

**Idaho Rangeland Resource Commission
and Idaho Preferred Statewide Survey**

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Executive Summary

The Idaho Rangeland Resource Commission and the Idaho Preferred Label contracted with the Social Science Research Unit (SSRU) at the University of Idaho to conduct a statewide telephone survey of Idaho residents. A total of 618 households responded to the survey, including 200 contacts made on mobile phones. The responses were representative of Idaho in terms of geographic distribution, sex, income, and age. The results of this study will be used to tailor educational and marketing efforts regarding Idaho's rangeland and locally produced products.

Use of Rangelands by the Public

- The most common ways the survey respondents or a member of their household use rangelands is by camping (59 percent), fishing (53 percent), and hiking (49 percent).
- More than 85 percent of respondents felt that hiking/camping, mountain biking, livestock grazing, horseback riding, and fishing/hunting were appropriate uses of rangelands, while 62 percent felt that ATV/motorized vehicle use was an appropriate activity on rangelands.
- Over 90 percent of respondents approved of mountain biking, hiking/camping, hunting/fishing, and guided recreation on public lands and 89 percent approved of livestock grazing. ATV/motorized vehicle use had the lowest rating for public lands, with only 67 percent of respondents approving it as a use of public land.

Perceptions of Rangelands and Rangeland Health

- A majority of respondents (59 percent) state that Idaho's rangelands are either in "very good" or "good" condition.
- 91 percent of respondents felt that the economic well-being of communities should be given high priority when making decisions about public rangelands, and 73 percent agreed (either strongly or somewhat) that the loss of rangelands to development is a growing problem.
- Only 30 percent of respondents agreed (strongly or somewhat) that ranchers should pay more than they do now to graze on public lands.
- Most respondents (72 percent) state that cattle and sheep producers manage their rangelands in a responsible manner, and 84 percent of respondents felt that private rangelands provide a large portion of wildlife habitat.
- A majority (56 percent) of respondents felt that wildfire was a moderate problem for Idaho's rangeland, with an additional 25 percent stating it is a large problem. When asked whether grazing was a cause, a solution, or it could be either, to wildfire, 42 percent of respondents stated that it could be either a cause or a solution to wildfire, and 40 percent of respondents indicated it could be a solution to wildfire.

- Nearly half the respondents (49 percent) felt that noxious weeds are a large problem on Idaho's rangelands, and most (54 percent) felt that grazing could be either a cause or a solution to noxious weed problems.
- Over a third of respondents (38 percent) stated that grazing has decreased on Idaho's rangelands in the past 50 years, while 25 percent felt it has increase and 17 percent felt it has remained unchanged. Similarly, 25 percent of respondents feel the livestock industry's contribution to the state economy will decrease somewhat or a great deal over the next ten years, while 33 percent feel it will increase and 32 percent state that the industry's contribution to the state economy will remain unchanged.
- 86 percent of respondents felt that grazing should remain a part of the management of public lands, while 66 percent felt it should remain a part of the management of private lands.
- A plurality of respondents (44 percent) feel that ranches are neither a benefit nor a detriment to maintaining threatened and endangered species, while 30 percent state ranches are a benefit and 17 percent felt that ranches are incompatible with maintain threatened and endangered wildlife.
- On a scale of one to seven where one is "not at all important" and seven is "very important", 71 percent of respondents rated the importance of farms and ranches to preserving wildlife at a five or higher.
- When asked which agencies or groups were reliable with respect to information about rangelands, Fish and Game, universities, and the Forest Service were rated most reliable with 89 percent, 86 percent, and 85 percent of respondents, respectively, rating them as either "very" or "somewhat" reliable. 80 percent of respondents rated ranchers as "very" or "somewhat" reliable. Environmental groups and the media had the lowest reliability ratings, with only 52 percent and 31 percent, respectively, rating them as "very" or "somewhat" reliable.

Supporters of Livestock Grazing on Public Lands

- Multivariate models examining the relationship between respondent characteristics and opinions on livestock grazing on public lands found that generally, those who engage in horseback riding, ATV/motorized vehicle use, live in the southwestern region of Idaho, are older, more conservative, and male tend to be supportive of livestock grazing, whereas those who hike tend to be less supportive.

Perceptions about Locally-Produced Products and Awareness of the Idaho-Preferred Label

- 42 percent of respondents stated they would always purchase locally-produced meat if they were provided information demonstrating Idaho ranchers' responsible stewardship practices.
- Two-thirds (66 percent) of respondents had seen or heard messages featuring the Idaho Preferred logo. Most respondents (76 percent) stated they had seen or heard the message in the media (radio, television, or print).
- Over half (57 percent) of respondents had seen a television advertisement featuring the Idaho Preferred label, and 39 percent recalled seeing fruits or vegetables in the message, while 33 percent recalled "all types of food."
- Most respondents (56 percent) are purchasing the same amount of locally produced food as they used to, although 35 percent stated they are buying more locally produced foods than in the past. The majority of the respondents who had increased their consumption of locally produced foods (83 percent) were purchasing more local fruits and vegetables, although 36 percent stated they had increased consumption of all types of local foods.
- The most commonly cited reason for increasing consumption of locally produced products was to support the local economy and local farmers (75 percent) followed by local products being fresher (39 percent).
- Nearly two-thirds (62 percent) of respondents indicated they would be willing to pay more than 10 percent more for locally produced products.

Introduction

The Idaho Rangeland Resource Commission and the Idaho Preferred Label (a division of the Idaho Department of Agriculture) contracted with the Social Science Research Unit (SSRU) at the University of Idaho to conduct a statewide survey of Idaho residents. The study had two primary objectives: 1) to understand the overall perceptions of Idaho residents about grazing, as well as how those perceptions might be evolving due to changes in Idaho's demographics and the emergence of the "New West;" and 2) to quantify the familiarity of Idaho residents with the Idaho Preferred label, as well as to assess Idaho residents' willingness to buy locally produced foods.

Telephone interviews were conducted with 618 households. We sampled both traditional landline phones and mobile (cell) phones. Sampling cell phone numbers is increasingly important, as 22 percent of Idaho households have mobile phone service without a traditional landline.¹ Research has shown that mobile phone-only households tend to be younger (18-29 years), are more likely to be male, and are more highly educated than landline households². Thus, accounting for mobile phone-only households is important in representative survey research. The study was designed to provide results which are representative of the state of Idaho.

The survey instrument was written and designed with input from IRRRC, Idaho Preferred, and SSRU staff. The survey was divided into two primary sections, one to address each of the study objectives. In addition, demographic questions were asked in order to assist with the analyses, as well as assess the level of sample representativeness. The final survey instrument for the survey is shown in Appendix A.

¹ Blumberg, S. J., and J. V. Luke. "Wireless Substitution: State-level Estimates from the National Health Interview Survey, Jan-Dec 2007." U. S. Department of Health and Human Services, Center for Disease Control and Prevention. *National Health Statistics Reports, #14*. March 11, 2009.

² Blumberg, S.J. and J.V. Luke. 2007. Coverage bias in traditional telephone surveys of low-income young adults. *Public Opinion Quarterly*. 71:734-749.

Methodology

The telephone survey used two sample frames which are representative of Idaho residents: a random sample of household landlines (n = 1,200), and a random digit dial sample of wireless phone numbers with an Idaho (208) area code (n = 1,500). Both samples were drawn proportionate to population densities in the state. The survey took 15 minutes on average to complete. The study was approved for human subjects research by the University of Idaho Institutional Review Board, protocol number 10-029. All interviewers completed an online National Institutes of Health training course in human subjects research in addition to training in survey data collection procedures and telephone etiquette. Interviewers were monitored during each calling session by trained supervisors.

To increase the telephone survey response rate, a pre-calling postcard was sent to all landline respondents the week prior to the telephone calls. The postcard stated the SSRU would be contacting the household within the next week, the purpose of the survey, and provided a toll-free number to call the SSRU if they had any questions or concerns regarding the study (Appendix B). Calls began 4 October 2010 and continued until 4 November 2010. Each number in the sample was called at least eight times in attempt to complete an interview. Interviewers made calls during the work week in the mornings, afternoons, evenings, as well as on Saturdays 10:00 a.m. – 2:00 p.m. PST in an attempt to reach as many potential respondents for this project as possible. The SSRU employed a Spanish-language speaking interviewer. Nine interviews were completed in Spanish. Data were collected on SPSS Data Builder³ and compiled on SPSS Version 18⁴.

Final survey dispositions in the landline frame included 418 completed interviews, 141 disconnected numbers, 49 ineligible households (householders were deceased, numbers reached fax machines or businesses, or respondents spoke a language other than English or Spanish), and 325 refusals. 243 households were not able to be contacted for the survey. The final response rate is 40.5 percent, the cooperation rate (the proportion of interviews conducted from all eligible units actually contacted) is 54.6 percent, and the refusal rate is 31.5 percent⁵.

In the mobile phone frame, the study resulted in 200 completed interviews, 449 disconnected numbers, 130 ineligible households (respondents that spoke a language other than English or Spanish, were too young to complete the survey, lines used only for business purposes, or individuals that did not live in

³ SPSS Data Entry Builder. Version 4.0. 2003. SPSS, Inc.

⁴ SPSS, Version 18.0. 2010. SPSS, Inc.

⁵ The American Association for Public Opinion Research (AAPOR). 2006. Standards Definitions: Final Disposition of Case Codes and Outcome Rates for Surveys, 4th Edition. Lenexa, KS: AAPOR. Available at: [HU\[http://www.aapor.org/pdfs/standarddefs_4.pdf\]\(http://www.aapor.org/pdfs/standarddefs_4.pdf\)](http://www.aapor.org/pdfs/standarddefs_4.pdf)

Idaho), and 386 refusals. 335 households were not able to be contacted for the survey. The final response rate is 21.6 percent, the cooperation rate (the proportion of interviews conducted from all eligible units actually contacted) is 33.8 percent, and the refusal rate is 41.6 percent.

The final response rate for the two frames combined is 31.5 percent, the final cooperation rate is 45.5 percent, and the final refusal rate is 36.3 percent.

Data were analyzed using SAS, Version 9.2⁶. Weighted frequencies were used because in the dual-frame methodology, households have different probabilities of selection for the study depending on whether they are mobile phone-only, landline only, or both. Percents, standard errors, and 95 percent confidence intervals are based on the weighted frequencies. Tables showing weighted frequencies for every survey question with the associated standard error are shown in Appendix C. Final open-ended comments are presented in Appendix D.

⁶ SAS, Version 9.2. 2009. SAS Institute, Inc. Cary, N.C

Estimation Using Dual Frame Methodology

Because of the dual-frame methodology, respondents in the two frames had different probabilities of inclusion in the sample. The number of occupied households in Idaho is 556,915 using the most recent data available.⁷ Of those households, 95.5 percent are estimated to have a telephone of some sort (including wireless).⁸ Thus, 531,854 households are expected to have some kind of telephone services. The most recent state level estimate of *wireless only* households in Idaho is 22.1 percent of all households (123,078).⁹ Thus 77.9 percent (433,837) of Idaho households have either a) no phone at all, or b) at least one landline (with or without a mobile phone). Since 4.5 percent (25,061) of households have no phone, then the number of households with at least one landline is 408,776 or 73.4 percent of Idaho households.

The probability of having both a landline phone and a mobile phone can be estimated by multiplying the probability of having a landline phone by the probability of having a mobile phone given that you have a landline phone. Using data from this study and other studies recently conducted by SSRU, the probability of having a mobile phone given that the household was contacted on a landline is 86.6 percent. Thus, the probability of having a mobile phone and a landline phone is 63.6 percent (86.6 percent multiplied by 73.4 percent). Multiplying by the number of occupied households in Idaho yields 354,109 households. The number of households with only a landline is 54,666, calculated as the number of total households in Idaho minus those that are wireless only, have no phone, or have both a wireless and landline phone). The base weight is calculated from the inverse probability of selection given the sample size and population size.¹⁰

⁷ U.S. Census Bureau. 2006-2008 American Community Survey Estimates.

⁸ Federal Communications Commission, Industry Analysis and Technology Division, 2008. Wireline Competition Bureau. Trends in Telephone Service. Page 16-5.

⁹ Blumberg, S.J. and J.V. Luke. 2009. Wireless substitution: State-level estimates from the National Health Interview Survey, Jan-Dec 2007. National Health Statistics Report, #14. U.S. Department of Health and Human Services, Center for Disease Control and Prevention. March 11, 2009.

¹⁰ Brick, M.J., S. Dipko, S. Presser, C. Tucker, and Y. Yuan. 2005. Estimation issues in dual frame sample of cell and landline numbers. Proceedings of the Survey Research Methods Section of the American Statistical Association. P. 2794-2798.

Results

Demographic Profile of Respondents and Comparison to Census Data

The respondents to the survey were equally split between males (50 percent) and females (50 percent) and came from every county in Idaho with the exceptions of Clark and Cassia counties (see table in Appendix C).

We compared the age distribution of respondents in this study to recent Census Bureau estimates of Idaho's adult population. Typically, survey respondents show underrepresentation in lower age groups and overrepresentation in older age groups as younger respondents are more mobile, busier with work and/or young families, and are less likely to have a landline. Using the dual frame methodology in this study (including cell phones in the sample) moderates this effect somewhat, and although this sample slightly under-represents the lowest age demographics (less than 25 years) and slightly over-represents those between the ages of 60 and 74 years, the differences are not large (Table 1).

Age Category	ACS	This Study	95% Confidence Limits
18 – 19 years old	4.1%	1.4%	0.4% - 2.4%
20 – 24 years old	9.5%	4.1%	2.3% - 5.8%
25 – 34 years old	18.9%	15.1%	12.0% - 18.1%
35 – 44 years old	17.7%	14.6%	11.7% - 17.5%
45 – 54 years old	19.0%	19.7%	16.5% - 22.9%
55 – 59 years old	8.2%	10.3%	7.9% - 12.8%
60 – 64 years old	6.5%	10.8%	8.4% - 13.3%
65 – 74 years old	8.5%	15.4%	12.5 – 18.2%
75 – 84 years old	5.3%	6.9%	5.0% - 9.0%
Over 85 years old	2.3%	1.5%	0.5%- 2.7%

Table 1: Comparison of Weighted Sample Estimates to 2006-2008 ACS¹¹ Estimates

¹¹ U.S. Census Bureau. 2006-2008 American Community Survey Estimates.

Because the nature of the survey involved Idaho issues, it is important to know how long residents have lived in the state, as long-time residents may be more aware of both issues surrounding Idaho's rangelands or awareness of locally produced Idaho goods. Over half of the sample has lived in Idaho 30 or more years (52 percent), while an additional 23 percent have lived in the state for 15 or more years (Figure 1).

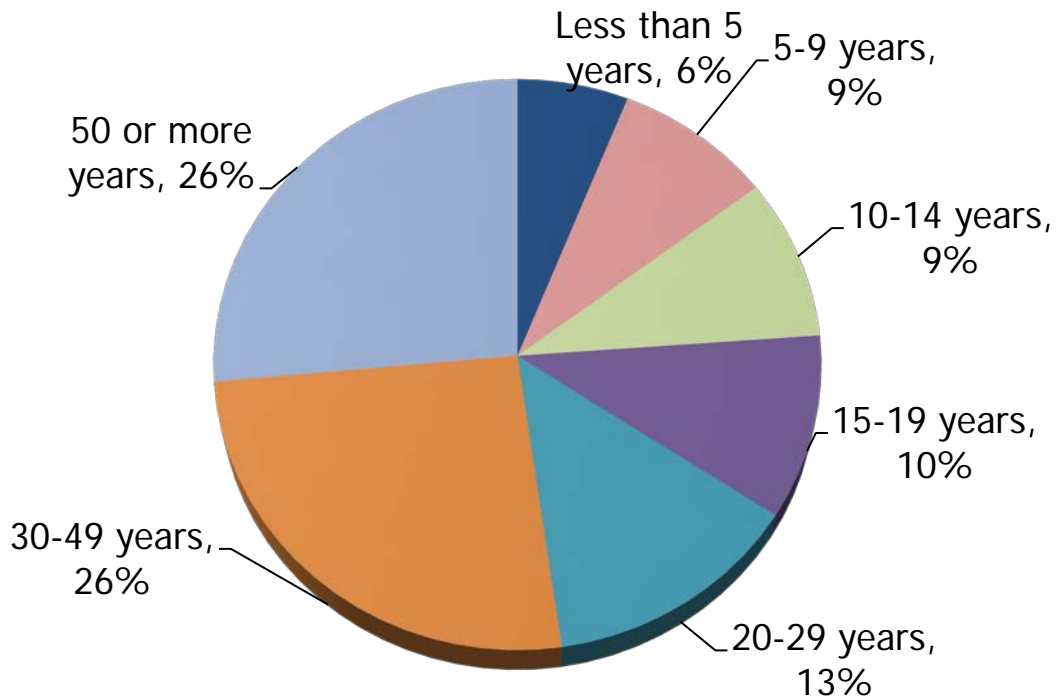


Figure 1. Length of Residence in Idaho.

While the number of years a respondent has resided in the state is important, we have found that a more important variable for predicting opinions and preference on Idaho issues tends to be the proportion of their lifetime they have lived in the state. This variable is calculated by dividing the number of years they have resided in the state by their current age. When this variable is used in conjunction with other demographic variables (such as their age) in analyses, it enables us to tease apart generational effects from cultural effects produced by growing up in a particular region. When we calculated the proportion of lifetime variable, we found that 19 percent of the sample had lived in Idaho less than 25 percent of their life, but 46 percent had lived here for 75 percent or more of their life (Figure 2).

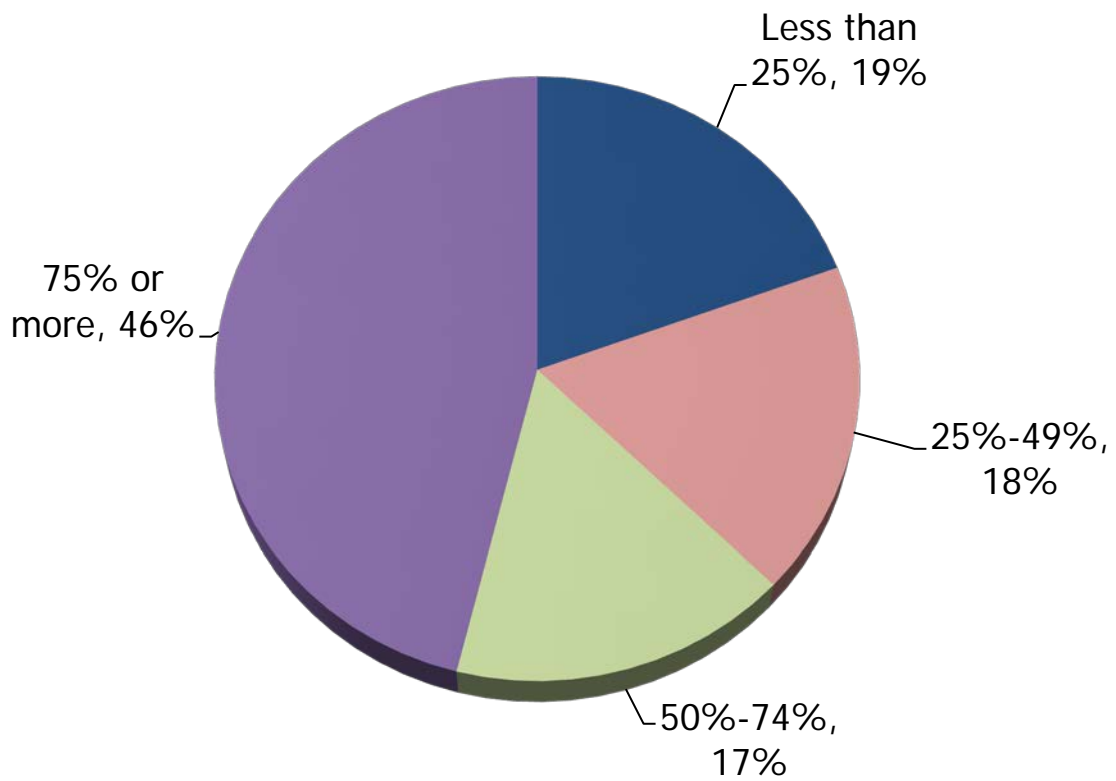


Figure 2. Proportion of Lifetime Spent in Idaho

We compared the educational attainment of respondents over the age of 25 in this study with Census Bureau estimates. Respondents in this study tended to be better educated than Idaho residents in general, as this study underrepresented those without a high school diploma and over represented those with college degrees (Table 2).

Education	ACS ¹²	This Study	95% Confidence Limits
Some high school	12.1%	3.5%	1.9%-5.2%
High school graduate	29.2%	23.8%	20.3%-28.5%
Some college	26.1%	24.0%	20.4%-27.8%
Associates' degree	8.6%	12.3%	9.5%-14.6%
College graduate	16.5%	23.7%	20.2%-26.6%
Graduate or professional degree	7.4%	12.6%	9.9%-14.5%

Table 2. Educational Attainment

¹² U.S. Census Bureau. 2006-2008 American Community Survey Estimates.

When asked their employment status, nearly half (49 percent) were employed full time. A quarter (25 percent) of respondents were retired, and the remainder were employed part time, were students, homemakers, unemployed, or disabled (Figure 3). Twelve percent of the sample were school teachers or administrators.

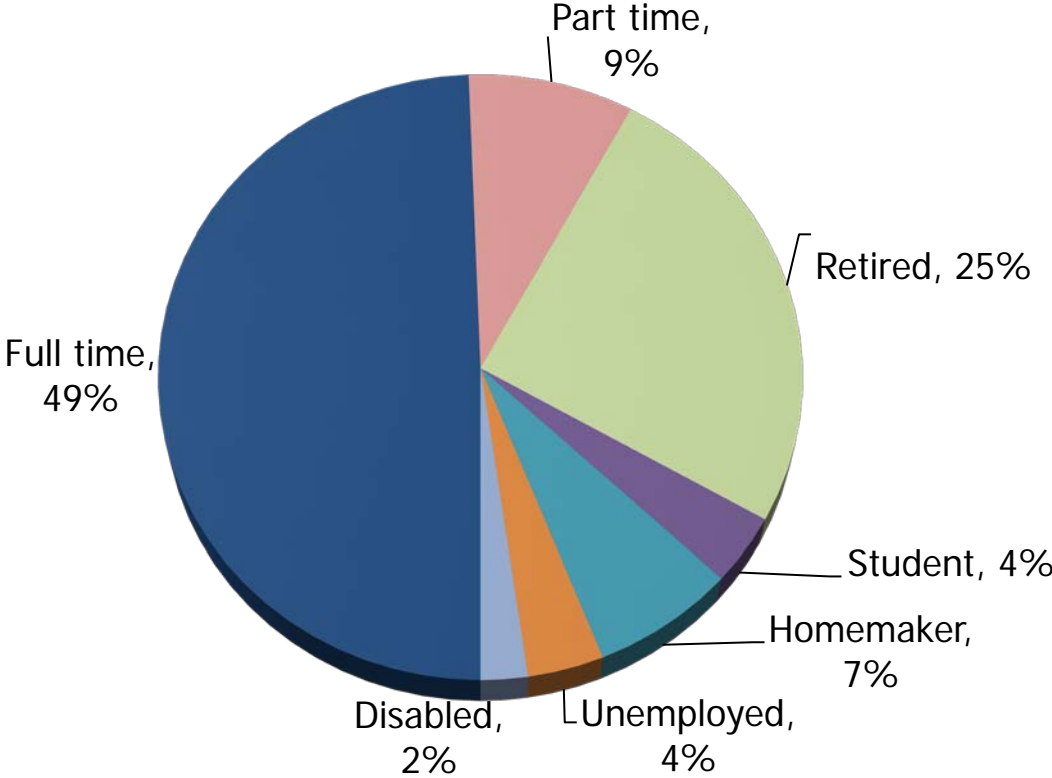


Figure 3. Employment Status

When asked their political affiliation on a scale of one to seven, where one is “very conservative” and seven is “very liberal,” 37 percent categorized themselves as “conservative” (rated one, two, or three), 38 percent rated themselves as moderate (a four), and 23 percent as liberal (rated five, six, or seven). Two percent of respondents were not sure (Figure 4).

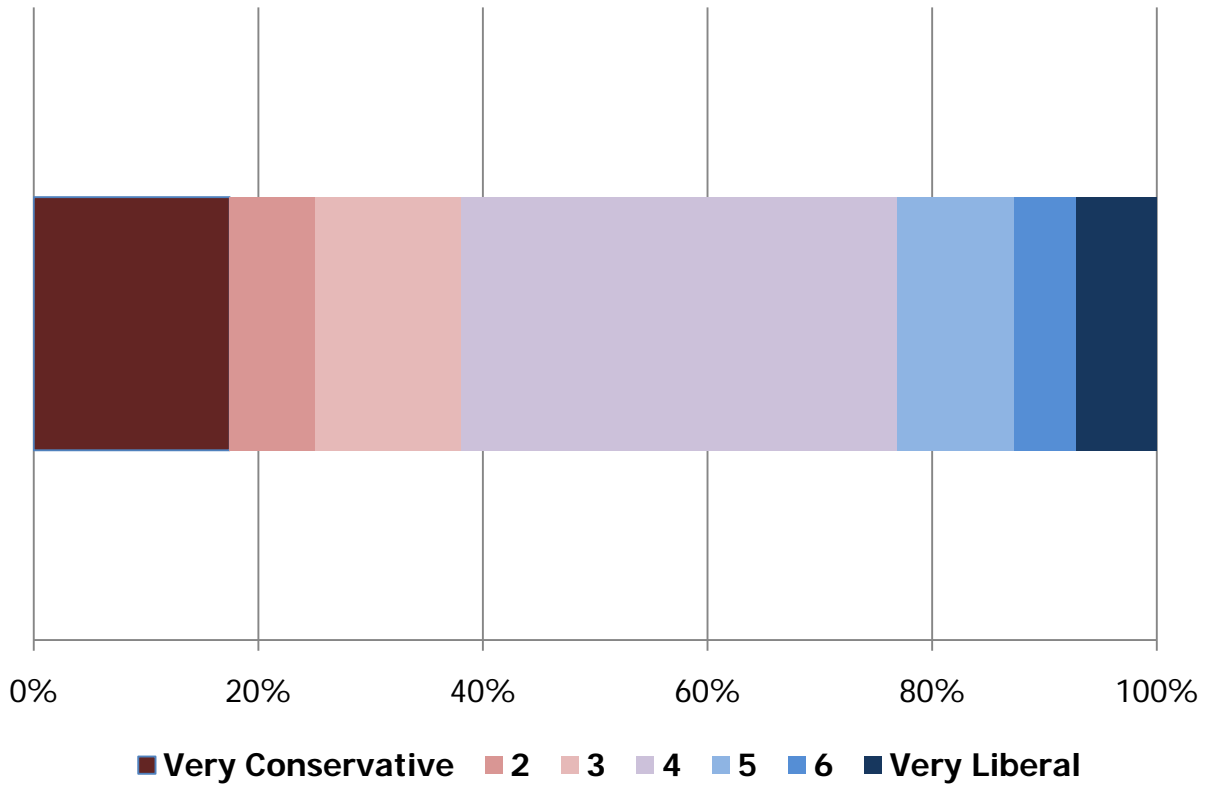


Figure 4. Political Affiliation

With respect to household income, this sample closely matches Census Bureau estimates of household income, with exception that those households earning between \$25,000 and \$34,999 tend to be slightly overrepresented (Table 3).

Annual Household Income	ACS¹³	This Study	95% Confidence Limits
Less than \$10,000	6.0%	4.5%	2.6%-6.4%
\$10,000-\$24,999	17.1%	14.7%	11.5%-18.0%
\$25,000-\$34,999	13.1%	18.1%	14.7%-21.5%
\$35,000-\$49,999	16.5%	15.1%	12.1%-18.1%
\$50,000-\$74,999	21.5%	23.6%	20.0%-27.2%
\$75,000-\$99,999	11.8%	11.3%	8.7%-14.1%
More than \$100,000	14.1%	12.5%	9.8%-15.3%

Table 3: Household Income.

¹³ U.S. Census Bureau. 2006-2008 American Community Survey Estimates.

Use of Rangelands by the Public

Idaho residents use rangelands in a variety of ways. When asked how they or a member of their household use Idaho's rangelands, the most commonly cited responses were camping (59 percent), fishing (53 percent), and hiking (49 percent). Eight percent of respondents report they or a member of their household use rangelands for grazing (Figure 5).

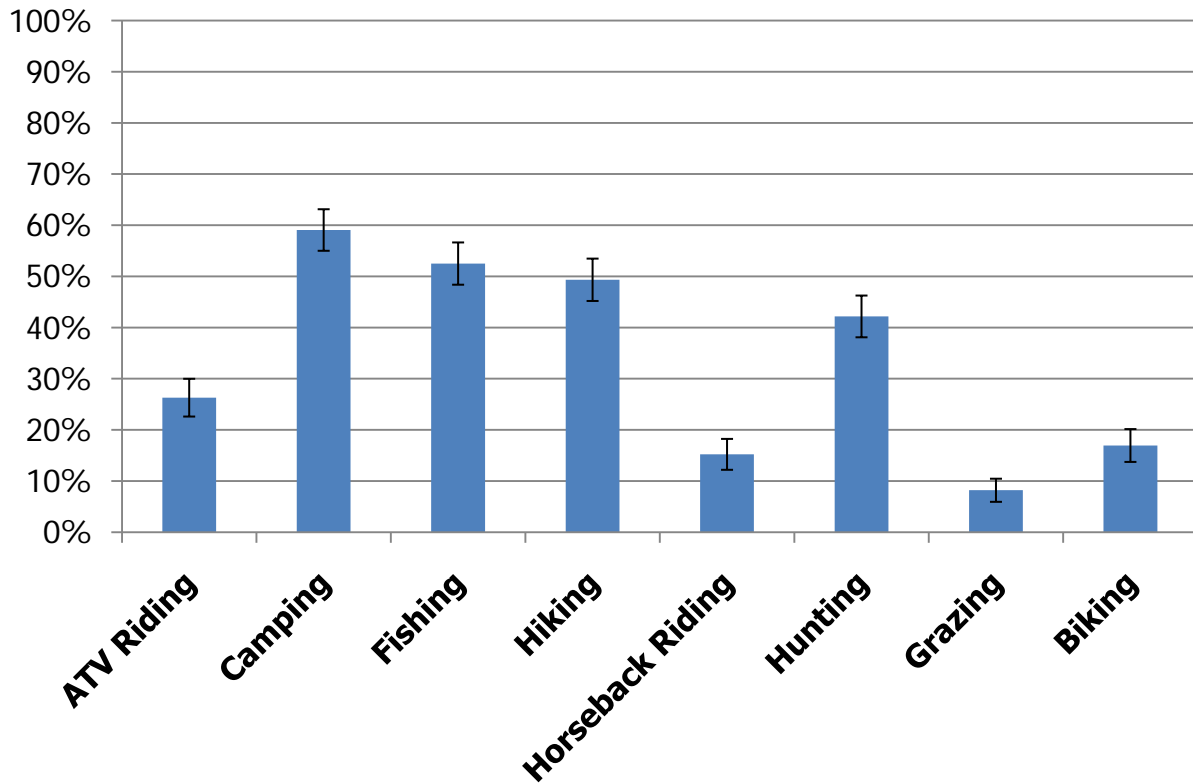


Figure 5. Use of Idaho's Rangeland by Respondents

Respondents were asked which activities they felt were appropriate uses of public lands, whether or not they personally engaged in those activities. More than 85 percent of respondents felt that hiking and camping, mountain biking, livestock grazing, horseback riding, and fishing and hunting were appropriate uses of public lands. With respect to motorized vehicle use, support was somewhat lower, with 62 percent of respondents stating it was an appropriate use of public lands (Figure 6).

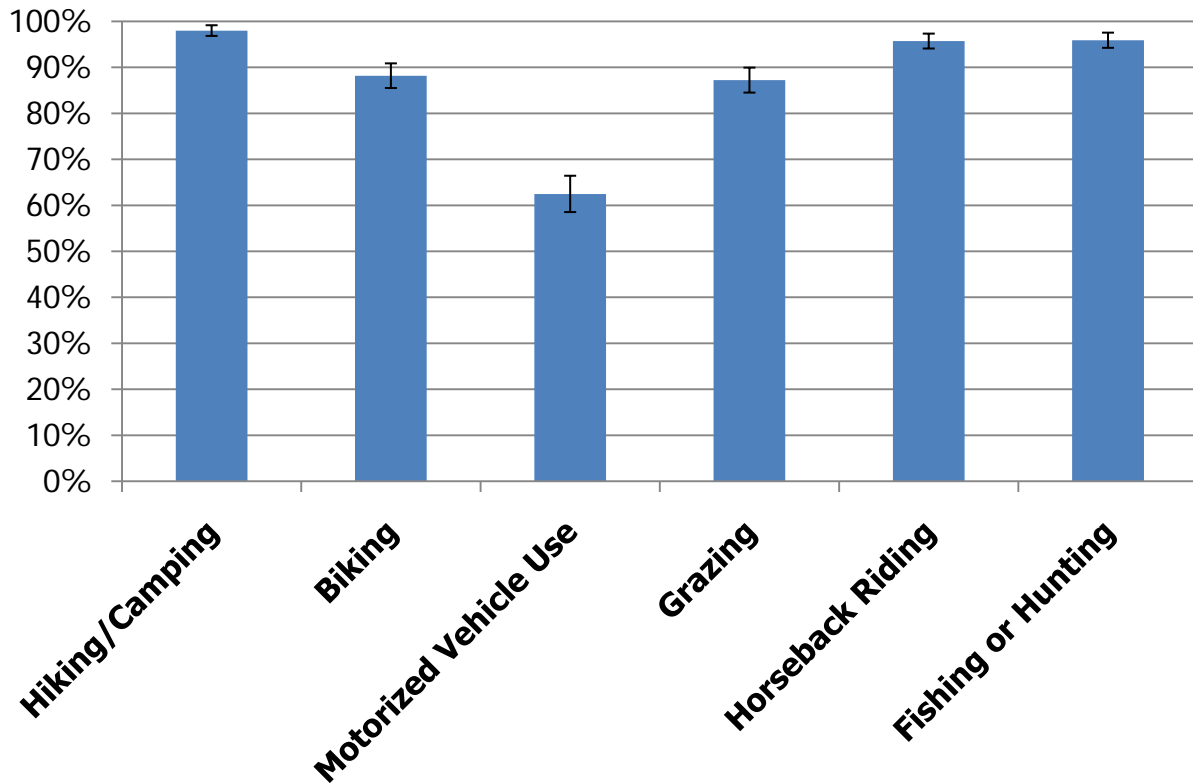


Figure 6. Appropriate Uses of Public Lands

Respondents were then asked whether they approve or disapprove of a series of specific uses that might occur on public lands. The list was randomized to avoid primacy effects in the survey. Of the items tested, hiking and camping (99 percent), hunting and fishing (97 percent), and guided recreation (95 percent) had the highest levels of approval. Energy development (75 percent) and ATV/motorized vehicle use (67 percent) had the lowest levels of approval. 89 percent of respondents approved of livestock grazing as a use of public land (Figure 7).

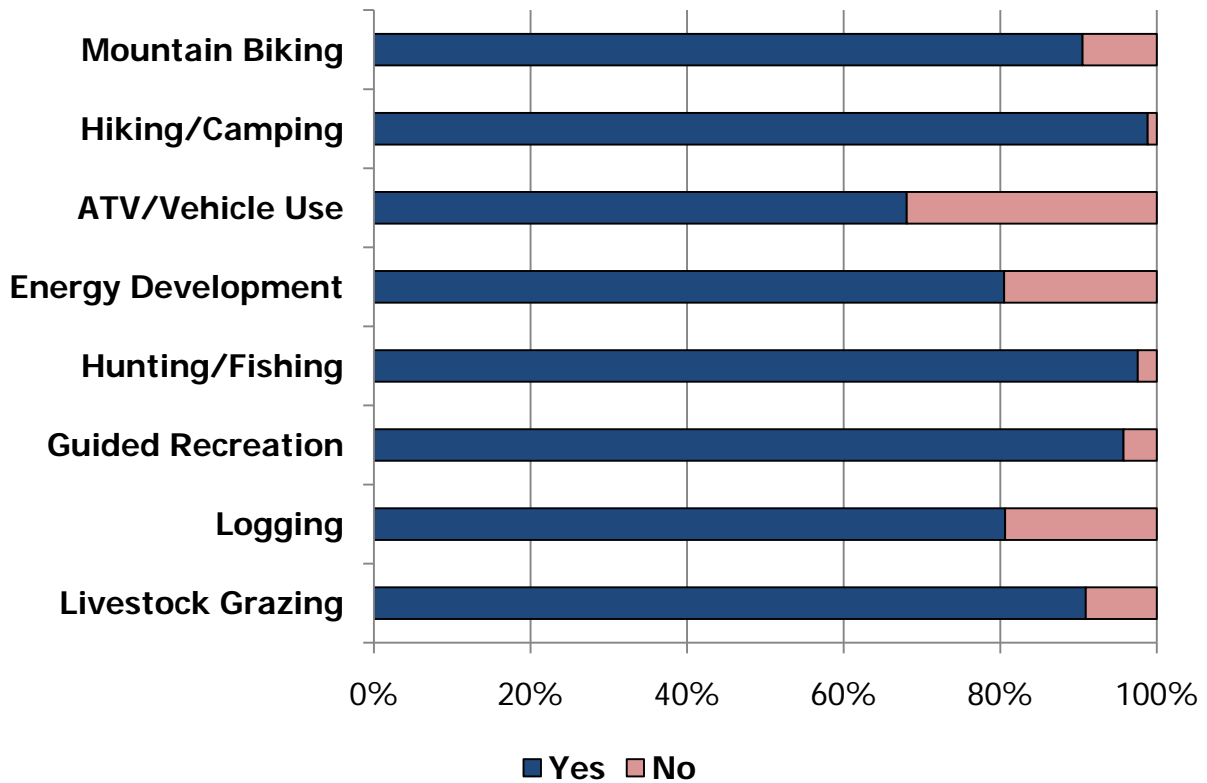


Figure 7. Approval of Specific Uses of Public Lands

Perceptions of Rangelands and Rangeland Health

A primary objective of this study was to document the perceptions and views of Idaho's residents with respect to rangelands and rangeland health. The survey began with a general question about the condition of Idaho's rangelands. Respondents were asked to rate the condition of rangeland in the state on a scale from "very poor" to "very good." A majority of respondents (59 percent) stated that rangelands in Idaho are either in "good" or "very good" condition, with only six percent stating that rangelands are in "poor" or "very poor" condition (Figure 8).

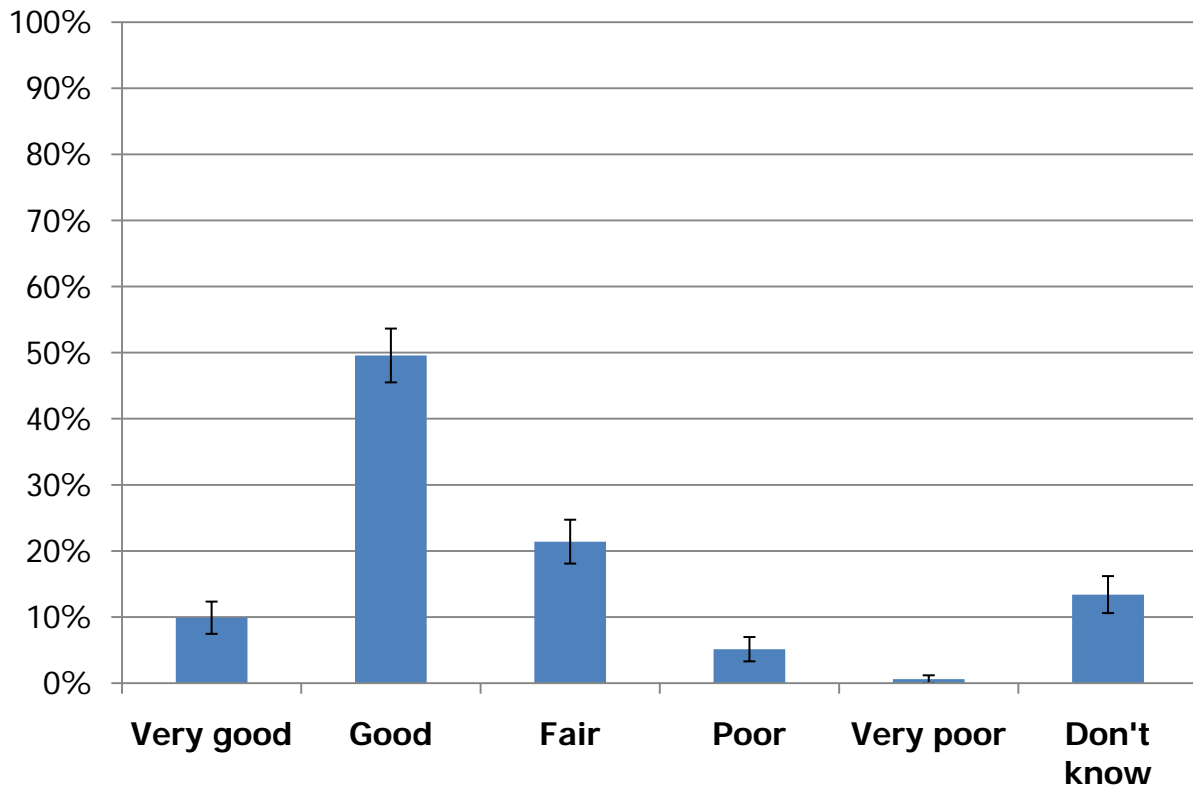


Figure 8. Condition of Idaho's Rangeland

Where applicable, the results of the 2010 study are compared with the results of earlier Idaho Rangeland Resource Commission studies. In 2010, respondents rated the condition of Idaho's rangelands slightly higher than in previous years, with 60 percent of respondents rating the condition as good or very good, compared to 45 and 44 percent in 1997 and 2001, respectively. The question added a "very poor" option in 2010, but only one percent of respondents chose that category to describe Idaho's rangelands (Table 4).

Condition	1997	2001	2010
Very good	4%	3%	10%
Good	41%	41%	50%
Fair	41%	42%	21%
Poor	7%	7%	5%
Very poor	-	-	1%
Don't know	7%	7%	13%

Table 4: Condition of Idaho's Rangelands

Most respondents (70 percent) had not encountered livestock when recreating on Idaho's rangelands. However, of those that had encountered livestock, 45 percent rated the experience as positive, 46 percent rated it as a neutral experience (neither good nor bad), and only nine percent recalled it as being a negative experience.

The next series of questions asked respondents for their level of agreement with five statements about rangelands. The first question in the series asked respondents whether the economic well-being of local communities should be given a high priority when making decisions about public rangelands. A large majority (91 percent) either strongly or somewhat agreed with this statement. When asked whether private rangelands provide a large portion of wildlife habitat, 84 percent of respondents agreed either strongly or somewhat.

Nearly three-quarters (73 percent) of respondents agreed (either strongly or somewhat) that the loss of rangelands to development is a growing problem for Idaho’s rangelands, although 17 percent somewhat disagreed with this statement. Fewer respondents agreed that ranchers should pay more than they do now to graze livestock on public lands, with only 30 percent agreeing (strongly or somewhat) with this statement and 50 percent disagreeing (either strongly or somewhat). 21 percent of respondents responded they did not know if ranchers should pay more than they do currently.

Most respondents (72 percent) strongly or somewhat agree that cattle and sheep producers manage rangelands in a responsible manner, although 14 percent state they are not sure (Figure 9).

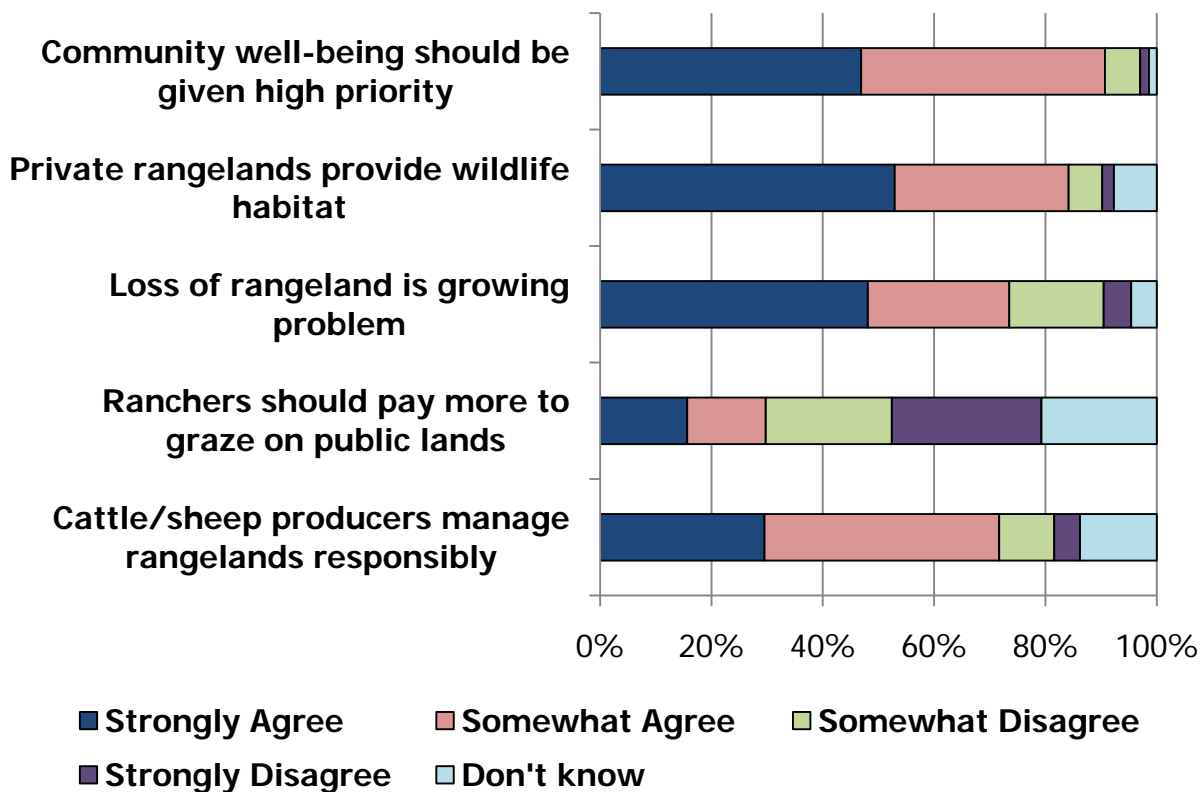


Figure 9. Level of Agreement with Statements about Rangelands

Respondents' agreement with the statement "the economic well-being of communities should be given a high priority when making decisions about rangelands" has remained constant over the past 13 years (Table 5).

Agreement	1997	2001	2010
Strongly agree	47%	50%	47%
Somewhat agree	33%	29%	44%
Somewhat disagree	11%	11%	6%
Strongly disagree	7%	7%	2%
Don't know	2%	2%	2%

Table 5: Economic life of communities should be given a high priority

We compared the results of the question "the loss of rangeland to development is a growing problem" to a similarly worded 2001 question "the loss of farms and ranches to the development of housing and malls." Generally, respondents had lower levels of agreement in 2010, but the difference could be due to the subtle difference in wording (Table 6).

Agreement	1997	2001	2010
Strongly agree	-	60%	48%
Somewhat agree	-	20%	25%
Somewhat disagree	-	13%	17%
Strongly disagree	-	6%	5%
Don't know	-	1%	5%

Table 6: Loss of farms and ranches to development is a serious problem

Respondents generally felt the same about the amount ranchers pay to graze on public lands than they did in the 1997 and 2001 studies. The percent that agree or strongly agree is not statistically different than in the other years, although fewer strongly disagree that ranchers should pay more to graze in 2010 than they did in 2001 (Table 7).

Agreement	1997	2001	2010
Strongly agree	21%	20%	16%
Somewhat agree	16%	13%	14%
Somewhat disagree	21%	15%	23%
Strongly disagree	33%	42%	27%
Don't know	9%	11%	21%

Table 7: Ranchers Should Pay More Than They Do Now to Graze on Public Lands

Agreement that cattle and sheep producers manage rangelands in a responsible manner is similar across all three years of the study (Table 8).

Agreement	1997	2001	2010
Strongly agree	22%	29%	30%
Somewhat agree	40%	39%	42%
Somewhat disagree	19%	13%	10%
Strongly disagree	11%	8%	5%
Don't know	8%	11%	14%

Table 8: Cattle and Sheep Producers Manage Rangelands in a Responsible Manner

In addition to development, rangelands face threats from wildfire and noxious weeds. Respondents were asked assess the degree to which wildfire and noxious weeds are a problem on Idaho's rangelands, and then asked their perception about the link between livestock grazing and those threats. With respect to wildfire, 25 percent of respondents stated it is a large problem, 56 percent stated it is a moderate problem, and 14 percent stated it is not a problem on Idaho's rangeland. More respondents feel that noxious weeds are a problem on rangelands, with 49 percent of respondents stating it is a large problem, 38 percent stating it is a moderate problem, and only 5 percent stating it is not a problem (Figure 9).

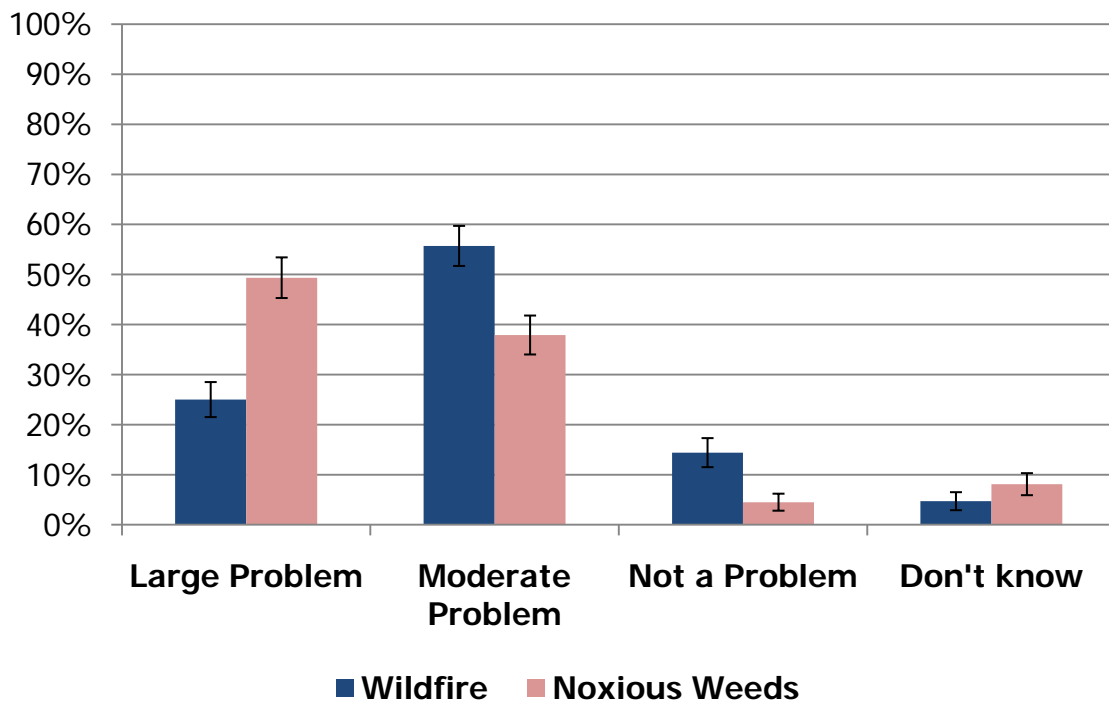


Figure 9. Impact of Wildfire and Noxious Weeds on Idaho's Rangelands

When asked whether livestock grazing tends to create wildfire or noxious weed problems, compared to whether livestock grazing can be either a cause or a solution to wildfire and noxious weed problems or whether livestock grazing tends to solve wildfire and noxious weeds problems, in both cases a plurality stated that livestock grazing can be either a cause or a solution, with 42 percent of respondents agreeing with that statement with respect to wildfire and 54 percent of respondents agreeing with that statement with respect to noxious weeds. 40 percent of respondents felt that livestock grazing tends to solve wildfire problems, with 5 percent stating they felt grazing caused wildfire problems. With respect to noxious weeds, 17 percent of respondents felt livestock grazing tends to solve problems, while 13 percent stated that livestock grazing tends to create noxious weed problems (Figure 10).

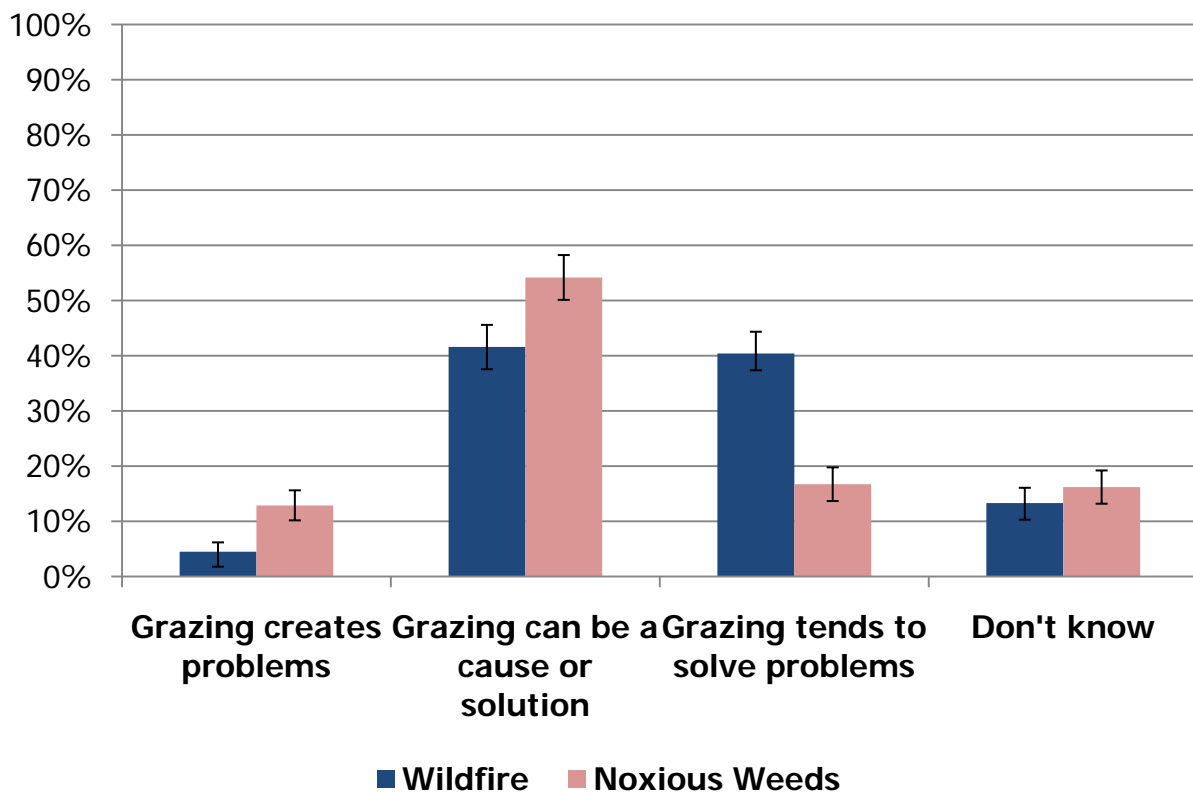


Figure 10. Relationship between Livestock Grazing and Wildfire or Noxious Weeds

Respondents were asked whether they felt grazing in Idaho by domestic livestock has increased, decreased, or remained the same over the last 50 years. Responses were mixed. 25 percent of respondents felt grazing has increased, 38 percent felt it has decreased, and 17 percent felt it has remained stable, although 20 percent of respondents were not sure (Figure 12).

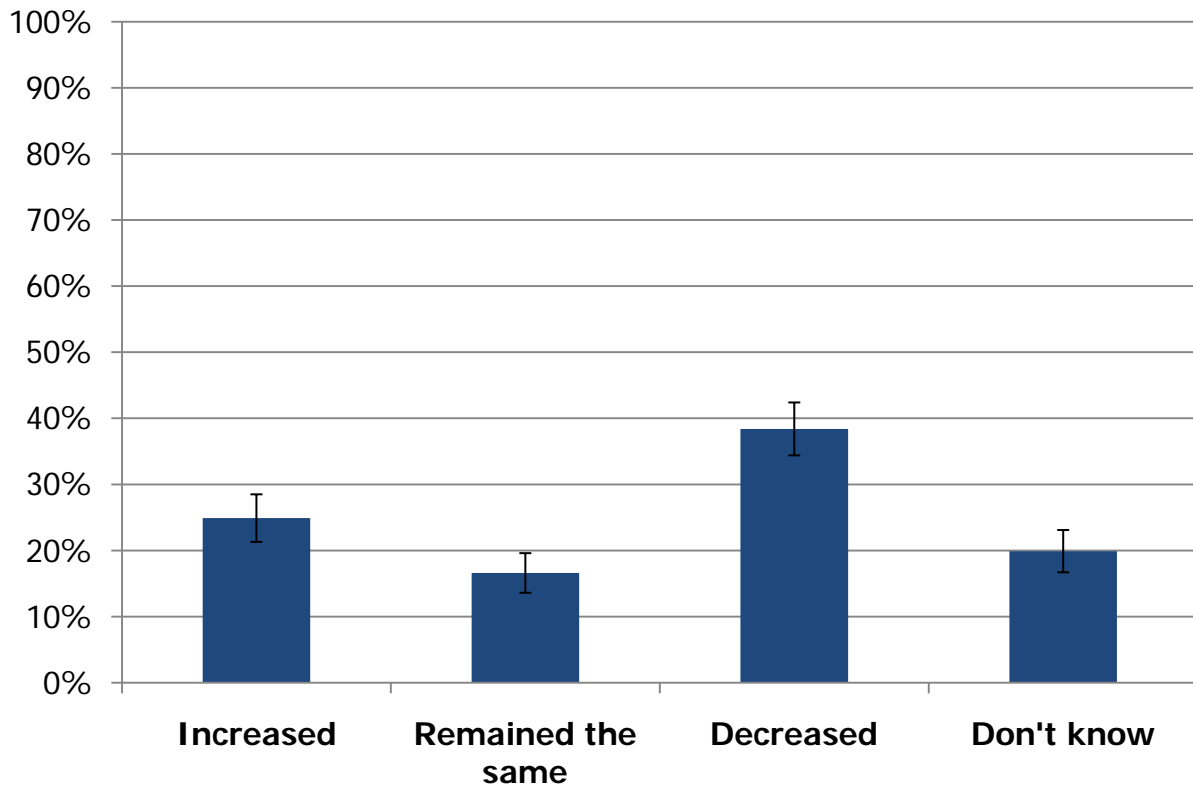


Figure 12 Perception of Amount of Grazing over the Past 50 Years in Idaho

Perceptions regarding the amount of grazing over the past 50 years in the 2010 study is very similar to the 2001 study, though both show respondents are more likely to perceive grazing has decreased relative to the 1997 study (Table 9).

Agreement	1997	2001	2010
Increased	42%	28%	25%
Remained the same	19%	17%	17%
Decreased	29%	43%	38%
Don't know	10%	13%	20%

Table 9: Has Livestock Grazing Increased, Decreased, or Remained the Same

Respondents were also somewhat divided in their opinion about how they felt the livestock industry's contribution to Idaho's economy would change over the next ten years. 32 percent of respondents felt its contribution to the economy would increase, either somewhat or a great deal, 32 percent felt it would maintain its current contribution, and 25 percent felt its contribution would decrease (Figure 13).

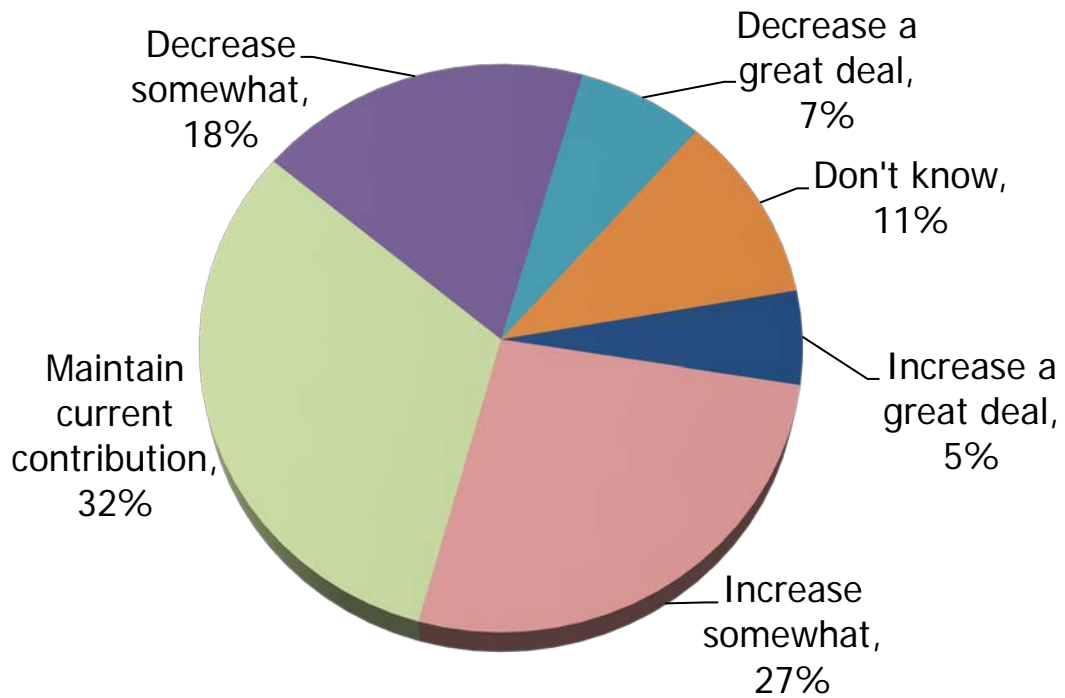


Figure 13. Contribution of Livestock Industry to Idaho's Economy over Next 10 Years

When compared to previous studies, more respondents feel that the livestock industry's contribution will increase somewhat over the next ten years than they did in 1997 and 2001, and fewer believe it will maintain its current contribution. However, it should be noted that in 1997 and 2001, the responses categories used the terms "definitely de/increase" and "probably de/increase," whereas in 2010 the wording reflect the amount of increase or decrease, rather than the likelihood of change (Table 10).

Condition	1997	2001	2010
Definitely increase/Increase a great deal	8%	9%	5%
Probably increase/Increase somewhat	12%	9%	27%
Maintain current contribution	57%	53%	32%
Probably decrease/Decrease somewhat	14%	17%	19%
Decrease a great deal	5%	8%	7%
Don't know	5%	4%	11%

Table 10: Contribution of Livestock Industry to Idaho's Economy

When asked whether livestock grazing should continue to be a part of the management of both public and private lands, more people stated it should be part of the management of public lands than private lands. 86 percent of respondents felt it should either definitely or probably be part of the management of public lands, while 66 percent felt it should definitely or probably be part of the management of private lands (Figure 14).

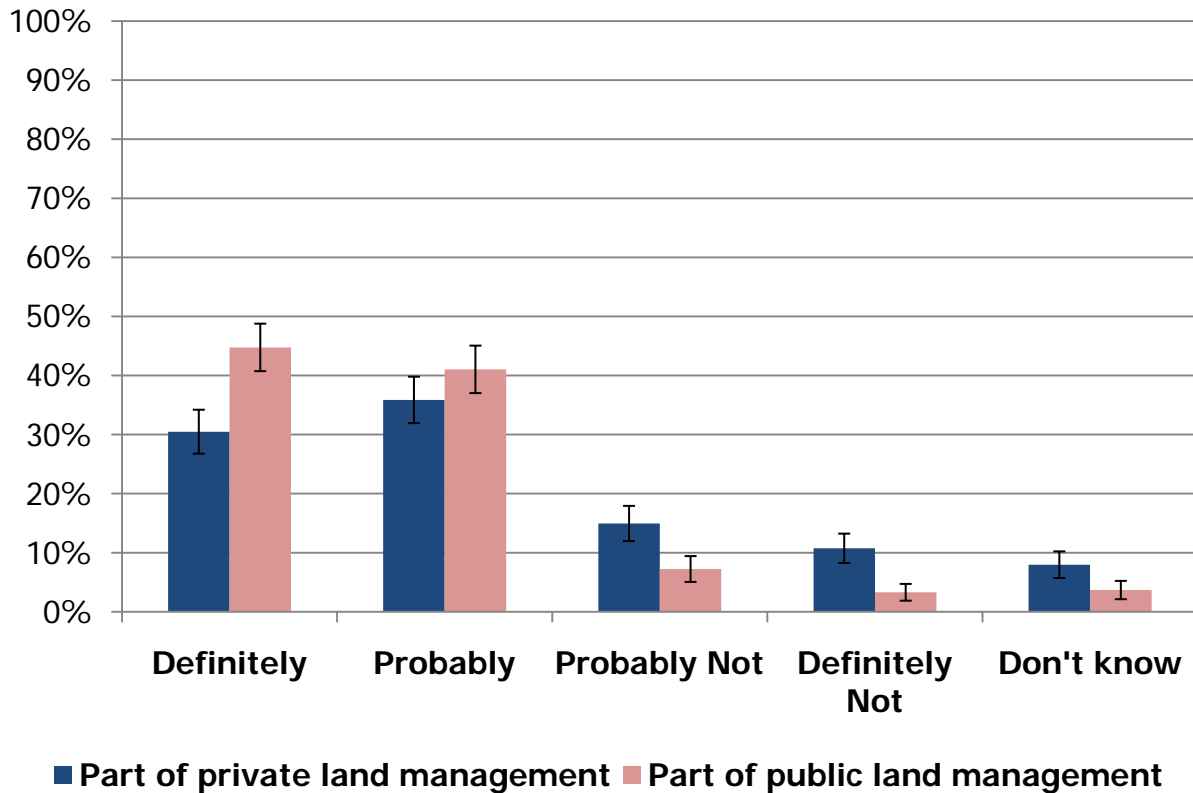


Figure 14. Role of Livestock Grazing in the Management of Public and Private Land

Respondents were asked to select which of two statements regarding ranchers' priorities they agreed with most closely. The two statements were "ranchers only consider economic aspects" when grazing on public lands, and "ranchers consider both economic and environmental aspects" when grazing on public lands. 25 percent of respondents indicated agreement with the first statement (ranchers consider economic aspects) and 69 percent of respondents agreed with the second statement (ranchers consider both economic and environmental aspects). Six percent of respondents were not sure.

When asked to select among three statements regarding the impact of ranches on threatened and endangered species, 30 percent of respondents stated that ranches provide valuable habitat for threatened and endangered species, and 44 percent stated that ranches are neither a benefit nor a detriment to threatened and endangered species. 17 percent of respondents stated that ranches are incompatible with maintaining threatened and endangered species (Figure 15).

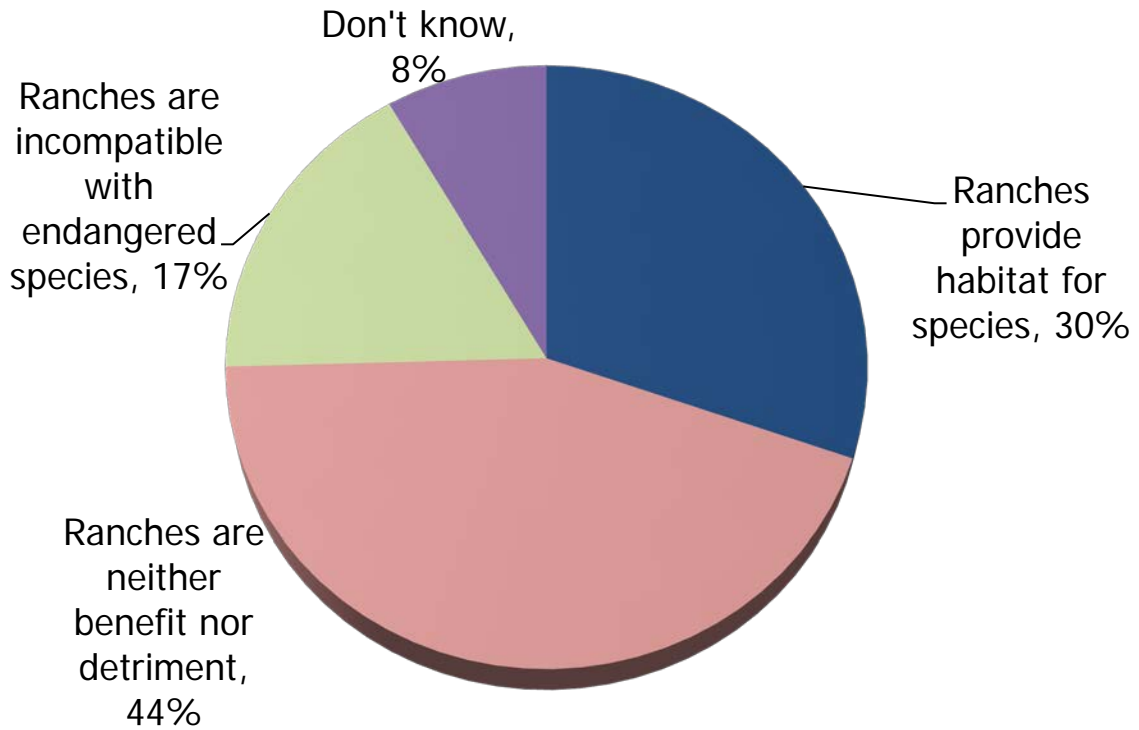


Figure 15. Impact of Ranches on Maintaining Threatened and Endangered Species

When asked to assess the level of importance of ranches and farms in preserving wildlife habitat on a scale of one to seven, with one indicating “not at all important” and seven indicating “very important,” a majority of respondents (71 percent) rated the importance of farms and ranches in preserving wildlife habitat as a “five” or higher (indicating higher levels of importance, Figure 16).

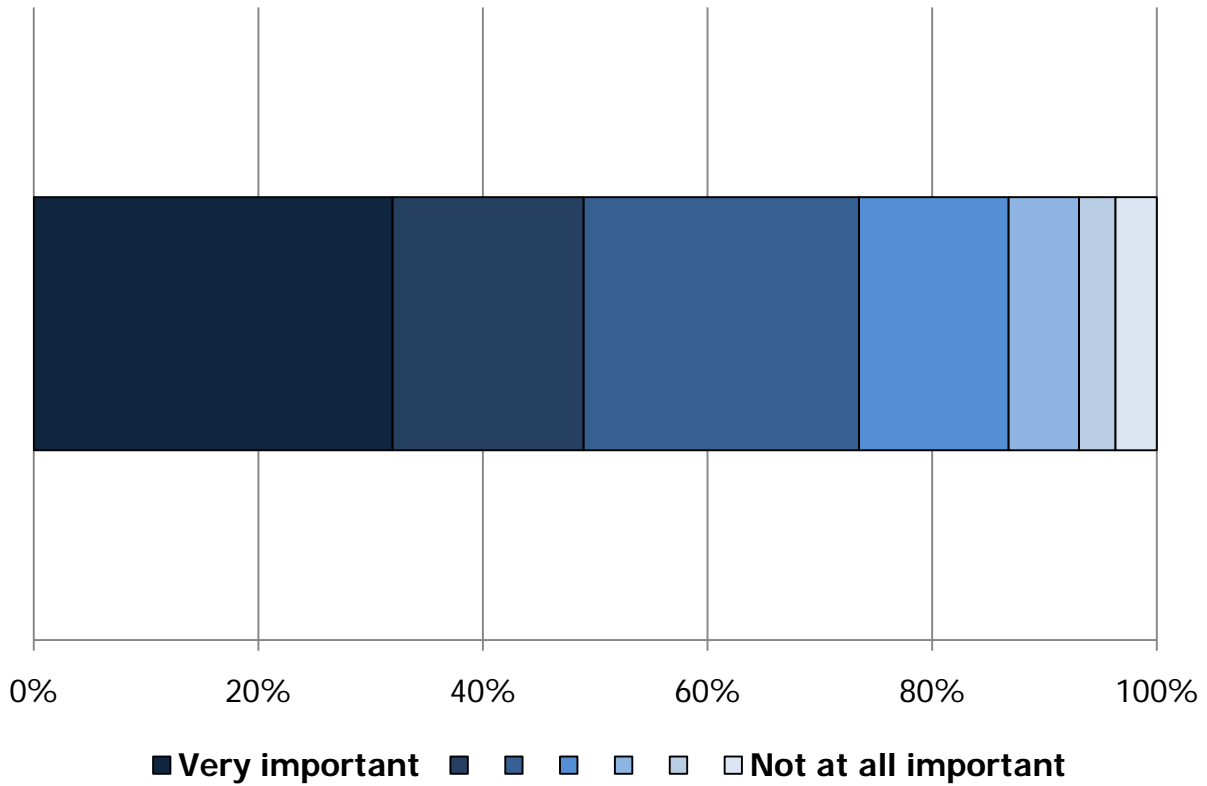


Figure 16. Level of Importance of Farms and Ranches in Preserving Wildlife Habitat

The last series of questions in the rangeland section of the survey assessed respondents' perceptions of the reliability of each of nine sources of information regarding rangelands. The nine sources of information included environmental groups, ranchers, the Forest Service, universities, the Bureau of Land Management (BLM), scientists, the news media, Fish and Game, and teachers. The sources rated as the most reliable (by respondents stating they were either "very" or "somewhat" reliable) were Fish and Game (89 percent), universities (86 percent), and the Forest Service (85 percent). The sources rated less highly were the news media (31 percent of respondents stating they were very or somewhat reliable) and environmental groups (52 percent, Figure 17)

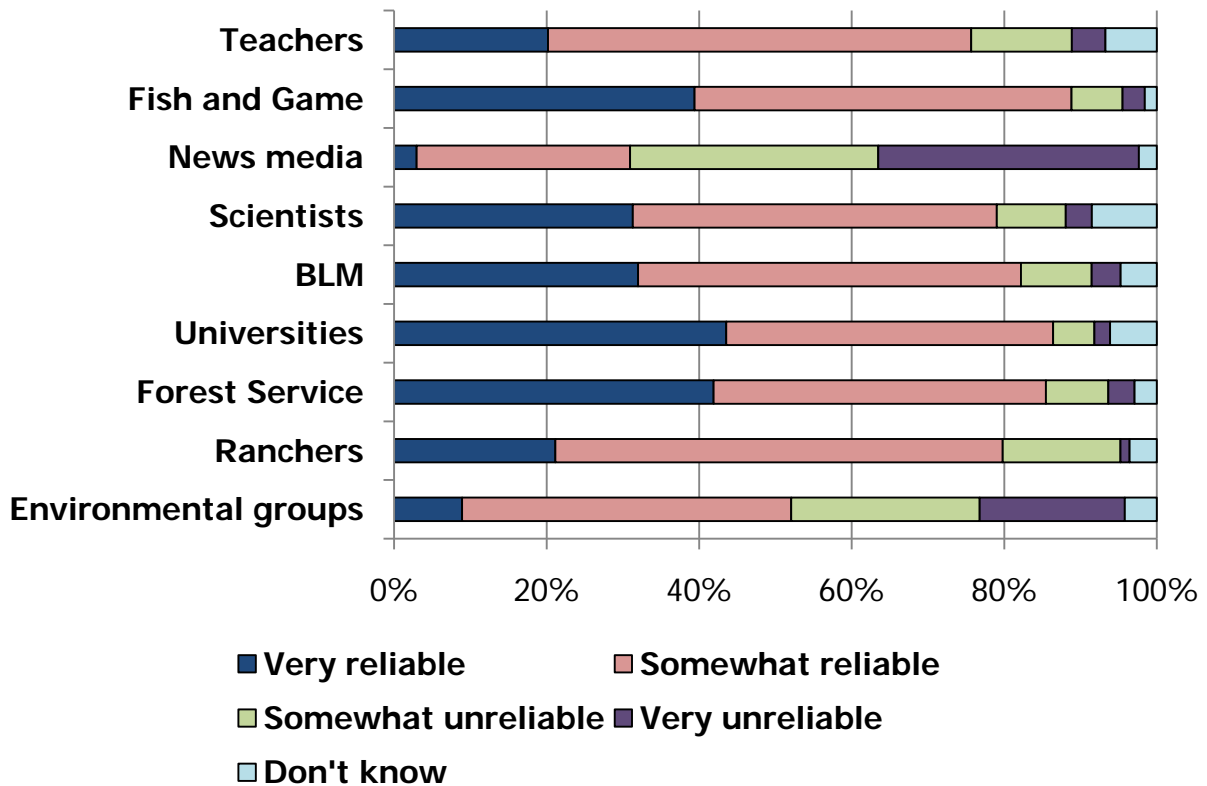


Figure 17. Reliability of Sources Regarding Information about Rangelands

Predicting Support of Ranching on Public Lands

An important goal for this study is to understand which groups of Idaho residents might be more or less supportive of livestock grazing and the shared use of Idaho's public lands. While individual demographic categories can be crossed with individual questions, a more efficient method of examining demographic differences in opinion is by using multivariate analyses. With this technique, many demographic variables can be explored at one time, and the independent effect of each can be examined.

We ran multivariate models predicting to predict response to four survey questions: 1) level of agreement with the statement "cattle and sheep producers manage rangelands in a responsible manner," 2) which statement regarding the relationship between grazing and wildfire respondents agreed with most closely, 3) which statement regarding the relationship between grazing and noxious weeds respondents agreed with most closely, and 4) the response to the question "should livestock grazing be part of the management of public lands." The independent (predictor) variables used were the same in each of the five models and included whether someone in the household recreated on ATVs/motorized vehicles, hunted, grazed livestock, horseback rode, or hiked on public lands, the age, sex, and political preference of the respondent, as well as their region (grouped into the north, southwest, south central, and southeastern regions), and the percent of their lifetime they have lived in Idaho. (See Appendix E for additional methodological details about the multivariate analysis).

ATV use and horseback riding were positively associated with livestock grazing on public lands (horseback riding strongly so), indicating that individuals who engage in those activities are more likely to support grazing on public lands and more likely to see grazing as a solution to rangeland problems. Hiking was negatively associated with livestock grazing and grazing as a solution to rangeland problems. In one model (predicting support for grazing as part of the management of public lands, older individuals and men were found to be more supportive of grazing than younger individuals). In the model describing respondents' perceptions of the link between grazing and wildfire, liberal respondents were more likely to see grazing as a cause of wildfire. Finally, residents of the southwest region of Idaho tended to be more supportive of grazing than those in the southeast (Table 11).

Condition	Producers Manage Rangelands Responsibly	Grazing and Wildfire	Grazing and Weeds	Grazing Should Be Part of Public Land Management
ATV Use	*	*	ns	ns
Hunting	ns	ns	ns	ns
Grazing	ns	ns	ns	ns
Horseback riding	***	***	*	**
Hiking	***	***	***	ns
Age	ns	ns	ns	***
Region—North vs SW	ns	ns	ns	ns
Region—SC vs SW	ns	ns	ns	ns
Region—SW vs SW	**	ns	**	ns
Political preference	ns	**	ns	ns
Sex	ns	ns	ns	***
Proportion of life in Idaho	ns	ns	ns	ns

Table 11: Comparison of Multivariate Models Predicting Support of Grazing

* Trends toward significance ($p < 0.10$)

** Significant at $p < 0.05$

*** Significant at $p < 0.01$

ns = Not statistically significant

Opinions about Locally-Produced Products and Awareness of the Idaho-Preferred Label

To transition from the rangeland section of the survey to the section about awareness of the Idaho Preferred label, respondents were asked if they would be more likely to buy locally-produced beef and lamb from Idaho if they were supplied information that demonstrated Idaho ranchers' practice of responsible stewardship of the land and animals. While 13 percent of respondents stated it would have no effect at all, 26 percent of respondents stated they would sometimes buy local meat, and 42 percent stated they would always buy local meat. A smaller proportion (18 percent) stated it would increase their awareness of local foods but would not change their purchasing (Figure 18).

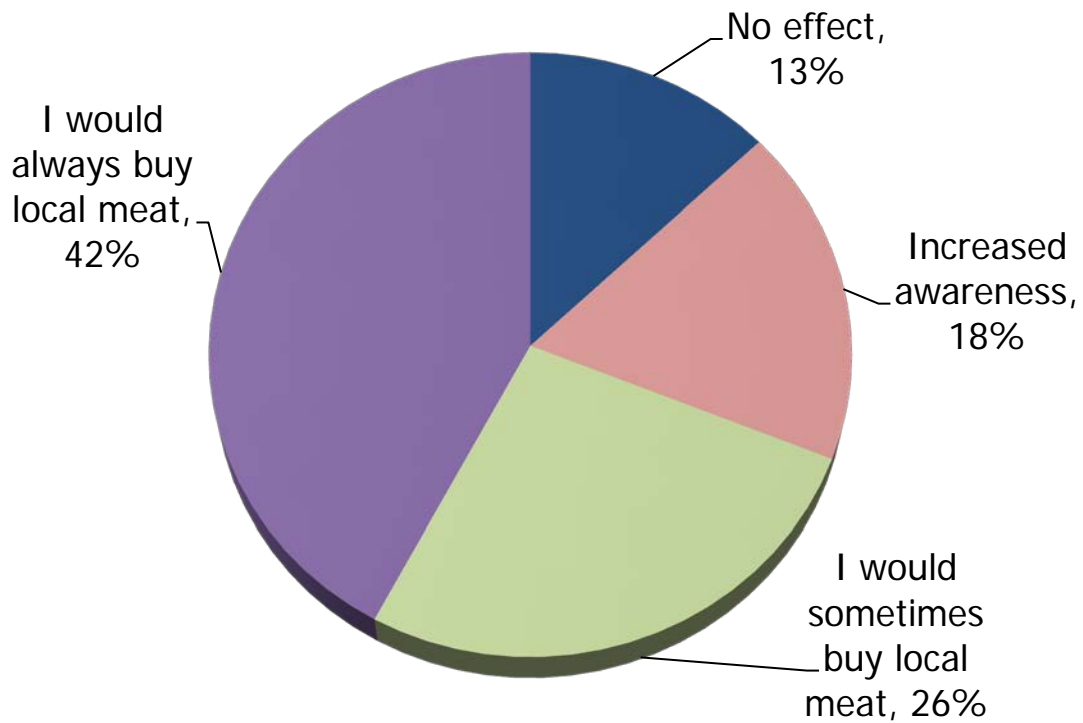


Figure 18. Effect of Information about Responsible Stewardship on the Purchase of Local Meat

When asked whether they had seen or heard any advertising messages using the phrase Idaho Preferred or seen its logo featuring a blue oval with a yellow sunrise behind the mountains, two thirds (66 percent) of respondents indicated they had seen the logo or heard the messages. Those individuals were then asked where they had seen or heard the message (they could mention more than one place). The most commonly cited source was the media (radio, television, or in print), with 76 percent reporting they had seen it through one of those sources. 39 percent of respondents had seen the message or logo in the grocery store, fewer had seen it at a Farmers' Market (12 percent), restaurant (5 percent), or on a product label (18 percent, Figure 19).

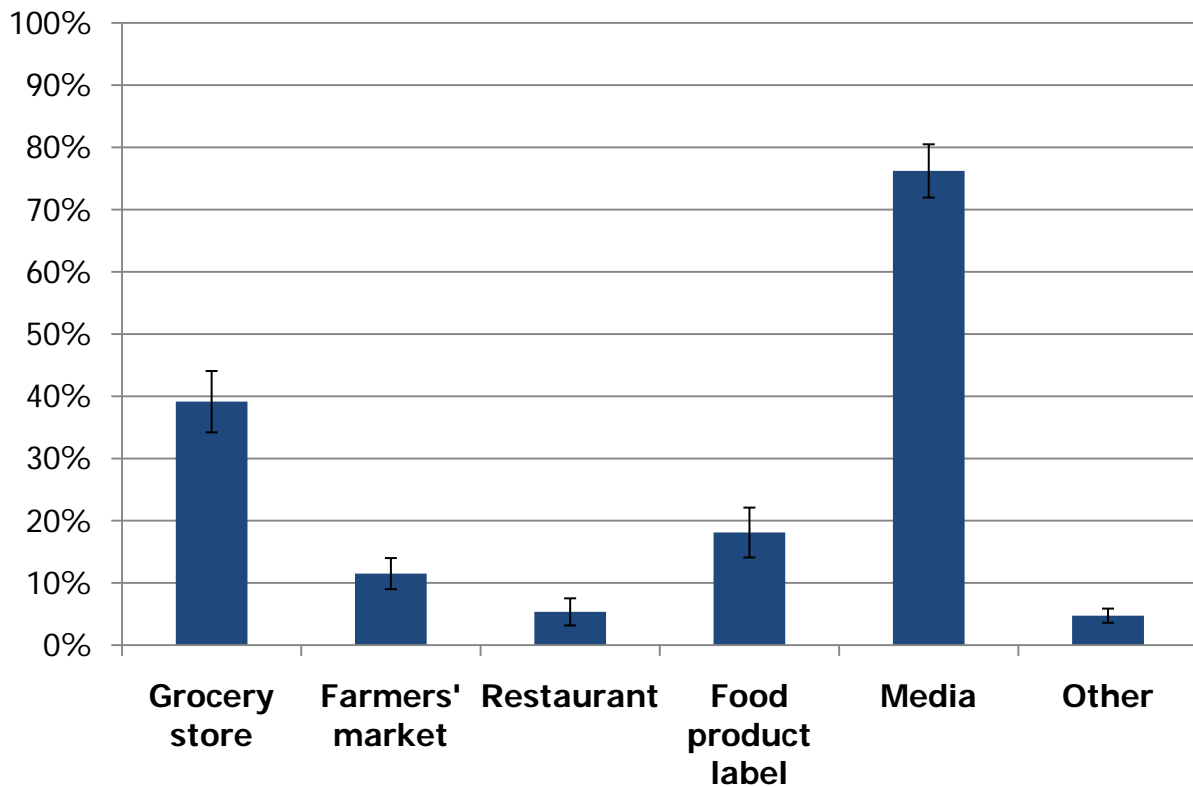


Figure 19. Source of the Idaho Preferred Message or Logo

Not surprisingly, based on the previous responses, when asked, 57 percent of respondents indicated they had seen a television advertisement featuring Idaho Preferred. Of those respondents, 39 percent indicated they had seen fruits and vegetables in the advertisement, 33 percent had seen “all types of foods,” eight percent had seen wine advertized, and 4 percent had seen plants or flowers (Figure 20).

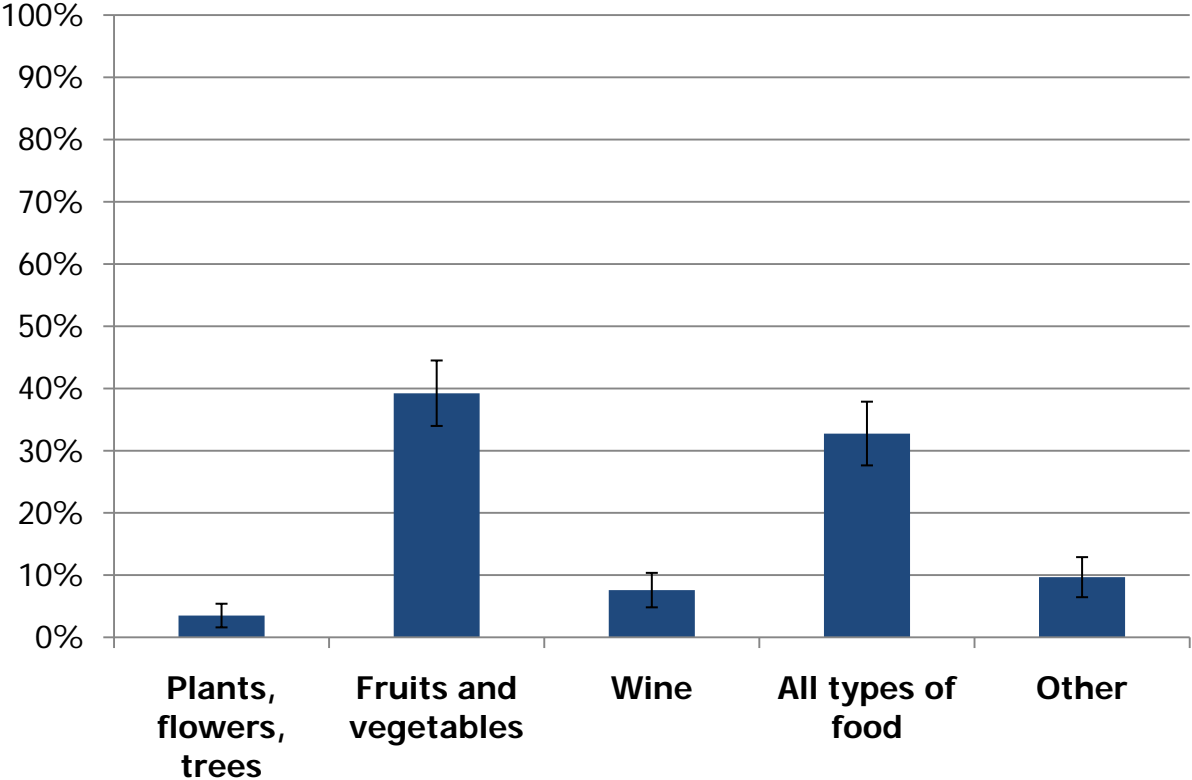


Figure 20. Image Recall in the Idaho Preferred Television Advertisement

In order to determine if specific markets were more or less likely to hear or see the messages or television ads featuring the Idaho Preferred label, we ran cross-tabulations (Chi-square analyses) with several key demographic variables. Region of the state was a significant predictor of awareness of the Idaho Preferred label; respondents in the north (Idaho County northward) were less likely to have seen or heard the phrase Idaho Preferred (Chi-square = 65.68, d.f. = 3, $p < 0.0001$) and were also less likely to have seen the television advertisements featuring the Idaho Preferred label (Chi-square = 64.11, d.f. = 3, $p < 0.0001$, Figure 21). No statistically significant differences were detected in the prevalence of men or women or with income levels, although individuals between 30 and 49 years old were more likely to have seen or heard of the Idaho Preferred label (Chi-square = 14.1499, d.f. = 5, $p = 0.0148$, Figure 22).

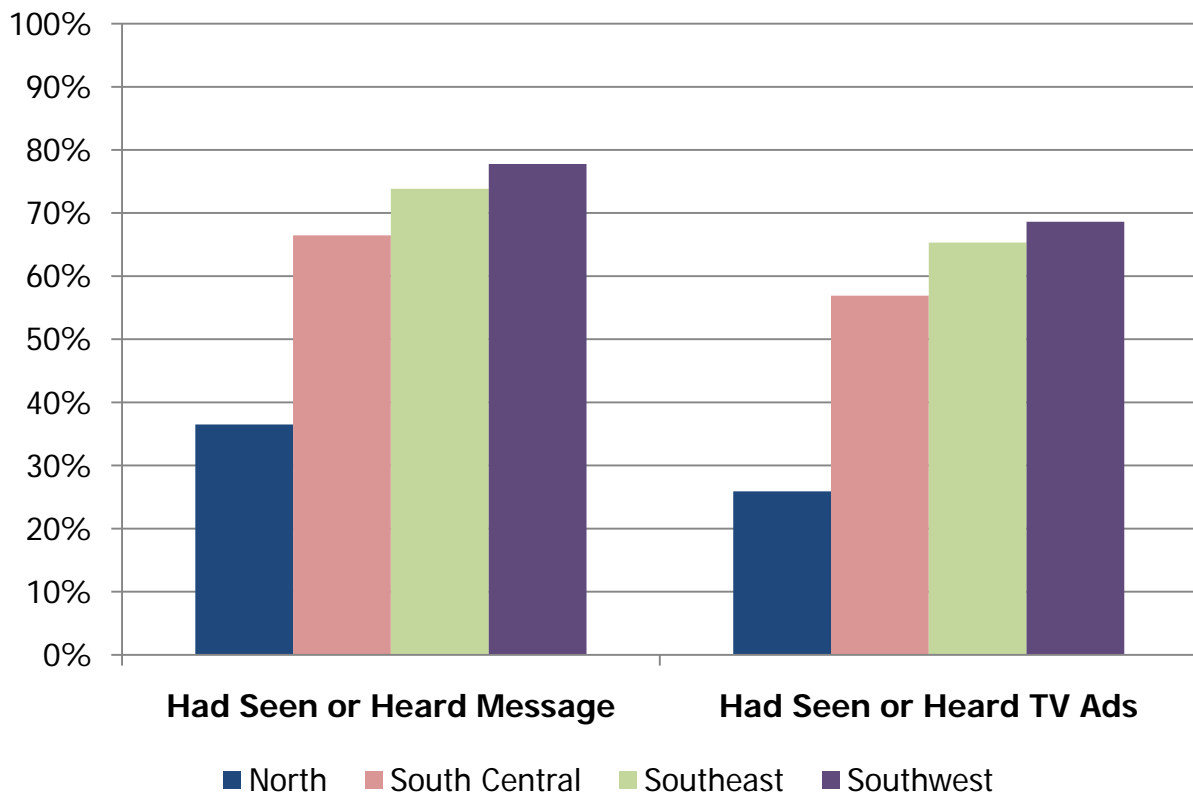


Figure 21: Awareness of the Idaho Preferred label or Television Advertisements by Region

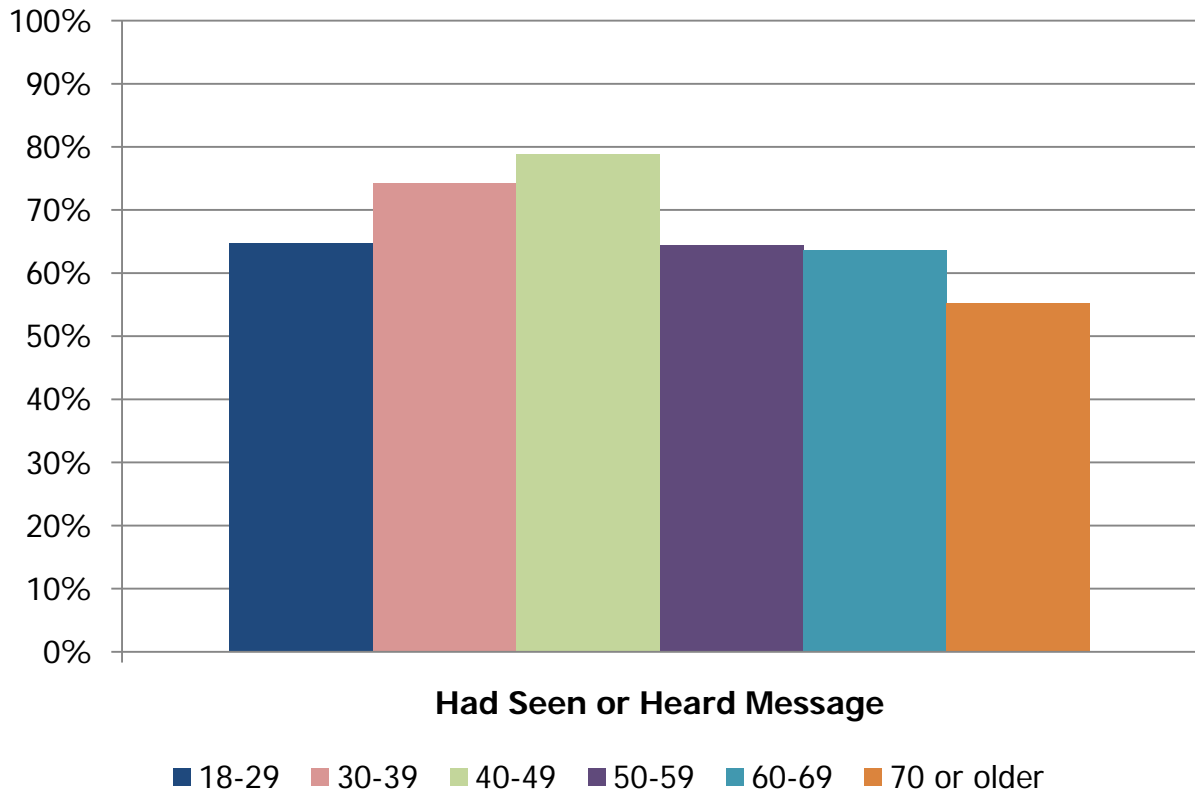


Figure 22: Awareness of the Idaho Preferred Label by Age

When asked, a majority of respondents (56 percent) stated they were buying the same amount of locally produced food as they used to, although 35 percent indicated they were buying more locally produced products than they had in the past. Those respondents who indicated they were buying more locally produced foods were asked what types of local products they were buying more often (respondents could mark more than one option). Overwhelmingly, most individuals who were choosing more local foods were buying fruits and vegetables (83 percent), followed by all foods (36 percent), and nursery products (11 percent, Figure 23).

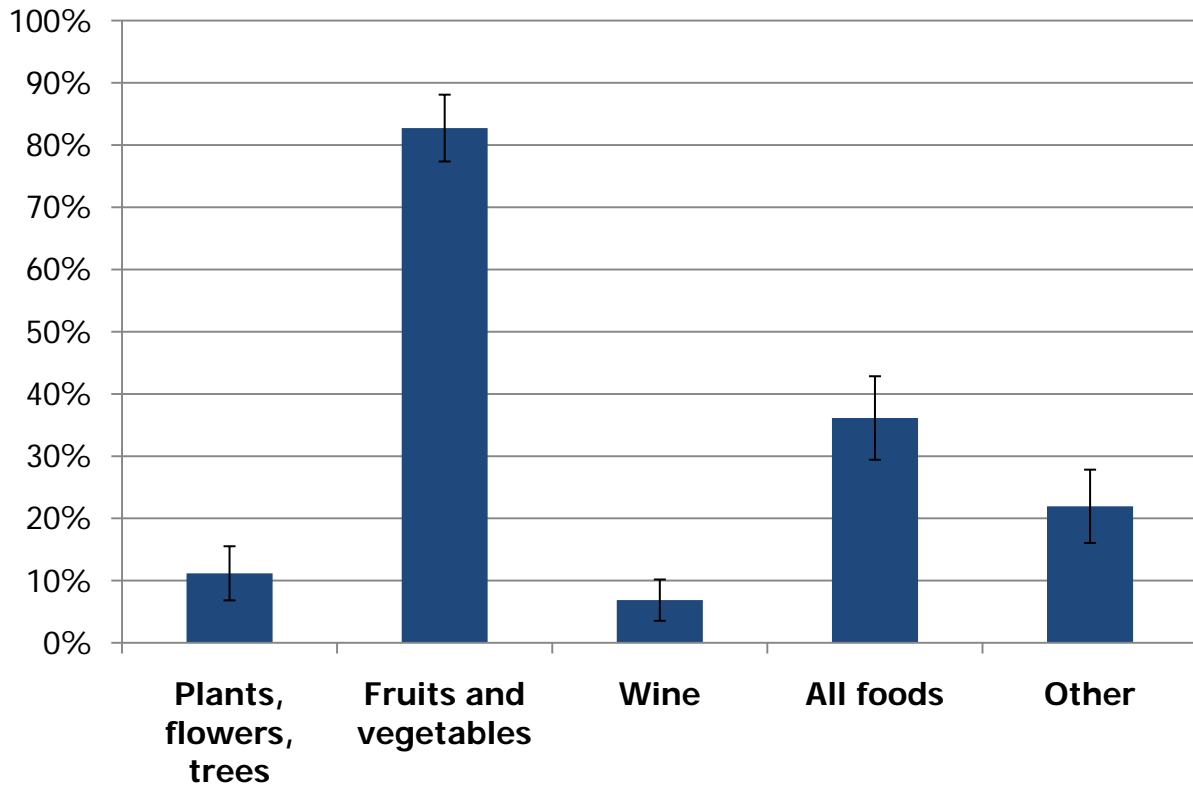


Figure 23. Local Food Purchases

Individuals living in the southwestern region were slightly more likely to state they were buying more locally produced products, although the difference is not quite statistically significant (Chi-square = 12.28, d.f. = 6, p = 0.0559, Figure 24). Women were much more likely to state they were buying more locally produced products than men (Chi-square = 16.33, d.f. = 2, p = 0.0003, Figure 25). We did not detect any difference between individuals of different ages or income levels.

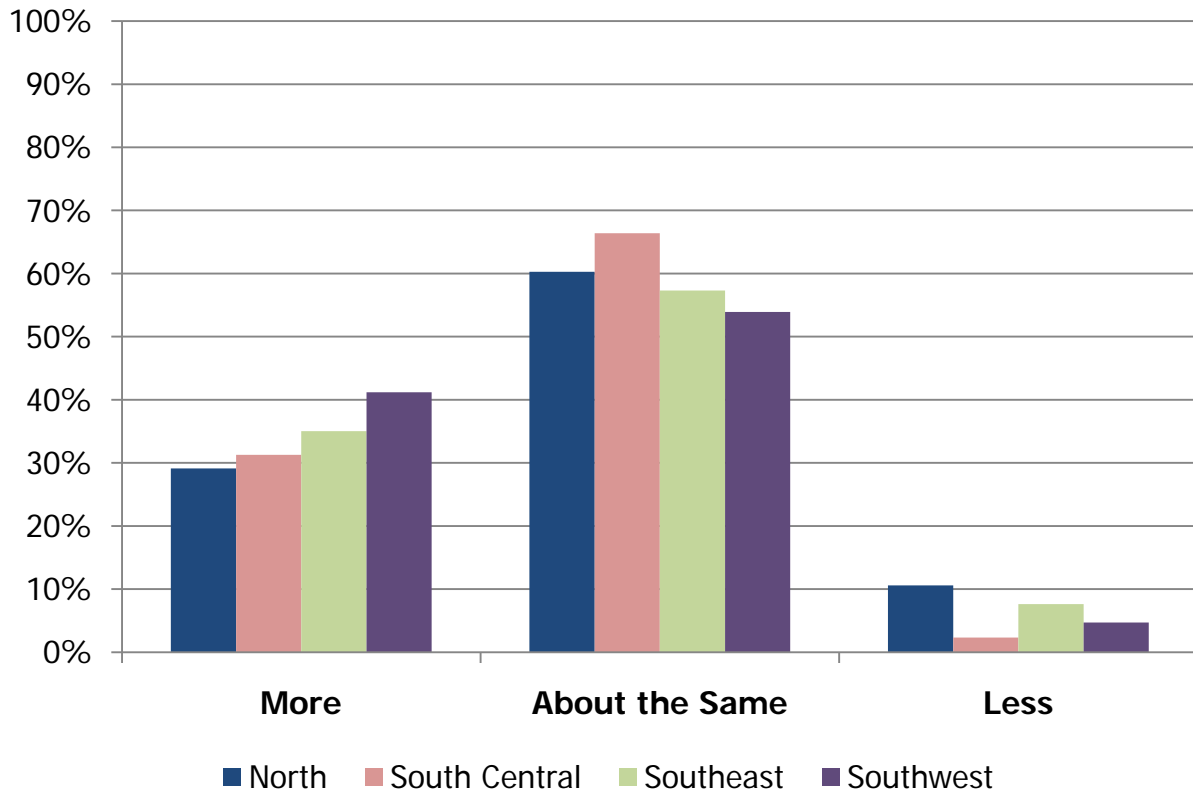


Figure 24. Region by Amount of Local Purchases

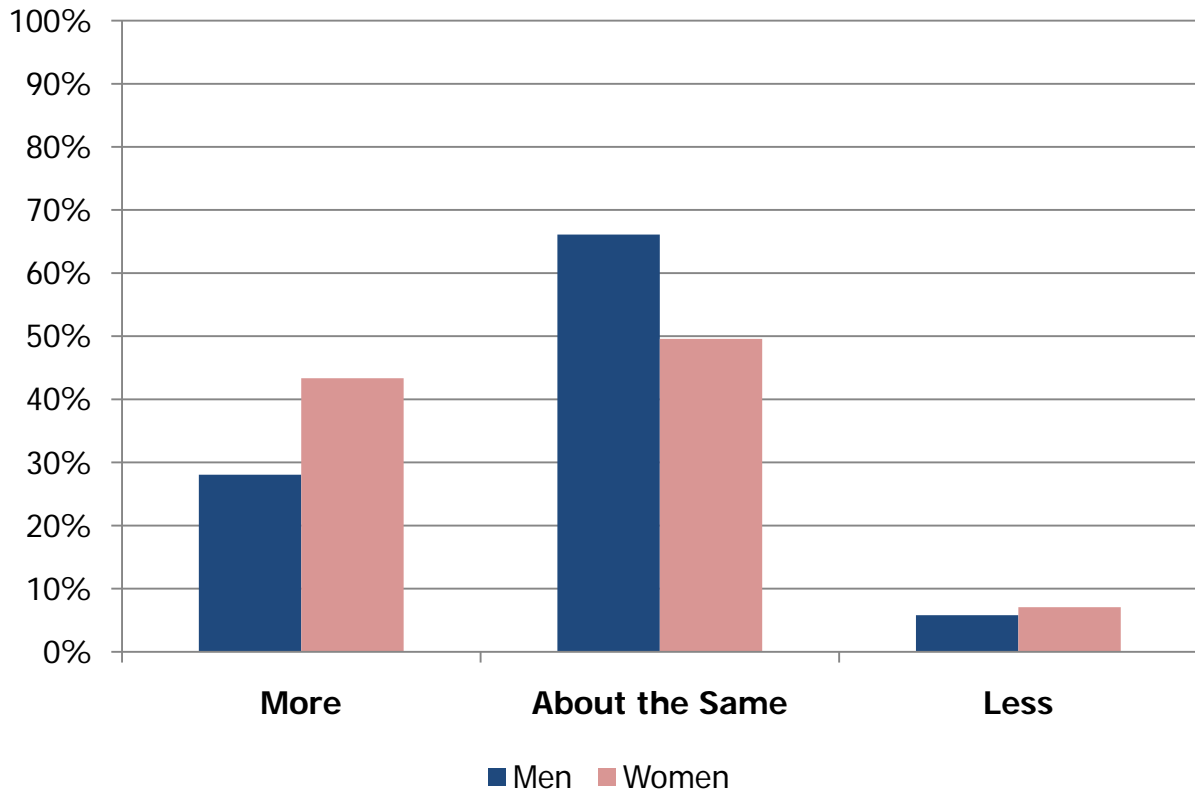


Figure 25: Sex by Amount of Local Purchases

When asked their reasons for buying more locally produced products, respondents were most likely to state they wanted to support local farmers and the local economy (75 percent). Other commonly cited reasons for increasing their consumption of local products include local products being fresher (39 percent), of higher quality (30 percent), and healthier (29 percent, Table 26).

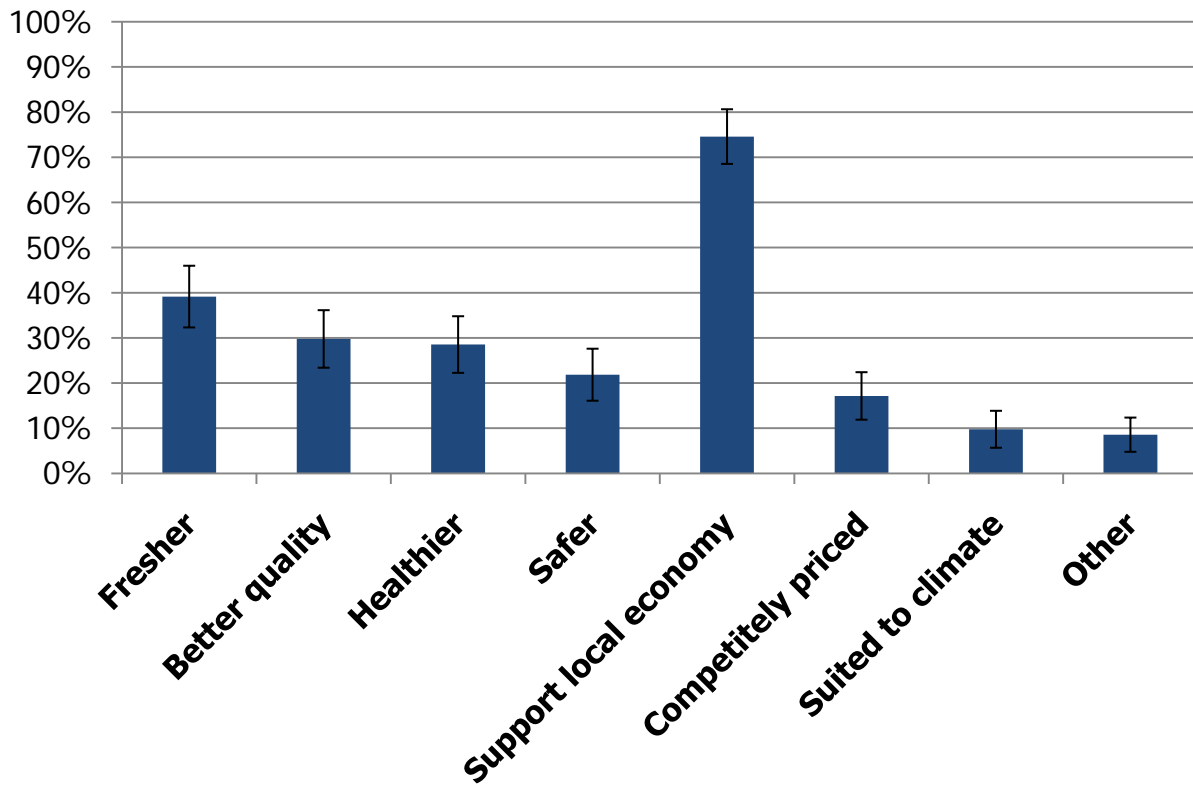


Table 26. Reasons for Purchasing Local Products

When asked if they would be willing to pay more for items identified as being produced or grown in Idaho than they would for comparable products which are either unlabeled or identified as produced in another state, 71 percent of respondents indicated they would pay more for Idaho products. Those respondents were then asked how much more they would be willing to pay for these Idaho products. Nearly two-thirds of respondents (62 percent) indicated they would be willing to pay more than 10 percent more for Idaho products than they would for unlabeled products or products marked as from being outside of Idaho. An additional 37 percent stated they would pay less than 10 percent more, and one percent of the respondents weren't sure (Figure 27). No significant effects of region, age, sex, or income were found in the willingness of consumers to pay more for locally produced foods and products.

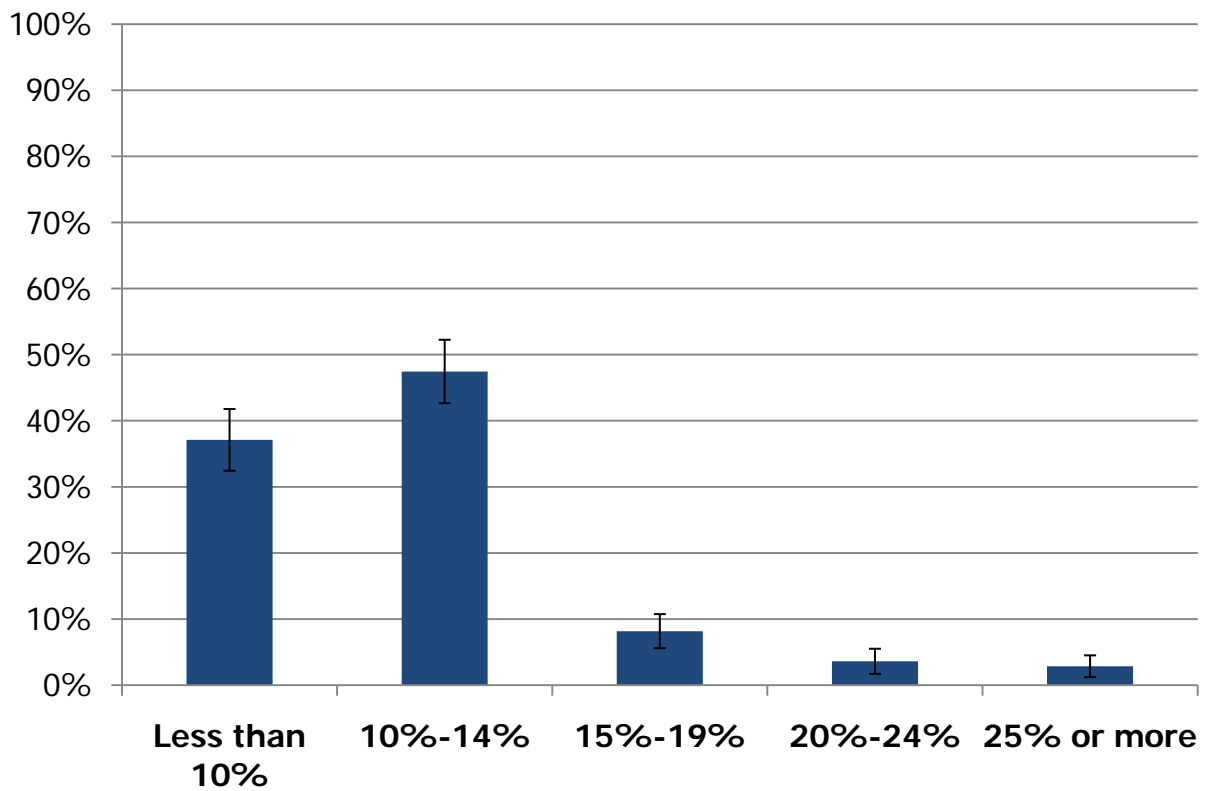


Figure 27. Additional Amount Respondents are Willing to Pay for Local Products

Conclusions and Recommendations

This study of a representative sample survey provides valuable insight into the perspectives of Idaho residents regarding rangelands, rangeland management, livestock grazing, and the purchasing of Idaho products. The most important findings from this study are that generally, support for livestock grazing on public lands remains high, respondents feel that ranchers are a reliable source of information regarding rangelands, and that a majority of Idahoans had seen or heard the messages featuring the Idaho Preferred label.

Perceptions of Rangelands and Rangeland Health

A majority of respondents believe that the loss of rangelands to development is a growing problem in Idaho and that cattle and sheep producers manage rangelands in a responsible manner. More importantly, 86 percent of respondents believe that livestock grazing should either “probably” or “definitely” remain part of the management of public lands. When asked to state their perception of the relationship between livestock grazing and wildfire, 42 percent of respondents stated that grazing could be either a cause or a solution to wildfire, and 40 percent believe grazing is a solution to wildfire. Similarly, 54 percent of respondents felt that livestock grazing could be either a cause or a solution to noxious weed problems. When it comes to the reliability of sources of information regarding rangelands, respondents ranked Fish and Game officials, Universities, the Forest Service, and ranchers as reliable sources of information.

Statistical analyses examining the relationship between respondent demographics and opinions regarding rangeland use reveal that individuals who hike, women, younger individuals, and those on the more liberal end of the political spectrum, tend to be less supportive of livestock grazing, while horseback riders and those in the southwestern region of Idaho tend to be stronger supporters of livestock grazing. This result indicates that IRRC should perhaps increase its educational outreach with members of the less supportive groups. Interestingly, this survey also found that women tended to be more likely to respond to some survey questions with “don’t know,” indicating that they either may be less aware of some of the issues surrounding rangelands, or less likely to firmly commit to one position regarding rangelands. Either of these situations might lead them to be more receptive to additional information regarding rangelands.

Perceptions about Locally-Produced Products and Awareness of the Idaho Preferred Label

A majority (66 percent) of respondents had heard or seen messages featuring the Idaho Preferred label, indicating that the marketing campaign has had success. Individuals in the northern region of Idaho, as well as those in the youngest and oldest age brackets, were less likely to be aware of the Idaho Preferred label, indicating more marketing could perhaps be done to target those groups. Television advertisements are reaching a majority (57 percent) of Idaho households.

While most respondents (56 percent) state that they are purchasing the same amount of locally produced foods and products as they have in the past, women are much more likely than men to have increased their purchases of local foods. No differences were found among age levels or income levels in either the purchasing frequency of locally produced foods nor in the willingness of consumers to pay more for locally produced foods and products. This result potentially indicates that awareness that a product is made locally and/or in Idaho might result in an increased tendency to purchase it, and that households are not constrained by income for the purchase of locally produced products.

Acknowledgements

We would like to thank Gretchen Hyde, and Leah Clark, and Dr. Karen Lanchbaugh for assistance with the design of the survey instrument.

Appendix A
Final Survey Instrument

Introduction
Cell Phone Numbers

[Note: Instructions for interviewers which are not read are in italics]

[Intro] Hello, my name is _____ and I am calling from the Social Science Research Unit at the University of Idaho. We are conducting a study for the Idaho Rangeland Resource Commission and Idaho Preferred Label about rangelands and local foods. If you are currently driving a car or doing any activity that requires your full attention, I need to call you back at a later time.

[1A] Yes → *Go to 2*

[1B] No → *Go to 3*

[2] Whom should we ask for when we call back? _____ Thank you (*End Call*)

[3] Are you at least 18 years old?

[3A] Yes → *Go to 8*

[3B] No → *Go to 4*

[4] Does an adult, 18 years or older, ever use this phone?

[4A] Yes → *Go to 6*

[4B] No → *Go to 5*

[5] Thank you for your time. (*End Call*)

[6] Can we speak to that adult now?

[6A] Yes → *Wait for adult, Go to Intro & repeat sequence*

[6B] No → *Go to 7*

[7] Thank you, what is a good time to call that adult and whom should we ask for? (*Get information and end call*)

[8] Is this cell phone used for personal use, business use, or both?

[8A] Personal → *Go to 13*

[8B] Business → *Go to 12*

[8C] Both → *Go to 13*

[9] We would only like to speak to individuals on their personal lines. Thank you for your time. (*End Call*)

[10] This is a statewide survey and some of the numbers we are calling are for cell phones. Some people have concerns about the privacy of conversations on cell phones or have a limited number of minutes on their cell phone plans. If you prefer, I would be happy to call you back on a landline phone or conduct this interview at a time that is more convenient for you.

[10A] Provides new number or time → *Record number and/or appointment time, end call*
[10B] Agrees to continue → *Go to 9*

[11] This survey takes about 12 minutes on average and has been approved by the Institutional Review Board at the University of Idaho. The survey includes questions about rangeland use as well as your perception of locally produced foods. This interview is voluntary and if we come to any question you would prefer not to answer, just let me know and I'll skip over it. I'd like to assure you that your responses will be kept strictly confidential. Do you have any questions?

Continue w/ main survey questions

Introduction to Rangeland Survey:

Household Landline Numbers

[Note: Instructions for interviewers which are not read are in italics]

[Intro] Hello, my name is _____ and I am calling from the Social Science Research Unit at the University of Idaho. We are conducting a study for the Idaho Rangeland Resource Commission and Idaho Preferred Label about rangelands and local foods. I need to speak to an adult in the household that is at least 18 years of age. Would that happen to be you?

[1A] Yes → *Go to 2*

[1B] No → *Go to 3*

[2] We sent a post card last week about the study and to let you know that we would be calling. Did you receive the postcard?

[2A] Yes → *Go to 5*

[2B] No → *Go to 4*

[3] This survey takes about 12 minutes on average and has been approved by the Institutional Review Board at the University of Idaho. The survey includes questions about rangeland use as well as your perception of locally produced foods. This interview is voluntary and if we come to any question you would prefer not to answer, just let me know and I'll skip over it. I'd like to assure you that your responses will be kept strictly confidential. Do you have any questions?

[3A] Yes → *Go to FAQ sheet*

[3B] No → *Go to 8*

Continue w/ main survey questions

1. Based on what you know, what is the general condition of Idaho's rangelands?

Very good
Good
Fair
Poor
Very poor
(Don't know)
(Refused)

2. How do you or members of your household use Idaho's rangelands? (mark all that apply)

ATV Riding
Hunting
Fishing
Livestock Grazing
Horseback riding
Mountain Biking
Hiking
Camping
(Don't know)
(Refused)

3. Have you encountered livestock on Idaho's rangelands?

Yes → go to Q3a
No → go to Q4
(Don't recall) → Go to Q4
(Refused) → Go to Q4

3a. Was your experience...

Positive
Negative
Neutral
(Don't know)
(Refused)

4. Which of the following activities are appropriate uses of public lands? (Please mark all that apply)

Backpacking/hiking/camping
Mountain biking
Motorized vehicle use
Livestock Grazing
Horseback riding
Fishing or hunting
(Don't know)
(Refused)

5. Do you approve or disapprove of public lands being used for the following activities? (rotate list)

- Livestock Grazing
- Logging
- Guided Recreation
- Hunting & Fishing
- Energy Development & Transmission
- ATV/motorized vehicles
- Hiking/Camping
- Mountain biking

Now, I'll read you some statements concerning Idaho's rangelands. Please tell me the extent to which you agree or disagree with each statement.

6. The economic well-being of local communities should be given a high priority when making decisions about public rangelands.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- (Don't know)
- (Refused)

7. Private rangelands provide a large portion of wildlife habitat.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- (Don't know)
- (Refused)

8. The loss of rangeland to development is a growing problem for Idaho.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- (Don't know)
- (Refused)

9. Ranchers should pay more than they do now to graze livestock on public lands.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- (Don't know)
- (Refusal)

10. Cattle and sheep producers manage rangelands in a responsible manner.

- Strongly agree
- Somewhat agree
- Somewhat disagree
- Strongly disagree
- (Don't know)
- (Refusal)

11. How much of a problem is wildfire on Idaho's rangelands?

- A large problem
- A moderate problem
- Not a problem
- (Don't know)
- (Refused)

11b.. Which of the following statements do you agree with most closely?

- Livestock grazing tends to create wildfire problems on Idaho rangelands
- Livestock grazing can be either a cause or a solution to wildfire problems on Idaho rangelands
- Livestock grazing tends to solve wildfire problems on Idaho rangelands
- (Don't know)
- (refused)

12. How much of a problem are noxious weeds on Idaho's rangelands?

- A large problem
- A moderate problem
- Not a problem
- (Don't know)
- (Refused)

12b. Which of the following statements do you agree with most closely?

- Livestock grazing tends to create noxious weed problems on Idaho rangelands
- Livestock grazing can be either a cause or a solution to noxious weed problems on Idaho rangelands
- Livestock grazing tends to solve noxious weed problems on Idaho rangelands
- (Don't know)
- (Refused)

The next couple of questions are about the livestock industry in Idaho...

13. Based on what you know, has grazing in Idaho by domestic livestock increased, decreased, or remained the same over the past 50 years?

- Increased
- Remained the same
- Decreased
- (Don't know)
- (Refused)

14. Will the livestock industry's contribution to Idaho's economy increase, decrease or remain the same over the next 10 years?

- Increase a great deal
- Increase somewhat
- Maintain current contribution
- Decrease somewhat
- Decrease a great deal
- (Don't know)
- (Refused)

15. Should livestock grazing be part of the management of public lands?

- Definitely
- Probably
- Probably not
- Definitely not
- (Don't know)
- (Refused)

16. Should livestock grazing be part of the management of private lands?

- Definitely
- Probably
- Probably not
- Definitely not
- (Don't know)
- (Refused)

17. Which of the following statements best summarizes your belief about ranchers' priorities regarding grazing on public lands?

- Ranchers only consider economic aspects
- Ranchers consider both economic and environmental aspects
- (Don't know)
- (Refused)

18. Given many endangered species are managed within rangelands, which of the following best describes your view:

- Ranches provide valuable habitat for threatened and endangered species
- Ranches are neither a benefit nor a detriment to threatened and endangered species
- Ranches are incompatible to maintaining threatened and endangered species
- (Don't know)
- (Refused)

19. On a scale of 1 to 7, with 1 being "not at all important", and 7 being "very important", how important are ranches and farms in preserving wildlife habitat

How reliable are each of the following organizations or groups for information regarding rangelands?

20. Environmental groups:

Very reliable
Somewhat reliable
Somewhat unreliable
Very unreliable
(Don't know)
(Refused)

21. Ranchers:

Very reliable
Somewhat reliable
Somewhat unreliable
Very unreliable
(Don't know)
(Refused)

22. Forest Service:

Very reliable
Somewhat reliable
Somewhat unreliable
Very unreliable
(Don't know)
(Refused)

23. Universities

Very reliable
Somewhat reliable
Somewhat unreliable
Very unreliable
(Don't know)
(Refused)

24. Bureau of Land Management:

Very reliable
Somewhat reliable
Somewhat unreliable
Very unreliable
(Don't know)
(Refused)

25. Scientists:

- Very reliable
- Somewhat reliable
- Somewhat unreliable
- Very unreliable
- (Don't know)
- (Refused)

26. News media:

- Very reliable
- Somewhat reliable
- Somewhat unreliable
- Very unreliable
- (Don't know)
- (Refused)

27. Fish & Game

- Very reliable
- Somewhat reliable
- Somewhat unreliable
- Very unreliable
- (Don't know)
- (Refused)

28. Teachers

- Very reliable
- Somewhat reliable
- Somewhat unreliable
- Very unreliable
- (Don't know)
- (Refused)

29. If you were supplied information that demonstrated Idaho ranchers' practice of responsible stewardship of the land and animals, what effect would it have on your purchasing of locally-produced beef and lamb from Idaho?

- No effect
- Increase my awareness but no change on purchasing
- I would sometime buy local meat
- I would always buy local meat
- (Don't know)
- (Refused)

Idaho Preferred Questions:

30. Have you heard or seen any advertising messages using the phrase Idaho Preferred or seen its logo, featuring a blue oval with a yellow sunrise behind the mountains?

- Yes → Go to 30b
- No → Go to 31
- (Don't know) → Go to 31
- (Refused) → Go to 31

30b. Where have you seen or heard this message or logo? (Please mark all that apply)

- Grocery store
- Farmers Market
- Restaurant
- On a food product label
- In the media (radio, television, or in print)
- Other _____
- (Don't know)
- (Refused)

31. Have you seen any television advertisements featuring Idaho Preferred?

- Yes → Go to 31b
- No → Go to 32
- (Don't know) → Go to 32
- (Refused) → Go to 32

31b. What images or products do you recall seeing in the Idaho Preferred TV ads?

- Plants, flowers, trees
- Fruits and vegetables
- Wine
- All types of food products
- Other _____
- (Don't know)
- (Refused)

32. On average, would you say you are buying more, about the same, or less local products than you used to?

- More → Go to Q32b
- About the same → Go to Q33
- Less → Go to Q33
- (Don't know) → Go to Q33
- (Refused) → Go to Q33

32b. What local products would you say you are buying more of? (please mark all that apply)

- Plants, flowers, trees
- Fruits and vegetables
- Wine
- All foods
- Other _____
- (Don't know)
- (Refused)

32c. What are your reasons for buying more local products? (Mark all that apply)

- Local products are fresher
- Local products offer better quality
- Local products are healthier
- Local products are safer
- Local products support local farmers and the local economy
- Local products are competitively priced
- Local nursery products are more suited to our climate
- Other _____
- (Don't know)
- (Refused)

33. Would you be willing to pay more for items identified as being produced or grown in Idaho than you would for comparable products that are either unlabeled or identified as being produced in another state or country?

- Yes → Go to 33b
- No → Go to Q34
- (Don't know) → Go to Q34
- (Refused) → Go to Q34

33b. How much more would you be willing to pay for locally produced or grown Idaho products?

- LESS THAN 10%
- 10% TO 14%
- 15% TO 19 %
- 20% TO 24%
- 25% OR MORE
- (Don't know)
- (Refused)

Demographic Questions

34. In what year were you born?

_____ (enter year) **9999 = Refused, missing**

35. In what Idaho county do you currently live?

_____ (enter county) **99 = Refused, missing**

36. How long have you lived in Idaho? _____

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

Some high school, no degree

High school graduate

Some college, no degree

Associate's degree

Bachelor's degree

Graduate or professional degree

(Refused)

38. What is your occupational status?

Employed full time

Employed part time

Retired

Student

Homemaker

Unemployed

Disabled

(Refused)

39. Are you or anyone in your household a school teacher or administrator?

Yes

No

(Refused)

40. On a scale of 1 to 7 where 1 is very conservative, 7 is very liberal, and 4 is moderate, where would you describe your political affiliation?

8 = Don't know 9 = Refused

41. Please stop me when I reach the category that best describes your total household income.

- Less than \$10,000
- \$10,000 - \$24,999
- \$25,000 - \$34,999
- \$35,000 - \$49,999
- \$50,000 - \$74,999
- \$75,000 - \$99,999
- \$100,000 or more
- (Refused)

42. How many landline telephone numbers do you have at your residence? _____

99 = Refused

43. How many cell phone telephone numbers do you have at your residence? _____

99 = Refused

44. Do you have anything else you would like to add? _____

45. Gender of respondent (don't ask, just fill in)

__1__ Female

__2__ Male

__3__ Unsure

**Appendix B:
Postcard**

**ID Rangeland Resource Commission
Idaho Preferred**

October 2010

Next week the University of Idaho's Social Science Research Unit (SSRU) will be calling you to participate in a telephone survey about Idaho rangelands and the Idaho Preferred label. The research project will gather data about Idahoans' overall perceptions of grazing and the familiarity of the Idaho Preferred label.

We are writing in advance of our telephone call to let you know that this study is being done and that you have been randomly selected to be called as a respondent. The interview should take about 15 minutes. If we call when you are busy, please tell the interviewer and they will call back another time.

If you have any questions about the survey please call the SSRU at our toll-free number 1-877-542-3019.

Sincerely,

J.D. Wulfhorst, Director

Appendix C

Tabular Results of Qualitative Questions

Question	Responses	Weighted Frequency	Percent	Std. Error
Q1. General condition of Idaho's rangelands	Very good	60	9.9%	1.2%
	Good	302	49.6%	2.1%
	Fair	13	21.4%	1.7%
	Poor	31	5.1%	0.9%
	Very poor	4	0.6%	0.3%
	<i>Don't know</i>	82	13.4%	1.4%
Q2: How do you use Idaho's rangelands	ATV Riding	157	26.2%	1.9%
	Camping	350	59.1%	2.1%
	Fishing	311	52.5%	2.1%
	Hiking	293	49.3%	2.1%
	Horseback riding	90	15.2%	1.5%
	Hunting	250	42.2%	2.1%
	Grazing	49	8.2%	2.1%
	Biking	101	17.0%	1.2%
	<i>Don't know</i>	0	0.0%	1.6%
Q3: Have you encountered livestock on Idaho's rangelands	Yes	179	29.3%	1.9%
	No	427	69.9%	1.9%
	<i>Don't know</i>	5	0.8%	0.4%
Q4: Was your experience...	Positive	192	44.7%	2.4%
	Negative	38	8.9%	1.4%
	Neutral	197	45.9%	2.5%
	<i>Don't know</i>	2	0.4%	0.3%
Q5. Which of the following activities are appropriate for Idaho's rangelands	Hiking/Camping	587	98.0%	0.6%
	Biking	530	88.2%	1.4%
	Motorized vehicles	378	62.5%	2.0%
	Grazing	524	87.2%	1.4%
	Horseback riding	575	95.7%	0.8%
	Fishing or hunting	576	96.9%	0.8%
<i>Don't know</i>	0	0.0%	0.0%	

Question	Responses	Weighted Frequency	Percent	Std. Error
Q5a. Logging	No	55	8.9%	1.2%
	Yes	543	89.1%	1.3%
	<i>Don't know</i>	12	2.0%	0.6%
Q5b. Logging	No	113	18.6%	1.6%
	Yes	469	77.4%	1.8%
	<i>Don't know</i>	24	4.0%	4.0%
Q5b. Guided Recreation	No	26	4.2%	0.8%
	Yes	573	94.5%	0.9%
	<i>Don't know</i>	8	1.2%	0.4%
Q5b. Hunting and fishing	No	15	2.4%	0.7%
	Yes	589	96.9%	0.7%
	<i>Don't know</i>	4	0.7%	0.3%
Q5b. Energy development and transmission	No	109	18.0%	1.6%
	Yes	449	74.6%	1.8%
	<i>Don't know</i>	44	7.3%	1.1%
Q5b. ATV/Motorized vehicle use	No	190	31.3%	1.9%
	Yes	404	66.7%	2.0%
	<i>Don't know</i>	12	2.0%	0.6%
Q5b. Hiking and camping	No	7	1.2%	0.5%
	Yes	604	98.8%	0.5%
	<i>Don't know</i>	0	0.0%	0.0%
Q5b. Mountain biking	No	57	9.4%	1.2%
	Yes	548	89.7%	1.3%
	<i>Don't know</i>	5.4	0.9%	0.4%

Question	Responses	Weighted Frequency	Percent	Std. Error
Q6. Economic well being of communities should be given high priority	Strongly agree	285	46.8%	2.1%
	Somewhat agree	266	43.8%	2.1%
	Somewhat disagree	38	6.3%	1.0%
	Strongly disagree	10	1.6%	0.5%
	<i>Don't know</i>	9	1.5%	0.5%
Q7. Private rangelands provide a large portion of wildlife habitat	Strongly agree	322	52.8%	2.1%
	Somewhat agree	190	31.2%	1.9%
	Somewhat disagree	37	6.0%	1.0%
	Strongly disagree	13	2.2%	0.6%
	<i>Don't know</i>	47	7.7%	1.1%
Q8. The loss of rangeland to development is a growing problem	Strongly agree	293	48.0%	2.1%
	Somewhat agree	155	25.4%	1.8%
	Somewhat disagree	103	17.0%	1.6%
	Strongly disagree	31	5.0%	0.9%
	<i>Don't know</i>	29	4.7%	0.9%
Q9. Ranchers should pay than they do now to graze livestock on public lands	Strongly agree	95	15.6%	1.5%
	Somewhat agree	86	14.1%	1.4%
	Somewhat disagree	138	22.7%	1.8%
	Strongly disagree	164	26.9%	1.8%
	<i>Don't know</i>	127	20.8%	1.6%
Q10. Cattle and sheet producers manage rangelands in a responsible manner	Strongly agree	179	29.5%	1.9%
	Somewhat agree	256	42.1%	2.0%
	Somewhat disagree	60	9.9%	1.2%
	Strongly disagree	28	4.6%	0.9%
	<i>Don't know</i>	84	13.9%	1.5%
Q11. How much of a problem is wildfire on ID rangelands	A large problem	152	25.0%	1.8%
	A moderate problem	339	55.7%	2.0%
	Not a problem	88	14.4%	1.5%
	<i>Don't know</i>	29	4.8%	0.9%
Q11b. Which of the following statements do you agree with?	Livestock grazing...	28	4.5%	0.9%
	Livestock grazing	252	41.7%	2.0%
	Livestock grazing	245	40.4%	2.0%
	<i>Don't know</i>	81	13.3%	1.4%

Question	Responses	Weighted Frequency	Percent	Std. Error
Q12. How much of a problem are noxious weeds on ID rangelands?	A large problem	302	49.4%	2.0%
	A moderate problem	232	37.9%	2.0%
	Not a problem	28	4.6%	0.9%
	<i>Don't know</i>	50	8.1%	1.0%
Q12b. Which of the following statements do you agree with?	Livestock grazing...	78	12.9%	1.4%
	Livestock grazing	329	54.2%	2.1%
	Livestock grazing	101	16.7%	1.5%
	<i>Don't know</i>	98	16.2%	1.5%
Q13. How has grazing by livestock changed over the past 50 years	Increased	153	24.9%	1.8%
	Remained the same	102	16.7%	1.5%
	Decreased	235	38.4%	2.0%
	<i>Don't know</i>	122	19.9%	1.6%
Q14. Over the next 10 years, will the livestock industry contribution...	Increase a great deal	33	5.3%	0.9%
	Increase somewhat	163	26.7%	1.8%
	Maintain current contribution	194	31.7%	1.9%
	Decrease somewhat	113	18.5%	1.6%
	Decrease a great deal	43	7.0%	1.1%
	<i>Don't know</i>	66	10.8%	1.3%
Q15. Should livestock grazing be part of the management of public lands	Definitely	272	44.8%	2.0%
	Probably	250	41.0%	2.0%
	Probably not	44	7.2%	1.1%
	Definitely not	20	3.2%	0.7%
	<i>Don't know</i>	22	3.7%	0.8%
Q16. Should livestock grazing be part of the management of private lands	Definitely	185	30.5%	1.9%
	Probably	217	35.9%	2.0%
	Probably not	90	14.9%	1.5%
	Definitely not	65	10.7%	1.3%
	<i>Don't know</i>	48	8.0%	1.1%
Q17. Which statement summarizes your belief?	Ranchers consider only economic aspects	150	24.6%	1.8%
	Ranchers consider both economic and environmental aspects	420	69.2%	1.9%
	<i>Don't know</i>	37	6.1%	1.0%

Question	Responses	Weighted Frequency	Percent	Std. Error
Q18. Which of the following describes your view	Ranches provide valuable habitat for endangered species	182	30.3%	1.9%
	Ranches are neither a benefit nor a detriment to endangered species	265	44.2%	2.1%
	Ranches are incompatible with endangered species	102	17.1%	1.6%
	<i>Don't know</i>	50	8.4%	1.1%
Q19. How important are ranches and farms in preserving wildlife habitat?	Not at all important	22	3.6%	0.8%
	2	19	3.1%	0.7%
	3	37	6.1%	1.0%
	4	78	12.9%	1.4%
	5	144	23.8%	1.8%
	6	100	16.5%	1.5%
	Very important	188	31.0%	1.9%
<i>Don't know</i>	19	3.1%	0.7%	
Q20. How reliable are environmental groups?	Very reliable	54	8.9%	1.2%
	Somewhat reliable	260	43.1%	2.1%
	Somewhat unreliable	149	24.7%	1.8%
	Very unreliable	114	19.0%	1.6%
	<i>Don't know</i>	25	4.2%	0.8%
Q21. How reliable are ranchers?	Very reliable	128	21.1%	1.7%
	Somewhat reliable	354	58.6%	2.1%
	Somewhat unreliable	93	15.4%	1.5%
	Very unreliable	7	1.2%	0.4%
	<i>Don't know</i>	22	3.6%	0.8%
Q23. How reliable is the Forest Service?	Very reliable	255	41.9%	2.0%
	Somewhat reliable	265	43.6%	2.1%
	Somewhat unreliable	50	8.2%	1.1%
	Very unreliable	21	3.4%	0.8%
	<i>Don't know</i>	18	2.9%	0.1%
Q24. How reliable are Universities?	Very reliable	264	43.5%	2.1%
	Somewhat reliable	260	42.8%	2.1%
	Somewhat unreliable	33	5.4%	1.0%
	Very unreliable	13	2.1%	0.6%
	<i>Don't know</i>	37	6.1%	1.0%

Question	Responses	Weighted Frequency	Percent	Std. Error
Q24. How reliable is the Bureau of Land Management	Very reliable	194	32.0%	1.9%
	Somewhat reliable	305	50.2%	2.1%
	Somewhat unreliable	56	9.3%	1.2%
	Very unreliable	23	3.8%	0.8%
	<i>Don't know</i>	29	4.8%	0.9%
Q25. How reliable are scientists?	Very reliable	190	31.2%	1.9%
	Somewhat reliable	290	47.6%	2.1%
	Somewhat unreliable	55	9.0%	1.2%
	Very unreliable	21	3.4%	0.4%
	<i>Don't know</i>	52	8.5%	1.1%
Q26. How reliable is the news media?	Very reliable	18	3.0%	0.7%
	Somewhat reliable	170	28.0%	1.9%
	Somewhat unreliable	197	32.5%	1.9%
	Very unreliable	207	34.2%	2.0%
	<i>Don't know</i>	14	2.4%	0.6%
Q27. How reliable is Fish and Game?	Very reliable	240	39.4%	2.0%
	Somewhat reliable	301	49.4%	2.1%
	Somewhat unreliable	41	6.7%	1.1%
	Very unreliable	18	3.0%	0.7%
	<i>Don't know</i>	10	1.6%	0.5%
Q28. How reliable are teachers?	Very reliable	122	20.2%	1.7%
	Somewhat reliable	335	55.5%	2.1%
	Somewhat unreliable	80	13.2%	1.4%
	Very unreliable	27	4.4%	0.8%
	<i>Don't know</i>	41	6.7%	1.0%
Q29. Effect of information about responsible stewardship on purchases	No effect	77	12.8%	1.4%
	Increased awareness but no change in purchasing	108	17.9%	1.6%
	I would sometimes buy local food	160	26.4%	1.8%
	I would always buy local food	252	41.6%	2.0%
	<i>Don't know</i>	8	1.2%	0.4%
Q30. Seen or heard "Idaho Preferred" in advertising	No	197	32.2%	1.9%
	Yes	401	65.5%	2.0%
	Don't know	14	2.2%	0.6%

Question	Responses	Weighted Frequency	Percent	Std. Error
Q30b. Where have you seen or heard this logo?	Grocery store	157	39.1%	2.5%
	Farmers' Market	47	11.5%	1.7%
	Restaurant	22	5.3%	1.1%
	Food product label	73	18.0%	2.0%
	Media	302	76.2%	2.2%
	Other	24	5.9%	1.2%
	<i>Other responses listed: Billboard (6), Fair (2), Vehicles (2), Word of mouth, Health food store, Art in the park, Bumper stickers, In the mall, Small retail businesses, Agriculture in classroom class, State website, Clothing Idaho boutiques, Governor Otter, Sign, Department stores (Fred Meyer etc.), Feedbag (for livestock), Conferences</i>			
Q31. Have you seen any TV ads featuring Idaho Preferred?	No	255	41.6%	2.0%
	Yes	346	56.6%	2.0%
	Don't know	11	1.7%	0.5%
Q31b. What images do you recall seeing?	Plants, flowers, trees	12	3.5%	1.0%
	Fruits and vegetables	137	39.2%	2.7%
	Wine	27	7.6%	1.4%
	All types of food products	114	32.8%	2.6%
	Other	34	9.7%	1.6%
	<i>Other responses listed: Dairy (22), Governor Otter (2), Vehicles, Toilet paper, Ranching and farms, Raising crops under nets, Fudge, Cattle, Farmers market, Just 'Buy Idaho'-- no images except the logo, Potatoes, Red meat, Feed for cattle</i>			
Q32. On average, how much local produce are you buying?	More	213	34.8%	2.0%
	About the same	342	56.0%	2.1%
	Less	38	6.2%	1.0%
	Don't know	18	2.9%	0.7%

Question	Responses	Weighted Frequency	Percent	Std. Error
Q33. What local products are you buying more of?	Plants, flowers, trees	24	11.2%	2.2%
	Fruits and vegetables	174	82.7%	2.7%
	Wine	15	6.9%	1.6%
	All types of food products	77	36.1%	3.4%
	Other	47	22.0%	3.0%
	<i>Other responses listed: Meat (26), Dairy (8), Breads/Grains (3), Eggs (3), Honey (2), Animal feed (2), Arts and crafts, Fish, Automobile</i>			
Q32c. What are your reasons for buying more local products?	Local products are fresher	83	39.2%	3.5%
	Local products are better quality	63	29.8%	3.3%
	Local products are healthier	61	28.5%	3.2%
	Local products are safer	47	21.9%	2.9%
	Local products support farmers and the local economy	156	74.6%	3.1%
	Local products are competitively priced	37	17.2%	2.7%
	Local nursery products are suited to the climate	21	9.8%	2.1%
	Other	18	8.6%	1.9%
<i>Other responses listed: Knowing where the product comes from/safety from pesticides and preservatives (7), Environmental impact (5), Availability (5), Don't want China to own us, It's just good, Less transportation costs</i>				
Q33. Would you be willing to pay more for Idaho products?	No	160	26.2%	1.8%
	Yes	434	71.0%	1.9%
	Don't know	17	2.8%	0.7%
Q33b. How much more would you be willing to pay?	Less than 10%	161	37.1%	2.4%
	10%-14%	206	47.5%	2.4%
	15%-19%	35	8.2%	1.3%
	20%-24%	16	3.6%	0.9%
	25% or more	12	2.9%	0.8%
	Don't know	4	0.8%	0.4%

Question	Responses	Weighted Frequency	Percent	Std. Error
Q34. Age category	18-19 years	9	1.4%	0.5%
	20-24 years	25	4.1%	0.9%
	25-34 years	91	15.1%	1.6%
	35-44 years	88	15.0%	1.5%
	45-54 years	119	19.7%	1.6%
	55-59 years	62	10.3%	1.2%
	60-64 years	66	10.8%	1.3%
	54-74 years	93	15.4%	1.4%
	75-84 years	42	7.0%	1.0%
	More than 85 years	10	1.6%	0.5%
Q36. Number of years in Idaho	Less than 5 years	37	6.1%	1.0%
	5-9 years	53	8.7%	1.2%
	10-14 years	56	9.1%	1.2%
	15-19 years	64	10.4%	1.3%
	20-29 years	83	13.5%	1.4%
	30-49 years	159	25.8%	1.8%
	50 years or more	163	26.5%	1.8%
(Calculation based on age and number of years in Idaho)	Less than 25% of life in Idaho	120	19.5%	1.6%
	25%-49% of life in Idaho	109	17.8%	1.6%
	50%-74% of life in Idaho	103	16.7%	1.5%
	75% or more of life in Idaho	283	46.0%	2.1%

Question	Responses	Frequency	Percent
Q35. Idaho County	Ada	159	26.2%
	Adams	2	0.3%
	Bannock	35	6.1%
	Bear Lake	2	0.3%
	Benewah	4	0.7%
	Bingham	11	1.8%
	Blaine	8	1.2%
	Boise	6	1.0%
	Bonner	22	3.7%
	Bonneville	35	5.9%
	Boundary	7	1.1%
	Butte	1	0.1%
	Canyon	59	9.9%
	Caribou	4	0.6%
	Cassia	9	1.4%
	Clearwater	4	0.7%
	Custer	4	0.6%
	Elmore	10	1.6%
	Franklin	8	1.2%
	Fremont	5	0.8%
	Gem	8	1.6%
	Gooding	6	0.9%
	Idaho	6	1.1%
	Jefferson	12	1.8%
	Jerome	4	0.7%
	Kootenai	31	5.2%
	Latah	21	3.3%
	Lemhi	6	0.9%
	Lewis	3	0.4%
	Lincoln	3	0.6%
	Madison	8	1.3%
	Minidoka	3	0.4%
	Nez Perce	24	3.9%
	Oneida	3	0.5%
	Owyhee	5	0.8%
	Payette	10	1.6%
	Power	1	0.2%
	Shoshone	4	0.7%
	Teton	5	0.9%
	Twin Falls	35	5.8%
Valley	6	1.1%	
Washington	9	1.3%	

Question	Responses	Weighted Frequency	Percent	Std. Error
Q37. Level of education	Some high school education	22	3.6%	0.8%
	High school graduate	151	25.0%	1.8%
	Some college	147	24.3%	1.8%
	Associate's degree	73	12.0%	1.4%
	College graduate	140	23.2%	1.7%
	Graduate or professional degree	73	11.9%	1.3%
Q38. Employment Status	Employed full time	301	49.4%	2.1%
	Employed part time	52	8.6%	1.2%
	Retired	154	25.3%	1.8%
	Student	23	3.7%	0.8%
	Homemaker	43	7.1%	1.1%
	Unemployed	23	3.7%	0.8%
	Disabled	14	2.3%	0.7%
Q39. School teacher or administrator?	No	535	87.6%	1.3%
	Yes	76	12.4%	1.3%
Q40. Political affiliation	Very conservative	102	17.0%	1.5%
	2	44	7.4%	1.0%
	3	76	12.7%	1.4%
	4	227	37.8%	2.0%
	5	61	10.2%	1.3%
	6	33	5.4%	0.9%
	Very liberal	42	7.0%	1.1%
	Don't know	14	2.4%	0.7%
Q41. Income	Less than \$10,000	25	4.5%	1.0%
	\$10,000-\$24,999	80	14.7%	1.7%
	\$25,000-\$34,999	99	18.1%	1.7%
	\$35,000-\$49,999	82	15.1%	1.5%
	\$50,000-\$74,999	128	23.6%	1.8%
	\$75,000-\$99,999	62	11.4%	1.4%
	More than \$100,000	69	12.6%	1.4%
Q42. Sex	Female	310	50.4%	2.1%
	Male	304	49.6%	2.1%

Appendix D

Multivariate Methodological Details

To determine how demographic variables affect support for or against livestock grazing on rangelands, we conducted ordinal logistic regression analyses predicting the response to four survey questions. The multivariate models include the following survey questions: 1) level of agreement with the statement "cattle and sheep producers manage rangelands in a responsible manner," 2) which statement regarding the relationship between grazing and wildfire respondents agreed with most closely, 3) which statement regarding the relationship between grazing and noxious weeds respondents agreed with most closely, and 4) the response to the question "should livestock grazing be part of the management of public lands."

We use ten independent variables to predict opinion. These variables are: whether someone in the household uses public lands by riding ATVs/motorized vehicles, hunting, grazing livestock, going horseback riding, or hiking, as well as the age, sex, political preference, and regional location of the respondent (grouped into the north, southwest, south central, and southeastern regions), and the percent of their lifetime the respondent has lived in Idaho.

Ordinal logistic regression is a generalization of linear regression and is used where more than two response categories exist, and those categories have an order (in most of these models, increasing agreement with a statement). However, the categories are not assumed to be equally spaced on a scale; "somewhat agree" is not considered to be the exact half-way point between "strongly agree" and "somewhat disagree," it is just assumed that "somewhat agree" is a level of support somewhere in between the two other two. We used a proportional odds model, which is more powerful and has simpler interpretation of the parameter results. However, the proportional odds model has an additional assumption of equal slopes for each regression line. For each of the four models run, the score test for the proportional odds model had a p-value > 0.05, indicating that the assumption of equal slopes is met and the analysis is valid.

We found significant effects for several of the predictor variables in the analyses. For each analysis, we modeled the probability that respondents tend to support livestock grazing on public lands or ranchers. With logistic regression, as in regular regression, positive parameter estimates represent a positive correlation between the two variables, whereas a negative parameter estimate represents a negative correlation. In the case of region, the southwestern region was used as the comparison categories.

In the model predicting respondent agreement with the statement “cattle and sheep producers manage rangelands in a responsible manner,” the categories “somewhat disagree” and “strongly disagree” were pooled due to small sample sizes in those cells, and the total sample size used in the analysis was 472 (due to missing variables in either the dependent or independent variables for some respondents). Horseback riding was found to be positively associated with agreement with the statement, whereas hiking was found to be negatively associated with agreement (thus hikers are less likely to agree that cattle and sheep producers manage rangelands responsibly). The southeast had a lower level of agreement with the statement relative to the southwest (Table 12).

Effect	D.F.	Estimate	Std. Error	Wald Chi-square Statistic	P > Chi-Square
Intercept 1	1	-0.9454	0.5202	3.3022	0.0692
Intercept 2	1	1.5017	0.5251	8.1793	0.0042
ATV Use	1	0.4205	0.2403	3.0631	0.0801
Hunting	1	-0.0421	0.2158	0.0380	0.8454
Grazing	1	-0.0846	0.3794	0.0498	0.8235
Horseback riding	1	1.3875	0.3255	18.1736	<0.0001
Hiking	1	-0.6389	0.2002	10.1824	0.0014
Age	1	0.0068	0.0059	1.3130	0.2519
Region—North vs SW	1	0.0853	0.1765	0.2337	0.6288
Region—SC vs SW	1	0.0869	0.2148	0.1635	0.6860
Region—SE vs SW	1	-0.3912	0.1766	4.9066	0.0268
Political preference	1	-0.0998	0.0624	2.5550	0.1099
Sex	1	-0.1107	0.1887	0.3441	0.5575
Proportion of life in Idaho	1	0.4379	0.2896	2.2865	0.1305

Table 12. Parameter Estimates and Associated Standard Errors for Ordinal Logistic Regression Model Predicting Agreement with “Cattle and Sheep Producers Manage Rangelands in a Responsible Manner”

In the model to determine how demographics affect respondents perception of the relationship between wildfire and grazing (“grazing tends to create wildfire problems,” “grazing can be a cause or a solution to wildfire problems” or “grazing tends to solve wildfire problems” the sample size used in the analysis was 475. Horseback riding was found to associated with grazing as a solution to wildfire; hiking was found to be associated with grazing as a cause of wildfire. Those with more liberal political affiliates were more likely to state that grazing is a cause of wildfire problems on rangelands (Table 13).

Effect	D.F.	Estimate	Std. Error	Wald Chi-square Statistic	P > Chi-Square
Intercept 1	1	-0.3187	0.4927	0.4184	0.5178
Intercept 2	1	2.8600	0.5015	32.526	<0.0001
ATV Use	1	0.4352	0.2438	3.1860	0.0743
Hunting	1	0.2722	0.2239	1.4787	0.2240
Grazing	1	-0.0949	0.3867	0.0603	0.8061
Horseback riding	1	0.9695	0.3260	8.8434	0.0029
Hiking	1	-0.5787	0.2060	7.8794	0.0050
Age	1	0.0086	0.0064	1.8224	0.1770
Region—North vs SW	1	0.1707	0.1838	0.8626	0.3530
Region—SC vs SW	1	0.1142	0.2029	0.3171	0.5734
Region—SE vs SW	1	-0.2306	0.1801	1.6392	0.2004
Political preference	1	-0.1376	0.0605	5.1639	0.0231
Sex	1	0.0330	0.1914	0.0297	0.8631
Proportion of life in Idaho	1	0.2286	0.3123	0.5717	0.4496

Table 13. Parameter Estimates and Associated Standard Errors for Ordinal Logistic Regression Model Predicting Response to the Relationship between Grazing and Wildfire

In the model of how demographics affect respondents perception of the relationship between wildfire and noxious weeds (“grazing tends to create noxious weed problems,” “grazing can be a cause or a solution to noxious weed problems” or “grazing tends to solve noxious weed problems” the sample size used in the analysis was 466. Horseback riding was found to be loosely correlated (not statistically significant at $p = 0.0535$) associated with grazing as a solution to noxious weed problems; hiking was found to be associated with grazing as a cause of noxious weed problems. Individuals in the southeast were more likely than those in the southwest to associate grazing as a cause of noxious weed problems (Table 14).

Effect	D.F.	Estimate	Std. Error	Wald Chi-square Statistic	P > Chi-Square
Intercept 1	1	-1.0317	0.5452	3.5804	0.0585
Intercept 2	1	2.3635	0.5610	17.7500	<0.0001
ATV Use	1	-0.0787	0.2494	0.0997	0.7522
Hunting	1	0.2535	0.2257	1.2614	0.2614
Grazing	1	0.1652	0.4192	0.1554	0.6935
Horseback riding	1	0.6338	0.3283	3.7275	0.0535
Hiking	1	-0.8253	0.2179	14.3432	0.0002
Age	1	-0.0021	0.0072	0.0853	0.7698
Region—North vs SW	1	0.1485	0.1853	0.6423	0.4229
Region—SC vs SW	1	0.0947	0.2314	0.1673	0.6825
Region—SE vs SW	1	-0.4643	0.1967	5.5704	0.0183
Political preference	1	0.0185	0.0687	0.0728	0.7874
Sex	1	-0.2598	0.2054	1.5994	0.2060
Proportion of life in Idaho	1	-0.2364	0.3016	0.6144	0.4331

Table 14. Parameter Estimates and Associated Standard Errors for Ordinal Logistic Regression Model Predicting Response to the Relationship between Grazing and Noxious Weeds

In the model predicting response to the statement “should livestock grazing be part of the management of public lands” (with a scale of “definitely,” “probably,” “probably not,” and “definitely not”) we pooled the categories “probably not” and “definitely not” due to small sample sizes in those cells. The sample size used in the analysis was 530. Horseback riding was found to be correlated with agreement that grazing should be part of the management of public lands. Older respondents were more likely to be in agreement that grazing should be part of the management of public lands, as were men (Table 15).

Effect	D.F.	Estimate	Std. Error	Wald Chi-square Statistic	P > Chi-Square
Intercept 1	1	-1.7418	0.5107	11.6300	0.0006
Intercept 2	1	0.7072	0.4979	2.0178	0.1555
ATV Use	1	0.0755	0.2135	0.1249	0.7238
Hunting	1	0.2061	0.1988	1.0758	0.2996
Grazing	1	0.1612	0.3800	0.1800	0.6714
Horseback riding	1	0.7871	0.3297	5.6988	0.0170
Hiking	1	-0.0948	0.1898	0.2495	0.6174
Age	1	0.0228	0.0059	14.8106	0.0001
Region—North vs SW	1	-0.1945	0.1637	1.4113	0.2348
Region—SC vs SW	1	0.2052	0.2006	1.0460	0.3064
Region—SE vs SW	1	-0.2195	0.1669	1.7286	0.1886
Political preference	1	-0.0861	0.0577	2.2254	0.1358
Sex	1	0.5991	0.1775	11.3872	0.0007
Proportion of life in Idaho	1	0.3196	0.2731	1.3700	0.2418

Table 15. Parameter Estimates and Associated Standard Errors for Ordinal Logistic Regression Model Predicting Response to the Relationship between Grazing and Noxious Weeds

Appendix E

Final Open Ended Comment

Note: R. stands for respondent. Text in brackets is added by the researchers for clarification.

Limited ATV/motorized vehicle use – 3 similar responses

Doesn't have a TV at residence – 2 similar responses

Motorized vehicle and livestock grazing should be regulated.

Motor vehicle use, logging, and energy development only with guidelines.

Would be willing to pay more for some Idaho produced items, but depends on the product.

On private land we rock hunt & gold prospect.

Ranchers are the best caretakers of the land.

I think it's terrible what some environmental groups are doing to ranchers in Idaho. The worst thing is the wolf. We need to rise up against wolves. Reintroducing the wolves went against the State's rights.

Willing buy local products if organic.

ATVs are not good stewards of the land they abuse it.

You did not mention wild horses they are the problem with the banks & water holes drying up. There is a lack of management there.

Motorized vehicle use is sometimes appropriate, but not always. It is not appropriate to ride everywhere.

Farmers need parity

Motorized vehicle use alright if controlled and livestock grazing only if ranchers adhere to the rules; everything should be in a balance.

Ranchers don't care about abusing the land.

Logging is acceptable if they reforest.

Cattlemen get away with a lot of stuff and they do not pay for it

How important could the survey be with asking people like me who don't have very much knowledge?

We must get rid of the wolves

Many people in the northern counties may not know about rangelands.

We need to keep our rangelands free and not break them up.

We need to appreciate land and resources, which means we need good management.

There are problems with overgrazing and misuse of land. Guidelines need to be placed and followed.

There are too many special interest groups controlling what is being done, and the government is too big. People work best for themselves and not for the government.

Mountain biking and hiking is acceptable as long as they stay on trails that already exist and do not create new trails.

Energy development OK if appropriately developed and appropriately cited.

Farmer's and rancher's livelihood should be paid more attention to than some other matters.

Limited motorized vehicle use

Some cattle and sheep producers manage the rangeland in a responsible manner.

My motive for doing this survey is to get more free range animals and more organic options.

Livestock grazing, hunting and fishing and logging should be regulated, while energy development and transmission should be highly regulated.

[I] appreciate the Buy Idaho campaign.

All of the activities don't mix and shouldn't be done together.

Idaho products are very good and need more recognition. We need the small farmers and ranchers.

These questions are very bad. They're subjective and there's no way of answering many of them.

My wife is a CFO.

Logging is acceptable only if controlled.

[I am] very much against the reintroduction of wolves.

It would be nice if Idaho politicians work for Idaho instead of themselves.

I keep seeing ads that say to buy Idaho products, but in the stores I find very few products that are produced in Idaho, so it makes it hard to buy when you can't find them.

I am a home school teacher. The questions are too vague.

[I am] not knowledgeable of Idaho Rangelands at the moment

The middle answer that says either cause or a solution is ridiculous, it can't be both. (11b and 12b)

Government agencies need to leave. Lying is going on within these organizations. The area would be better without the government intervention.

They treat badly the wolves and elks-the fish and game

I don't really know much about rangeland; I live up north of Moscow.

Hunting should only be limited to deer.

Livestock grazing has nothing to do with wildfire.

Farmers know how to manage the land private or public.

Energy should be local and more green than dirty.

We need to see the grazing land stay on the public lands, losing income from ranchers

We need to develop the mining on the public lands, natural doesn't work anymore.

Manage what you have-the forest products.

The wolves are hurting the ranches and wildlife. We are struggling with the wolf problem. Losing calves to coyotes and wolves. Wolves are Idaho's number one problem. This incurs extra costs for us as ranchers.

The livestock industries future contribution to Idaho's economy depends on what is happening in grazing if it is restructured like they are talking about, I would disagree.

Modest people life good.

Some of the questions were leading. Challenging to provide proper, complete opinion

Many questions unable to answer, not well explained

Idaho should get out of this uneven economy. More jobs need to be created.

Happy to be Idahoan!

We love living in Idaho.

Power transmission needs to try to stay where they already are instead of going into new places; keep rangeland as open as possible. Cattle (government rangeland) should not be allowed to interfere with natural habitats.

Some of the questions are unclear.

There is room for improvements in grazing land.

Respondent also opened her own business while being retired.

Recreation and other activities ok as long as they follow the rules and regulations;

TV media skewed towards agricultural lifestyle.

Eastern influence is trying to drive western ranchers of rangelands.

Idaho preferred needs better advertising.

Noxious weeds and letting cattle overgraze are extreme problems in Idaho. Thought this survey was stupid and that it would end up in the hands of "some liberal".

Mountain biking, motorized vehicle use, and logging should all be regulated.

Would like to see wolves come back.

Enjoyed the Survey!

I don't have good judgment on Idaho, or real feel on the problem that ranchers have, but there are some real problems with environmentalist.

The environmentalists have good intentions, but their help is actually doing more harm, both on the environment and wildlife.

Need to charge for livestock grazing, the land belongs to the people. Ranchers need to give more for use of public lands. ATV/Motorized Vehicels needs to be limited, as well as logging.

Interesting survey

Eat more Idaho Beef!

Logging should be regulated.

Quite concerned with management of the forest service lands. Their appearance of direction to go to single use of the forest lands is going to no use.

Livestock grazing and logging should be regulated, Energy development should only include WIND and SOLAR.

Mountain biking, ATV's, energy development and transmission, hunting and fishing, horseback riding should all be regulated. Survey in Spanish.

Motorized vehicle use, livestock grazing, and logging should be monitored and limited.

Focus on the endangered wolves.

Overgrazing is a problem and there should be limited grazing. There is no statistical research showing that grazing helps prevent wildfires.

Numbers 11 and 12 loaded questions.

We never used to have these big rangeland fires about 30 years ago. Now there are not as many cattle grazing and it costs millions of dollars to repair the damaged areas. Idaho rangeland could stand to have more cattle on it.

If you can help out the ranchers and farmers, you should.

I think it would be great for the community here to know more about grazing, considering I am totally uninformed about it.

Only lived in Idaho for a few months, came from Los Angeles, California.

Idaho spends too much money on wildfires, and the BLM and forest service are not qualified for putting out fires, Idaho should take on Oregon's method

Over the past 50 years grazing by cows has increase and by sheep has decreased.

All of my relatives are teachers.

Rangeland resource provides good information, and Idaho Preferred is good too.

Very interesting survey

People should be good to the land.

As dirtbike rider, land should be available to everyone and land should not be shut down to motorized use.

Limited motorized vehicle and ATV use and limited logging

Seeing Idaho Preferred television advertisements depends on the time of year.

Everyone should follow the regulations, what works for everyone should work for everyone.

Livestock should have priority over humans as long as ranchers don't abuse the use of the rangelands.

Energy development and transmission is acceptable if put in the right places and managed correctly.

I am a retired farmer, and farmers never say they get enough money. We have too much government and not enough compromise.

Get rid of the wolves they are not endangered. Ranchers take the best care of the land, let them graze free, it helps the land. No ATVs!

I don't have much of an idea about these things.

Get rid of the wolves!! They are decimating the elk population.

Local food IS always cheaper.

Land is becoming more and more private which takes away from areas where you can hunt and fish, compared to 30 years ago. This is mostly because of the increased population in Idaho.

Most of the questions are about teachers and scientists, about where you get your information from. Most of these people's opinion will change according to who is funding them.

Quality is more important that production in regards to buying local.

Would like to see more wind energy development on the land.

Be less vague about the questions and in easier terms make it more people friendly.