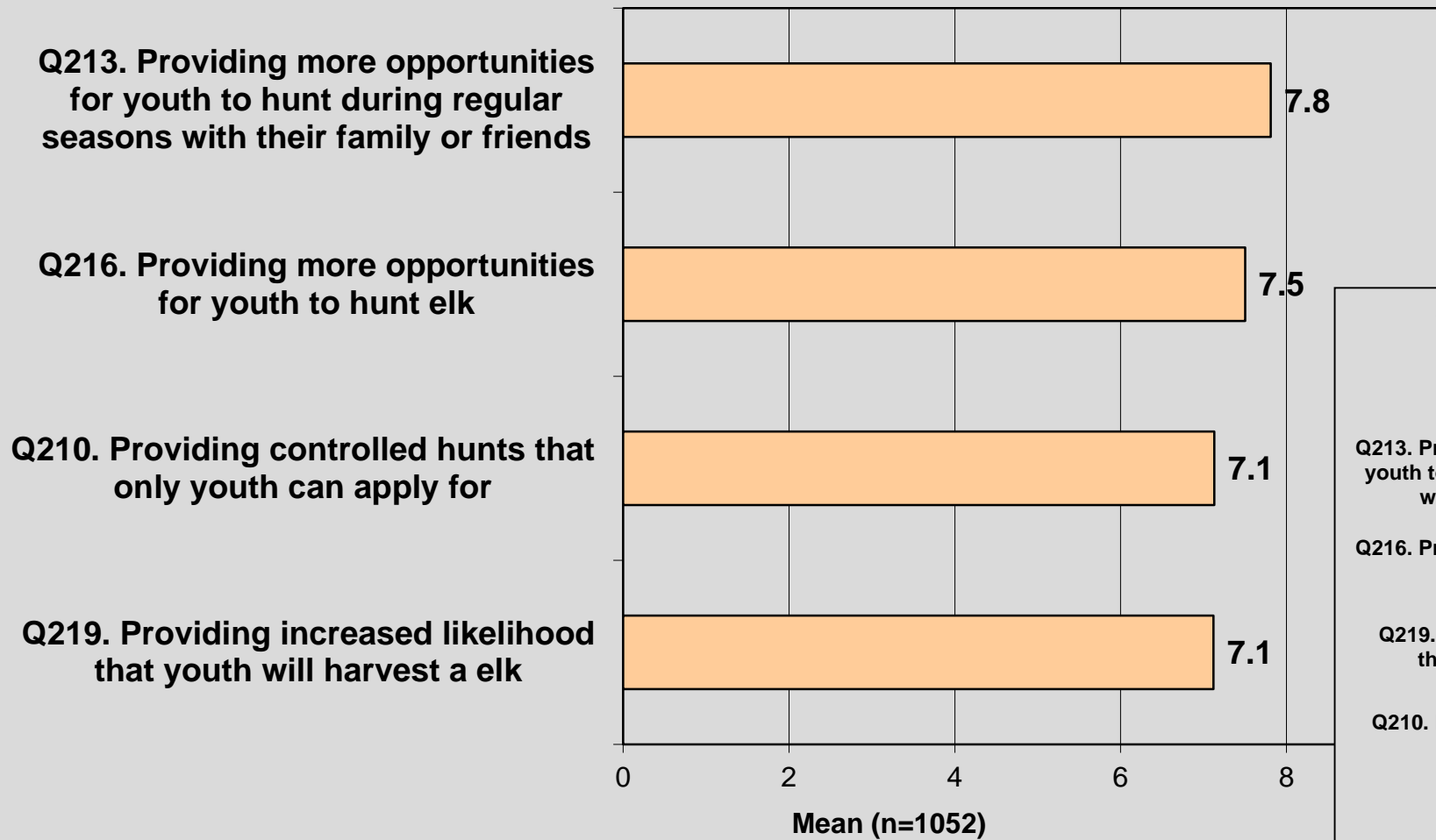
**Q207. Currently, do you think there are too many, about the right amount, or too few deer hunting opportunities for youth in Oregon?
(Deer survey)**



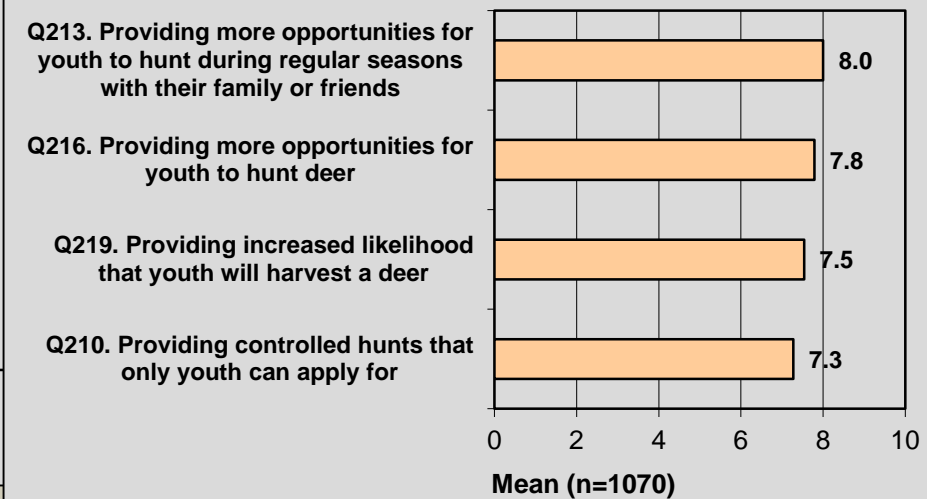
Q207. Currently, do you think there are too many, about the right amount, or too few elk hunting opportunities for youth in Oregon? (Elk survey)



Q210-Q219. Mean ratings of how important each of the following should be for youth hunting opportunities in Oregon, on a scale of 0 to 10, where 0 is not at all important and 10 is extremely important. (Elk survey)



Q210-Q219. Mean ratings of how important each of the following should be for youth hunting opportunities in Oregon, on a scale of 0 to 10, where 0 is not at all important and 10 is extremely important. (Deer survey)



Questions?

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