

Responsive Management™



ARCHERY PARTICIPATION AMONG ADULT U.S. RESIDENTS IN 2015

**Conducted for the Archery Trade Association
by Responsive Management**

2016

ARCHERY PARTICIPATION AMONG ADULT U.S. RESIDENTS IN 2015

2016

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EXECUTIVE SUMMARY

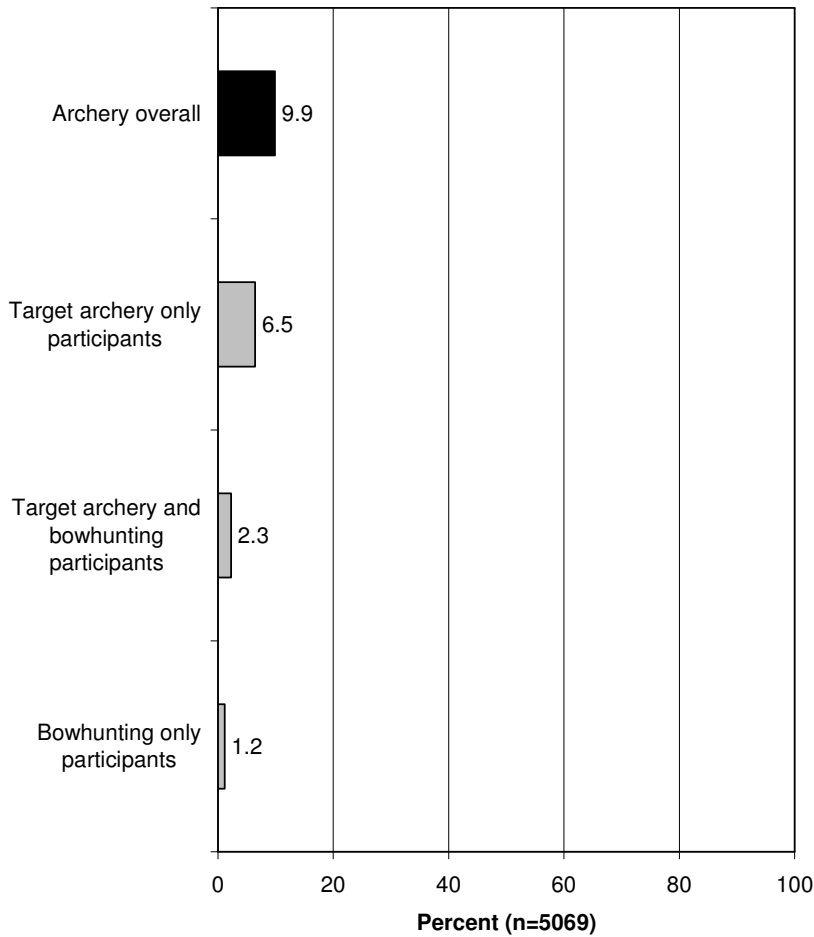
METHODOLOGY

- Study conducted to determine regional and national participation rates in archery
- Landline and cellular telephones in their exact proportions:
 - Wireless-only: 45.0%
 - Wireless-mostly: 17.2%
 - Dual-use: 19.9%
 - Landline-mostly: 10.7%
 - Landline-only: 7.3%
- U.S. residents 18 years old and older (n=5,069)
- Conducted April 2016
- Sampling error = +/- 1.62 percentage points
- Designed specifically to increase accuracy of participation data:
 - Used generalized introductions and “ruse” questions to avoid topic and participation bias
 - Used randomization in activity order sequence
 - Initial list of activities asked about archery activities, including bowhunting, in general
 - Follow-up participation questions asked more specifically about archery activities other than bowhunting and bowhunting separately
 - Asked if “ever” participated first
 - Asked two different questions in random order to determine 2015 participation for each category (i.e., archery activities other than bowhunting and bowhunting):
 - Participation specifically in 2015
 - Last time participated (year requested and recorded)
- Trend comparisons with previous surveys:
 - 2013 (about 2012 participation)
 - 2015 (about 2014 participation)
- Three separate surveys conducted simultaneously to compare participation rates:
 - Telephone Survey A
 - Telephone Survey B
 - Online Survey
- For the online survey, Responsive Management worked with Google to implement a probability-based Internet questionnaire to supplement the telephone surveys

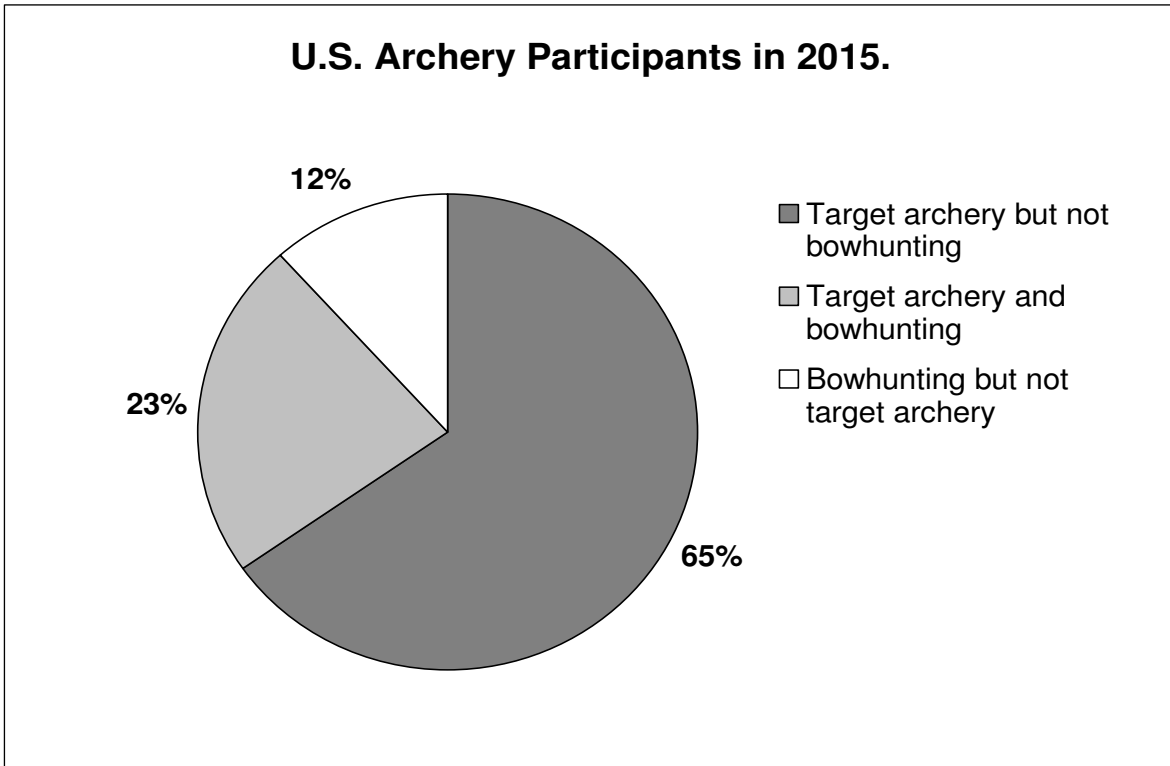
PARTICIPATION IN ARCHERY

- Among adult United States residents as a whole, 9.9% participate in archery in 2015, broken down as follows: 6.5% of all adult residents are *target archery only participants*, 2.3% are *target archery and bowhunting participants*, and 1.2% are *bowhunting only participants*, as shown in the graph below.
- This rate provides an estimate of 23,836,399 adult archery participants for 2015 in the United States.
 - The population estimates for target archery participants is 21,046,563 and for bowhunters is 8,308,834.

Percent of respondents who participated in archery in 2015 (and the subgroups making up all archery participants).

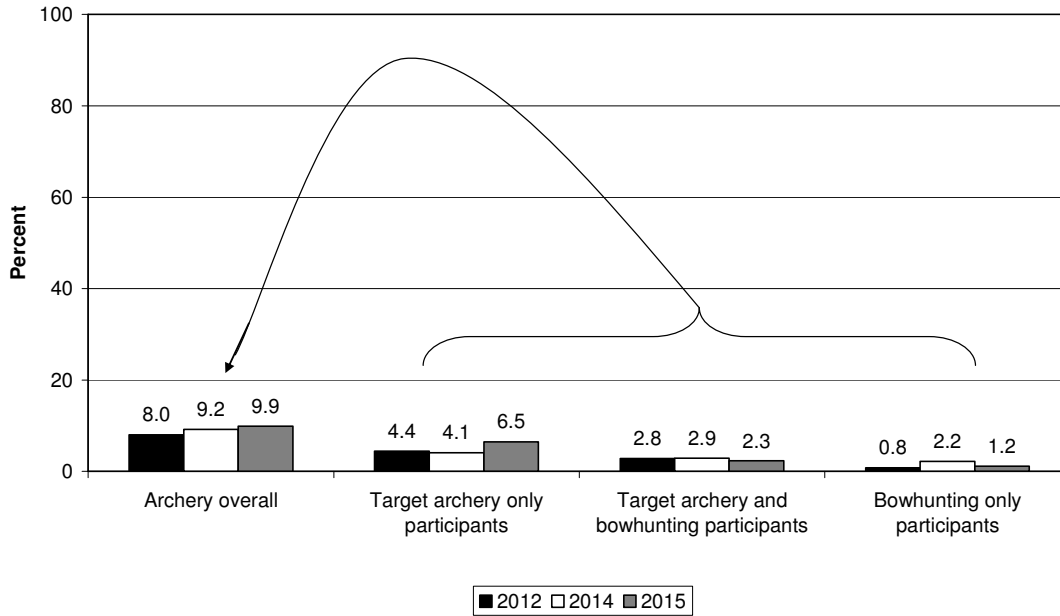


- The following pie graph shows the proportions of archery participants; a little more than a third of all adult archery participants in the U.S. (35%) bowhunt.

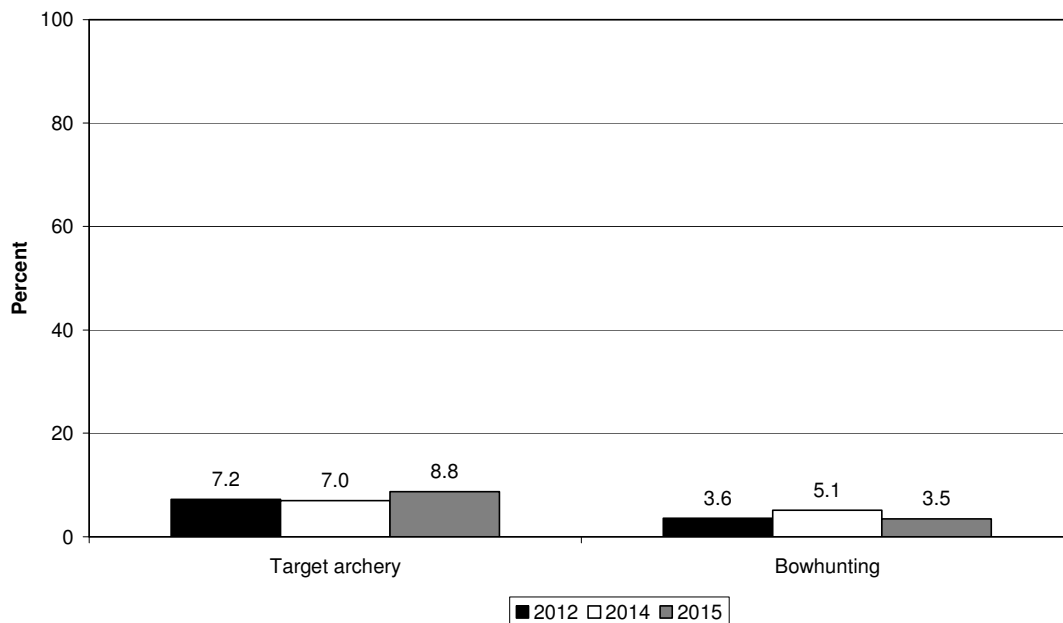


- Trend analysis shows an increase in archery participation overall in 2015, compared to 2012 and 2014 values. This increase corresponds to an increase in target archery activities; bowhunting decreased in 2015 compared to 2014, but participation is nearly identical to the 2012 value.

Percent of respondents who participated in archery (and the subgroups making up all archery participants).



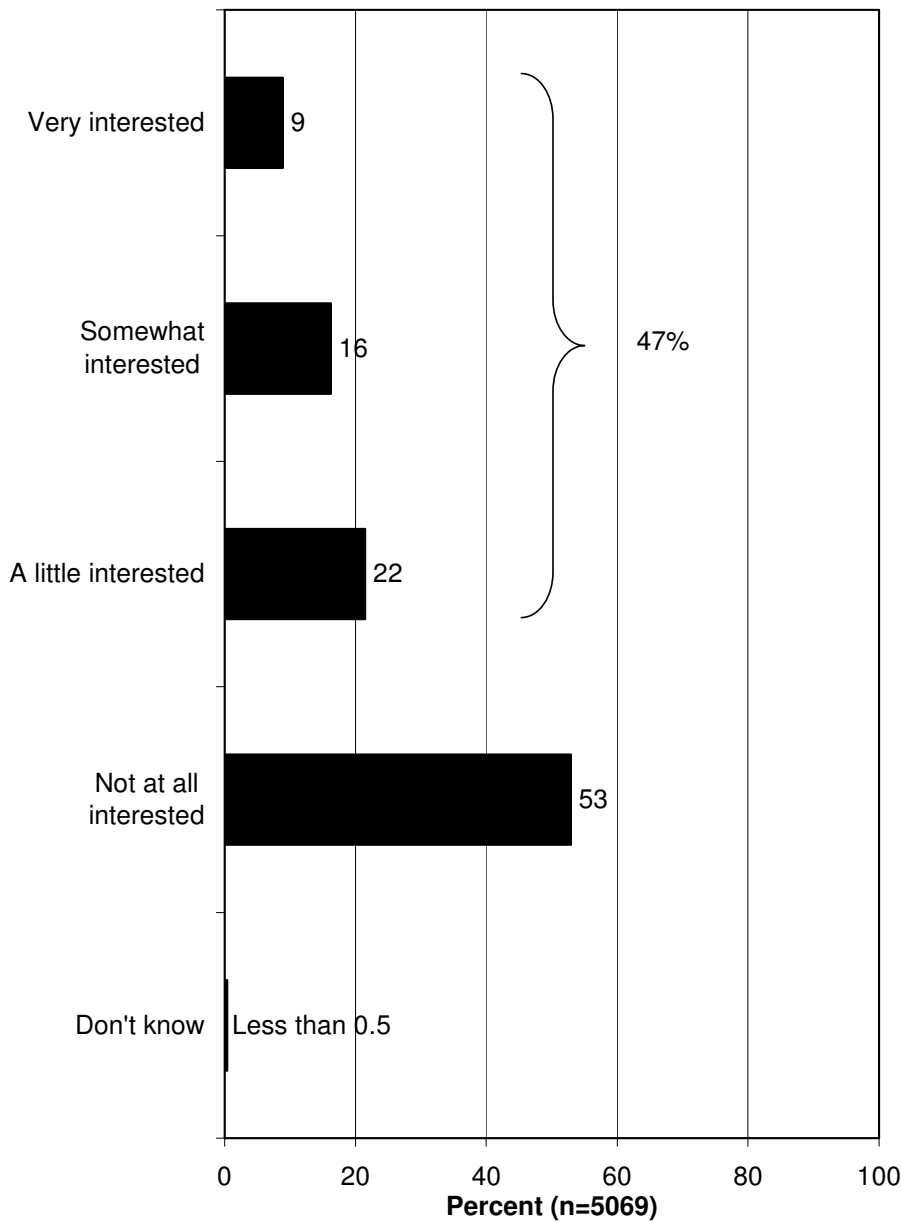
Percent of respondents who participated in target archery and bowhunting.



INTEREST IN ARCHERY AND BOWHUNTING

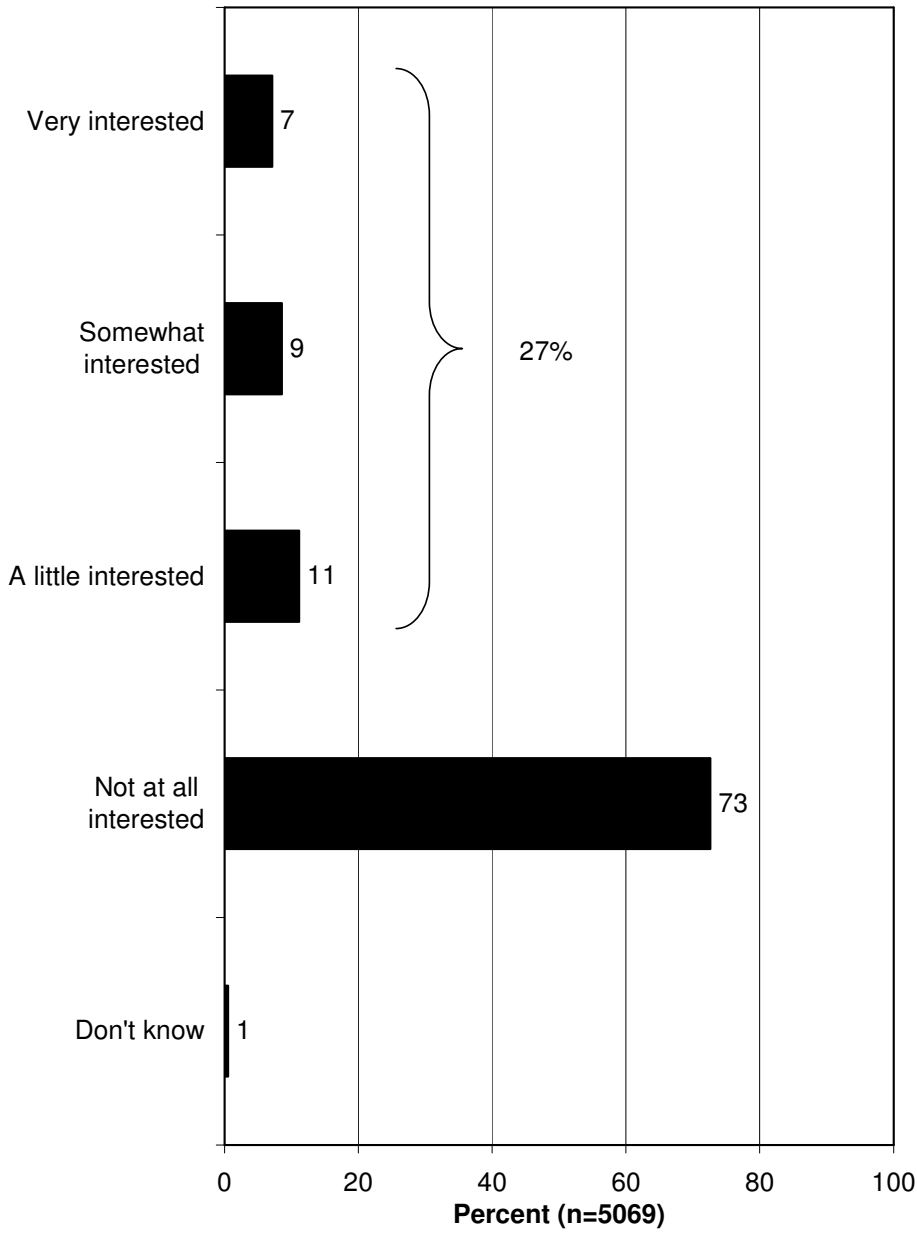
- A slight majority of respondents (53%) stated they were not at all interested in archery prior to the survey, with the remainder expressing some degree of interest: 22% were *a little* interested, 16% were *somewhat* interested, and 9% were *very* interested. (In this question archery refers to both target archery and bowhunting.)

Q41. Prior to this survey, how interested were you in archery in general?



About a quarter of respondents (27%) expressed some degree of interest in bowhunting prior to the survey; 73% were not at all interested.

Q47. Prior to this survey, how interested were you in bowhunting specifically?



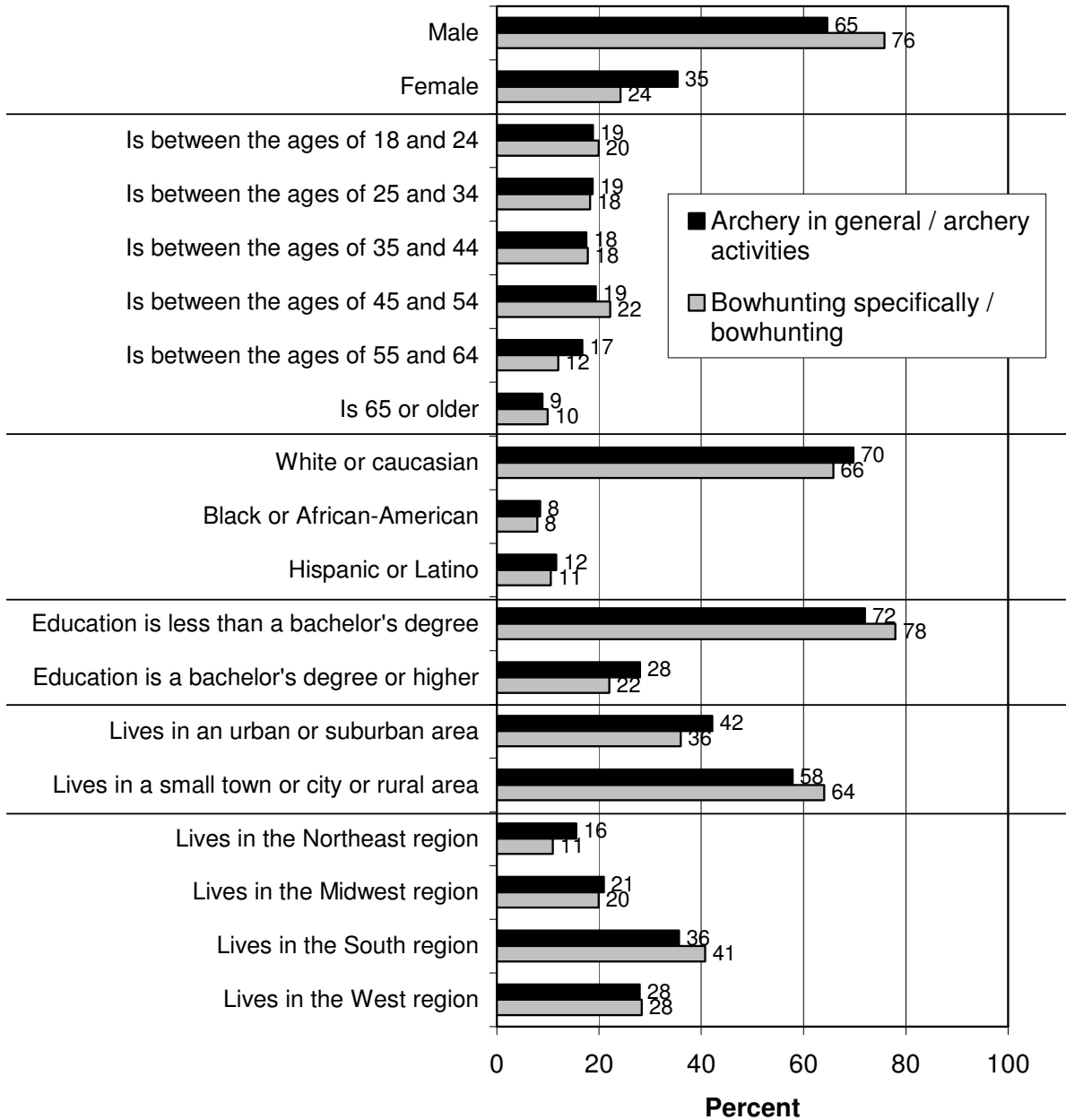
- The “profile” graph below shows the demographic groupings of those who stated they are very interested in archery in general and bowhunting specifically (the activities are shown side-by-side for comparison). For example, to interpret the graph, of those who stated they are very interested in *archery in general*, 72% are male and 28% are female, and of those who are very interested in *bowhunting specifically*, 84% are male and 16% are female.

Percent of those who were very interested in [archery in general / bowhunting] that are each of the following:



- The graph below shows a profile of those who were very interested in archery in general or bowhunting but did not participate in the respective activities since 2011.

Percent of those who were very interested in [archery in general / bowhunting] but had not participated in [archery activities / bowhunting] from 2011 to present that are each of the following:



ACTIVATION IN LEARNING ABOUT ARCHERY

- In an open-ended question, those who ever participated in or expressed any interest in archery were asked where they look for sources that will satisfy or support their interest in archery or bowhunting. The top response was the Internet in general or a specific search engine (36% stated this); this was distantly followed by stores (9%), print publications (books, magazines, or newspapers) (8%), and friends or family (7%).
- A small percentage (2%) of respondents have visited the Archery360 website or Facebook page.

TAKING ACTION TO PARTICIPATE IN ARCHERY

- Of all respondents, 14% have taken an archery or bowhunting class, lesson, or workshop. Of those who have taken a class, a majority (62%) took their most recent class before the age of 18.
- Nearly a third (31%) of those who ever participated in or expressed any interest in archery or bowhunting say that they are likely to take a class or workshop in the next 12 months: 16% say they are *a little* likely, 11% say they are *somewhat* likely, and 4% say they are *very* likely to take a class; two-thirds (68%) say they are *not at all* likely.

CHARACTERISTICS OF ARCHERY AND BOWHUNTING PARTICIPATION

Early Participation in Archery Activities

- Most archery participants (79%) had their first experience with the activity before adulthood. The mean starting age of participants is 15.2 years old and the median is 13 years old.

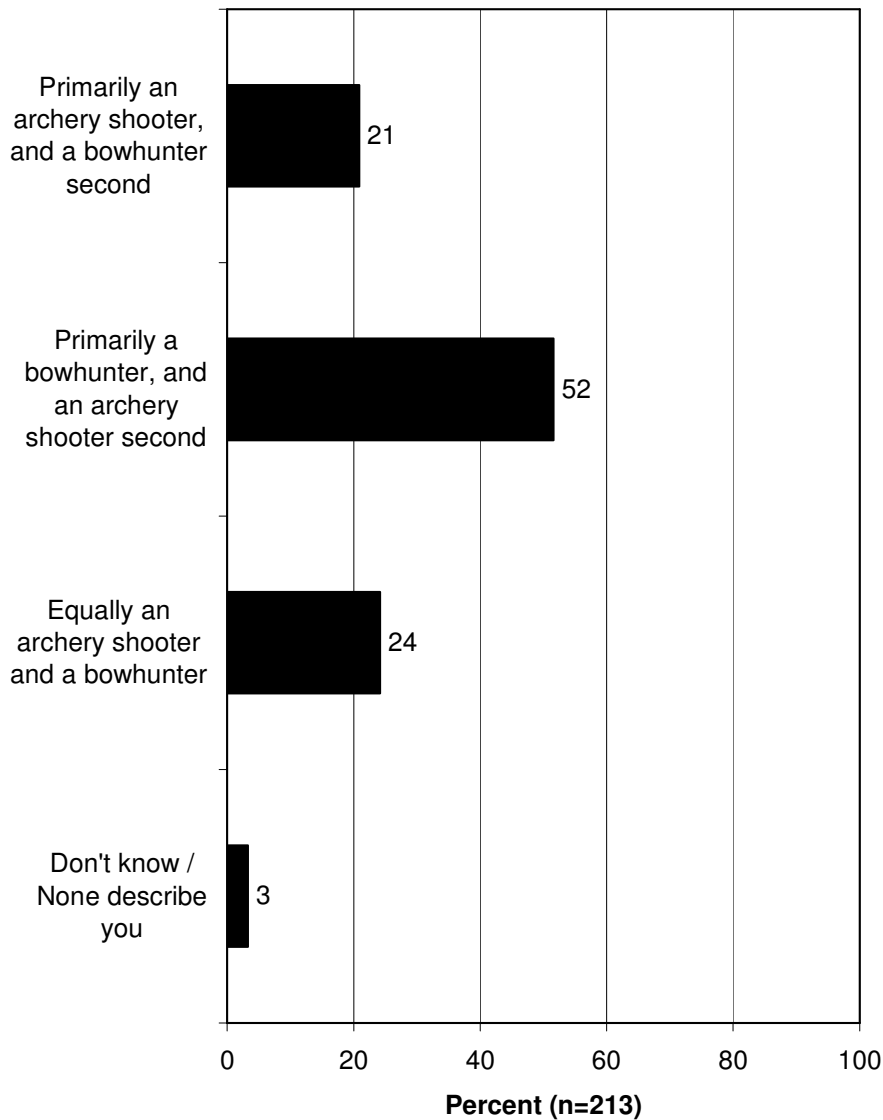
Early Participation in Bowhunting

- The starting age of bowhunting participants skews a bit older compared to that of target archery participants, although a majority of bowhunters (60%) had their first experience with the activity before adulthood. The mean starting age of bowhunting participants is 19.6 years old and the median is 16 years old.

Current Participation in Archery Activities and Bowhunting

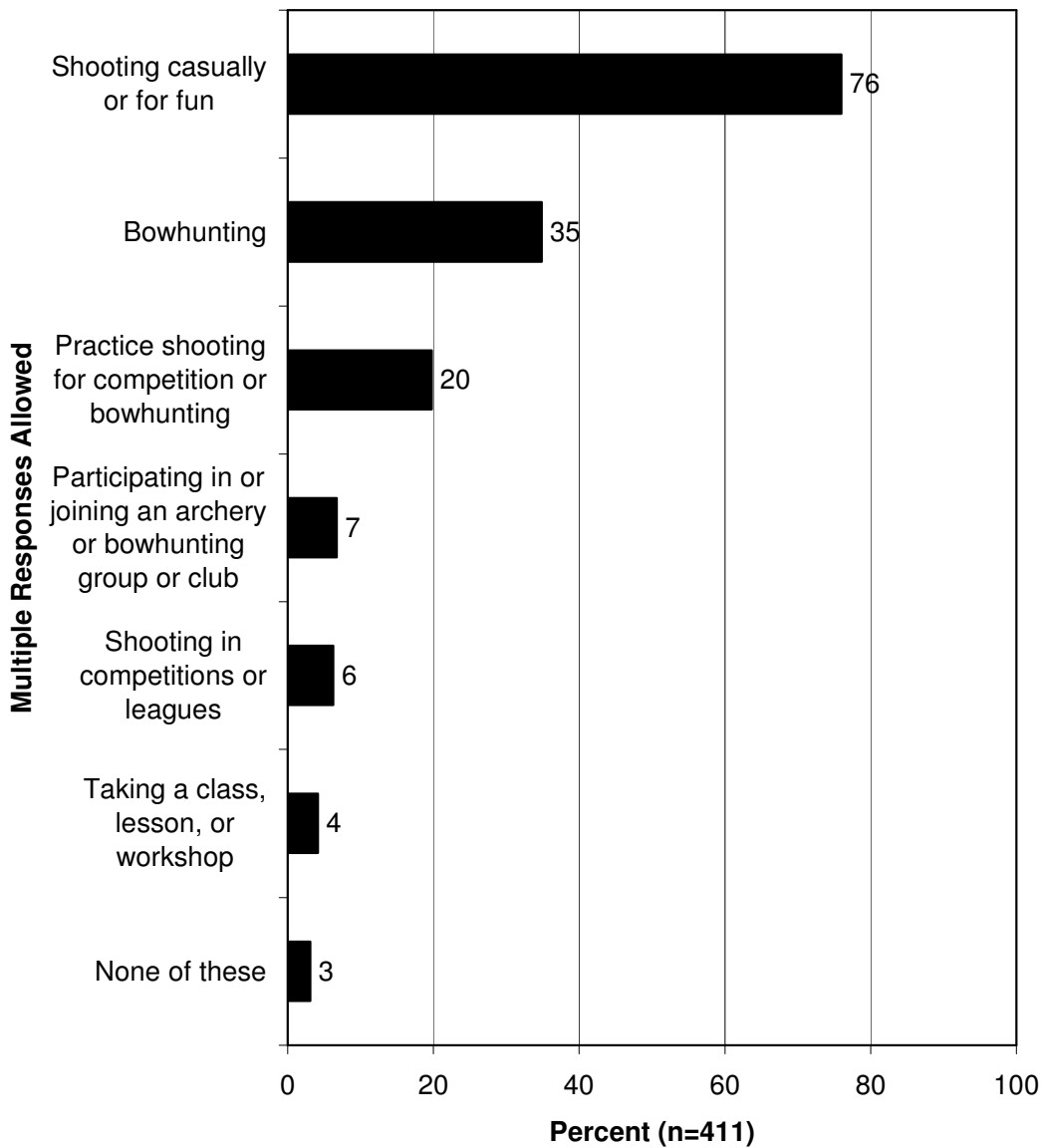
- Those who participated in both archery activities and bowhunting since 2011 were asked if they consider themselves primarily an archery shooter or a bowhunter. A majority (52%) consider themselves primarily a bowhunter, compared to 21% who consider themselves an archery shooter; 24% consider themselves to be both in equal measure.

Q73. Which of the following do you consider yourself regarding your archery and bowhunting activities? (Asked of those who participated in archery activities in 2011 or later and bowhunting in 2011 or later.)



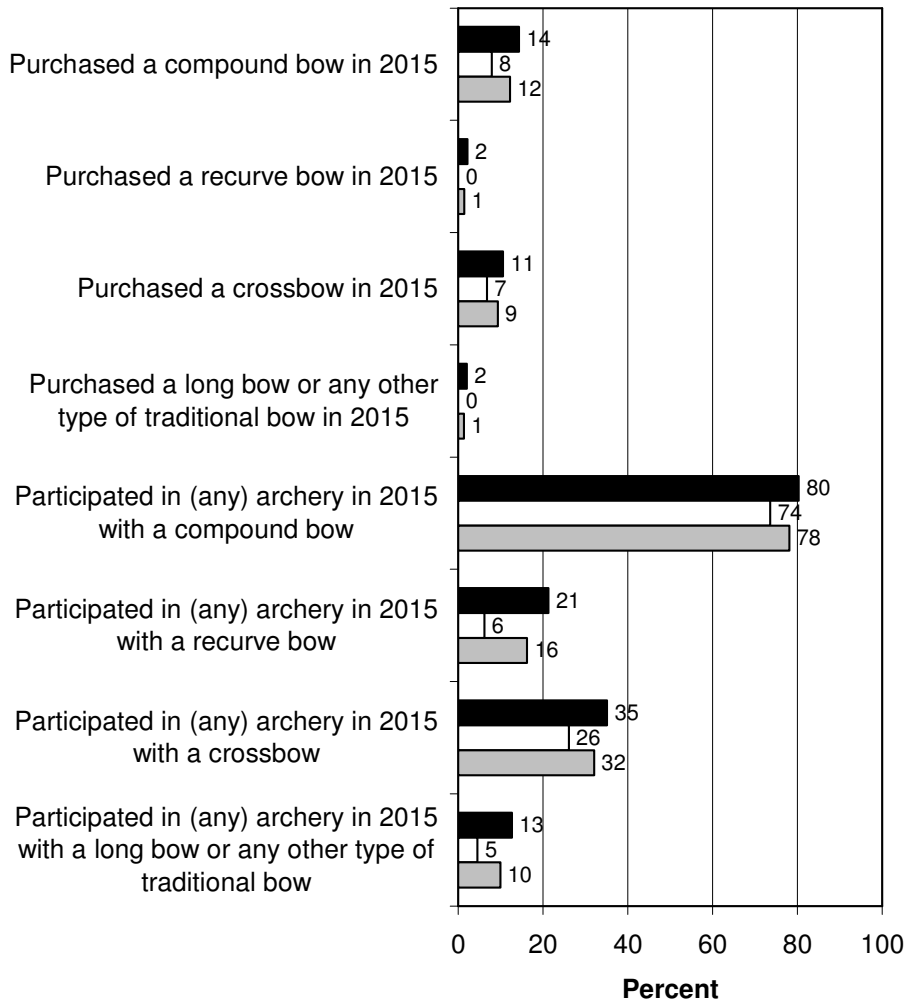
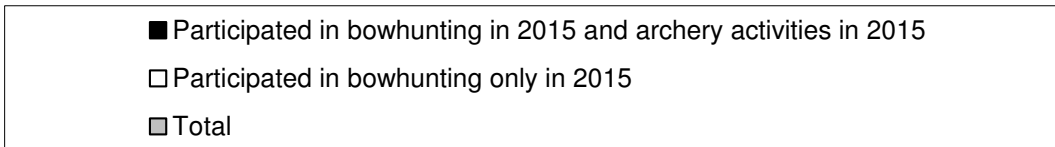
- Of those who participated in archery in 2015 (target or bowhunting), the most common archery activity by far was shooting casually or for fun (76% of archers did this), followed by bowhunting (35%) and practice shooting for competition or bowhunting (20%).

Q76. Thinking about 2015 only, in which of the following archery activities did you participate? (Asked of those who participated in archery in 2015.)



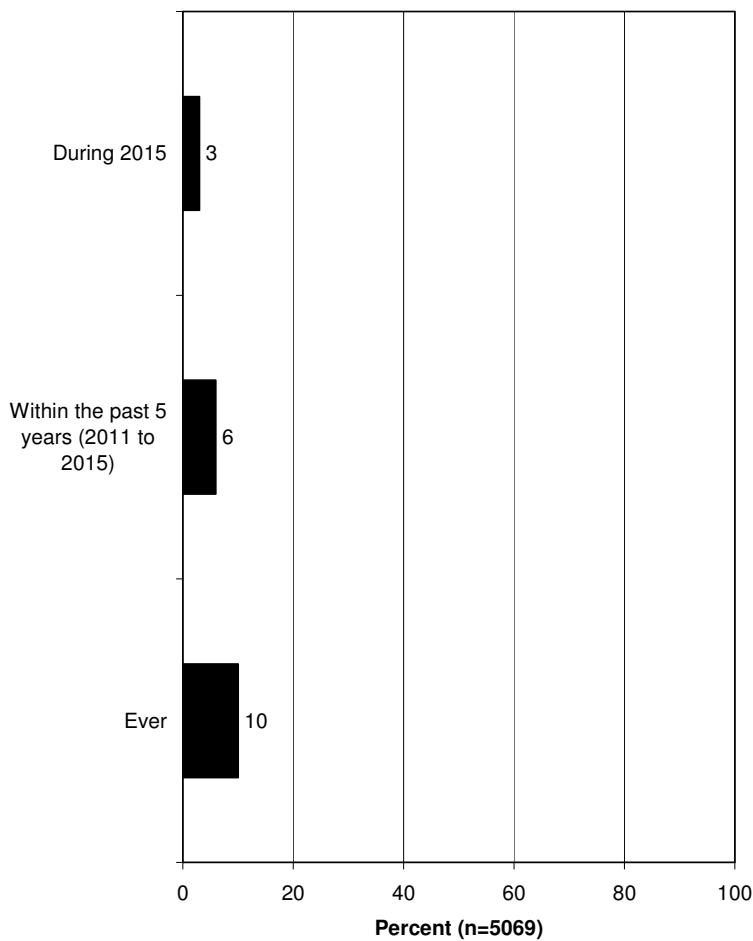
- A majority (62%) of 2015 archery participants (target or bowhunting) used a compound bow, distantly followed by nearly equal percentages who used a crossbow (22%), a recurve bow (21%), or a long bow or any other type of traditional bow (19%).
 - Of the bow types, bowhunters most often used and/or purchased a compound bow in 2015.

**Percent of respondents who purchased / used each of the following:
(Of those who participated in bowhunting in 2015.)**



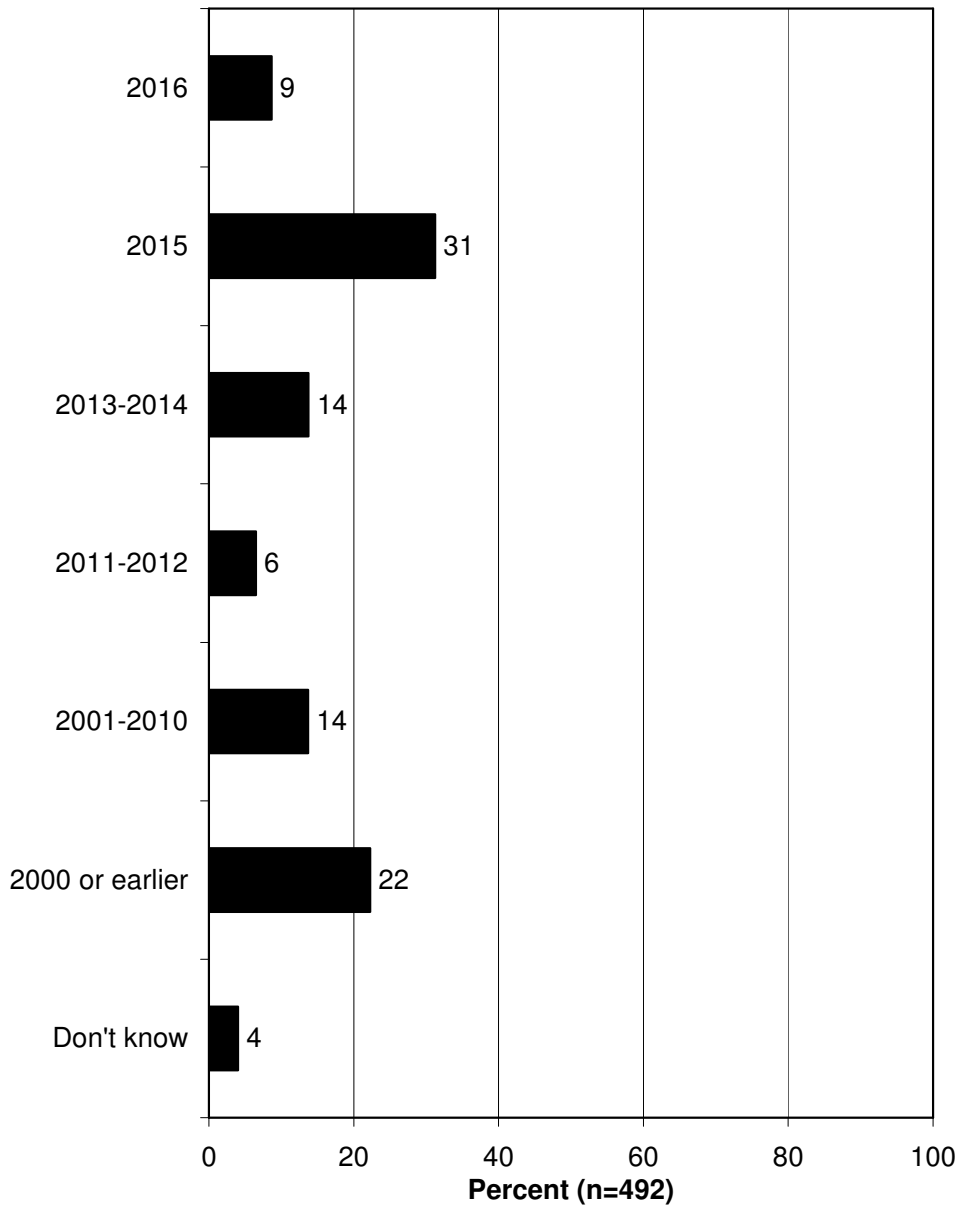
- Of those who participated in target archery activities in the past 5 years (i.e., since 2011), a plurality (34%) participated in 1 of the 5 years. There is a uniform distribution of those who participated in 2, 3, 4, or all 5 of the 5 years (14%-16% each).
- In general, bowhunters are more avid than target archery shooters. Of those who went bowhunting in the past 5 years, a quarter (25%) participated in all 5 years. In descending order of frequency, 22% went bowhunting in 4 of the 5 years, 14% went 3 years, 20% went 2 years, and 15% went 1 year.
- Bowhunting participants are shown below.
 - 3% went bowhunting in 2015.
 - 6% went bowhunting within the past 5 years (2011 to 2015).
 - 10% have ever gone bowhunting.

Percent who went bowhunting.



- Of those who ever went bowhunting, over a third last went bowhunting in either 2015 (31%) or 2016 (9%). Distributions are shown below.

Q34. When was the last time you went bowhunting? (Asked of those who have ever participated in bowhunting.)



- Those who went bowhunting in 2015 participated for a mean of 26.4 days and a median of 12 days.
- In an open-ended question, those who went bowhunting in 2011 or later but not in 2015 were asked why they did not bowhunt in 2015. A majority (52%) cited a lack of time; other top responses were health or age (11% stated this) and that they moved to a new state or are unfamiliar with the area (10%).

Expenditures

- Over half (55%) of target archery participants in 2015 spent money on equipment for archery activities. Of those who spent money, the mean amount spent was \$1,185, although this average was driven up by the higher spenders; the median amount spent was \$200. Over a third (39%) of participants spent money on travel to participate in archery activities. Of those who spent money, the mean amount spent was \$1,419, although this average was driven up by the higher spenders; the median amount spent on travel was \$75.
- A solid majority (72%) of bowhunters in 2015 spent money on bowhunting equipment. Of those who spent money, the mean amount was \$696 and the median was \$300; 16% spent \$1,000 or more. Also, a solid majority (73%) of bowhunters spent money on travel to go bowhunting. Of those who spent money, the mean amount was \$575 and the median was \$200; 14% spent \$1,000 or more.
- Of those who participated in 2015 in any form of archery, 24% purchased a bow for their archery or bowhunting activities (11% purchased a compound bow, the most common type).

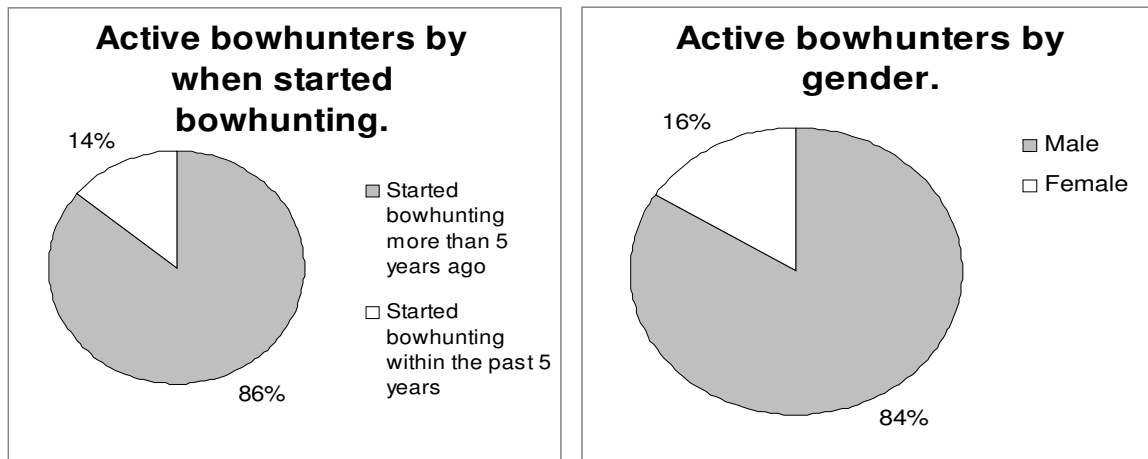
Continued Interest/Participation With and Without Support

- A small number (2%) of those who ever participated in or expressed any interest in archery are involved in an archery or bowhunting organization.

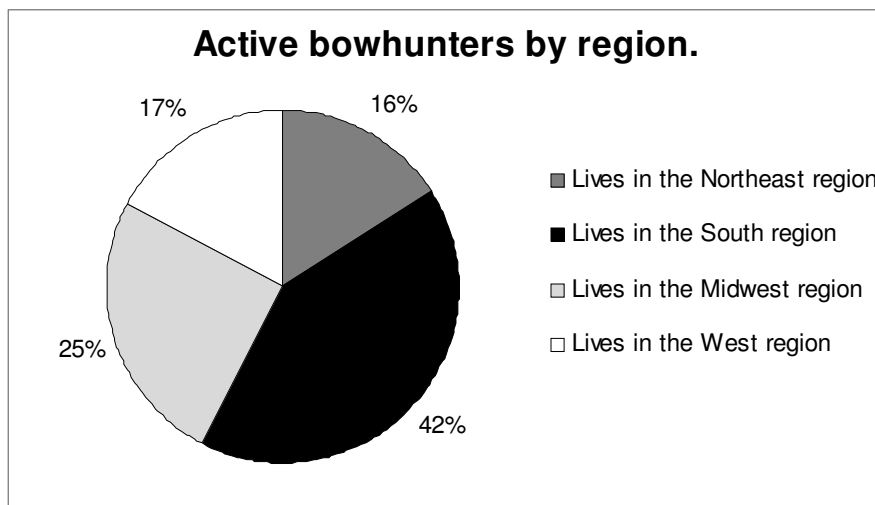
PROFILES OF ARCHERY AND BOWHUNTING PARTICIPANTS

The following section presents “profile” graphs, which show at a glance the profile of whichever group is being profiled. The following explains how these profile graphs are put together, as well as how they should be interpreted. This explanation will start with those who *bowhunted in the past 5 years* (i.e., since 2011). For convenience, they will be referred to as *active bowhunters* in this explanation.

To show the characteristics of active bowhunters, one could look at a series of pie graphs. For instance, active bowhunters could be categorized, based on how long ago they started bowhunting, into those who started more than 5 years ago and those who started within the past 5 years. As shown in the pie graph below left, 86% of active bowhunters started more than 5 years ago, while 14% started within the past 5 years. Likewise, in looking at gender, the analyses found that 84% of active bowhunters are male, and 16% are female, shown in the graph below right.



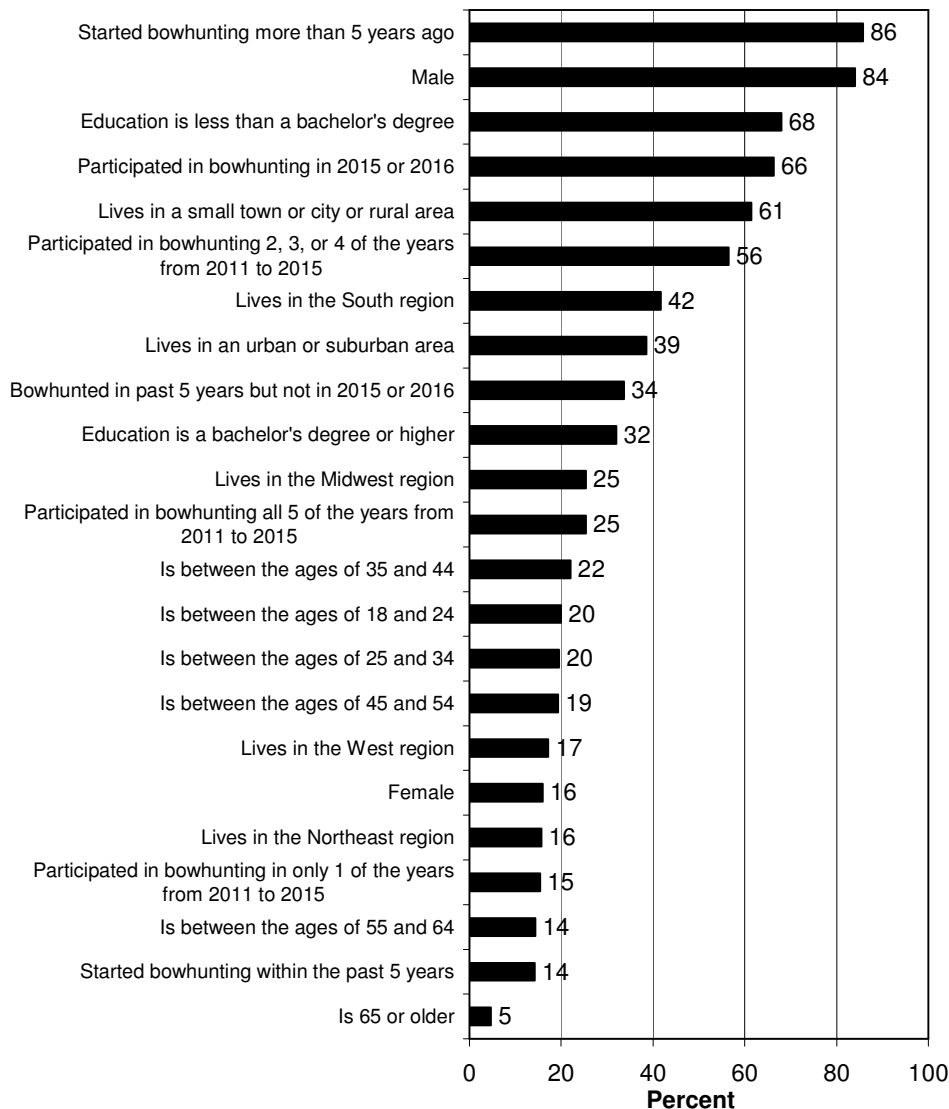
Other variables could be broken down the same way in a pie graph, such as region. Active bowhunters comprise 42% who live in the South region, 25% who live in the Midwest region, 17% who live in the West region, and 16% who live in the Northeast region (see pie graph below).



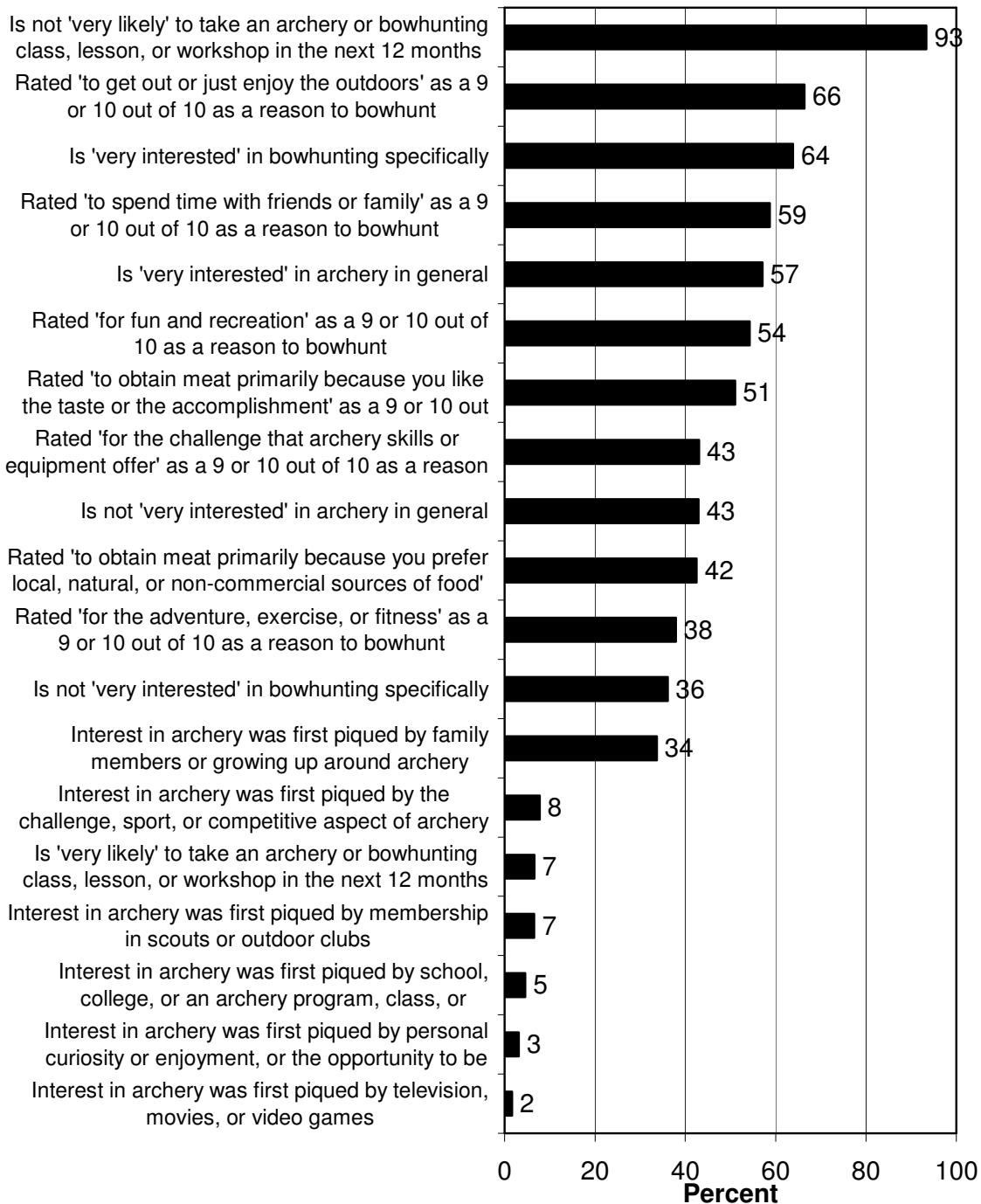
However, looking at all of those pie graphs becomes onerous. Instead, a profile graph is used that shows all the information from multiple pie graphs on one graph (see below). For instance, as indicated earlier, 86% of active bowhunters started more than 5 years ago, while 14% started within the past 5 years; additionally, 84% of active bowhunters are male and 16% are female. Each of these statistics is represented on the graph as a single bar; for instance, there is a bar showing that 84% of active bowhunters are male, and so on. Note that for each characteristic, such as gender, the bars making up that characteristic (for gender, the male and female bars) will sum to 100%.

Bowhunter Profile

Percent of those who bowhunted from 2011 to present that are each of the following:

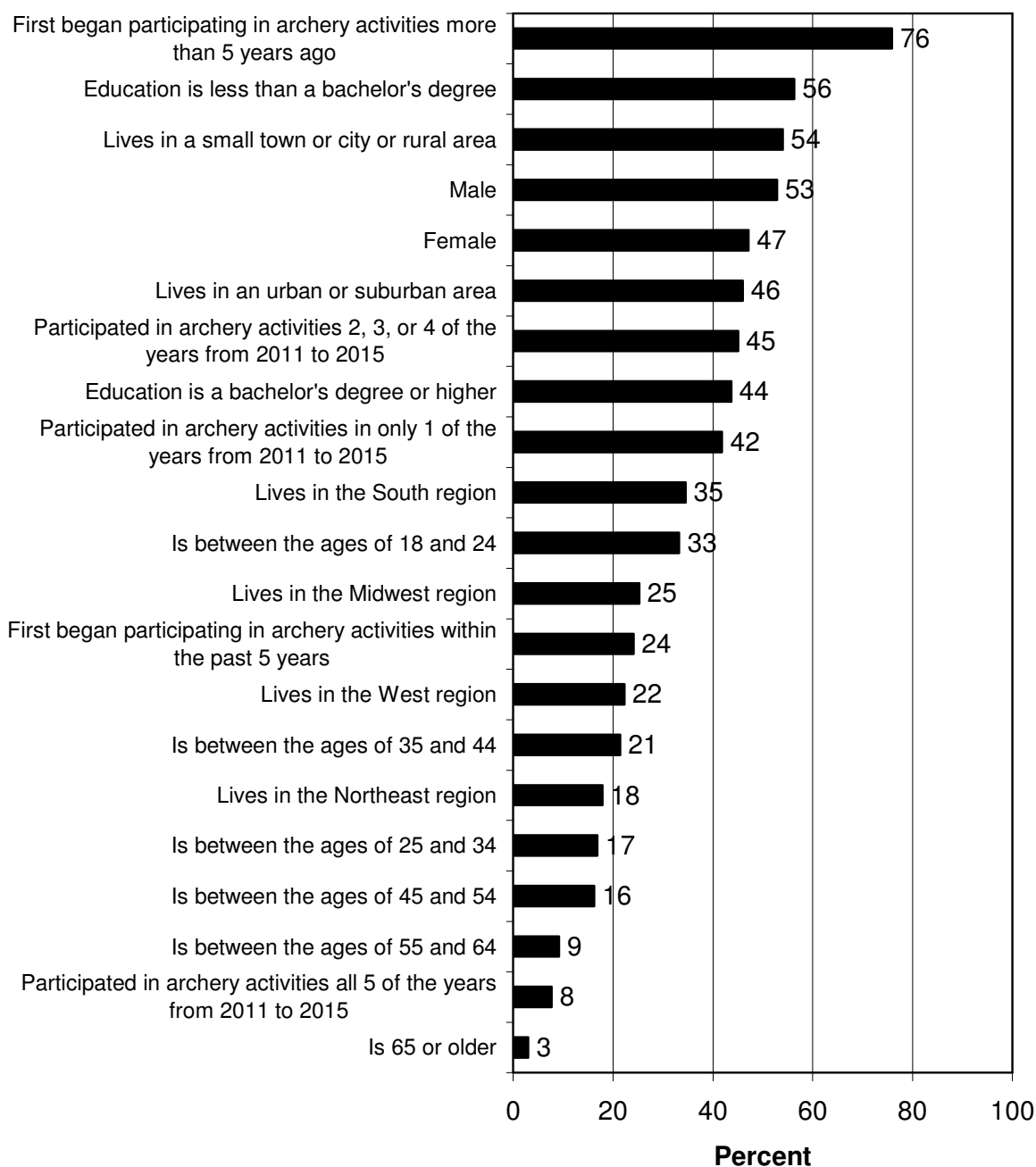


Percent of those who bowhunted from 2011 to present that are each of the following:



Archery Participant (Excluding Bowhunting) Profile

Percent of those who participated in archery activities from 2011 to present and did not participate in bowhunting from 2011 to present that are each of the following:



Percent of those who participated in archery activities from 2011 to present and did not participate in bowhunting from 2011 to present that are each of the following:

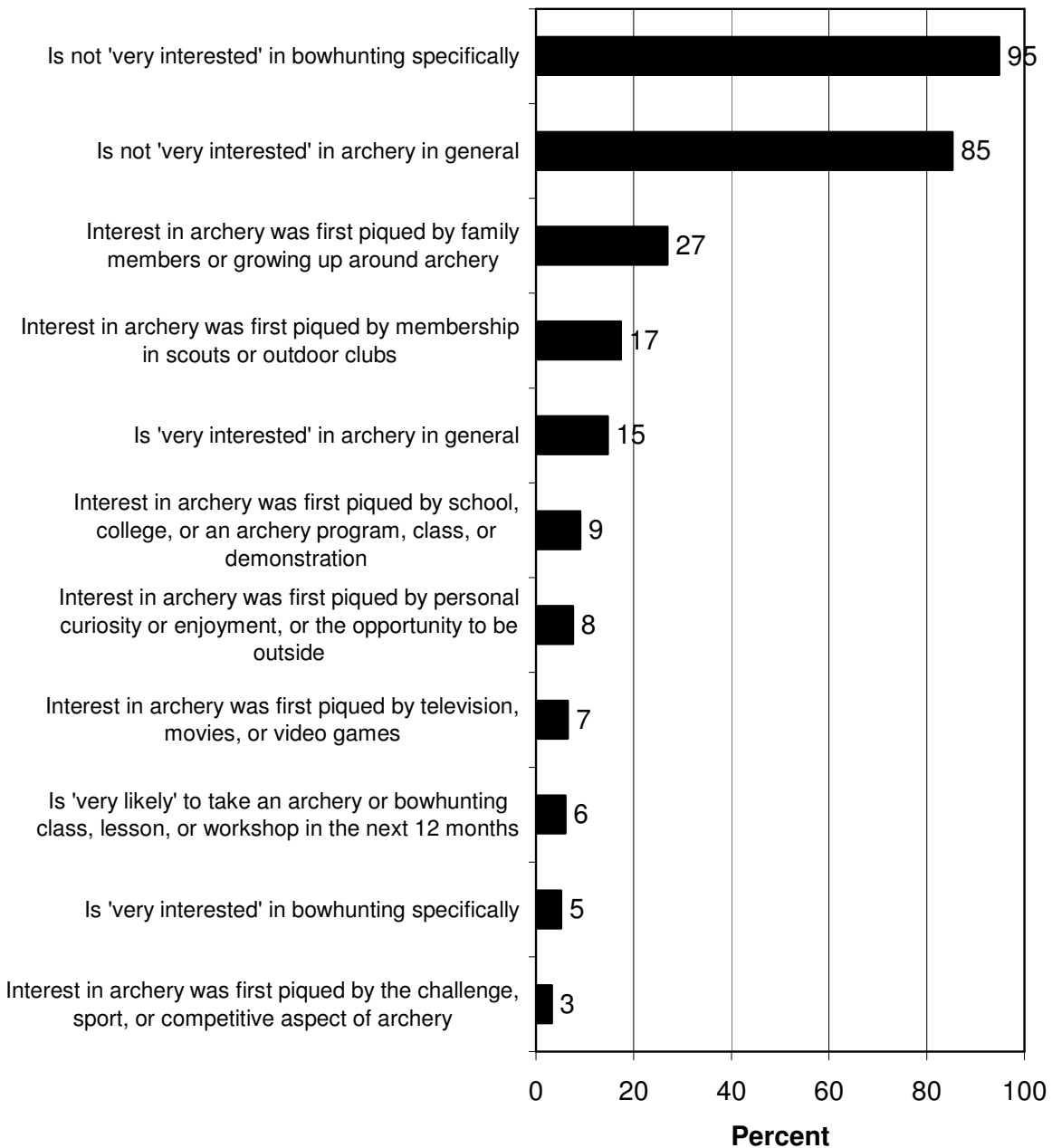


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INTRODUCTION AND METHODOLOGY

This study was conducted for the Archery Trade Association (ATA) to determine adult Americans' current levels of awareness, interest, and participation in archery. The study also follows up on previous similar studies to evaluate trends in Americans' archery participation (including bowhunting). The study entailed a scientific telephone survey, using a dual-frame sample that includes both cell phones and landlines, of randomly selected residents of the United States 18 years old and older. Specific aspects of the research methodology are discussed below.

USE OF TELEPHONES FOR THE SURVEY

For the survey, telephones were selected as the preferred sampling medium because of the almost universal ownership of telephones, particularly with the coverage provided by the dual-frame sample that includes both landlines and cell phones). Additionally, telephone surveys, relative to mail or Internet surveys, allow for more scientific sampling and data collection, provide higher quality data, obtain higher response rates, are more timely, and are more cost-effective. Telephone surveys also have fewer negative effects on the environment than do mail surveys because of reduced use of paper and reduced energy consumption for delivering and returning the questionnaires.

QUESTIONNAIRE DESIGN

The telephone survey questionnaire was developed cooperatively by Responsive Management and the ATA, based on the research team's familiarity with archery and bowhunting activities, as well as the previous similar surveys conducted for the ATA. Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey.

The survey used a "ruse" line of questioning at the beginning of the survey. This was done because a major objective of the survey was to determine national and regional participation rates in archery, and the survey was worded to avoid bias that would arise from the tendency for those who do *not* participate in archery to refuse to participate in a survey about that activity. Therefore, the survey started by asking about some general activities, mixing archery and hunting in with other activities.

Otherwise, the questionnaire was designed to emulate the archery recruitment progression as closely as possible. The ATA's experience with the Archery360 platform over the past 3 years suggests that recruitment starts with awareness, proceeds to interest, and reaches the point of activation:

Awareness. An individual learns that archery exists or becomes aware that archery is a sport or activity. This is the simplest and earliest stage of people entering into a position where the ATA could market to them or otherwise appeal to them to progress beyond awareness. The population of people who are aware of archery is the biggest pool of people from whom the ATA could potentially recruit into archery.

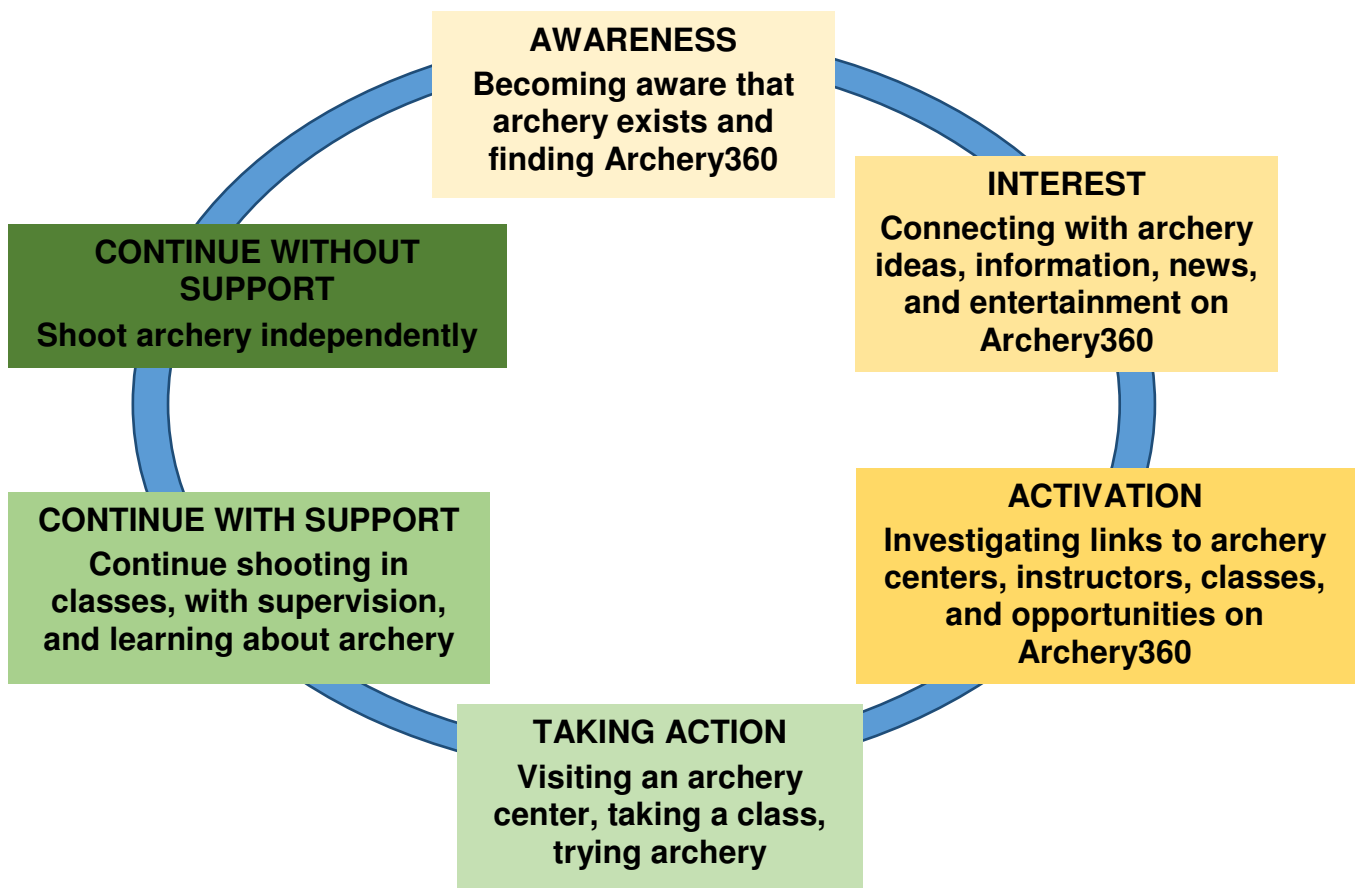
Interest. An individual progresses from awareness about archery to someone who has an interest in archery. That interest can take on many forms: interest in the equipment, interest in movies or TV shows that feature archery shooting, interest in archery competitions such as

the Olympics, interest in archery as a form of warfare, interest in archery as a tool for hunting, etc. Knowing what type of interest a person has in archery can help the ATA determine how to market to or help the individual continue to progress along the recruitment process. The population of people who have an interest in archery would be a subset of those who are aware of archery, but it would still be larger than the population of people who have taken action and participated in archery, even if it was only a single trial.

Activation. This is the step where people research archery opportunities available to them, which can include searching online or through other media to learn about archery centers, instructors, classes, shooting ranges, or any archery or bowhunting organizations in their vicinity.

That progression leads to the point where people actually participate in archery, which is where the archery community traditionally has focused its entire attention. Once the ATA finds people who have participated in archery, the options for helping them find the support to continue to participate are many and varied, but at least it is known they have taken that important first step. This population of people is the one the ATA has been using as the indicator of the size of the total market, which can then be broken down into varying degrees of avidity.

The image below is a depiction of the recruitment progression, which is presented as a cycle because people can drop out or reenter at any stage. Clockwise from the top, the first three boxes show where the Archery360 platform operates with the intention of driving people from awareness to interest to activation. The last three boxes show where the ATA supports archery activity through its work with programs, instructors, leaders, local ranges, etc. Not until a person continues shooting archery without support is he or she considered an “archer” or “bowhunter.”



SURVEY SAMPLE

The methodology used a dual-frame sampling plan, which consisted of a random sample of landline telephones and a random sample of cell phone numbers. The final proportions of landline and cell telephone respondents were 43.2% from landline telephone records and 56.8% from cell phone number records. All respondents were categorized according to their phone usage as either wireless-only, wireless-mostly, dual-use, landline mostly, or landline-only, following the methodology and operational definitions used in the National Health Interview Survey, and then the categories were weighted by their known proportions to counteract any possible sampling bias.

The sampling plan also entailed obtaining a target number of interviews in each state so that the number of respondents in each state in the data would be roughly proportional to each state's population within the United States population as a whole. The weighting used in the final data included Census Region categories to minimize any possible sampling bias due to the modest occurrences of over- or under-sampling within each state.

The sample was obtained from Survey Sampling International and Marketing Systems Group, companies specializing in providing scientifically valid telephone survey samples. The overall weighted data are assumed to be representative of all Americans 18 years old and older.

TELEPHONE INTERVIEWING FACILITIES

Responsive Management maintains its own in-house telephone interviewing facilities, which allows for rigorous quality control over the interviews and data collection. These facilities are staffed by interviewers with experience conducting computer-assisted telephone interviews on the subjects of outdoor recreation and natural resources.

To ensure the integrity of the telephone survey data, Responsive Management has interviewers who have been trained according to the standards established by the Council of American Survey Research Organizations. Methods of instruction included lecture and role-playing. The Survey Center Managers and other professional staff conducted a project briefing with the interviewers prior to the administration of this survey. Interviewers were instructed on type of study, study goals and objectives, handling of survey questions, interview length, termination points and qualifiers for participation, interviewer instructions within the survey questionnaire, reading of the survey questions, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey questionnaire.

INTERVIEWING DATES AND TIMES

Calling times for surveys are Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time. A five-callback design was used to maintain the representativeness of the sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all to participate. When a respondent could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day. The survey was conducted in April 2016. Responsive Management obtained 5,069 completed interviews overall.

TELEPHONE SURVEY DATA COLLECTION AND QUALITY CONTROL

Responsive Management uses Questionnaire Programming Language (QPL) software for its data collection. The survey data were entered into the computer as each interview was being conducted, eliminating manual data entry after the completion of the survey and the concomitant data entry errors that may occur with manual data entry. The survey questionnaire was programmed so that QPL branched, coded, and substituted phrases in the survey based on previous responses to ensure the integrity and consistency of the data collection.

The Survey Center Managers and statisticians monitored the data collection, including monitoring of the actual telephone interviews without the interviewers' knowledge, to evaluate the performance of each interviewer and ensure the integrity of the data. The survey questionnaire itself contains error checkers and computation statements to ensure quality and consistent data. After the surveys were obtained by the interviewers, the Survey Center Managers and/or statisticians checked each completed survey to ensure clarity and completeness.

The sample size on some questions is less than the total sample size of 5,069 because the survey asked some questions only of specific respondents in the survey. In particular, this was done when a follow-up question did not apply to some respondents. For instance, only those who participated in bowhunting were asked follow-up questions about bowhunting.

DATA ANALYSIS

The analysis of data was performed using Statistical Package for the Social Sciences as well as proprietary software developed by Responsive Management. The results were weighted by demographic and geographic characteristics so that the sample was representative of residents of the United States (18 years old and older) as a whole. Because of the use of post-stratification weights upon the data, AM Statistical Software was used for all inferential analyses due to its more appropriate handling of standard errors for complex samples (Hahs-Vaughn, 2005).

The analysis included a breakdown of all archery participants into three subgroups:

- Those who participate in archery but not bowhunting (hereinafter referred to as *target archery only participants*).
- Those who participate in both archery and bowhunting (hereinafter referred to as *target archery and bowhunting participants*).
- Those who participate in bowhunting but not archery outside of bowhunting (hereinafter referred to as *bowhunting only participants*).

(On several questions, the latter two categories were combined to allow for the binary categories of *target archery only participants* and *bowhunters*.)

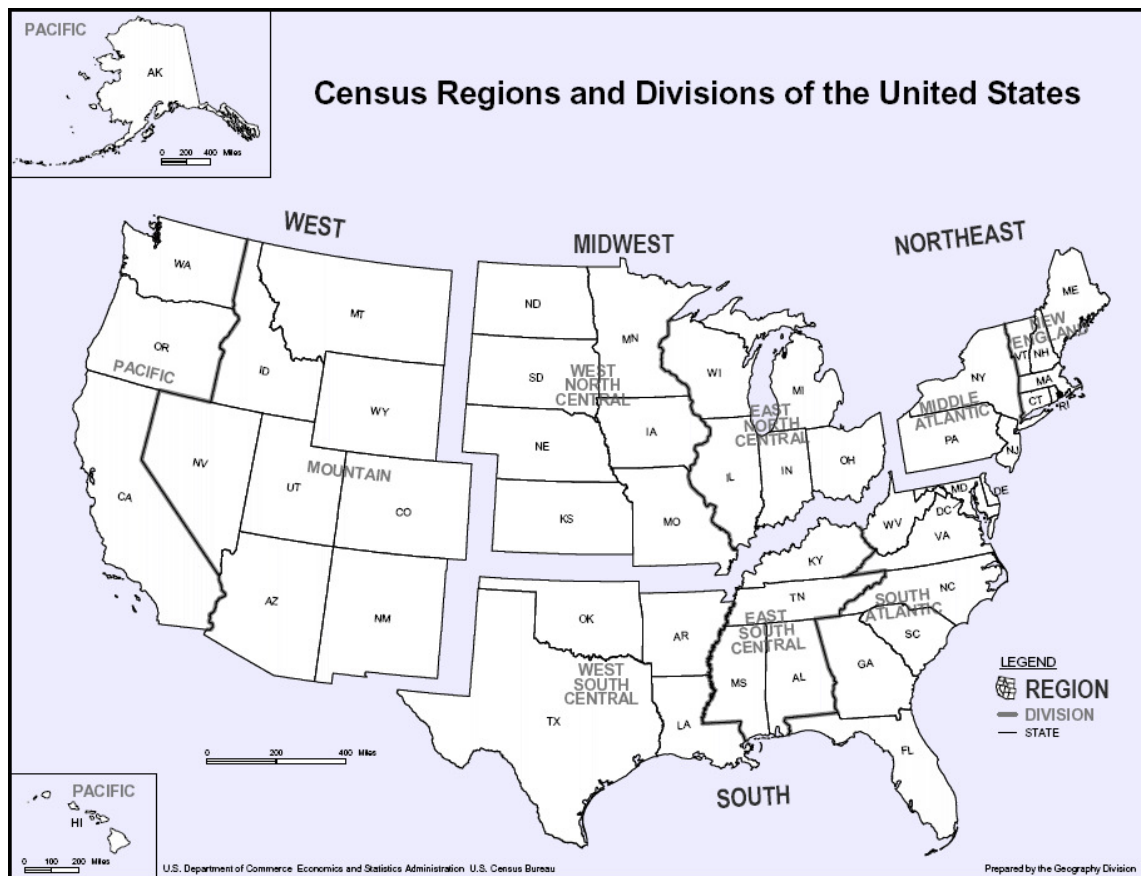
Also, archery participation was analyzed within the following timeframes:

- In 2015 (or 2015 to the present, as the survey was conducted in April 2016)
- In the past 5 years (since 2011)
- Ever

The data analyses and results in the report are based on a nationwide sample of 5,069 randomly selected United States residents, 18 years old and older, 1,705 of whom participated in archery. The sample size on individual graphs and on individual groups or regions within those graphs varies based on geographic and demographic weighting, as well as survey skip-outs when questions do not apply to certain respondents. Because of the weighting, it would not be statistically valid to simply take the number of respondents in the survey who participated in archery and divide by the entire sample (i.e., $1,705 \div 5,069$) to arrive at the rate of participation. Only after the weights were applied to the sample was the rate of participation in archery determined.

On questions that asked respondents to provide a number (e.g., number of days), the graph shows ranges of numbers rather than the precise numbers. Nonetheless, in the survey each respondent provided a precise number, and the dataset includes this precise number, even if the graph only shows ranges of numbers. Note that the calculation of means and medians used the precise numbers that the respondents provided.

In the data analysis, the states were also grouped into regions to aid in comparison and analysis. Four regions were used that followed U.S. Census Bureau standards. The map below from the U.S. Census Bureau website shows each region:



SAMPLING ERROR

Throughout this report, findings of the telephone survey are reported at a 95% confidence interval. For the entire sample of shooters, the sampling error is at most plus or minus approximately 1.62 percentage points. This means that if the survey were conducted 100 times on different samples that were selected in the same way, the findings of 95 out of the 100 surveys would fall within plus or minus 1.62 percentage points of each other. Sampling error was calculated as the survey's maximum standard error multiplied by 1.96, which itself was calculated using the formula described below and accounts for the use of fractional weights in the analysis. A finite population correction was applied based on an estimated population size of 240 million adult residents in the United States.

Sampling Error Equation

$$SE(\bar{X}) = \sqrt{p(1-p) \sum_{i=1}^n \omega_i^2}$$

This formula uses data points (weights) from every case in the dataset.

INTERNET SURVEY

Responsive Management also conducted a completely independent Google consumer survey, in which users can opt to take a short online survey prior to viewing certain premium content on the Internet. The online survey consisted of a few questions that were identical to or similar to questions in the telephone survey. The Google survey platform has certain limitations: respondents cannot go back to change answers entered accidentally, the survey does not offer branching logic, questions have a 175-character limit, and the survey allows only six response options on “check all that apply” questions. In addition, obviously, the sample is limited to people with Internet access and who chance upon the survey in the first place. Despite these caveats, the Google survey results provide an interesting comparison to the telephone survey results, as discussed in the section titled, “Internet Survey Results and Comparisons.”

Responsive Management collected 4,164 online survey results (note that these results are independent of the 5,069 completed questionnaires from the telephone survey).

ADDITIONAL INFORMATION ABOUT THE PRESENTATION OF RESULTS IN THE REPORT

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

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

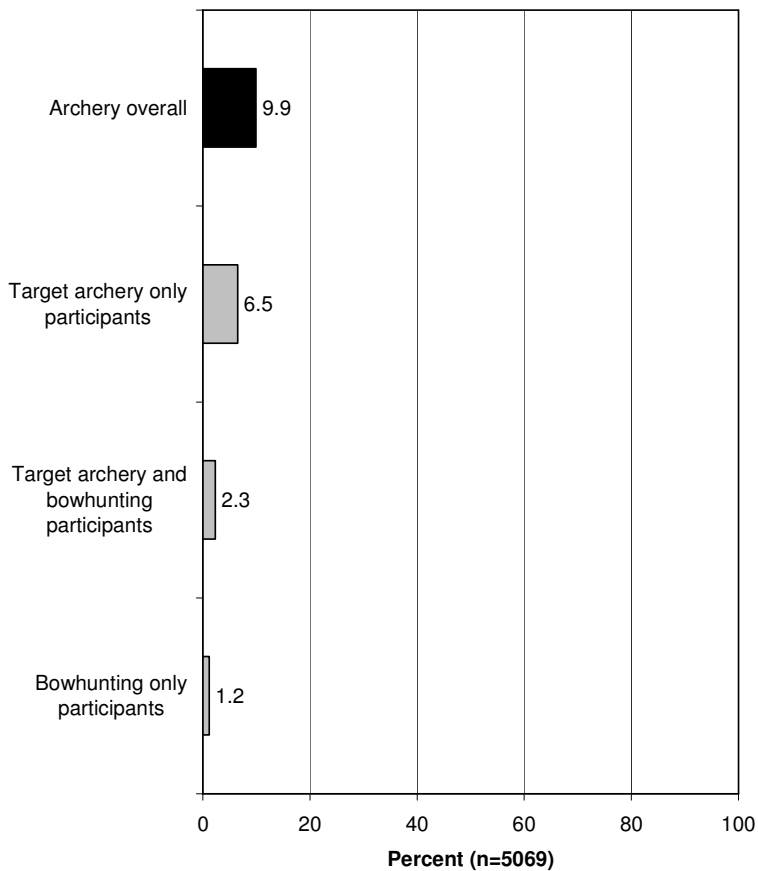
Some graphs show an average, either the mean or median (or both). The mean is simply the sum of all numbers divided by the number of respondents. Because outliers (extremely high or low numbers relative to most of the other responses) may skew the mean, the median may be shown. The median is the number at which half the sample is above and the other half is below. In other words, a median of 30 days means that half the sample gave an answer of more than 30 days and the other half gave an answer of less than 30 days.

Most graphs show results rounded to the nearest integer; however, all data are stored in decimal format, and all calculations are performed on unrounded numbers. For this reason, some results may not sum to exactly 100% because of this rounding on the graphs. Additionally, rounding may cause apparent discrepancies of 1 percentage point between the graphs and the reported results of combined responses (e.g., when “very likely” and “somewhat likely” are summed to determine the total percentage of likelihood).

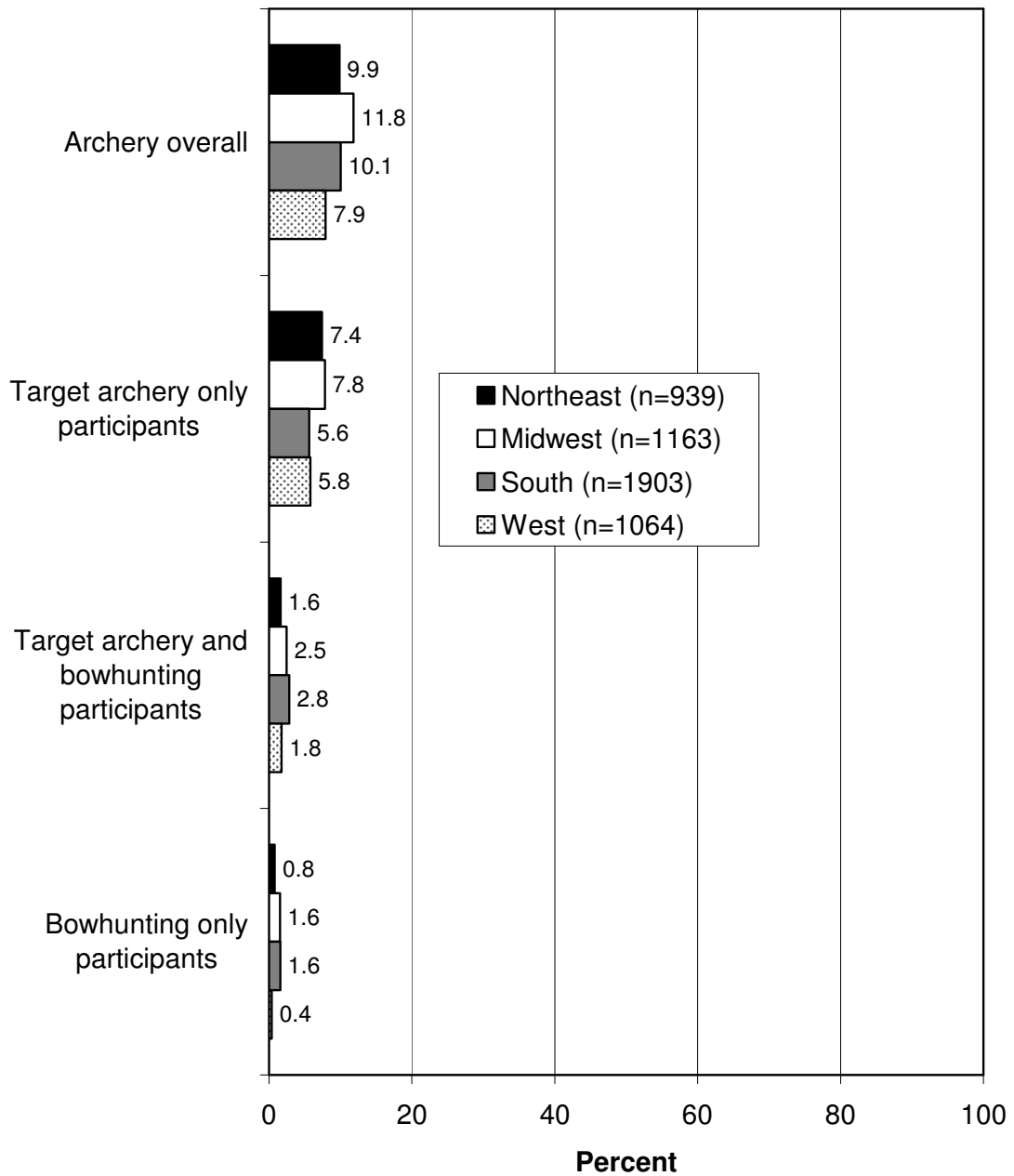
PARTICIPATION IN ARCHERY

- Among adult United States residents as a whole, 9.9% participate in archery. The total archery participation rate of 9.9% includes 6.5% of all residents who are *target archery only participants*, 2.3% who are *target archery and bowhunting participants*, and 1.2% who are *bowhunting only participants*. (See the section of the report titled “Data Analysis” for definitions of these three subgroups.)
 - This rate provides an estimate of 23,836,399 adult archery participants for 2015 in the United States (in a range at the 95% confidence interval of 21,423,402 to 26,249,396).
 - The population estimates for target archery participants is 21,046,563 and for bowhunters is 8,308,834.
 - A regional comparison is also shown. As in 2012 and 2014, the Midwest has the highest rate of archery participation overall.

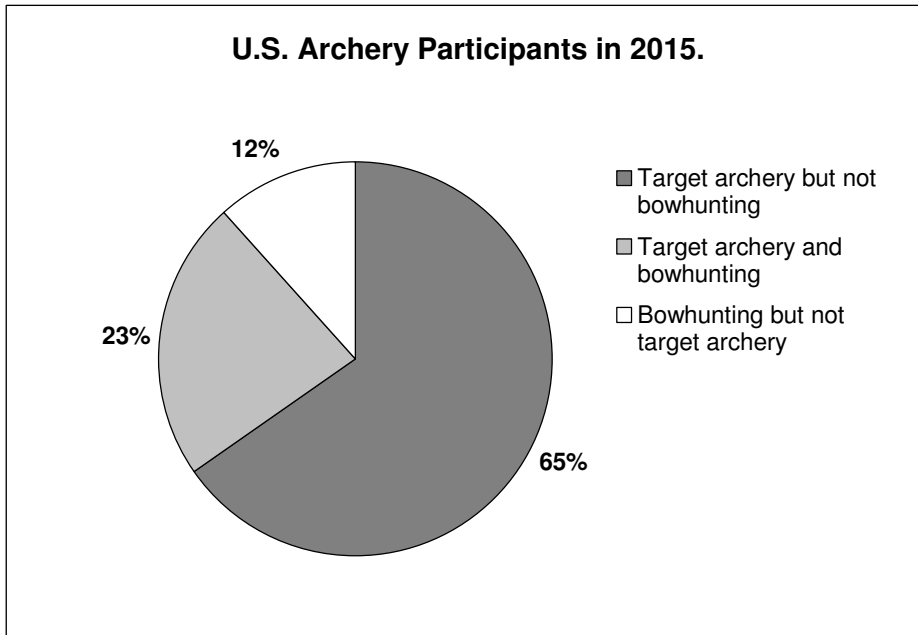
Percent of respondents who participated in archery in 2015 (and the subgroups making up all archery participants).



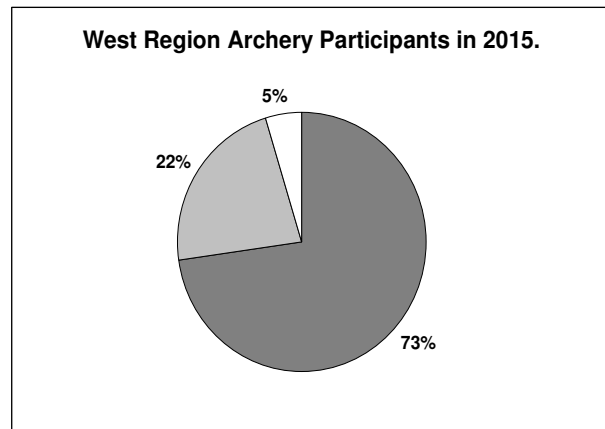
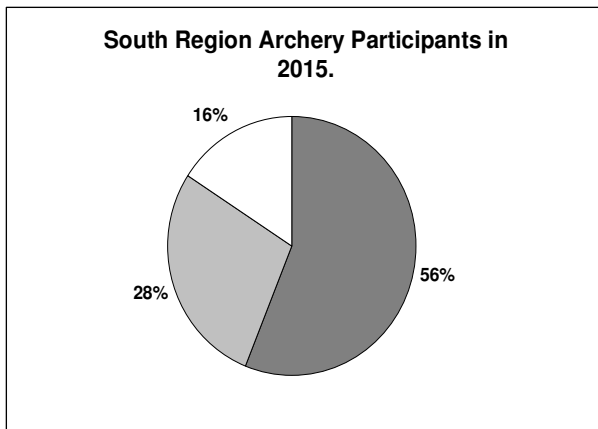
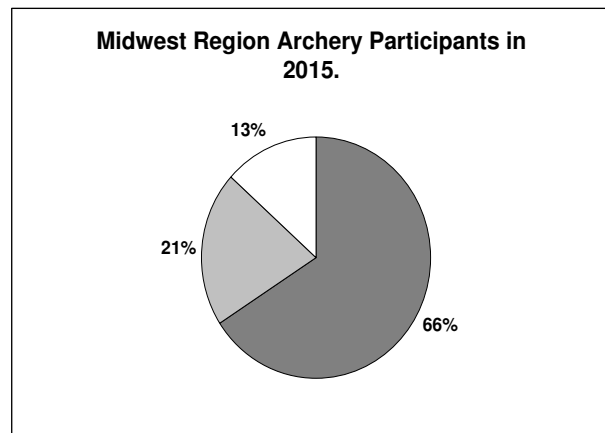
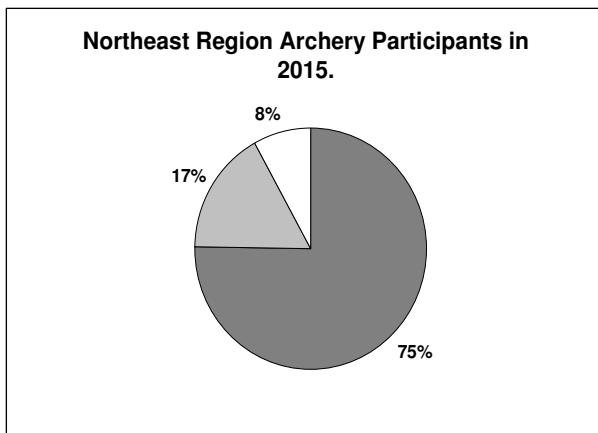
Percent of respondents who participated in archery in 2015 (and the subgroups making up all archery participants).



- The data can also be shown in a pie graph.
 - A little more than a third of all archery participants in the U.S. (35%) bowhunt.



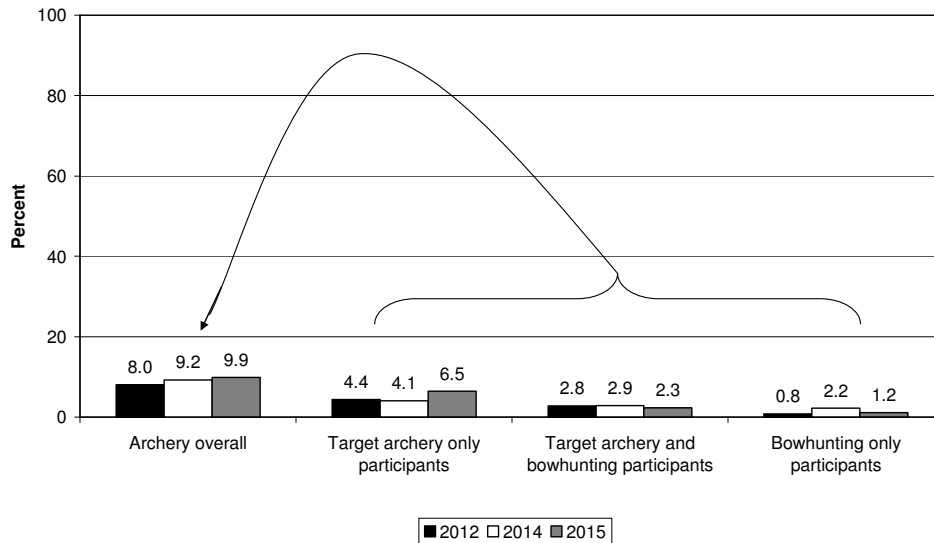
- The results are shown regionally; the South Region is markedly different from the other regions, with a greater percentage of bowhunters.



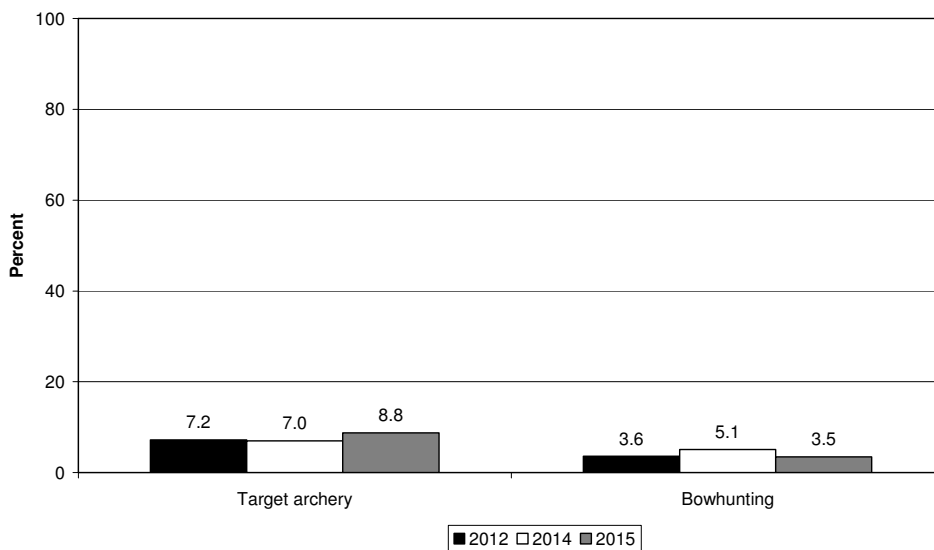
Graphs show the trends in archery participation overall and regionally.

- The graphs on this page show trends in participation overall, with regional trends shown on the following page. The second graph below shows an increase in target archery participation. Bowhunting decreased in 2015 compared to 2014 but is nearly identical to the 2012 percentage.

Percent of respondents who participated in archery (and the subgroups making up all archery participants).

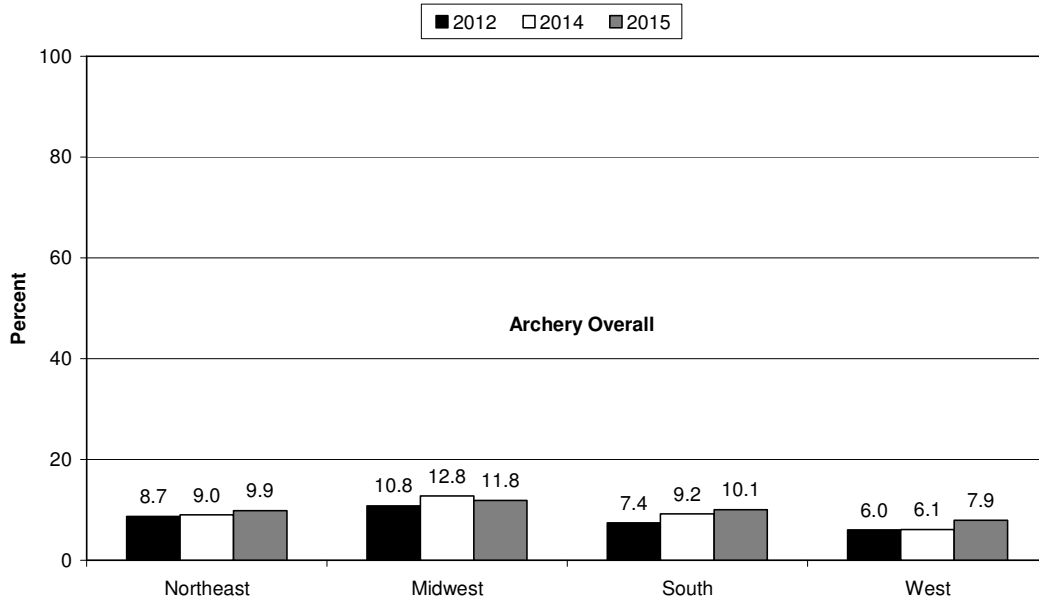


Percent of respondents who participated in target archery and bowhunting.

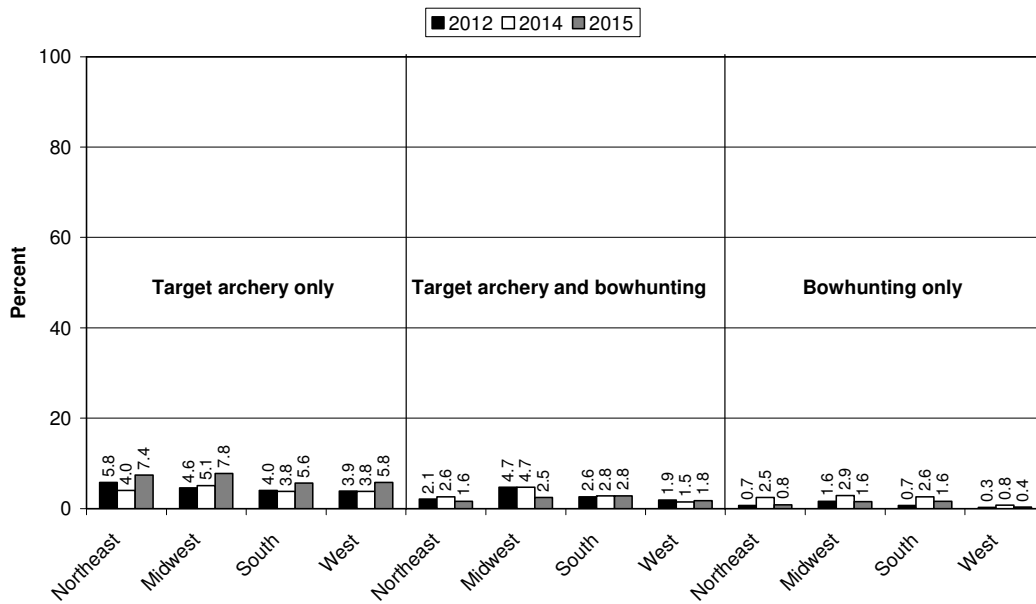


- An increase in target archery only participation can be observed across all 4 regions from 2012 to 2015.

Percent of respondents who participated in archery.

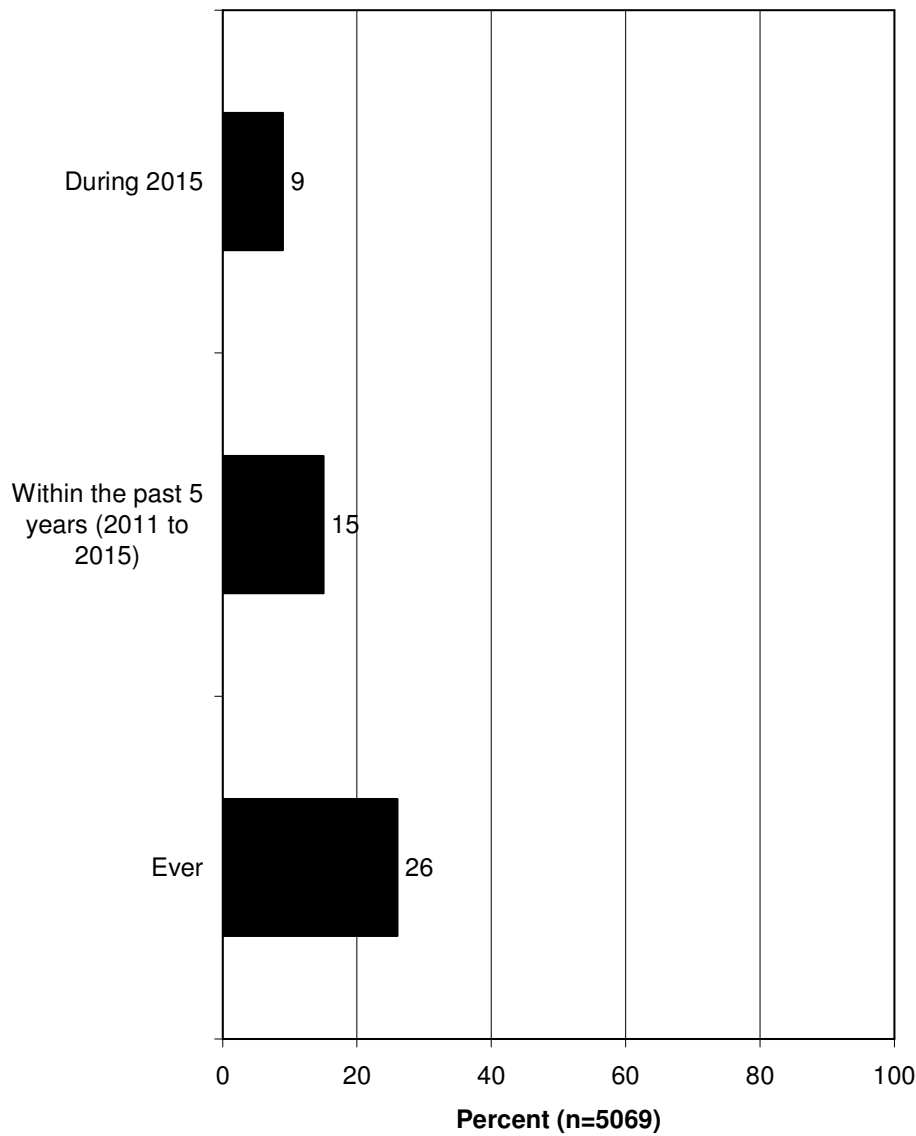


Percent of respondents making up the subgroups of archery participants.

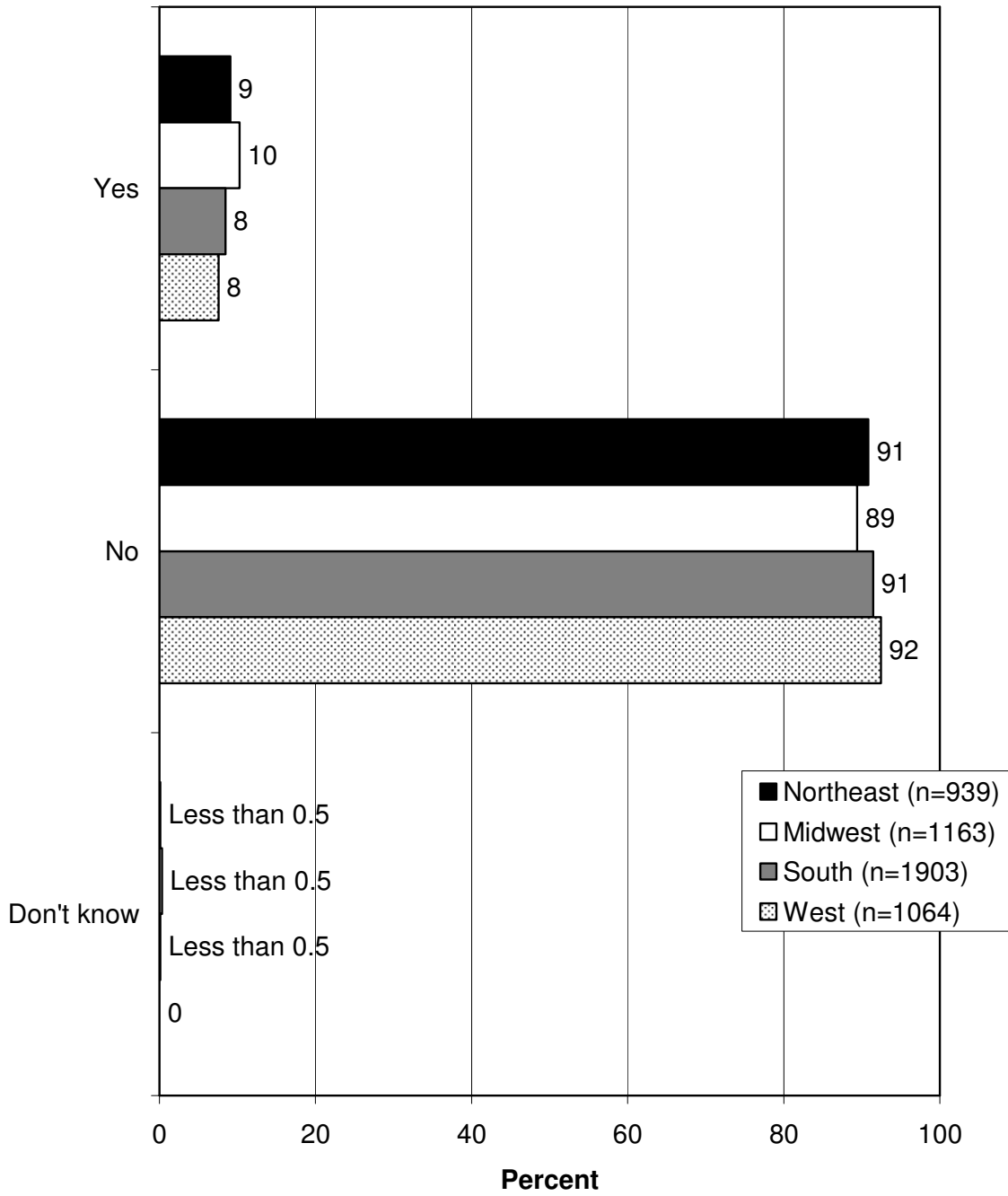


- Target archery participants are shown below, with regional analysis for each time period shown on the following pages.
 - 9% participated during 2015.
 - 15% participated within the past 5 years (2011 to 2015).
 - 26% have ever participated.

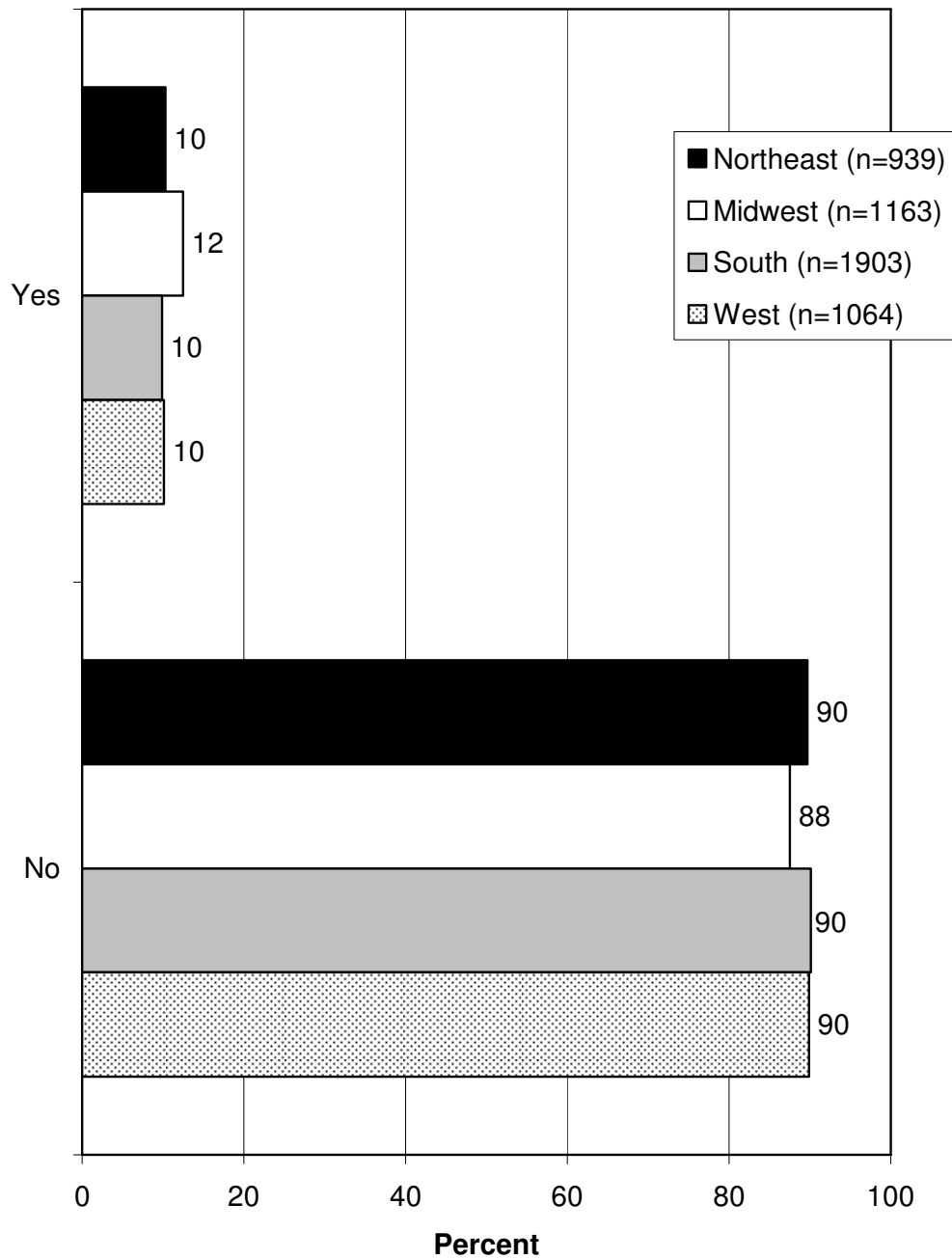
Percent who participated in archery activities (not including bowhunting).



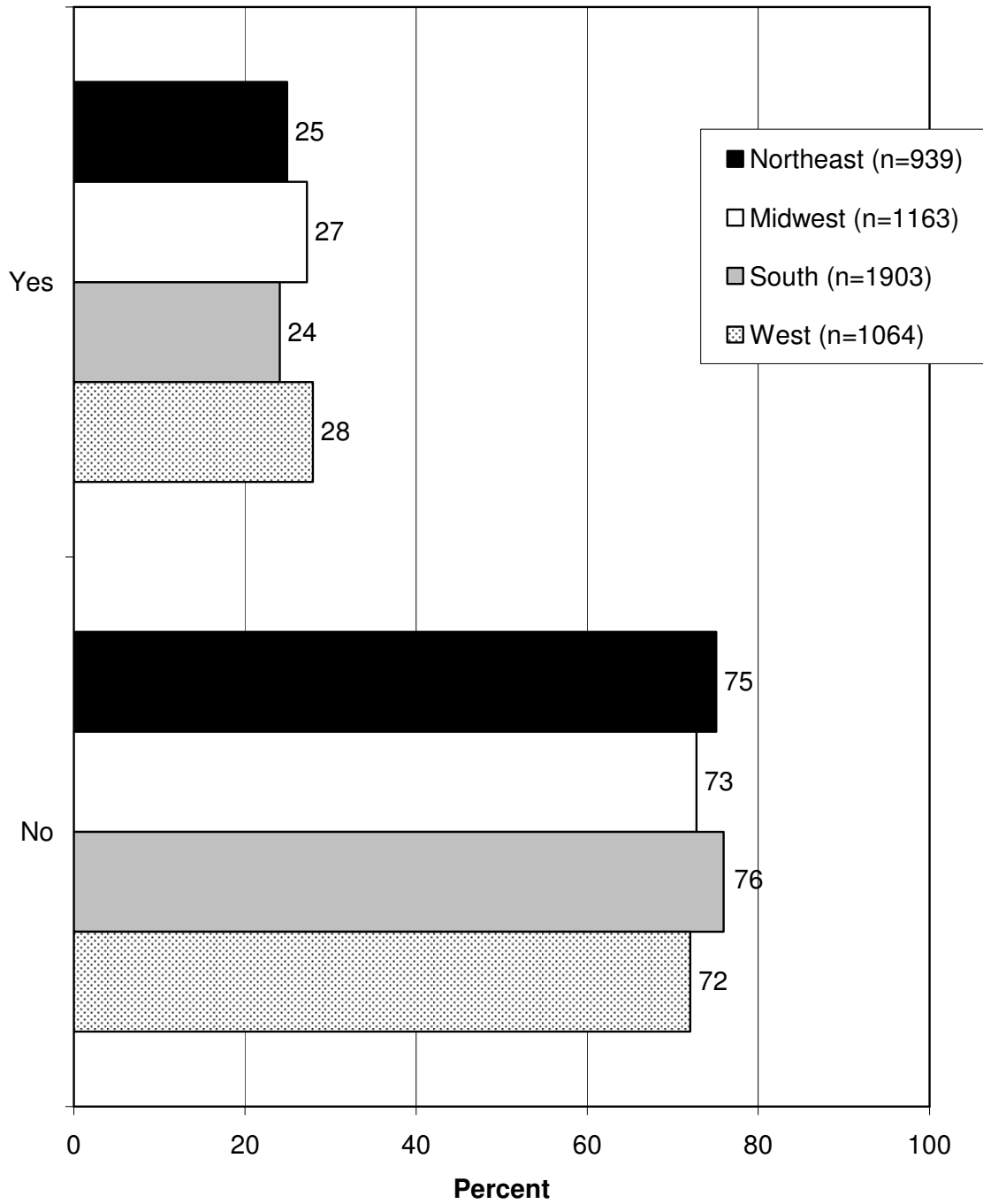
Q22. Did you do any archery activities in 2015, that is, from January 2015 to this past December?



Did you do any archery activities [excluding bowhunting] in the past 5 years [since 2011]?

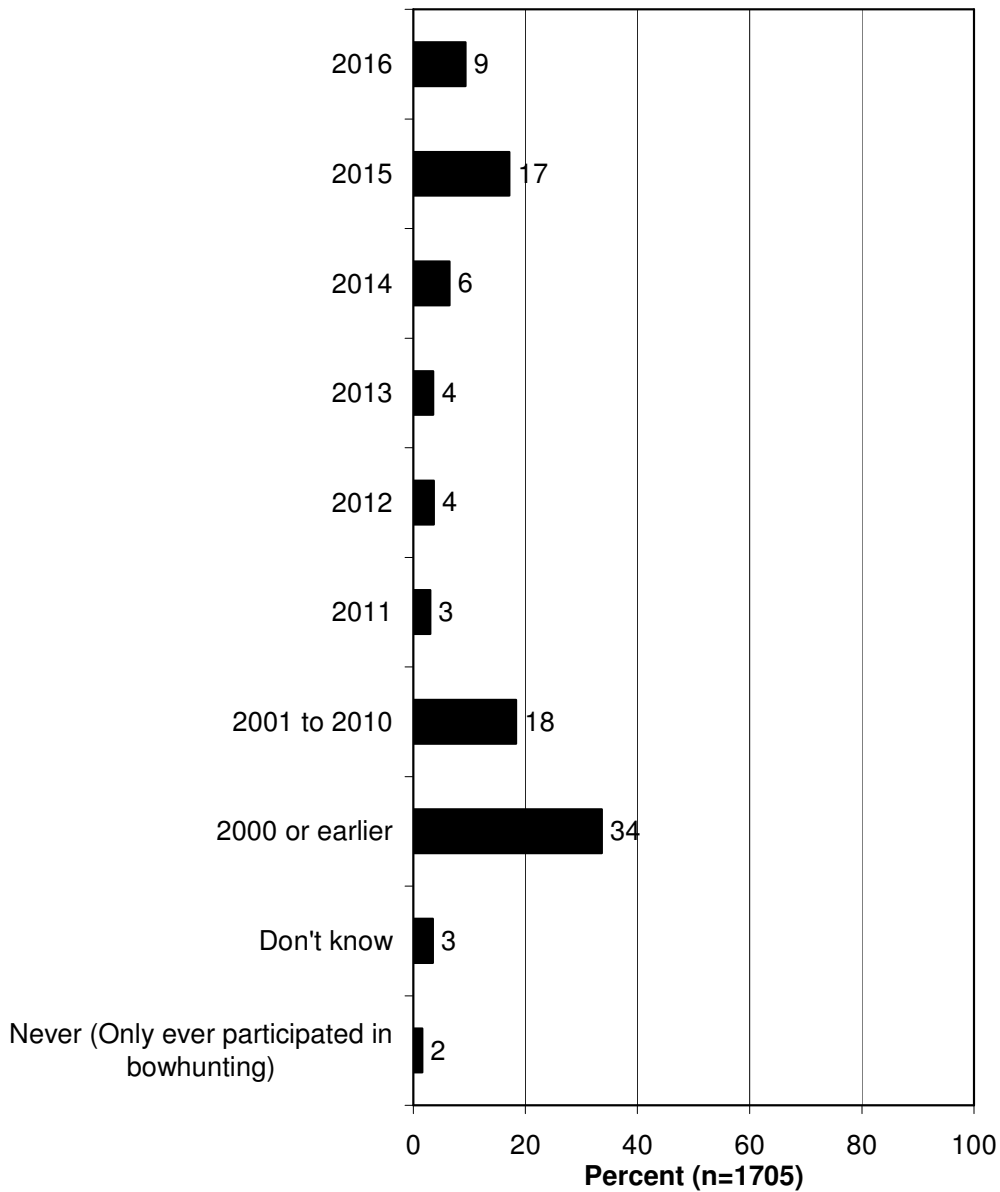


Did you ever do any archery activities [excluding bowhunting]?

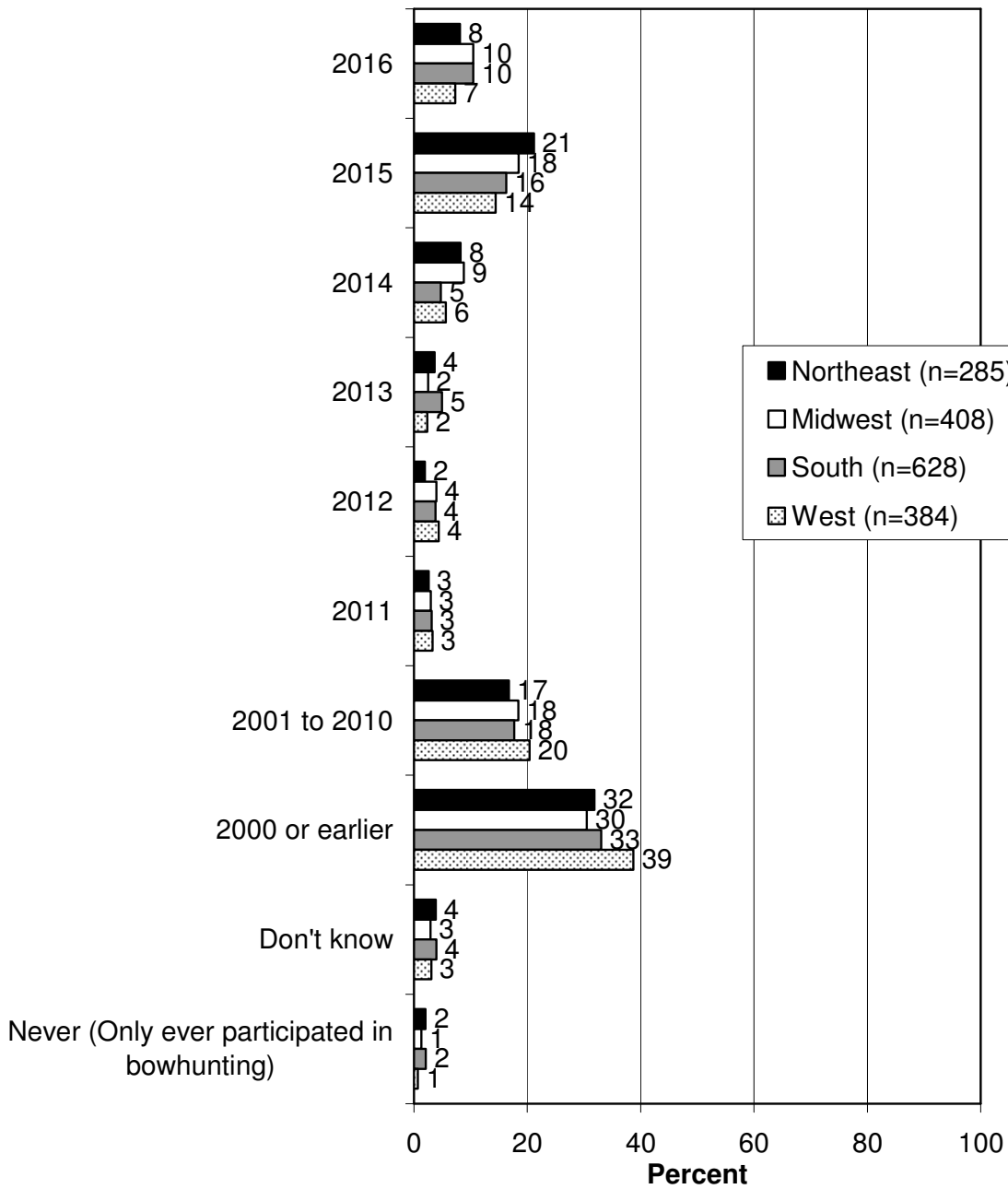


- Of those who ever participated in archery activities (excluding bowhunting), 34% last participated in 2000 or earlier. Distributions of the latest years of participation are shown below; note that 9% shot archery in 2016 (the survey was conducted in April 2016).
 - A regional crosstabulation is shown on the following page.

Q26. When was the last time you participated in any archery activities? (Asked of those who have ever participated in archery.)

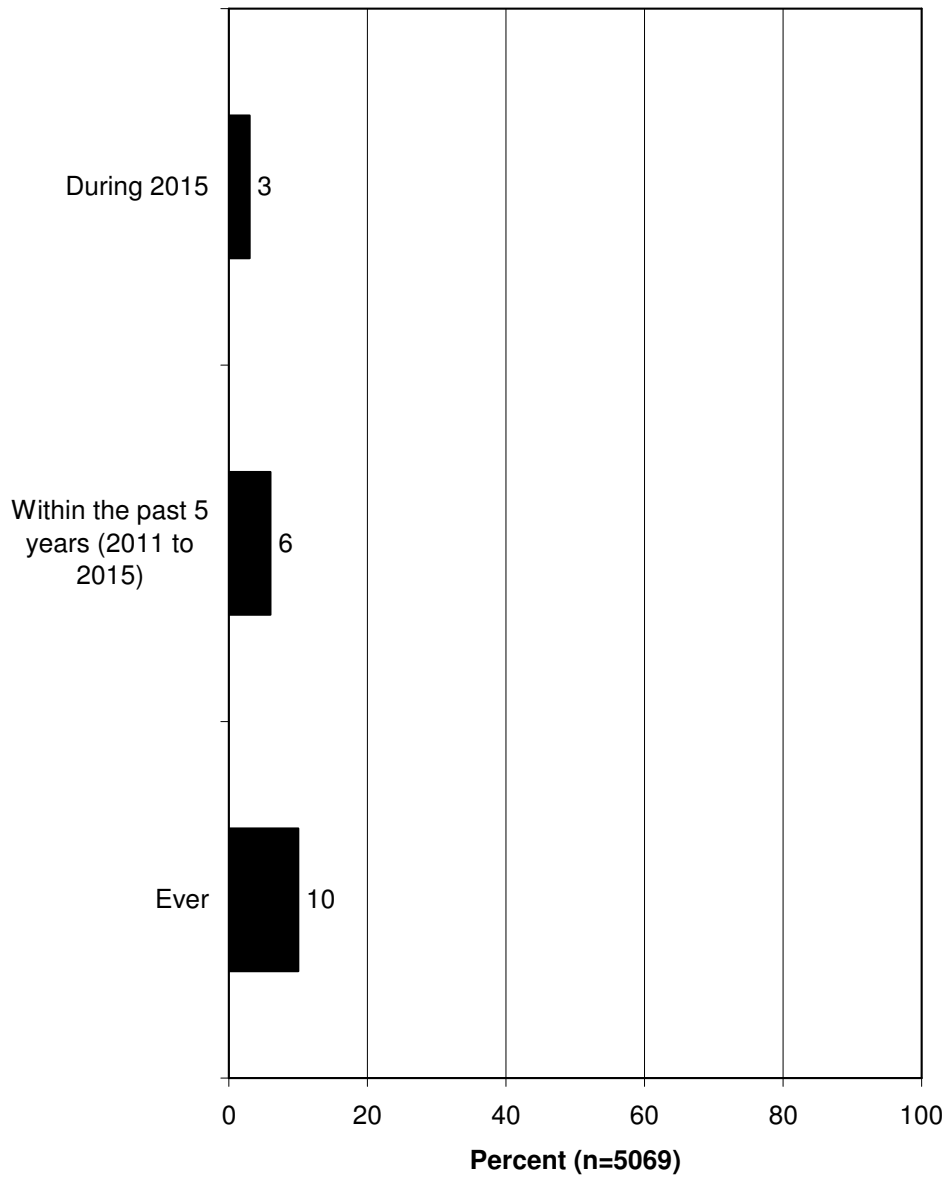


Q26. When was the last time you participated in any archery activities? (Asked of those who have ever participated in archery.)

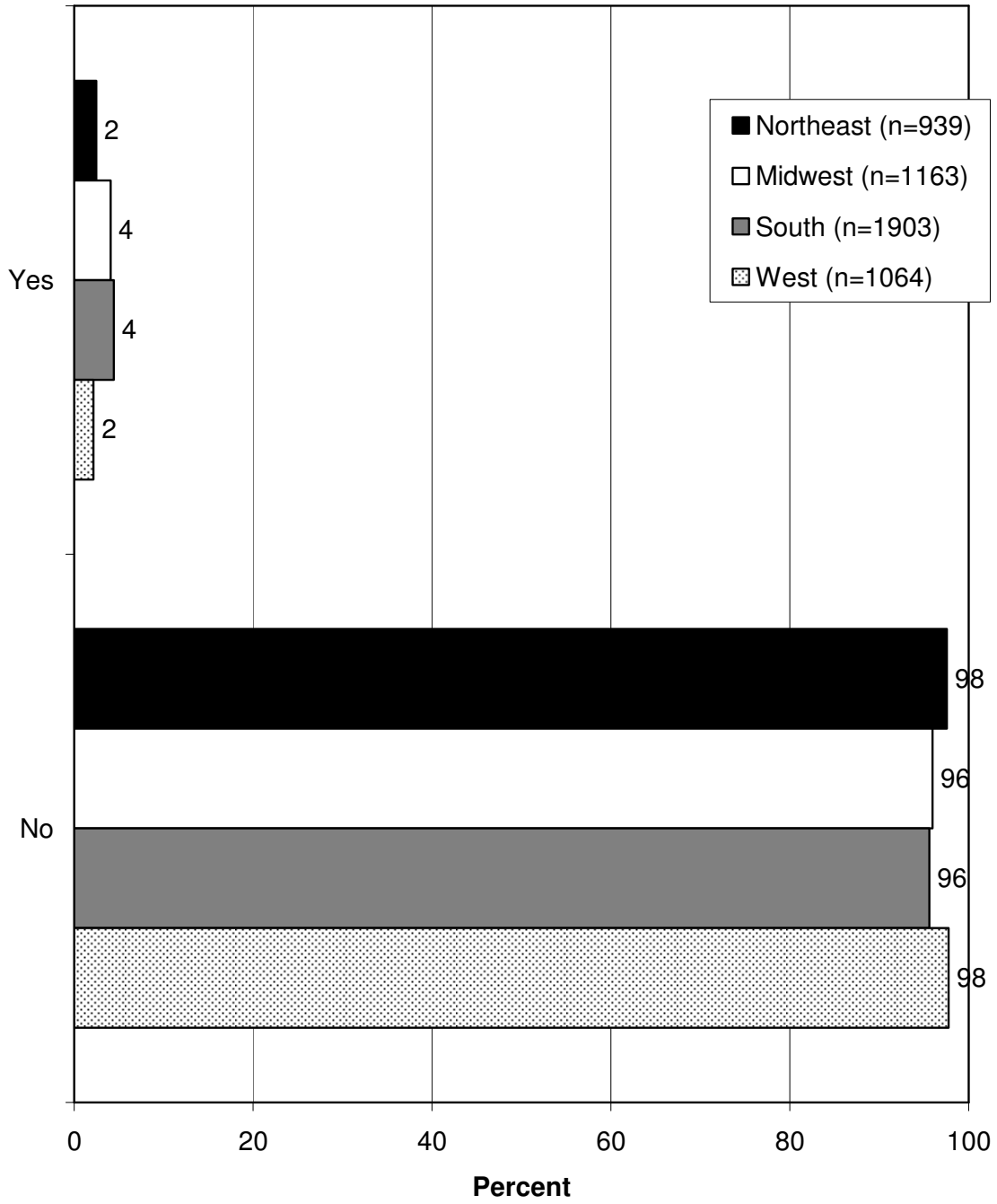


- Bowhunting participants are shown below, with regional analysis for each time period shown on the following pages.
 - 3% went bowhunting in 2015.
 - 6% went bowhunting within the past 5 years (2011 to 2015).
 - 10% have ever gone bowhunting.

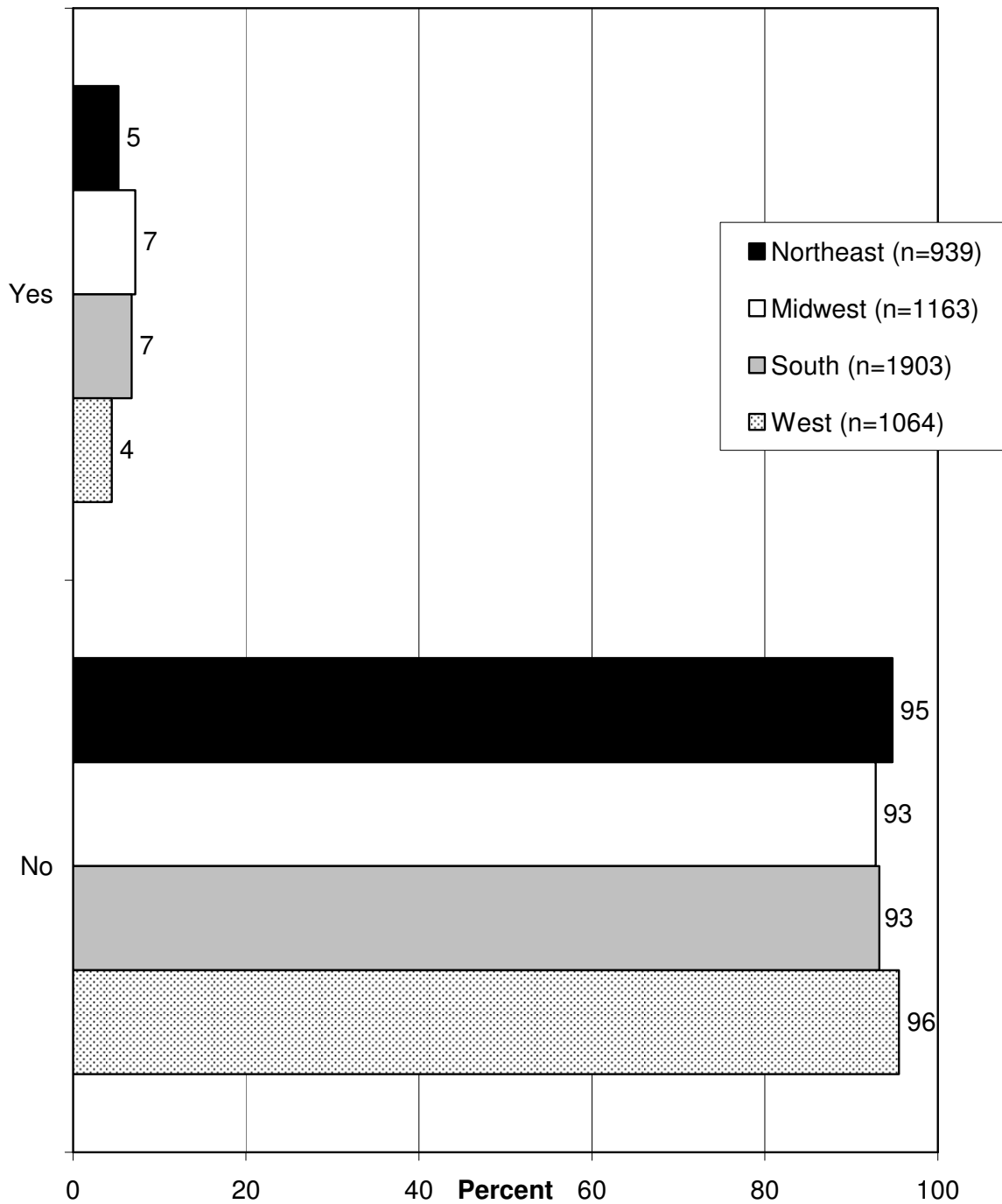
Percent who went bowhunting.

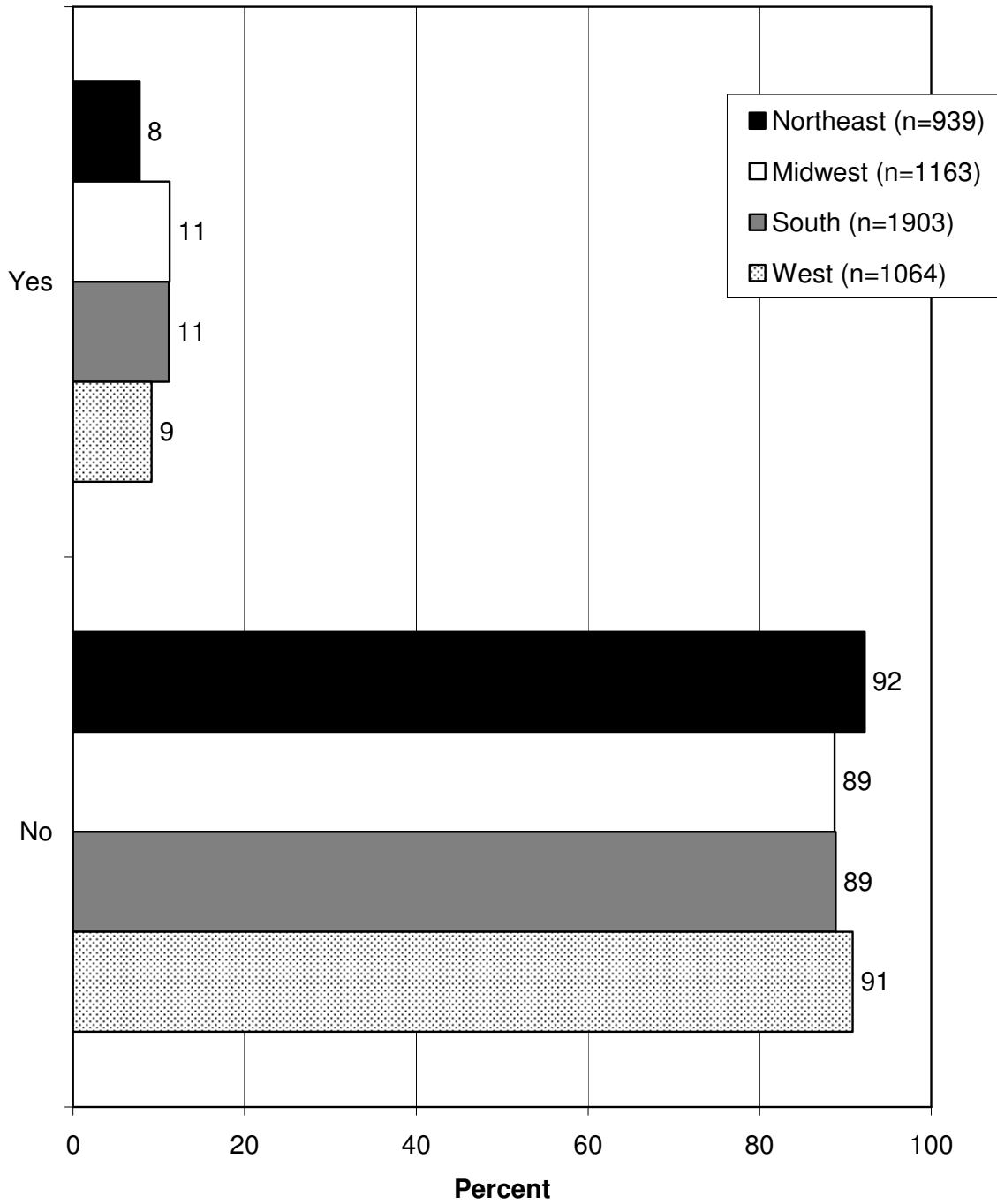


Q31. Did you do any bowhunting in 2015, that is, from January 2015 to this past December?



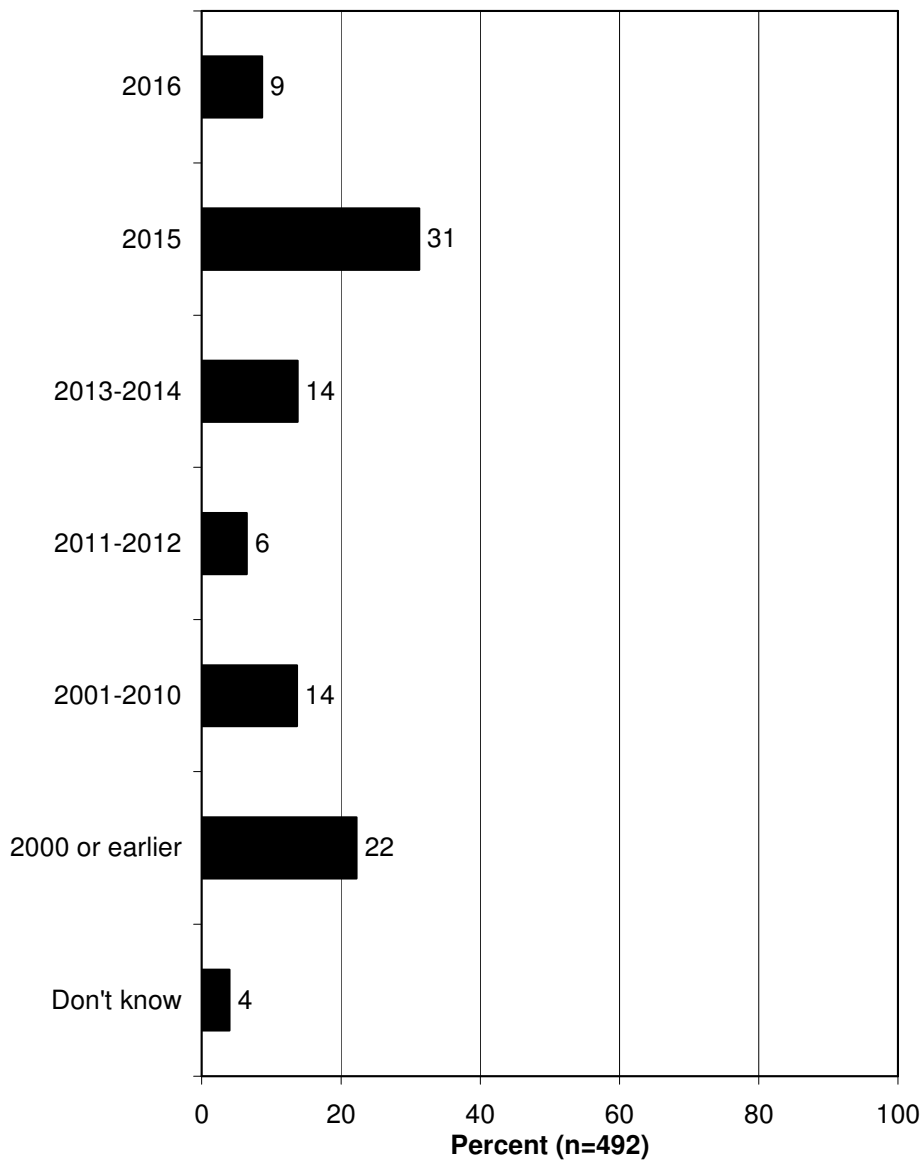
Did you do any bowhunting in the past 5 years [since 2011]?



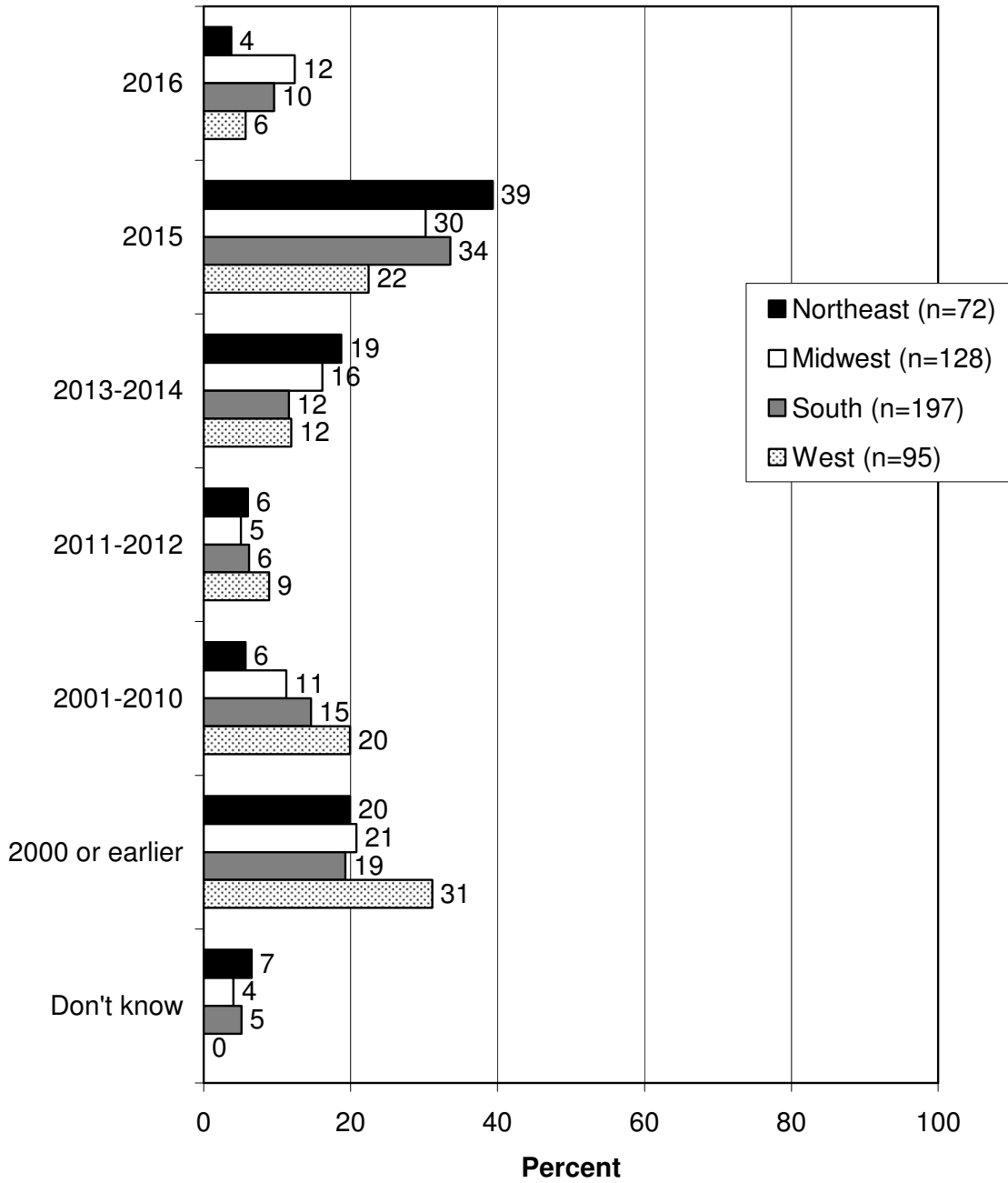
Q15. Have you ever gone bowhunting?

- Of those who ever went bowhunting, over a third last went bowhunting in either 2015 (31%) or 2016 (9%). Distributions are shown below and on the following page.
 - The West Region appears to have more lapsed bowhunting activity compared to the other regions.

Q34. When was the last time you went bowhunting? (Asked of those who have ever participated in bowhunting.)



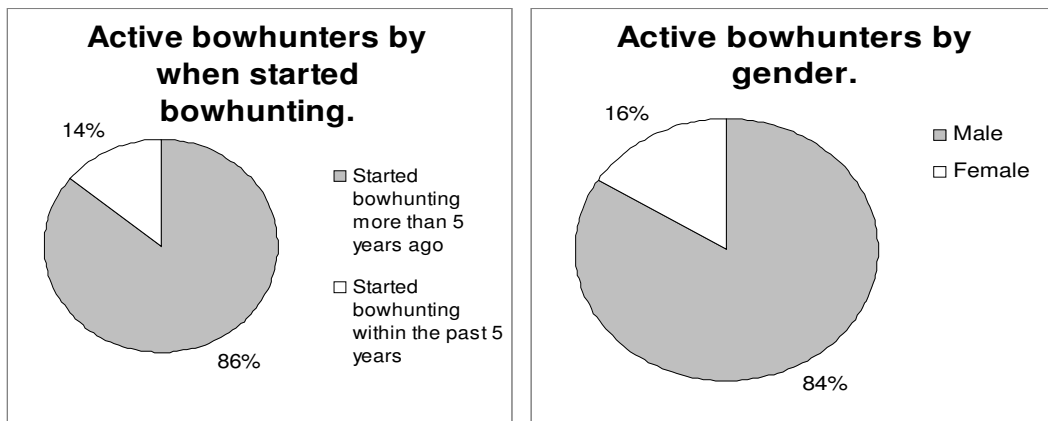
Q34. When was the last time you went bowhunting? (Asked of those who have ever participated in bowhunting.)



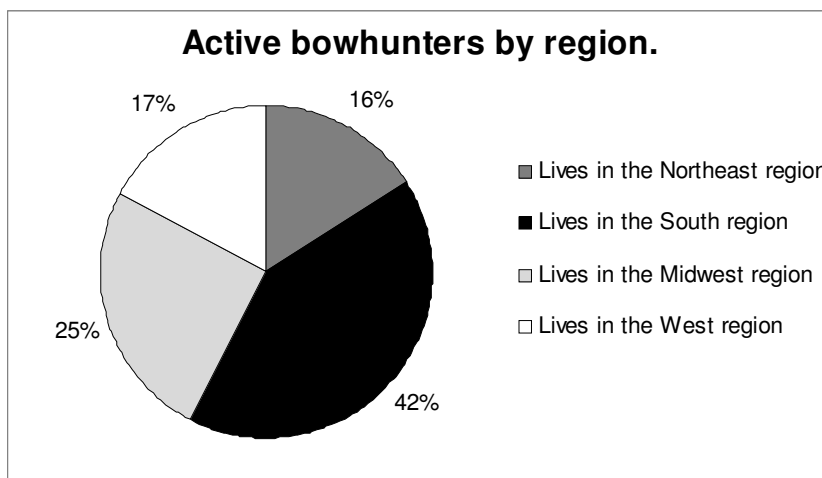
DEMOGRAPHIC PROFILES OF BOWHUNTERS AND ARCHERS

The following section presents “profile” graphs, which show at a glance the profile of whichever group is being profiled. The following explains how these profile graphs are put together, as well as how they should be interpreted. This explanation will start with those who *bowhunted in the past 5 years* (i.e., since 2011), referred to as *active bowhunters* in this explanation.

To show the characteristics of active bowhunters, one could look at a series of pie graphs. For instance, active bowhunters could be categorized, based on how long ago they started bowhunting, into those who started more than 5 years ago and those who started within the past 5 years. As shown in the pie graph below left, 86% of active bowhunters started more than 5 years ago, while 14% started within the past 5 years. Likewise, the analyses found that 84% of active bowhunters are male, and 16% are female, shown in the graph below right.



Other variables could be broken down the same way in a pie graph, such as region. Active bowhunters comprise 42% who live in the South region, 25% who live in the Midwest region, 17% who live in the West region, and 16% who live in the Northeast region (see pie graph below).



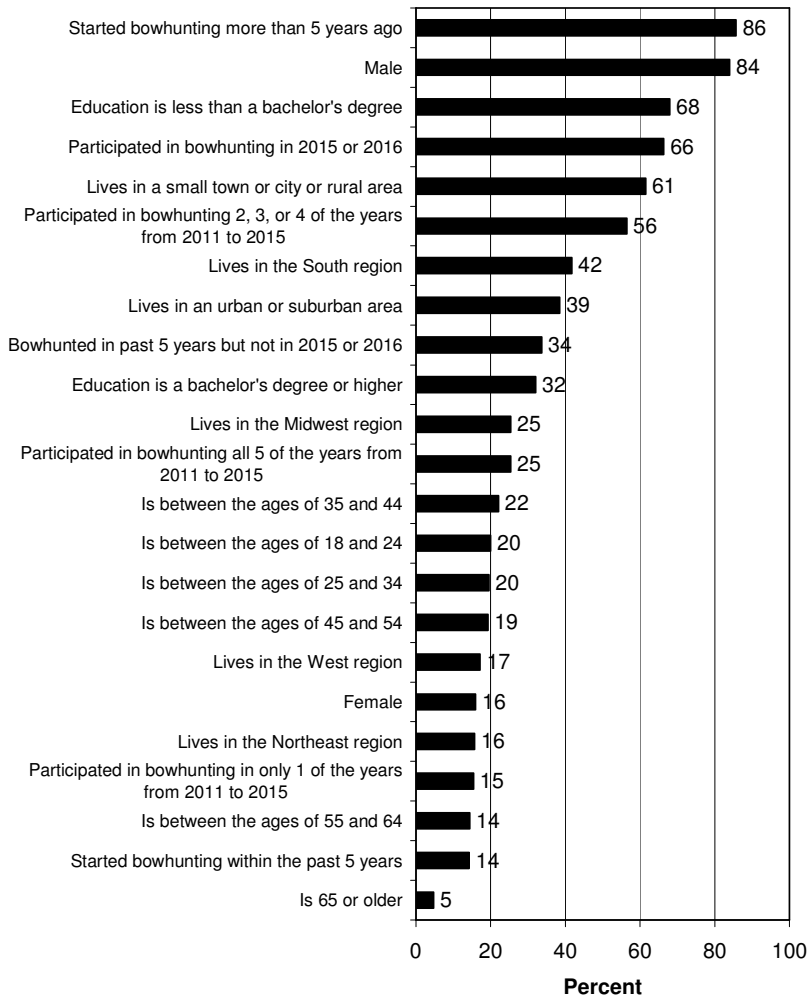
However, looking at all of those pie graphs becomes onerous. Instead, a profile graph is used that shows all the information from multiple pie graphs on one graph (see the graph on the next page).

For instance, as indicated earlier, 86% of active bowhunters started more than 5 years ago, while 14% started within the past 5 years; additionally, 84% of active bowhunters are male and 16% are female. Each of these statistics is represented on the graph as a single bar; for instance, there is a bar showing that 84% of active bowhunters are male, and so on. Note that for each characteristic, such as gender, the bars making up that characteristic (for gender, the male and female bars) will sum to 100%.

- To summarize the graph below, active bowhunters typically have been bowhunting for a while (more than 5 years). They are predominantly male, in the lower educational level, and live in a small city/town or rural area. The South region contributes the most bowhunters to the total.

Bowhunter Profile

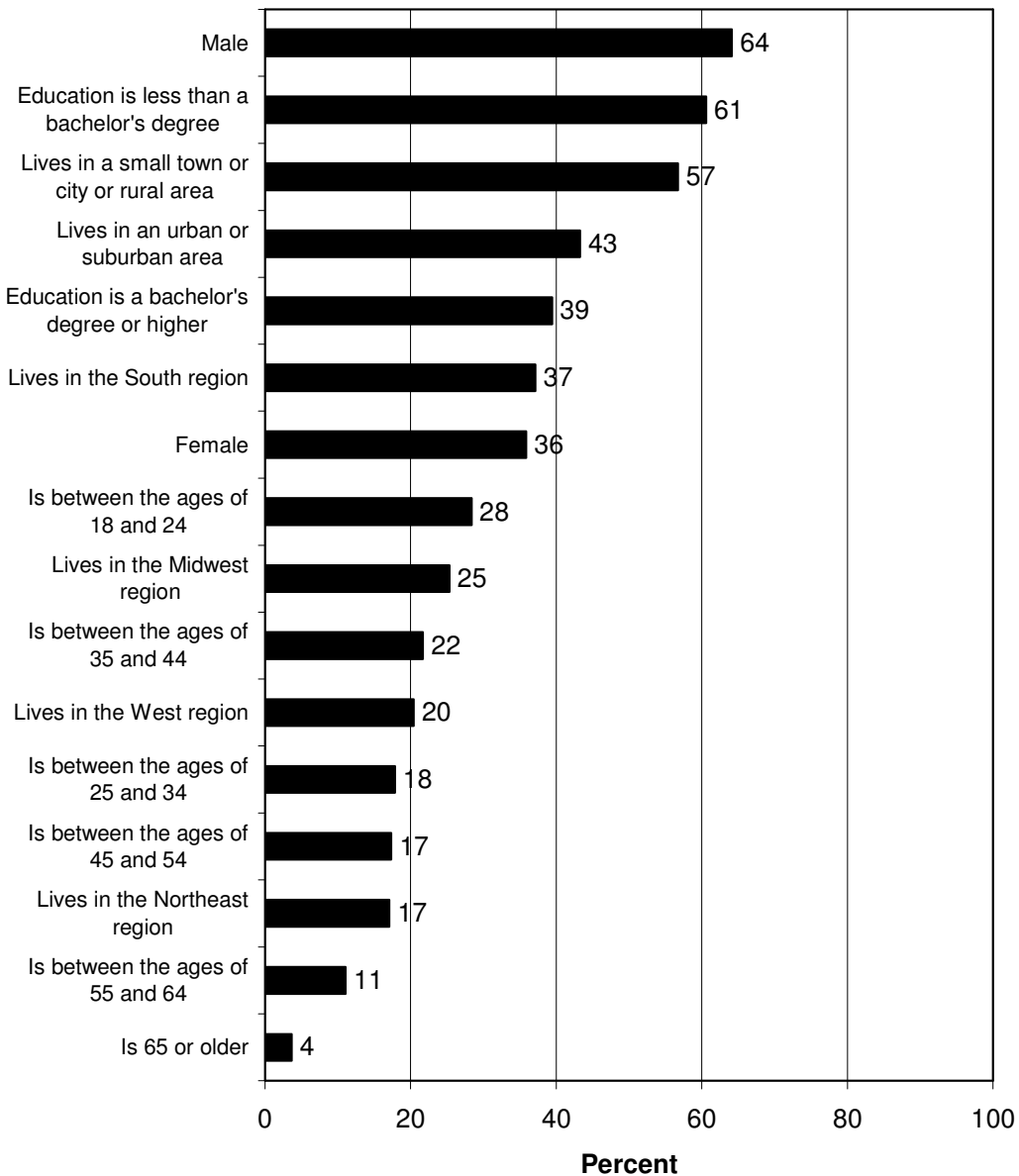
Percent of those who bowhunted from 2011 to present that are each of the following:



- Active archers, which is made up of those who did archery, including bowhunters who also did archery, are predominantly male, in the lower educational level, and live in a small city/town or rural area. These are the same top characteristics as shown in the active bowhunter profile, although the male/female divide is less severe among archers.

Archer Profile (Including Bowhunters Who Did Archery)

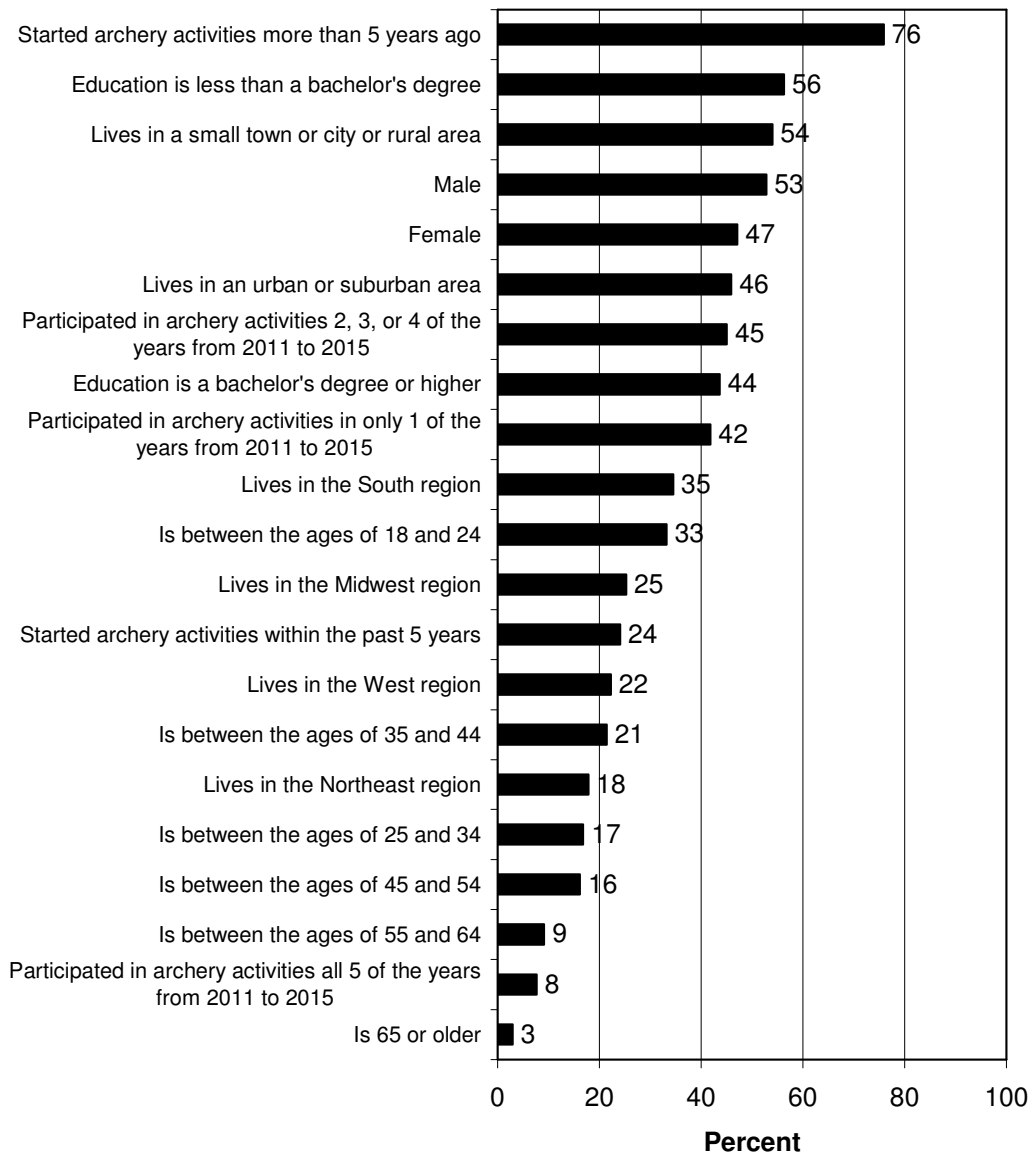
Percent of those who participated in (any) archery from 2011 to present that are each of the following:



- Those who are pure archers are associated with being young, having an educational level of less than a bachelor's degree, and living in a small city/town or rural area. They are about evenly split between males (53%) and females (47%), with much more female representation than bowhunting.

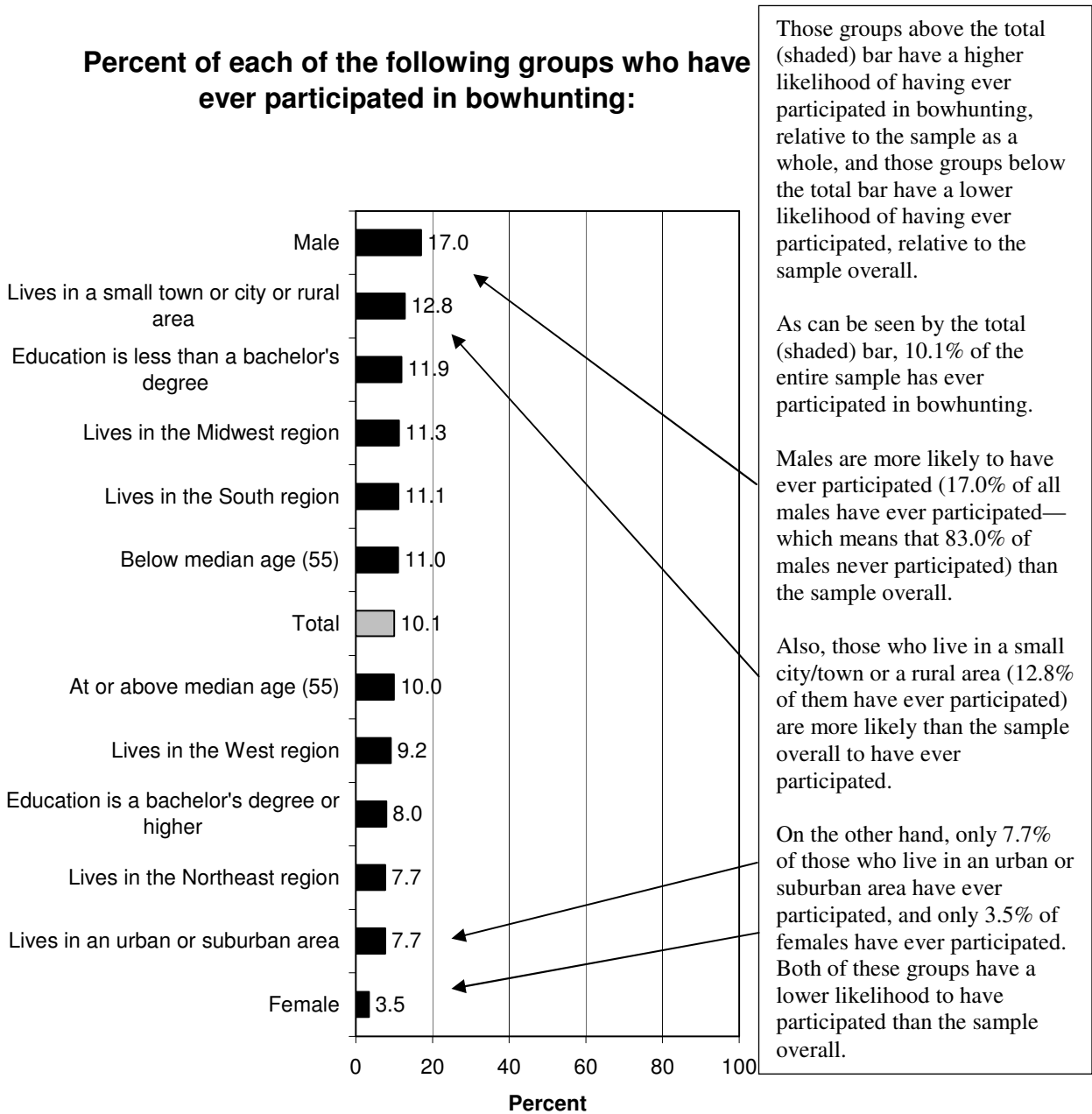
Pure Archer Profile

Percent of those who participated in archery activities but did not participate in bowhunting from 2011 to present that are each of the following:



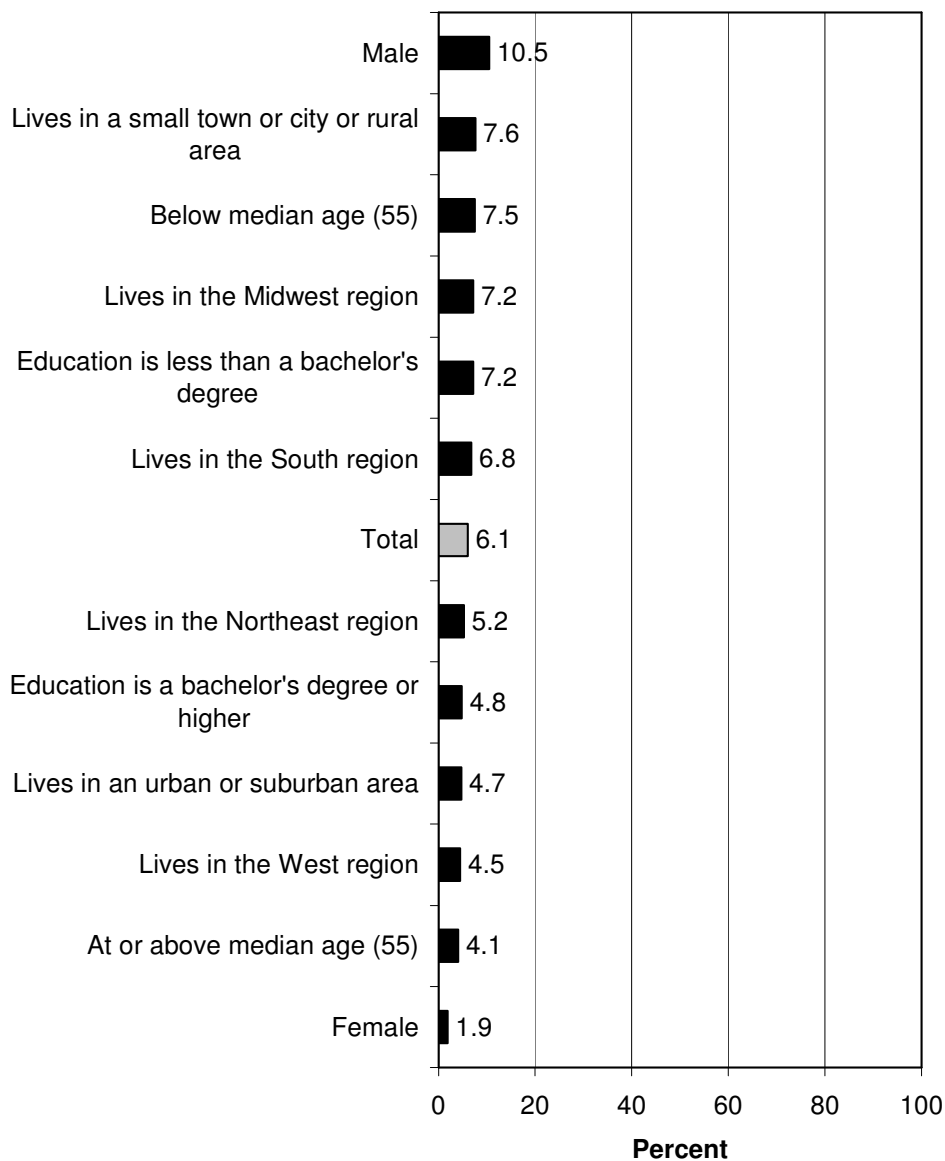
ANALYSES OF DEMOGRAPHIC DIFFERENCES BETWEEN BOWHUNTERS AND ARCHERS

- Bowhunting is associated with younger males, from a small city/town or rural area, without a Bachelor’s degree, as shown in the graph below (the time period being “ever”). The percentages refer to the proportion of the group shown that have *ever* participated in bowhunting. This graph is among the entire sample that took the survey.
 - The text box to the right of the graph explains how to read the graph.



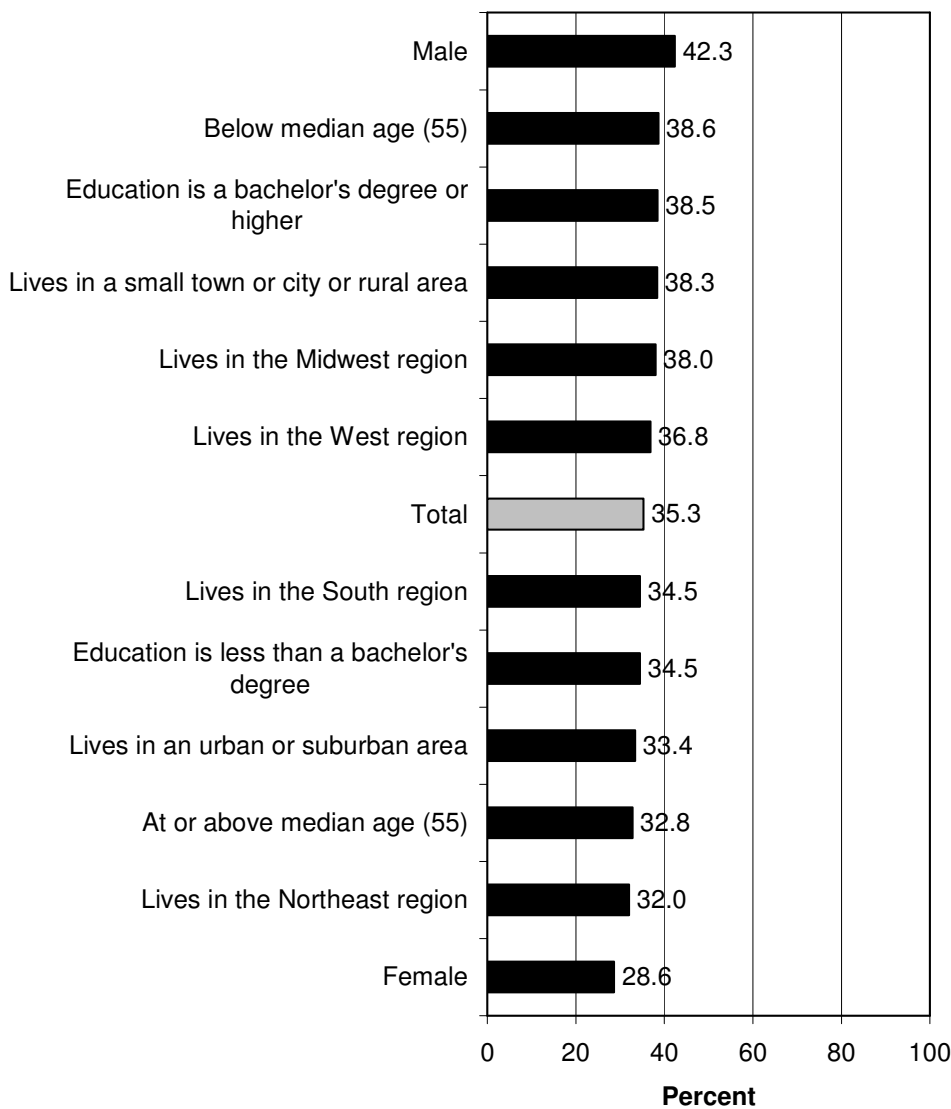
- The following graph shows demographic analyses for more active bowhunters with a different timeframe: the graph shows those who participated in bowhunting within the past 5 years. The same demographic factors as discussed above regarding those who had ever bowhunted apply to this graph showing active bowhunters—being male, living in a small city/town or rural area, being younger, being without a bachelor’s degree. (Refer to the previous page for an example of how to read the graph.)

Percent of each of the following groups who participated in bowhunting from 2011 to present:



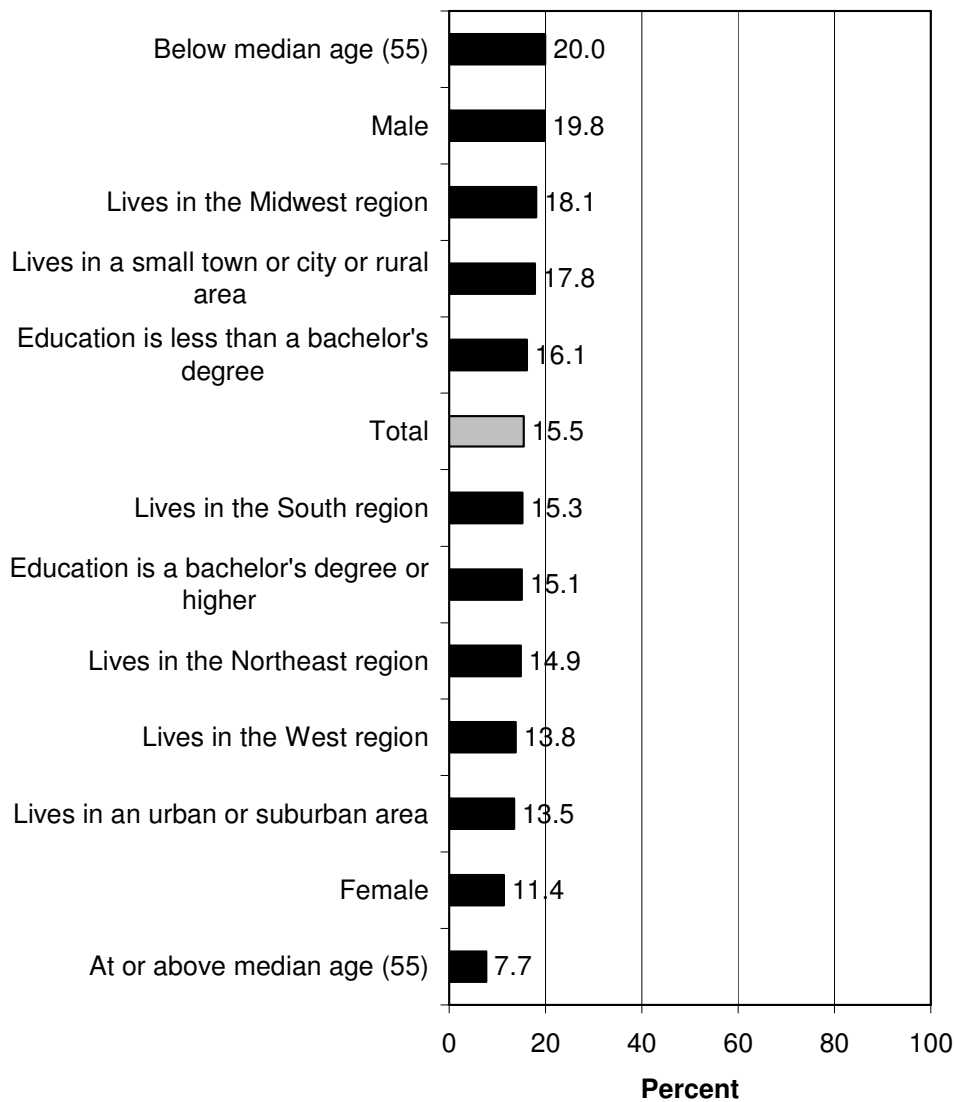
- Archers, on the other hand, have some notable differences from bowhunters. (Note that this includes some bowhunters who also participated in archery, such as target shooting, as well as those who were solely archers.) In particular, archers, compared to bowhunters, tend to be a little more educated. Although males are still more likely than females to participate, females make up a greater proportion of the participants, compared to their proportion of bowhunters. (Refer to page 29 for an example of how to read the graph.)

Percent of each of the following groups who have ever participated in archery activities, not including bowhunting:



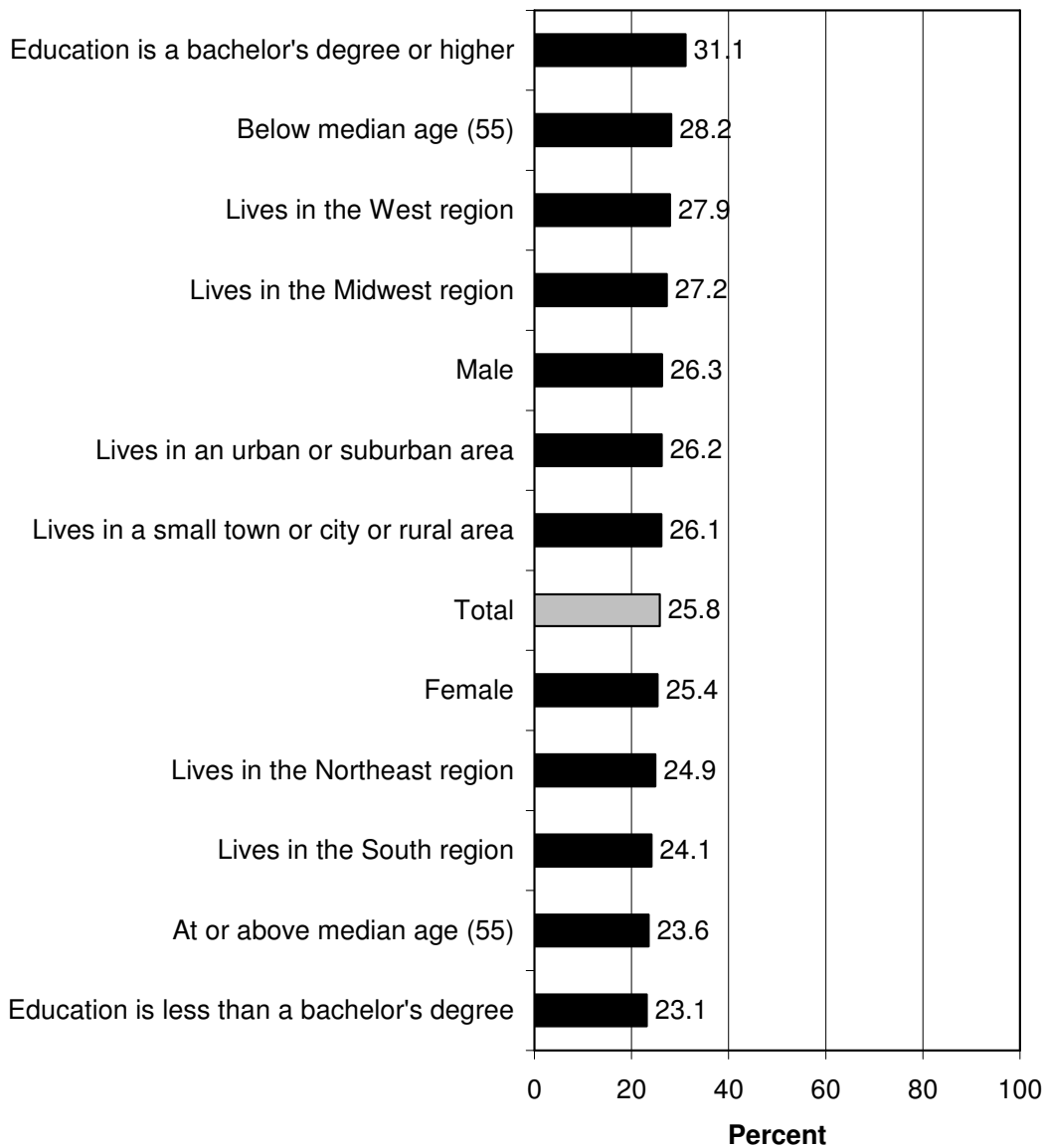
- At the 5-year timeframe, being young, male, and from a small city/town or rural area is associated with archery participation. Interestingly, a lower educational level is associated with participation in this within the past 5 years. (Refer to page 29 for an example of how to read the graph.)

Percent of each of the following groups who participated in archery activities, not including bowhunting, from 2011 to present:



- Having a bachelor’s degree, being young, and living in the West or Midwest regions are associated with ever participating in archery activities but never participating in bowhunting. Note that females are nearly as likely as males to fall into this category. (Refer to page 29 for an example of how to read the graph.)

Percent of each of the following groups who have ever participated in archery activities and have never participated in bowhunting:



- At the 5-year timeframe, being young and being from the Midwest are associated with pure archery participation. Otherwise, the remaining groups are not far from the total percentage. (Refer to page 29 for an example of how to read the graph.)

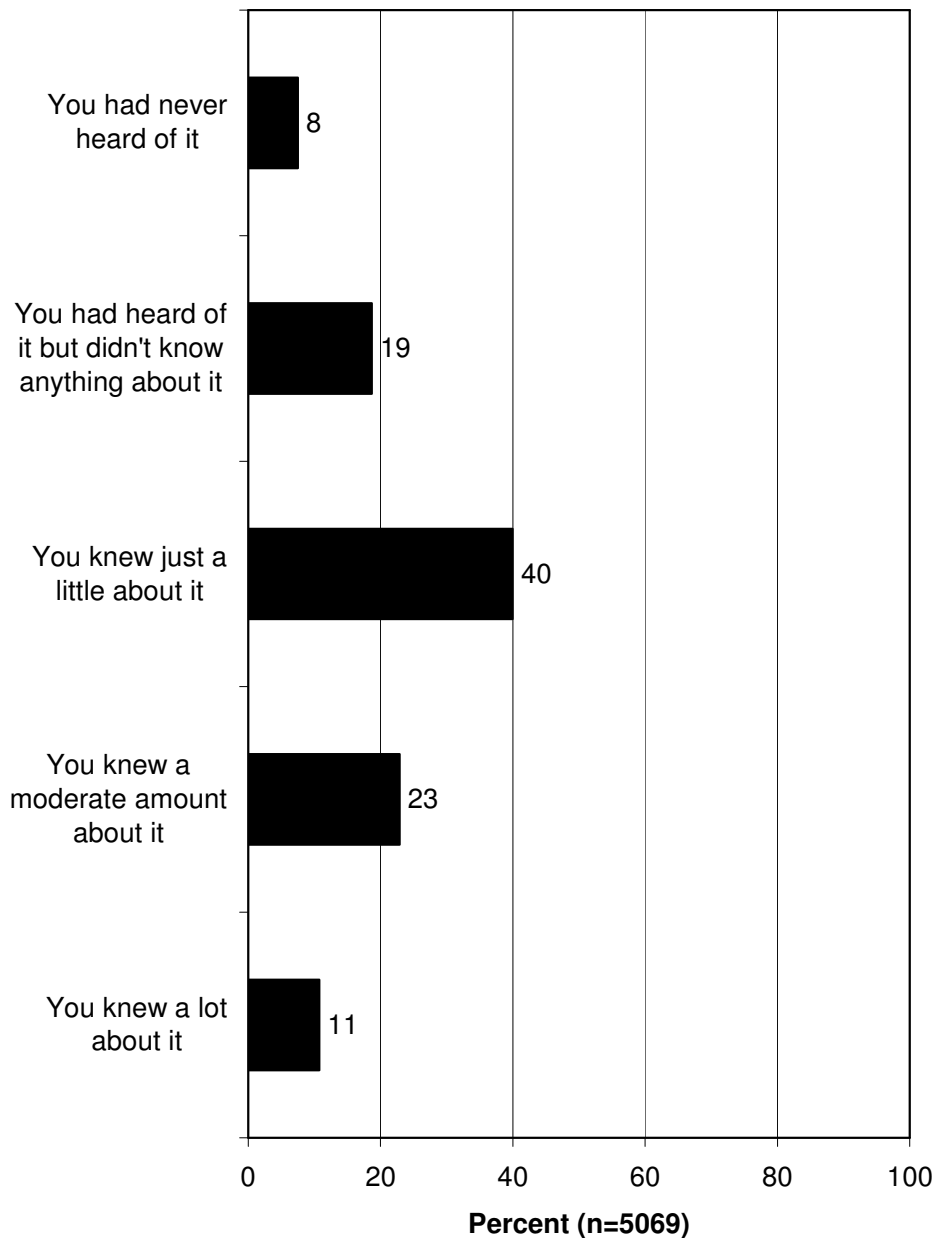
Percent of each of the following groups who participated in archery activities but did not participate in bowhunting from 2011 to present:



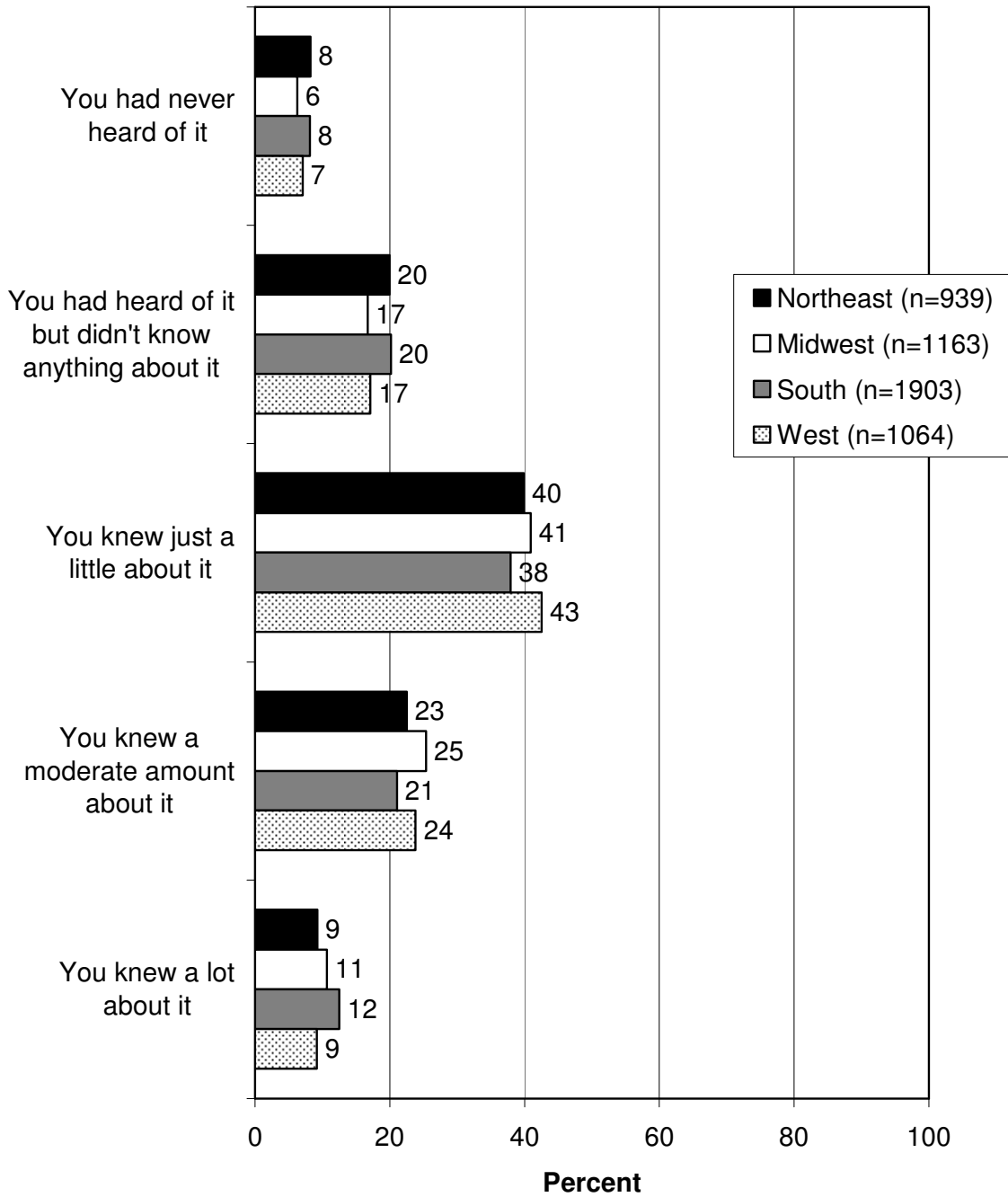
AWARENESS AND SELF-RATED KNOWLEDGE OF ARCHERY

- A plurality of respondents (40%) stated they knew just a little about archery before the survey; from this point, levels of awareness or lack of awareness tapered off in a bell curve-shaped distribution.

Q37. How familiar or unfamiliar were you with archery before this survey?

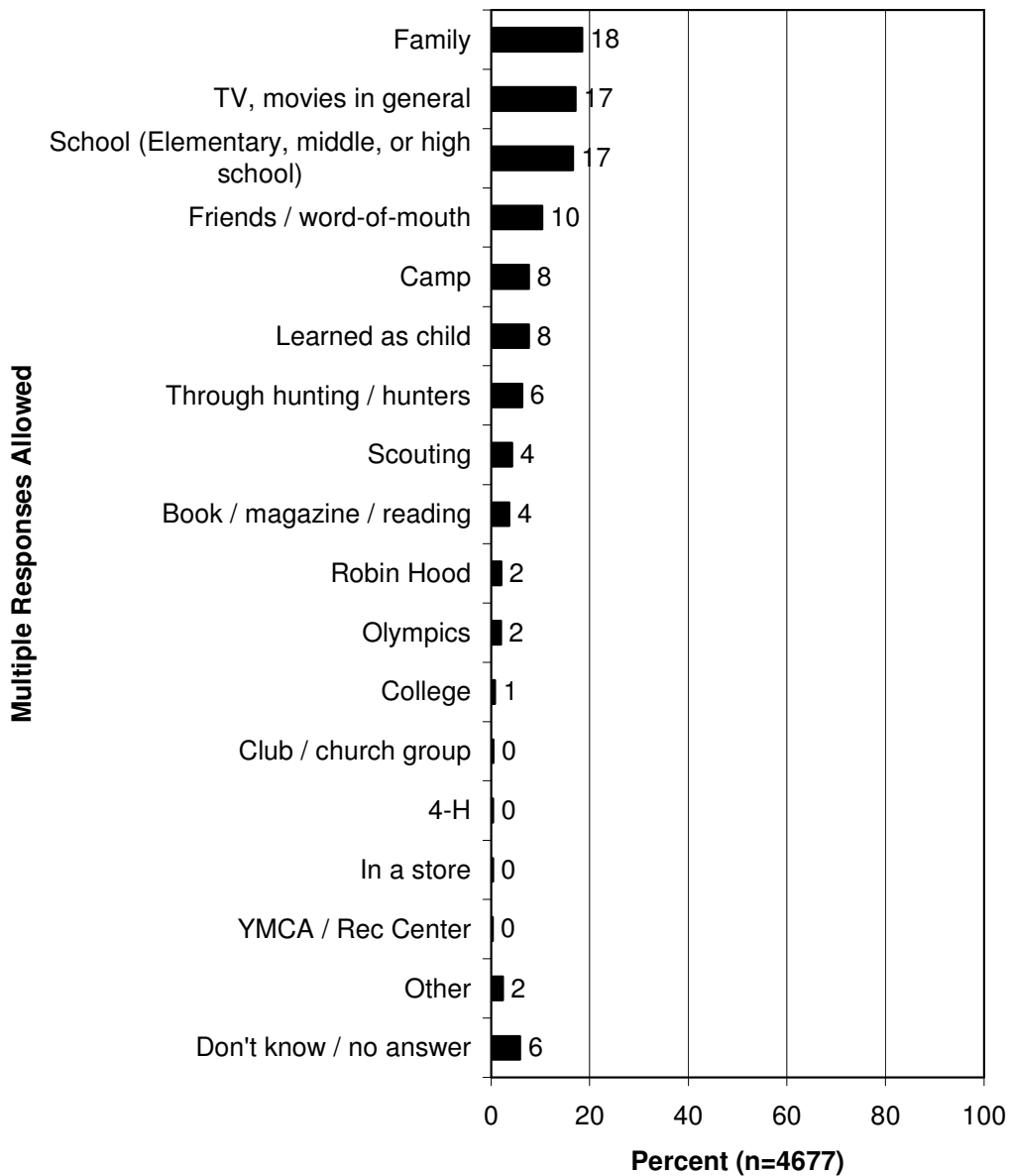


Q37. How familiar or unfamiliar were you with archery before this survey?



- In an open-ended question, those who ever participated in or had at least heard of archery were asked how they first became aware of the sport. The top responses were family (18% stated this), TV or movies in general (17%), and school (elementary, middle, or high school) (17%).

**Q39. How did you first become aware of archery?
(Asked of those who have ever participated in archery or had at least heard of archery.)**



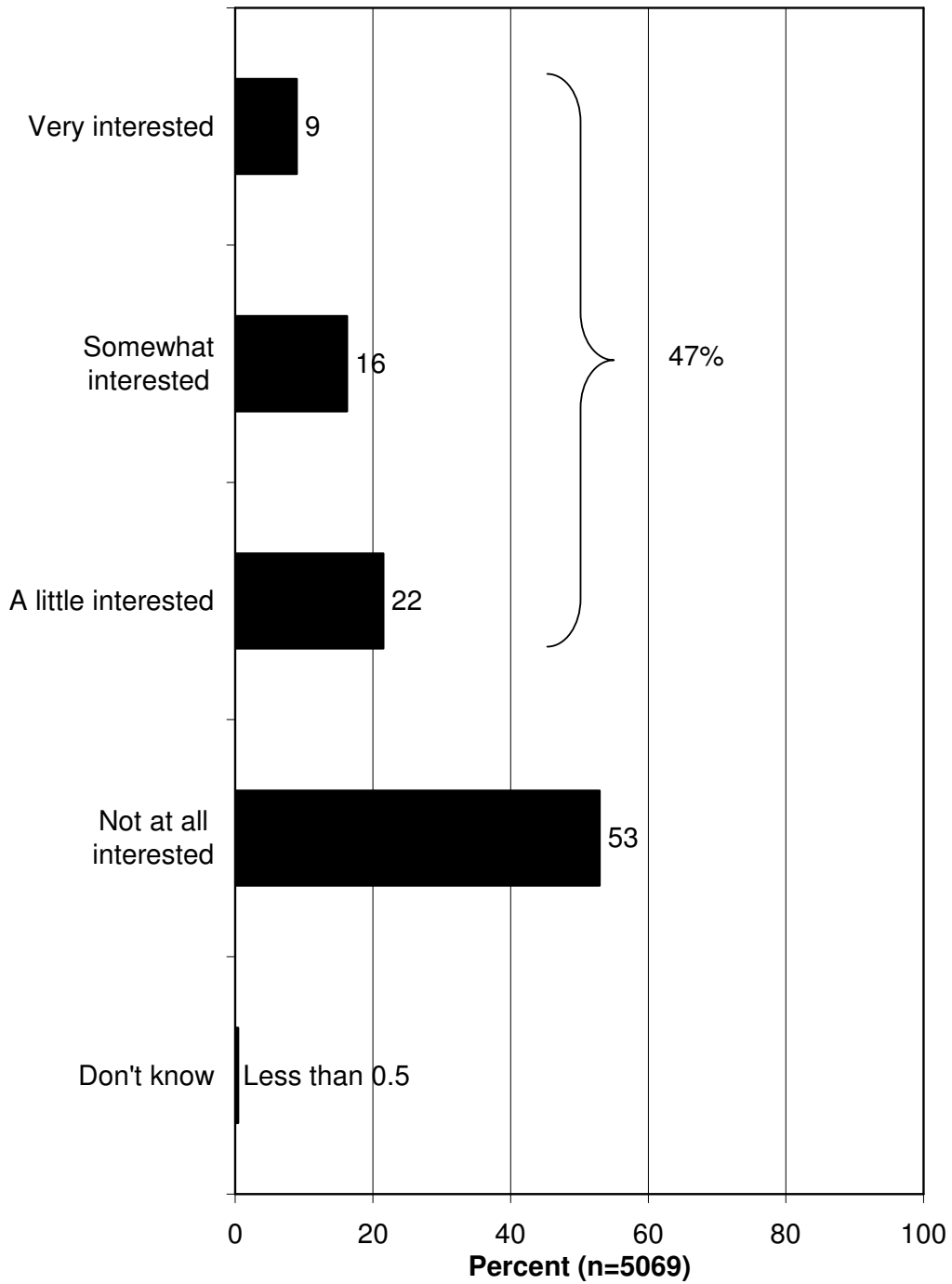
INTEREST IN ARCHERY AND BOWHUNTING

Prior to receiving the next set of questions, survey respondents were read the following statement:

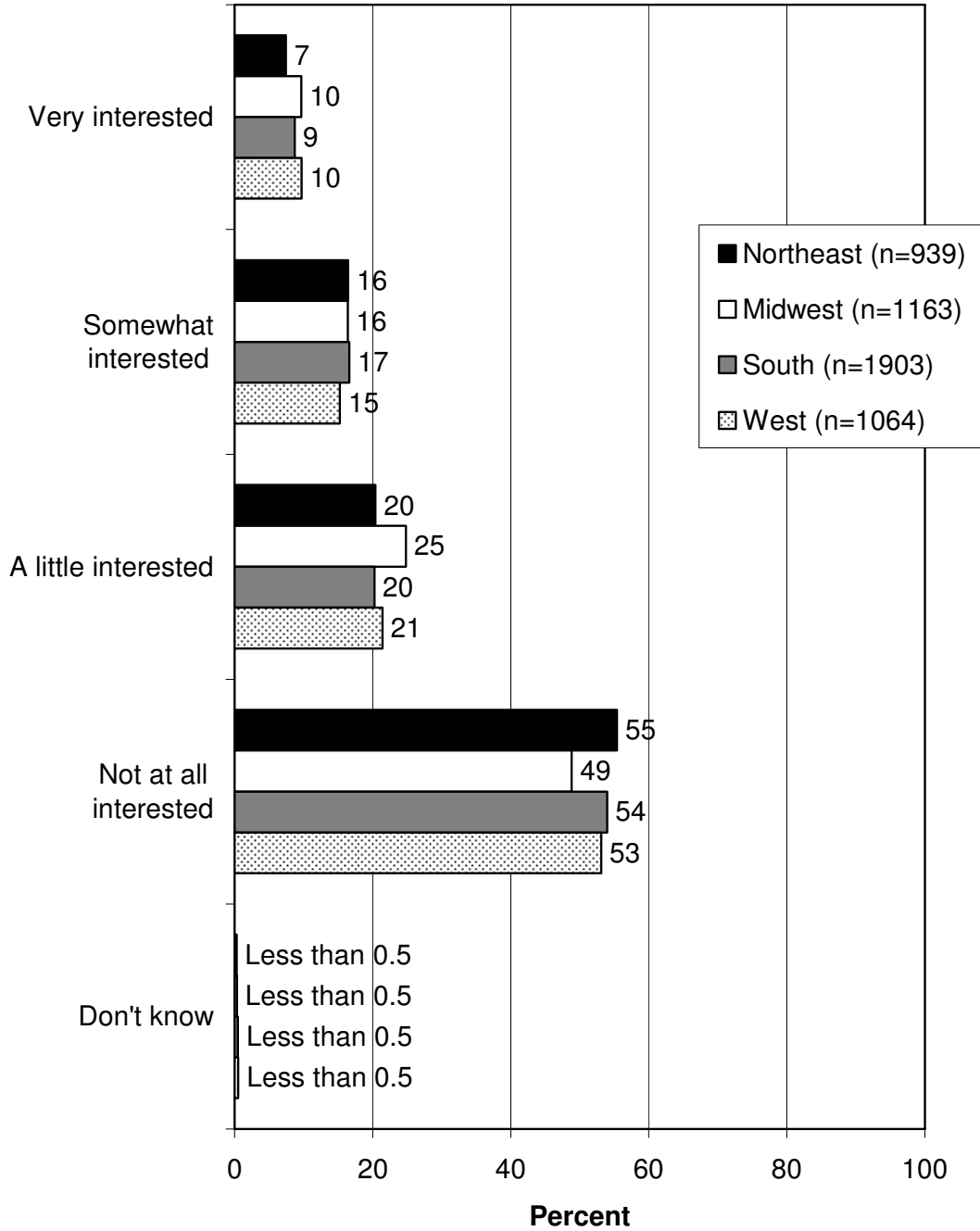
Next, I would like to know a little more about your INTEREST in archery. Interest can include, but is not limited to, interest in participating. Other interest in archery may or may not include watching competitions, following celebrities who participate or fictional characters who use archery equipment, developing an interest in entertainment that features archery or bowhunting, enjoying the culture, socializing around an activity or topic that features archery or bowhunting, or any other interest, pursuit, or hobby in which archery draws your attention or appeals to you.

- A slight majority of respondents (53%) stated they were not at all interested in archery prior to the survey, with the remainder expressing some degree of interest: 22% were *a little* interested, 16% were *somewhat* interested, and 9% were *very* interested. (In this question archery refers to both target archery and bowhunting.)
 - Respondents from the Midwest Region expressed slightly more interest than those from other regions.
- In an open-ended question, those who ever participated in or expressed any interest in archery were asked what first piqued or started their interest in the sport. The top responses were family or they grew up around it (21% stated this), scouts or outdoor clubs (13%), and school or college (11%).
 - The same group was asked what else has contributed to or increased their interest in archery. The top responses were family or they grew up around it (9% stated this), television (5%), personal experience or a desire to improve skills (5%), and friends (5%). Note that this group most often responded with “nothing else” (40%).
- In an open-ended question, those who ever participated in or expressed any interest in archery were asked to describe the nature of their interest in the sport. A majority (55%) stated that it was a participatory recreation or hobby. Other top responses were that they observe it (17% stated this) and that they go bowhunting (7%).
- About a quarter of respondents (27%) expressed some degree of interest in bowhunting prior to the survey; 73% were not at all interested.
 - Respondents from the Northeast Region expressed the least amount of interest in bowhunting.

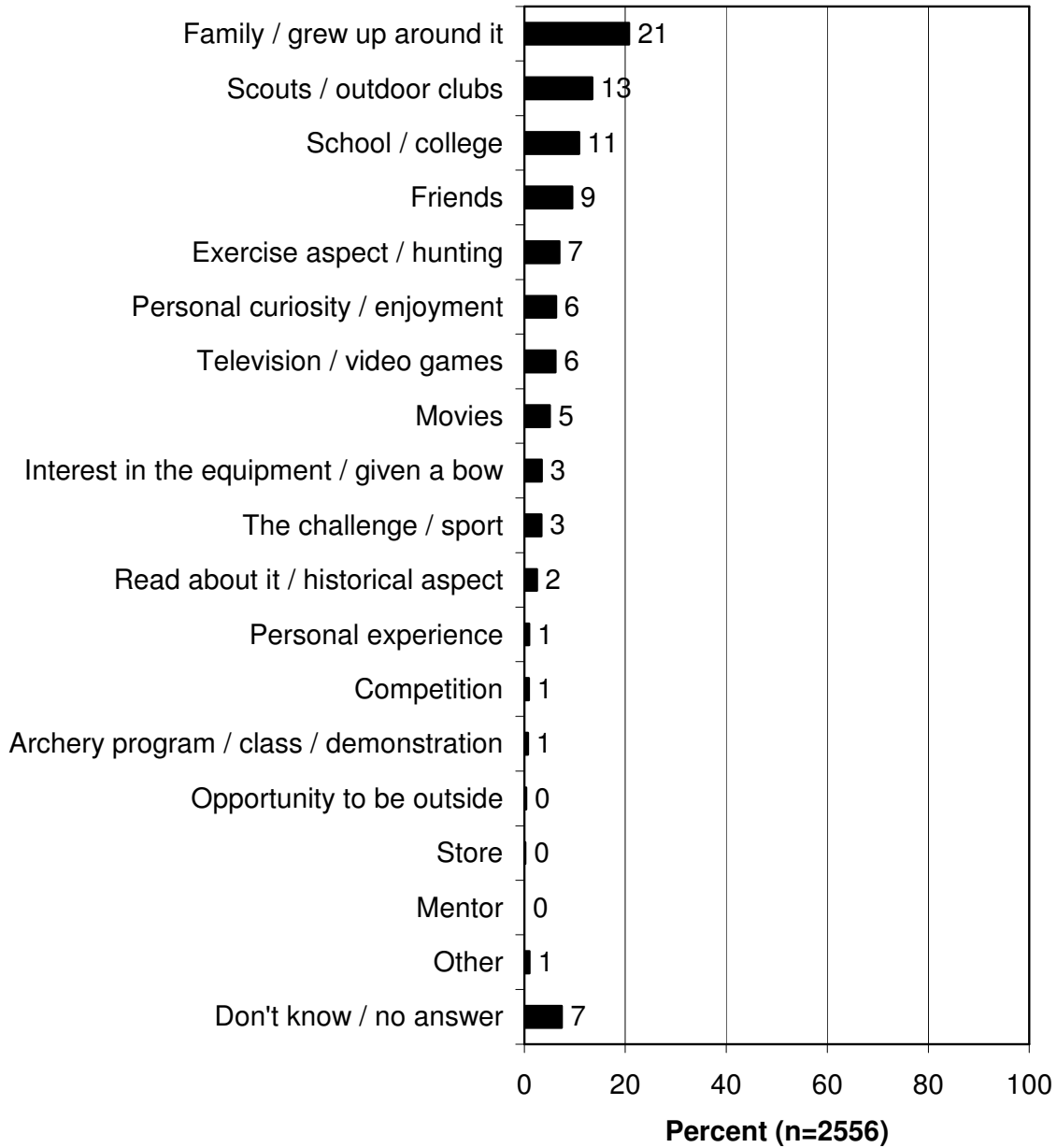
Q41. Prior to this survey, how interested were you in archery in general?



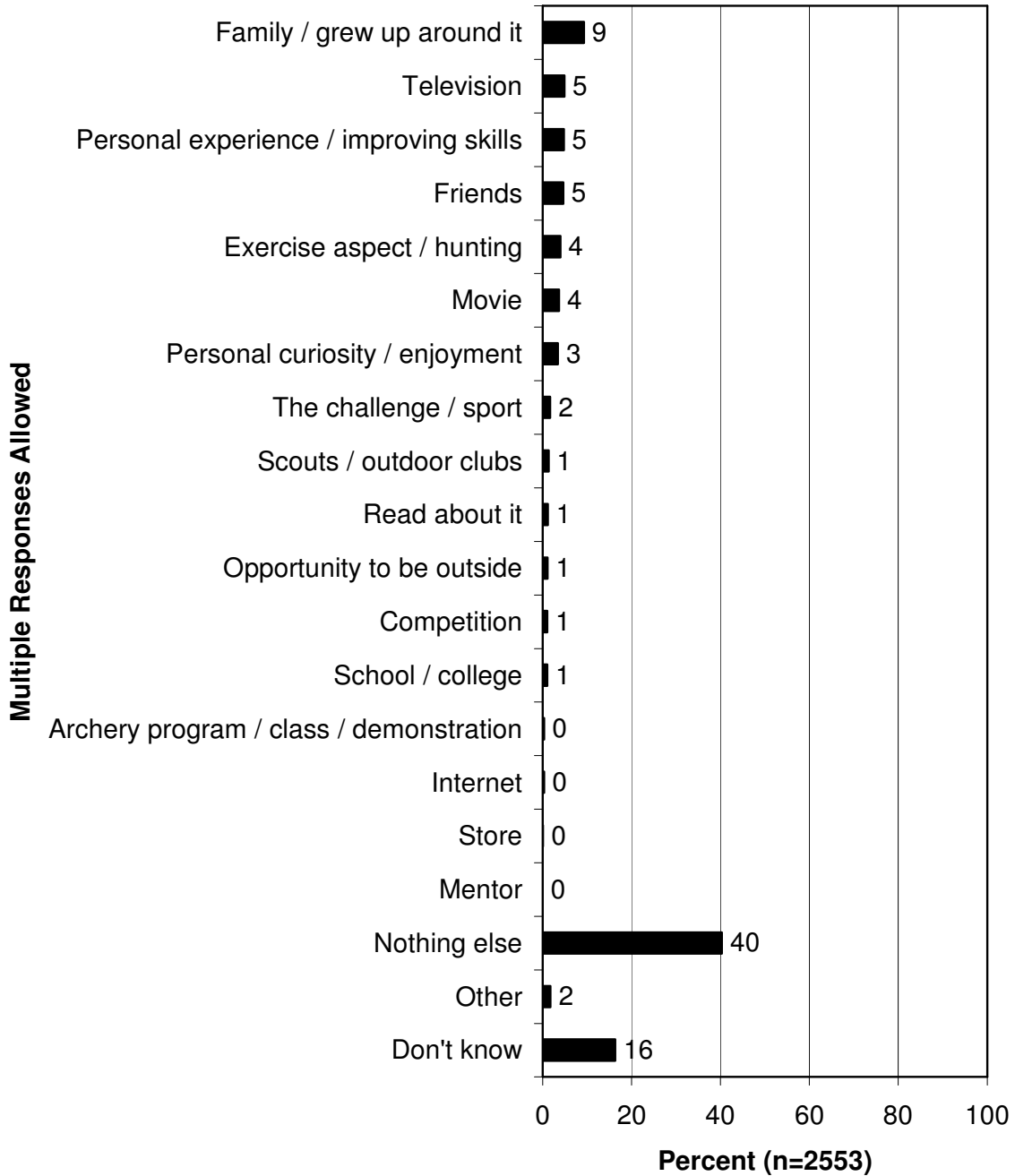
Q41. Prior to this survey, how interested were you in archery in general?



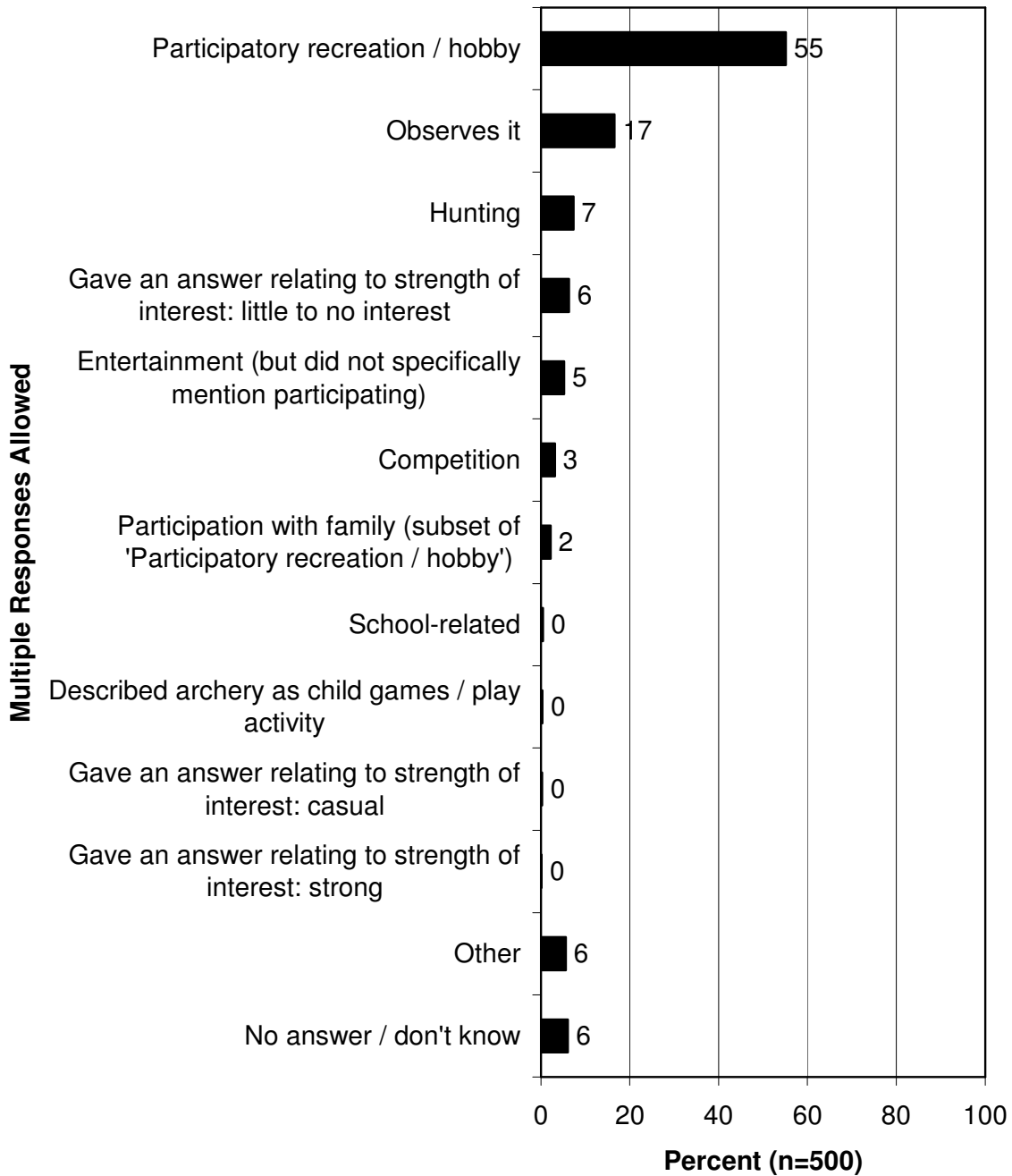
Q44. Specifically, what first piqued or started your interest in archery? (Asked of those who have ever participated in archery or were at least a little interested in archery.)



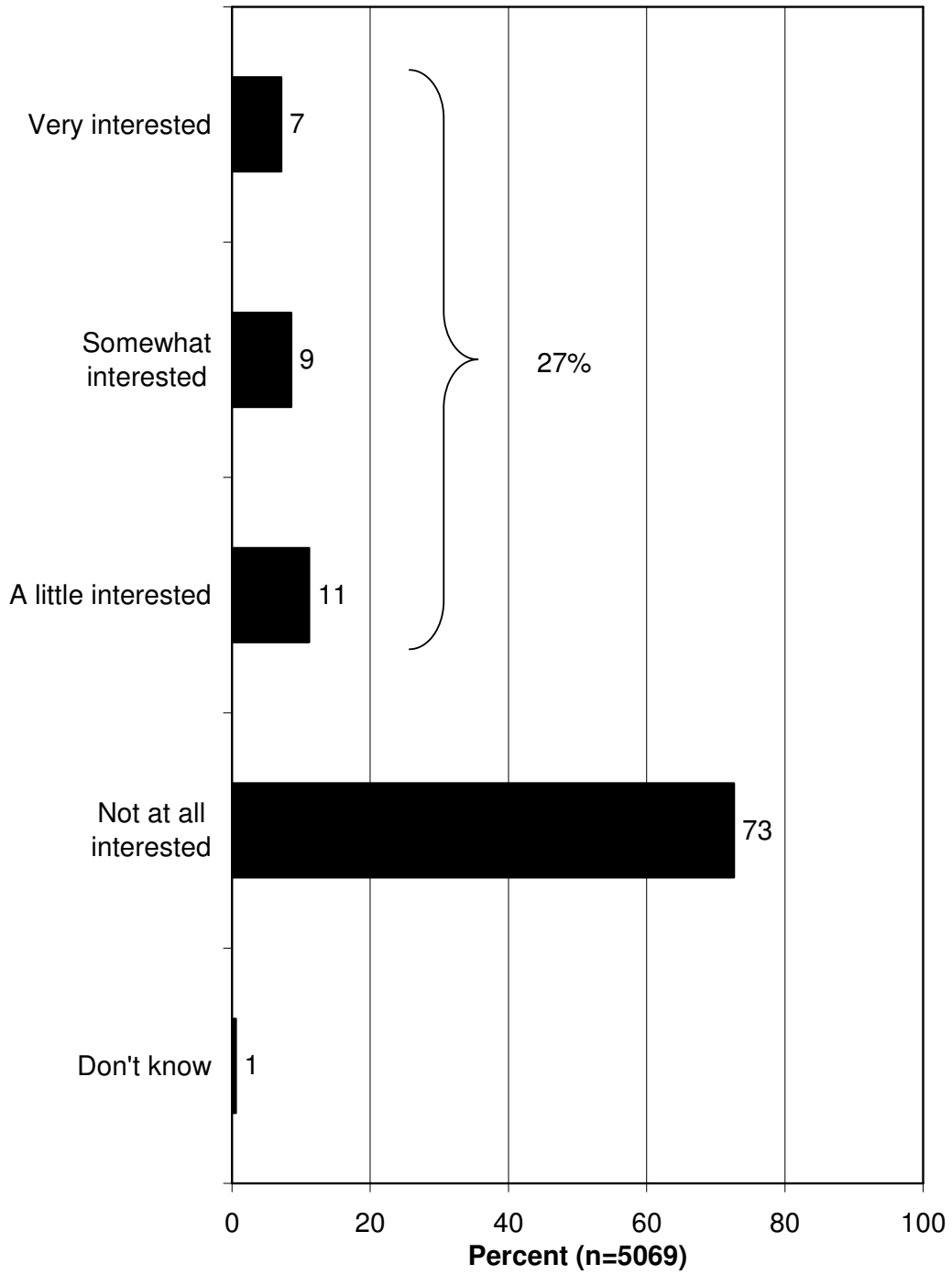
Q45. What else has contributed to or increased your interest in archery? (Asked of those who have ever participated in archery or were at least a little interested in archery.)



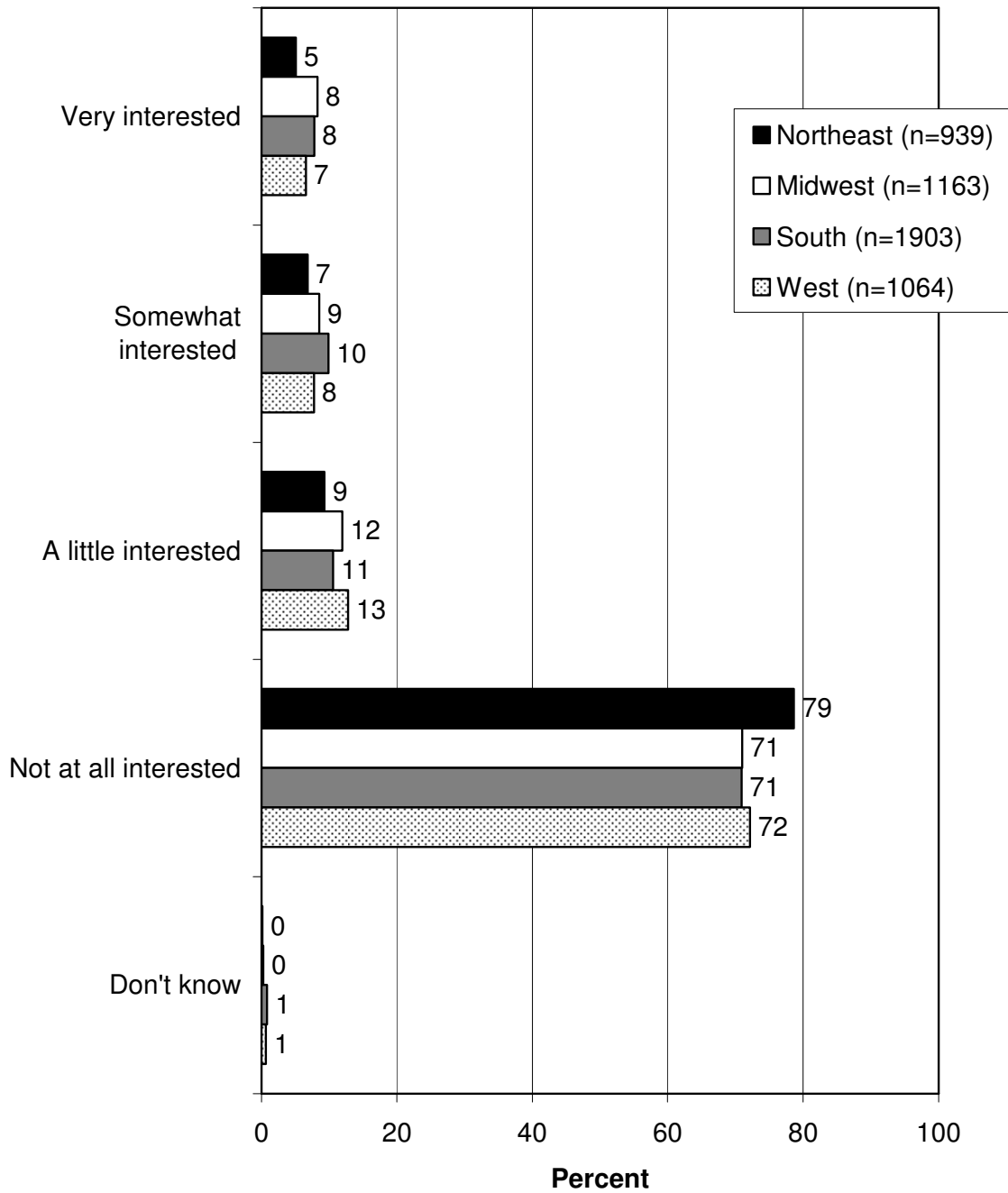
Q46. Can you please describe the nature of your interest in archery? (Asked of those who have ever participated in archery or were at least a little interested in archery.)



Q47. Prior to this survey, how interested were you in bowhunting specifically?

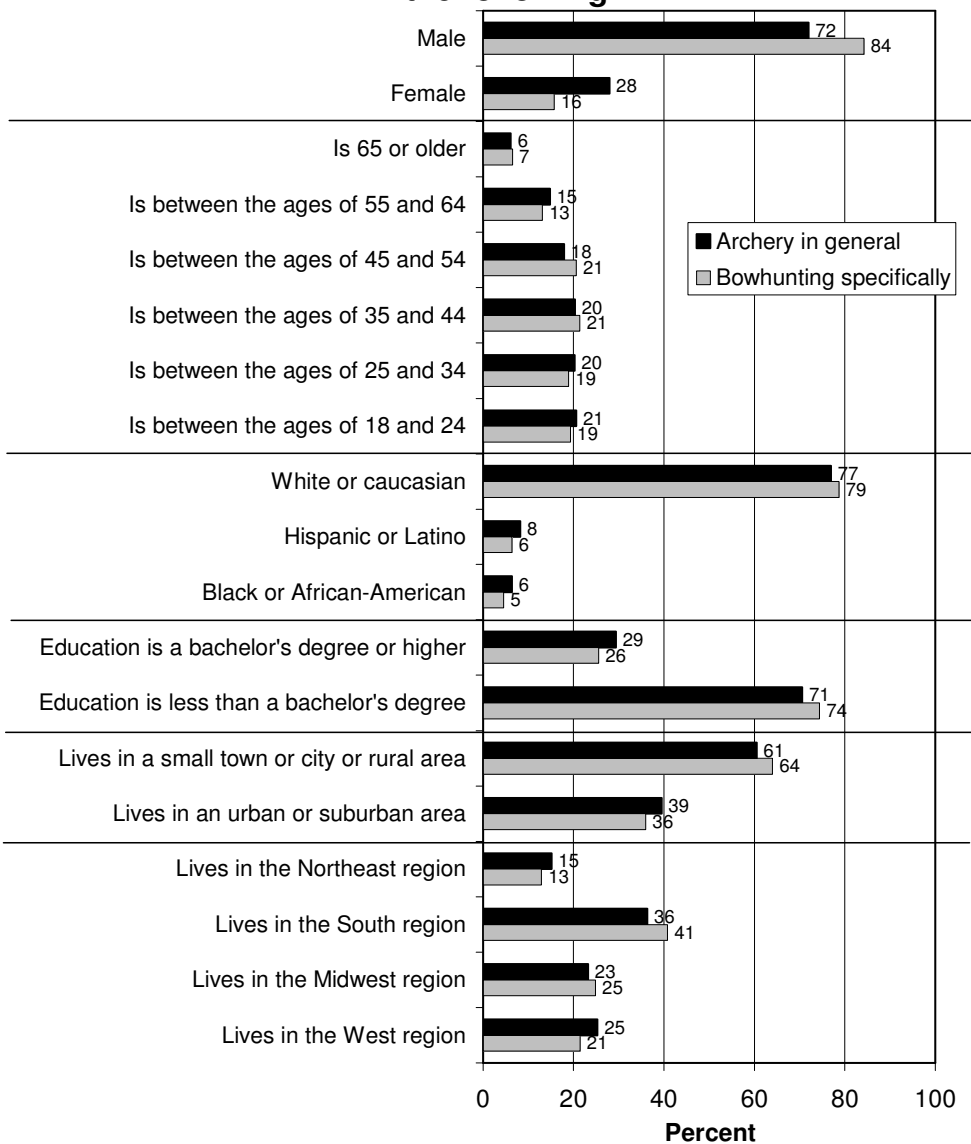


Q47. Prior to this survey, how interested were you in bowhunting specifically?



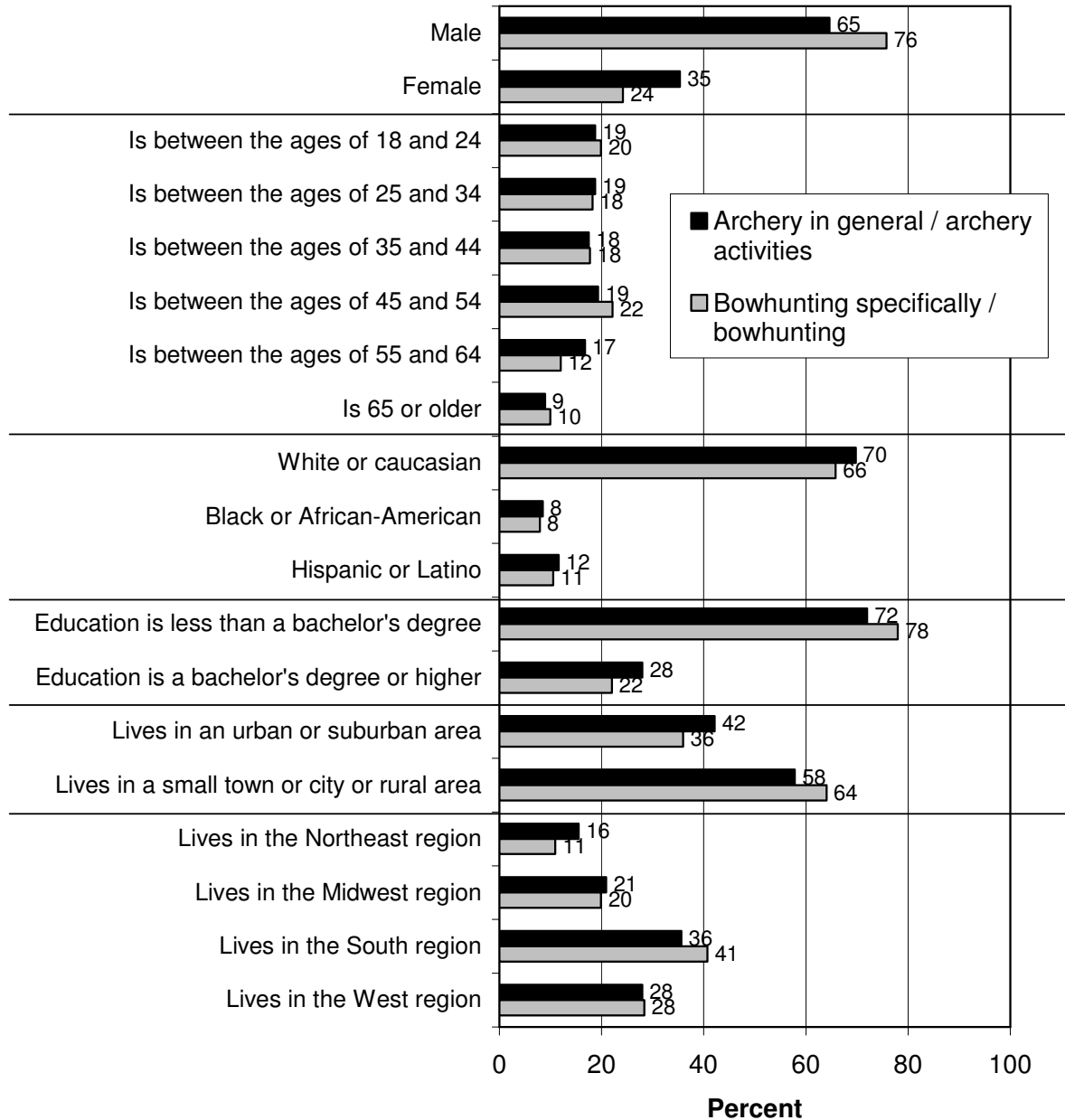
- The “profile” graph below shows the demographic groupings of those who stated they are very interested in archery in general and bowhunting specifically (the activities are shown side-by-side for comparison). For example, to interpret the graph, of those who stated they are very interested in *archery in general*, 72% are male and 28% are female, and of those who are very interested in *bowhunting specifically*, 84% are male and 16% are female. The most striking difference is in gender: females show more interest in archery than in bowhunting. However, it should not be lost in all this that males still make up the majority of people showing interest in archery (as well as, of course, bowhunting).

Percent of those who were very interested in [archery in general / bowhunting] that are each of the following:



- The graph below shows a profile of those who were very interested in archery in general or bowhunting but did not participate in the respective activities since 2011.

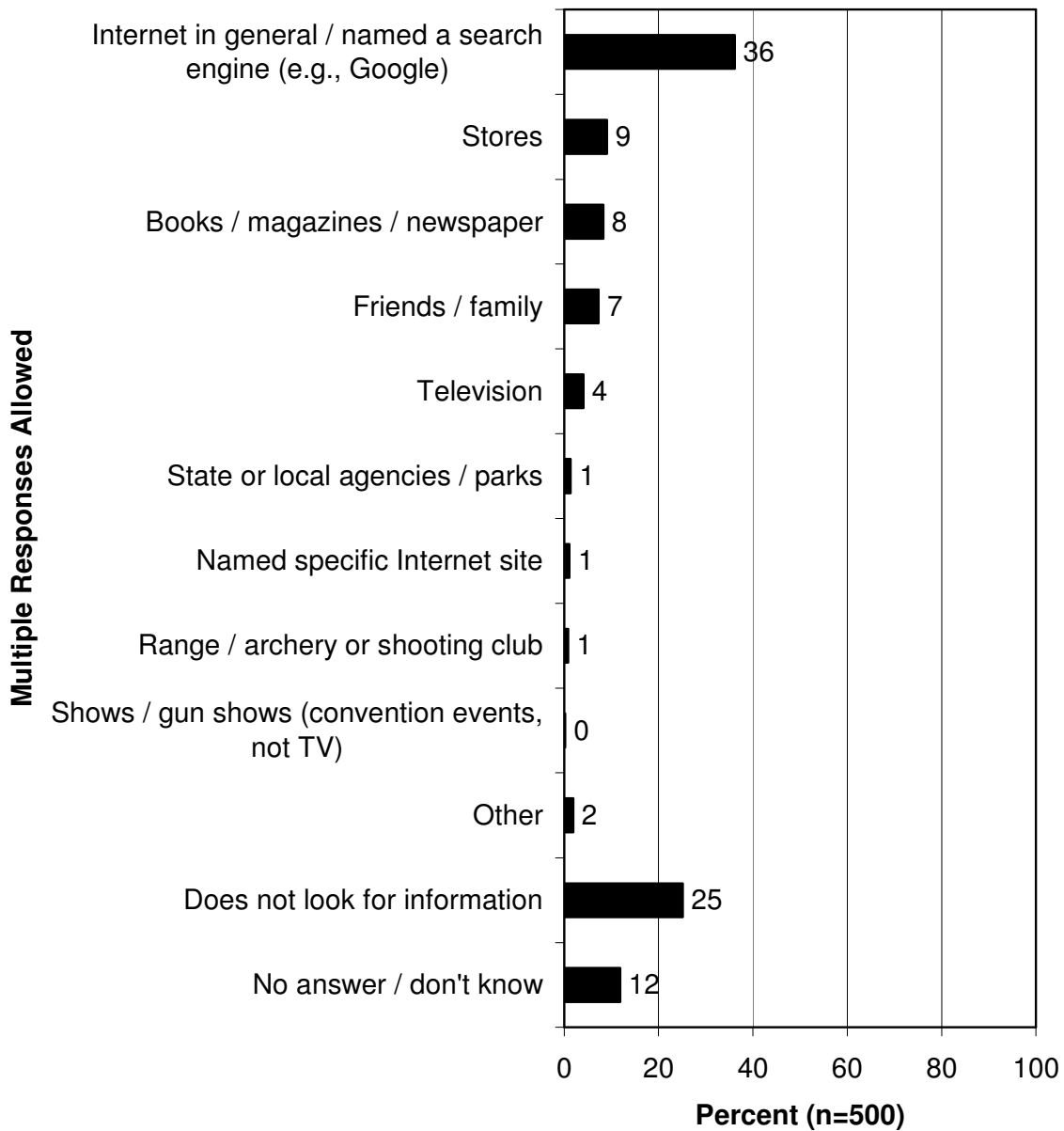
Percent of those who were very interested in [archery in general / bowhunting] but had not participated in [archery activities / bowhunting] from 2011 to present that are each of the following:



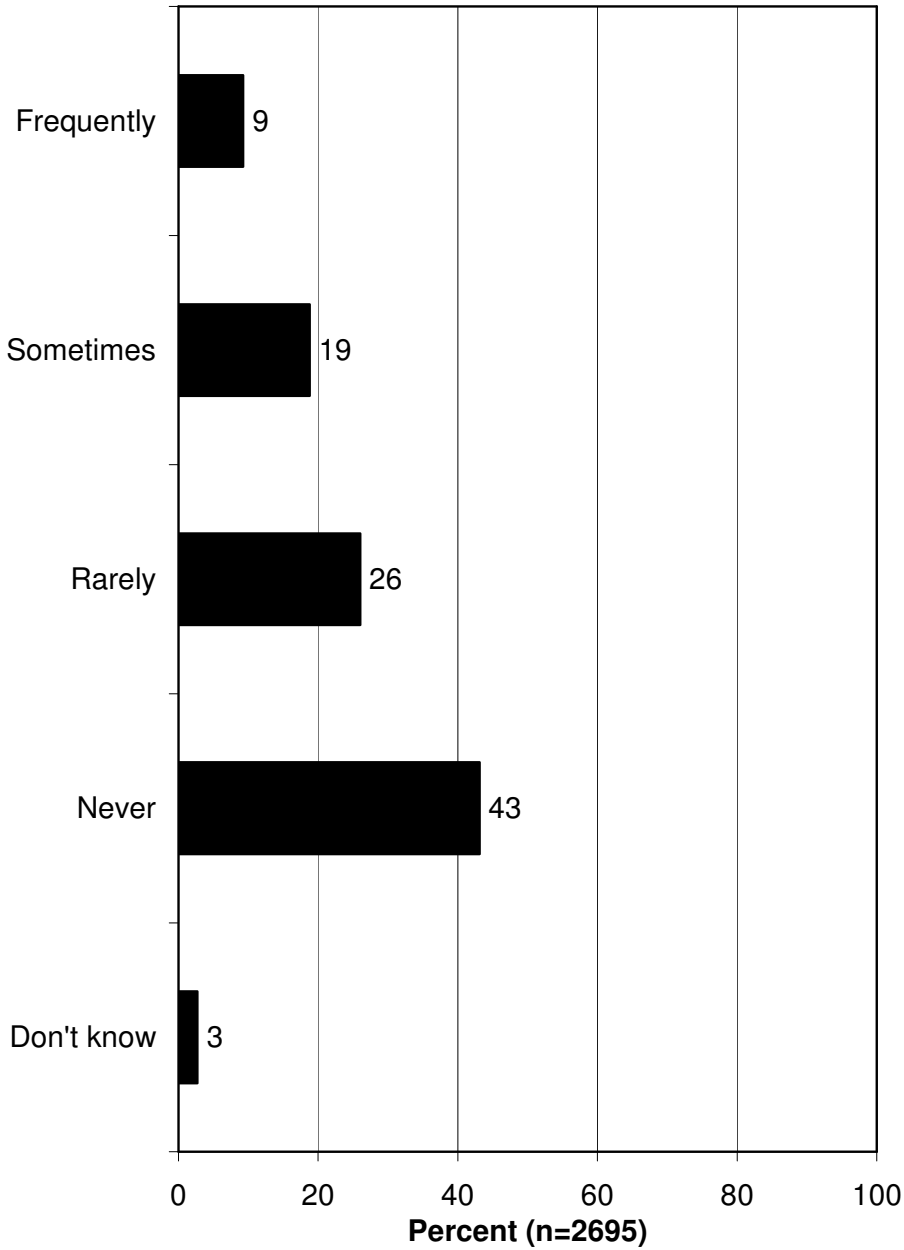
ACTIVATION IN LEARNING ABOUT ARCHERY

- In an open-ended question, those who ever participated in or expressed any interest in archery were asked where they look for sources that will satisfy or support their interest in archery or bowhunting. The top response was the Internet in general or a specific search engine (36% stated this); this was distantly followed by stores (9%), print publications (books, magazines, or newspapers) (8%), and friends or family (7%).
- Those who ever participated in or expressed any interest in archery were asked how often they actively seek out the sources they named in the previous question. The top response was *never* (43%), followed by *rarely* (26%), *sometimes* (19%), and *frequently* (9%).
 - Regional crosstabulations are shown.
- A small percentage (2%) of respondents have visited the Archery360 website or Facebook page.
 - Regional crosstabulations are shown.

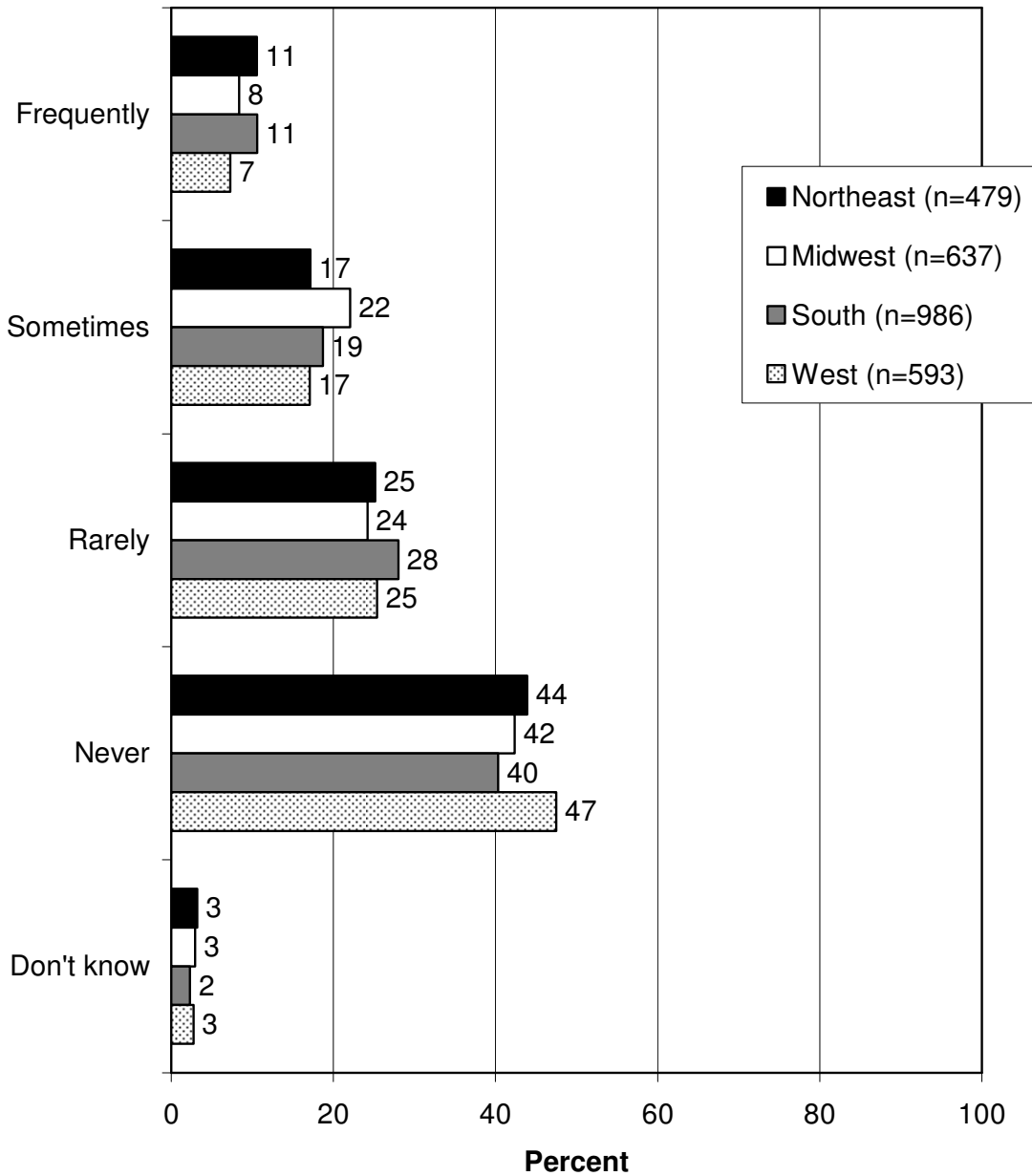
Q50. Specifically, where do you look for sources that will satisfy or support your interest in archery or bowhunting? (Asked of those who have ever participated in archery or were at least a little interested in archery.)



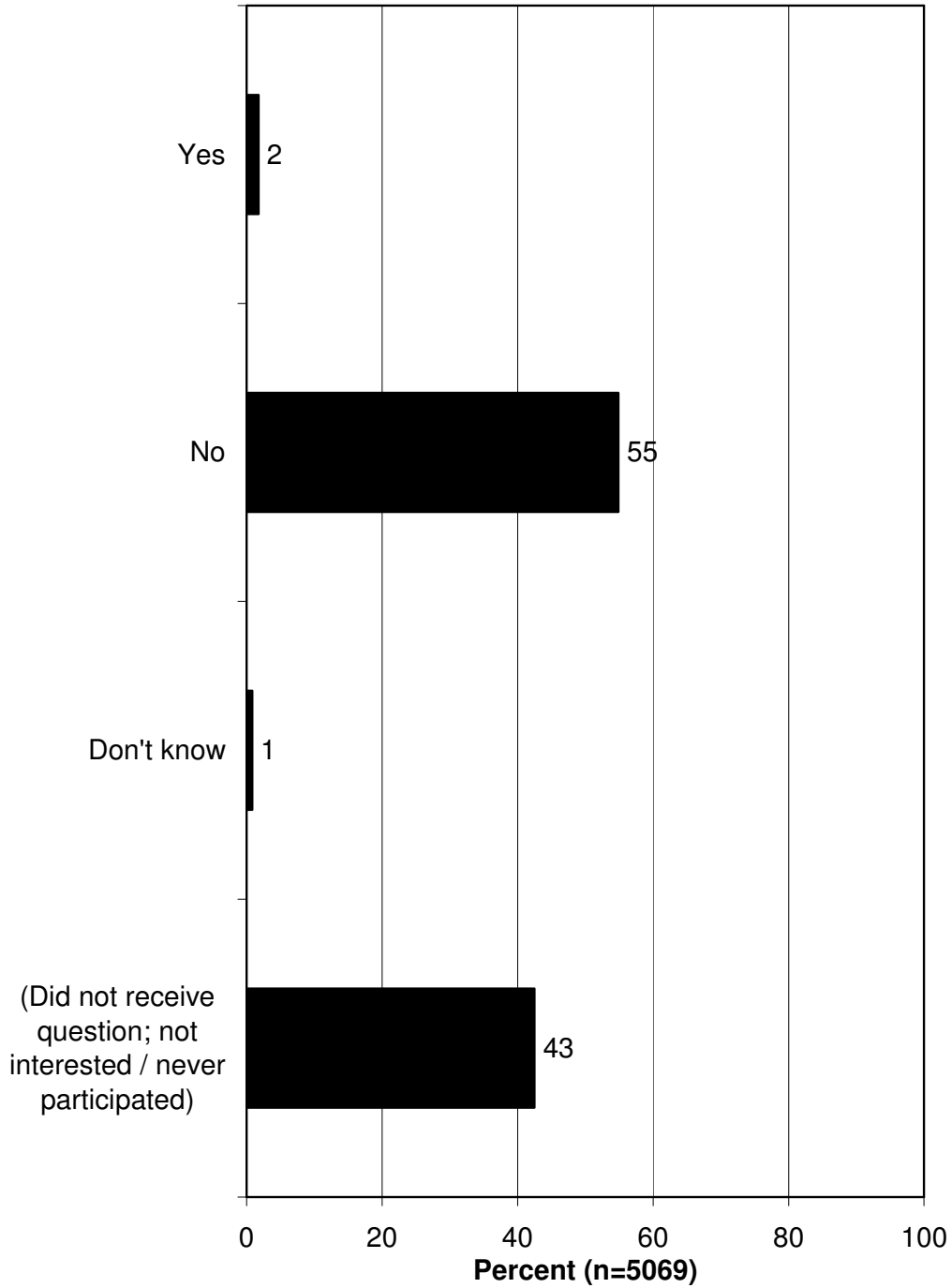
Q51. Thinking about the sources you just named, how often do you actively look for or seek out these sources? (Asked of those who have ever participated in archery or were at least a little interested in archery.)



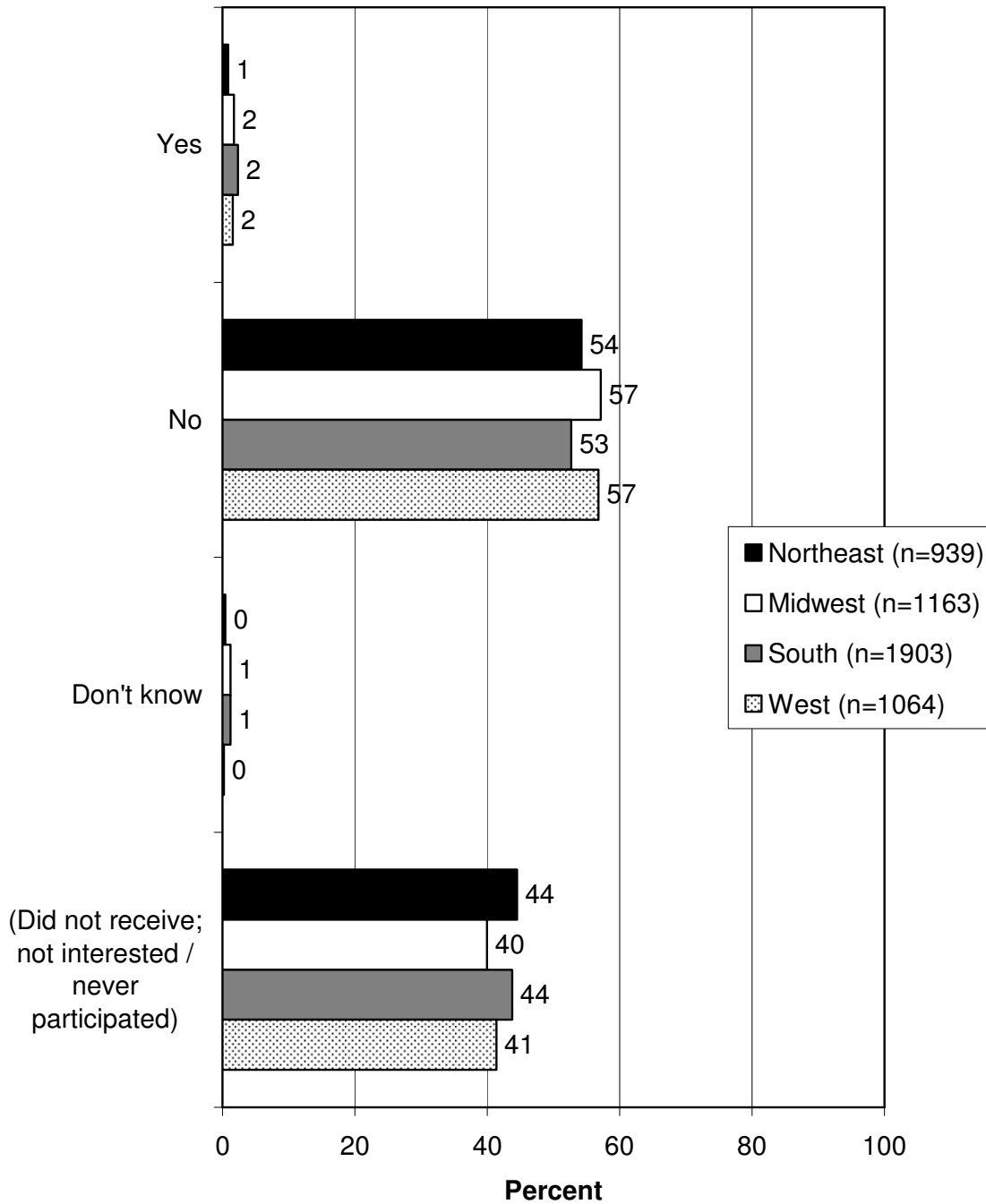
Q51. Thinking about the sources you just named, how often do you actively look for or seek out these sources? (Asked of those who have ever participated in archery or were at least a little interested in archery.)



Q52. Have you ever visited the Archery360 website or Facebook page?



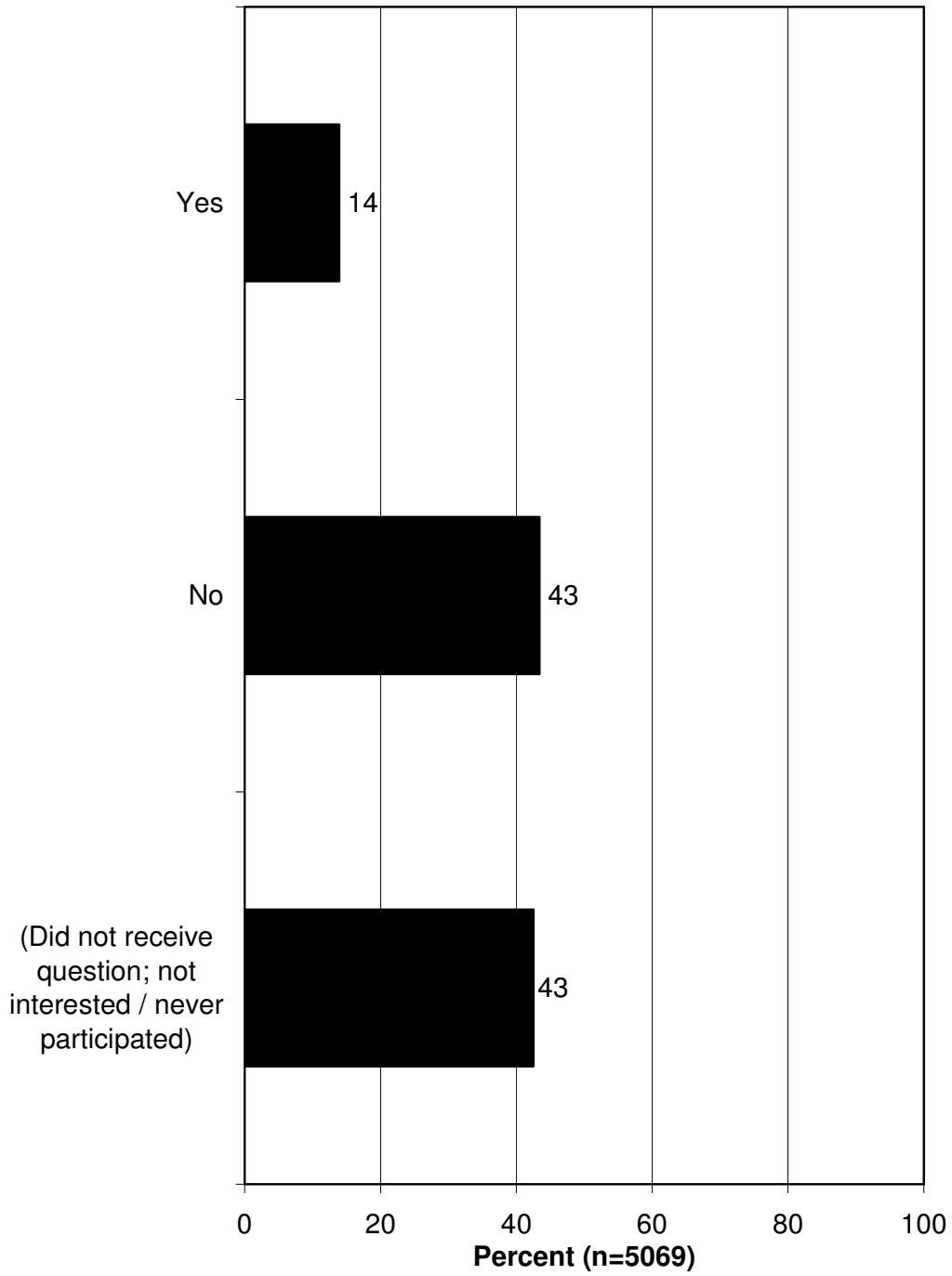
Q52. Have you ever visited the Archery360 website or Facebook page?



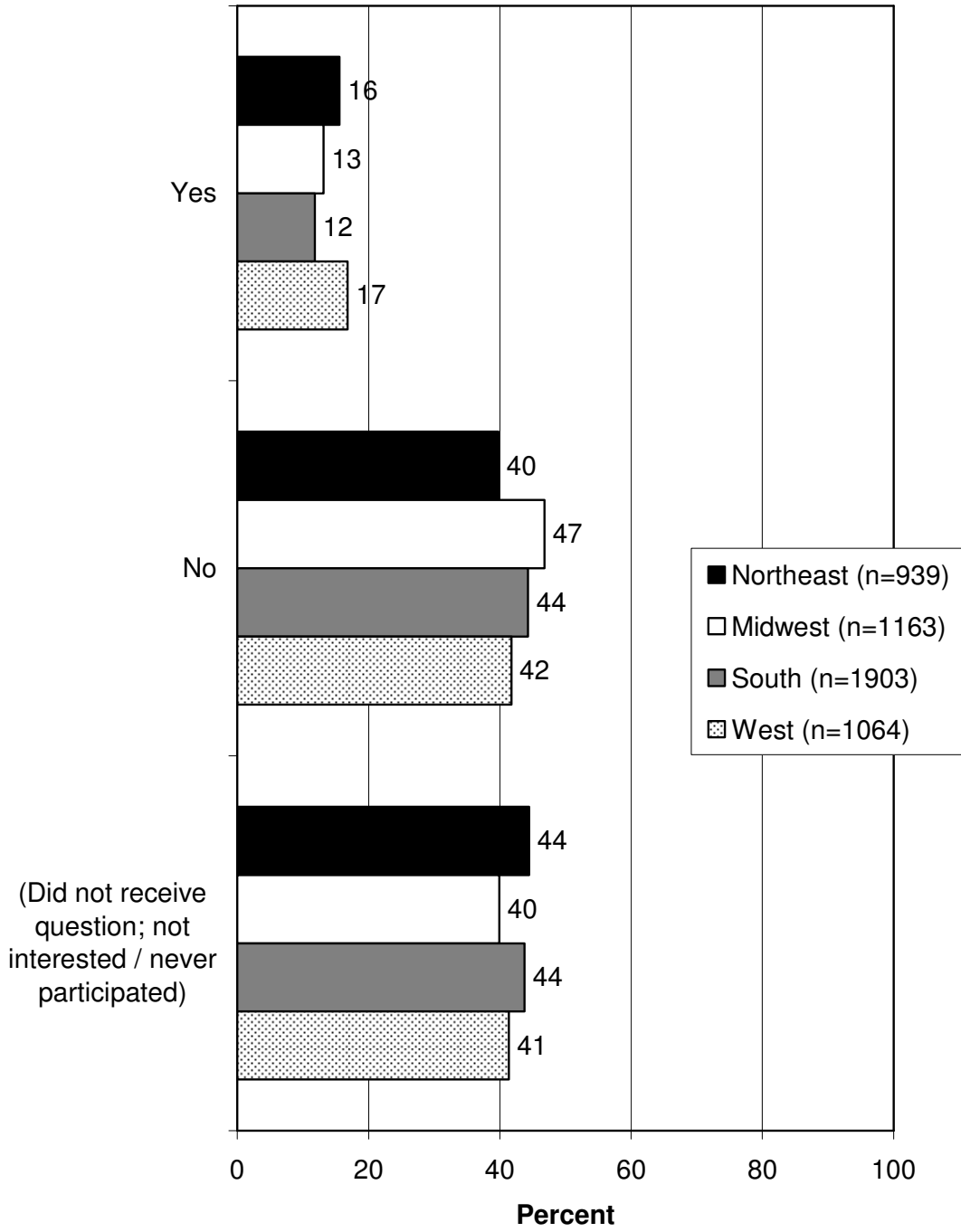
TAKING ACTION TO PARTICIPATE IN ARCHERY

- Of all respondents, 14% have taken an archery or bowhunting class, lesson, or workshop.
 - Respondents from the Northeast and West Regions were more likely to have taken a class than those from the Midwest and South Regions.
- Of those who have taken an archery or bowhunting class, lesson, or workshop, a majority (62%) took their most recent class before the age of 18. Regional variations are also shown.
- Nearly a third (31%) of those who ever participated in or expressed any interest in archery or bowhunting say that they are likely to take a class or workshop in the next 12 months: 16% say they are *a little* likely, 11% say they are *somewhat* likely, and 4% say they are *very* likely to take a class; two-thirds (68%) say they are *not at all* likely.
 - Respondents from the Northeast Region are the least likely to take a class in the next 12 months.

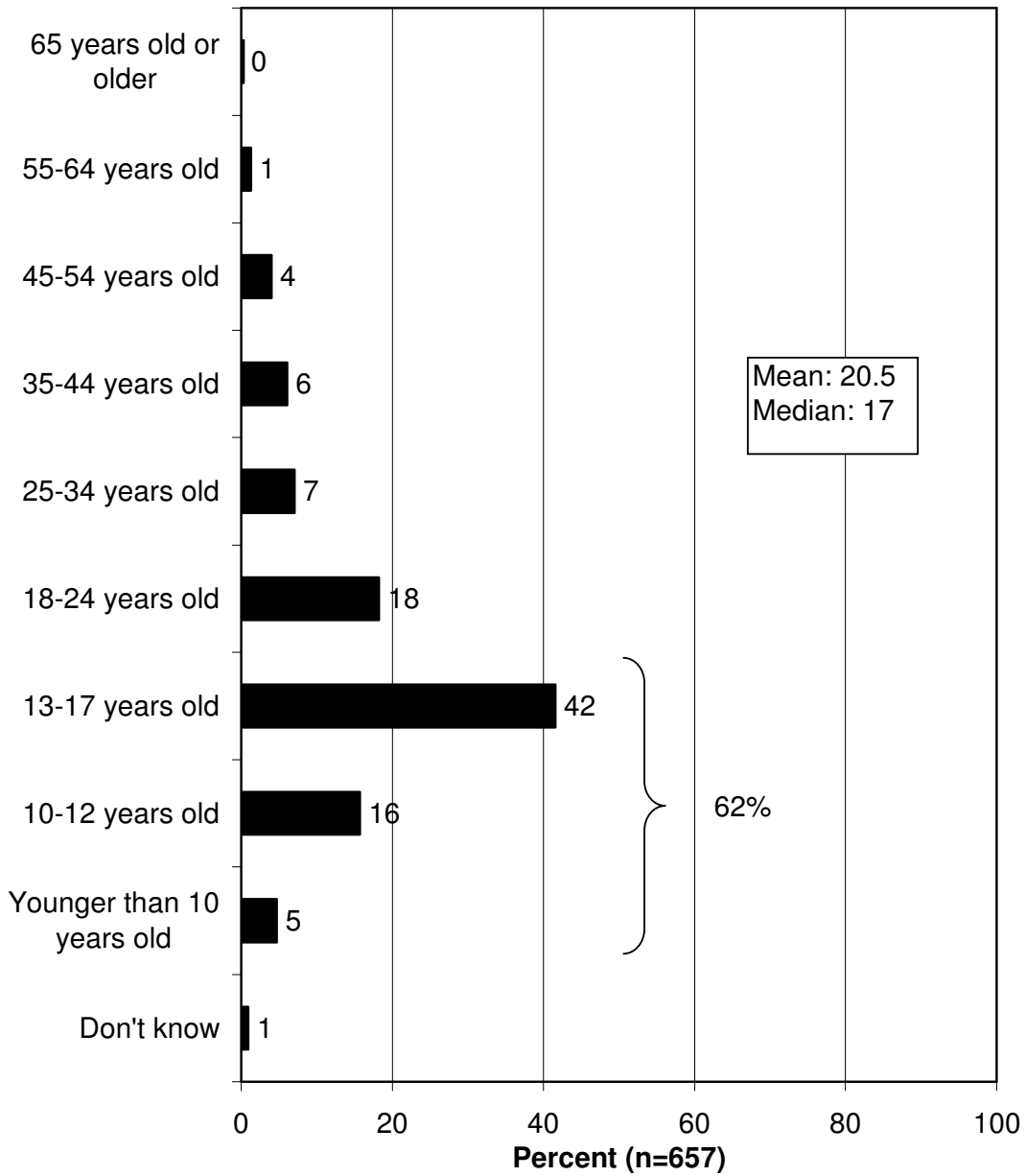
Q53. Have you ever taken an archery or bowhunting class, lesson, or workshop?



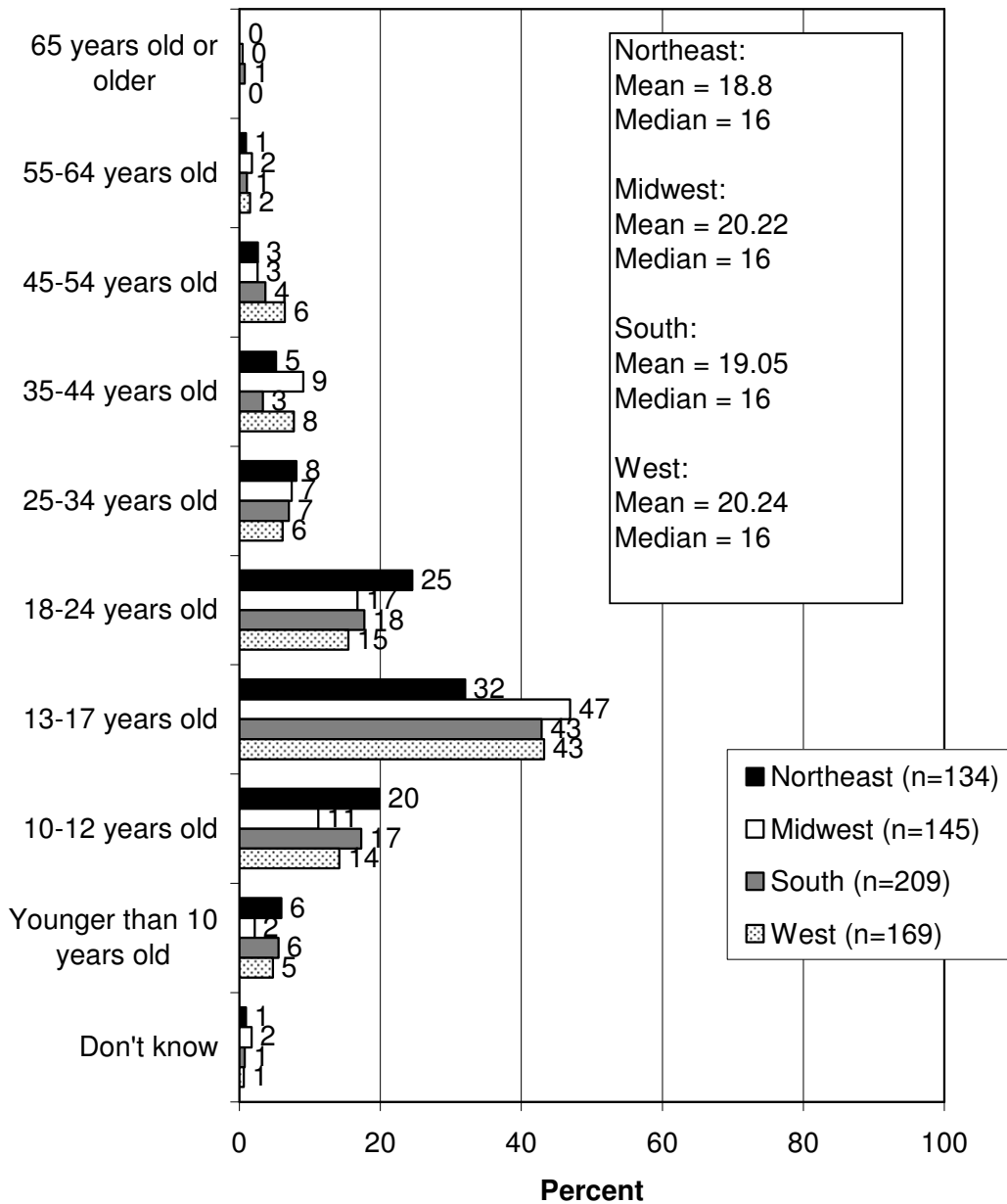
Q53. Have you ever taken an archery or bowhunting class, lesson, or workshop?



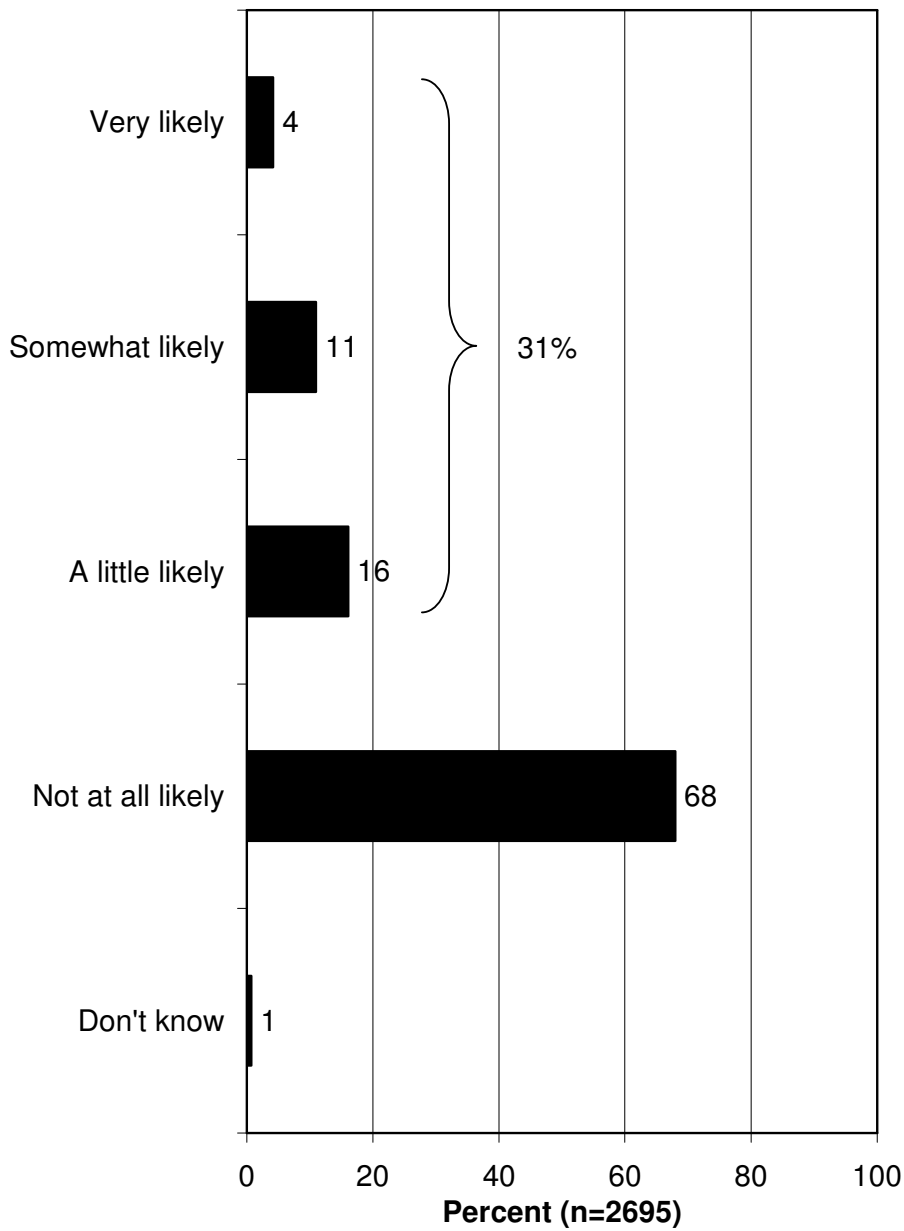
Q55. At what age did you take your most recent class, lesson, or workshop? (Asked of those who have taken an archery or bowhunting class, lesson, or workshop.)



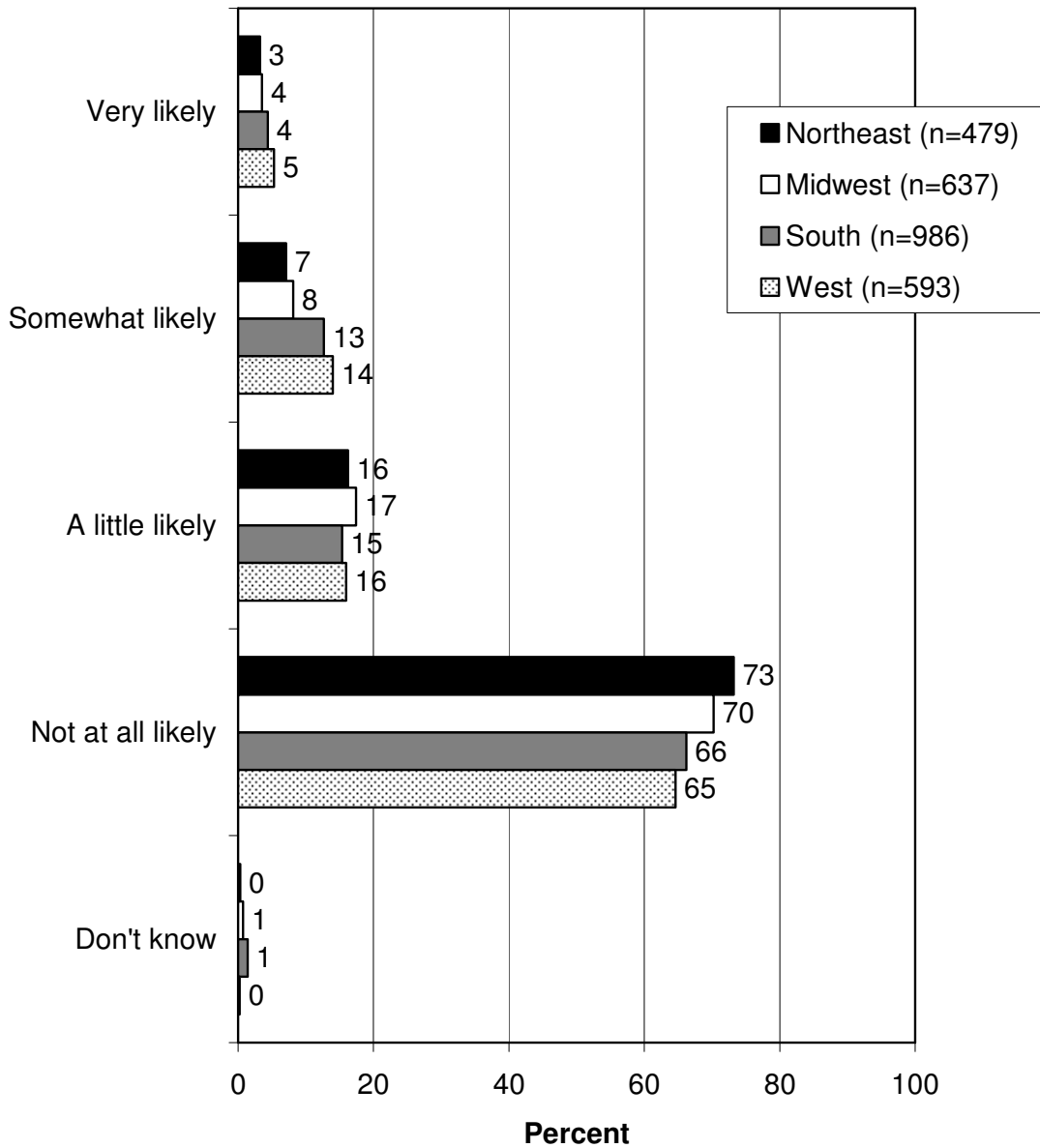
Q55. At what age did you take your most recent class, lesson, or workshop? (Asked of those who have taken an archery or bowhunting class, lesson, or workshop.)



Q56. How likely or unlikely would you be to take an archery or bowhunting class, lesson, or workshop at a reasonable cost in the next 12 months? (Asked of those who have ever participated in archery or were at least a little interested in archery.)



Q56. How likely or unlikely would you be to take an archery or bowhunting class, lesson, or workshop at a reasonable cost in the next 12 months? (Asked of those who have ever participated in archery or were at least a little interested in archery.)



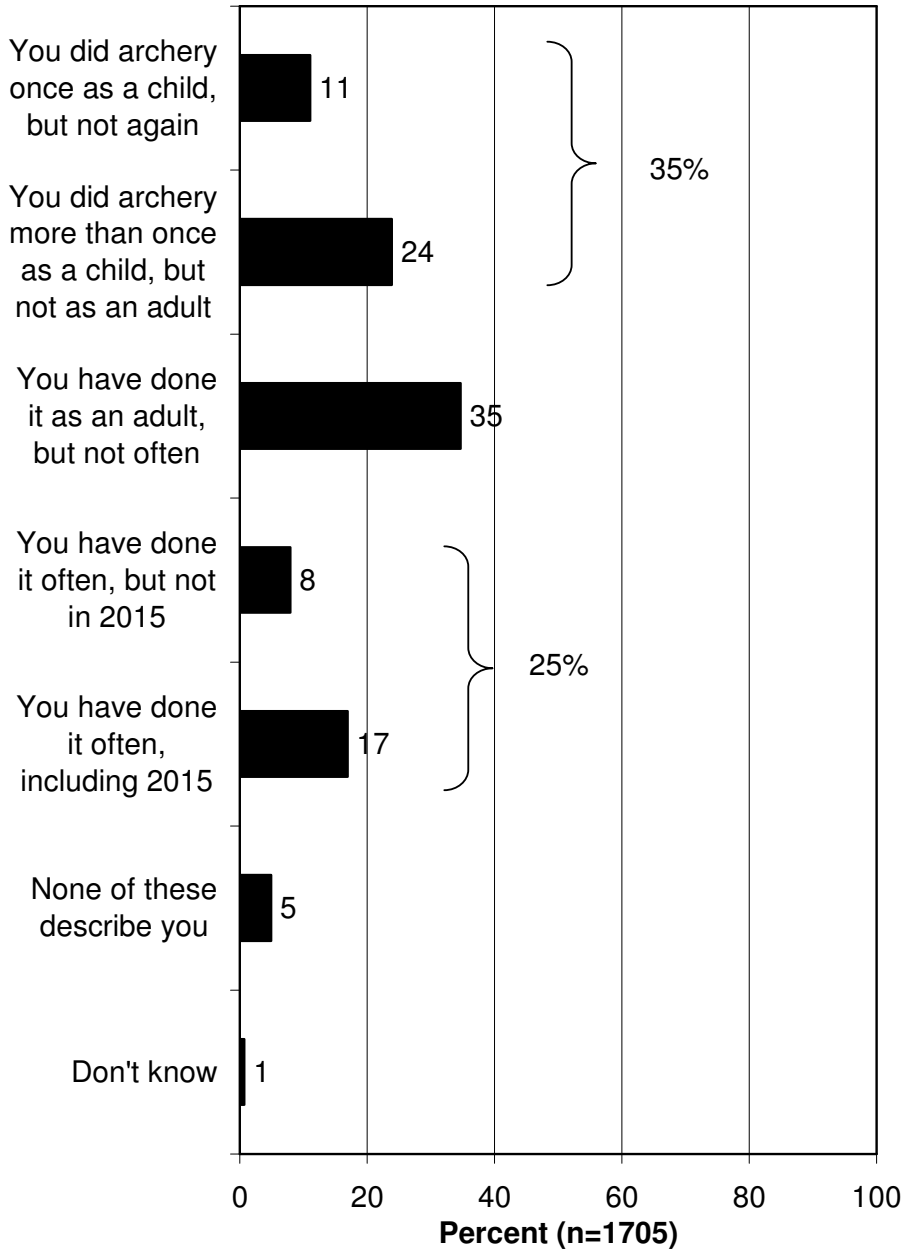
CHARACTERISTICS OF ARCHERY AND BOWHUNTING PARTICIPATION

EARLY PARTICIPATION IN ARCHERY ACTIVITIES

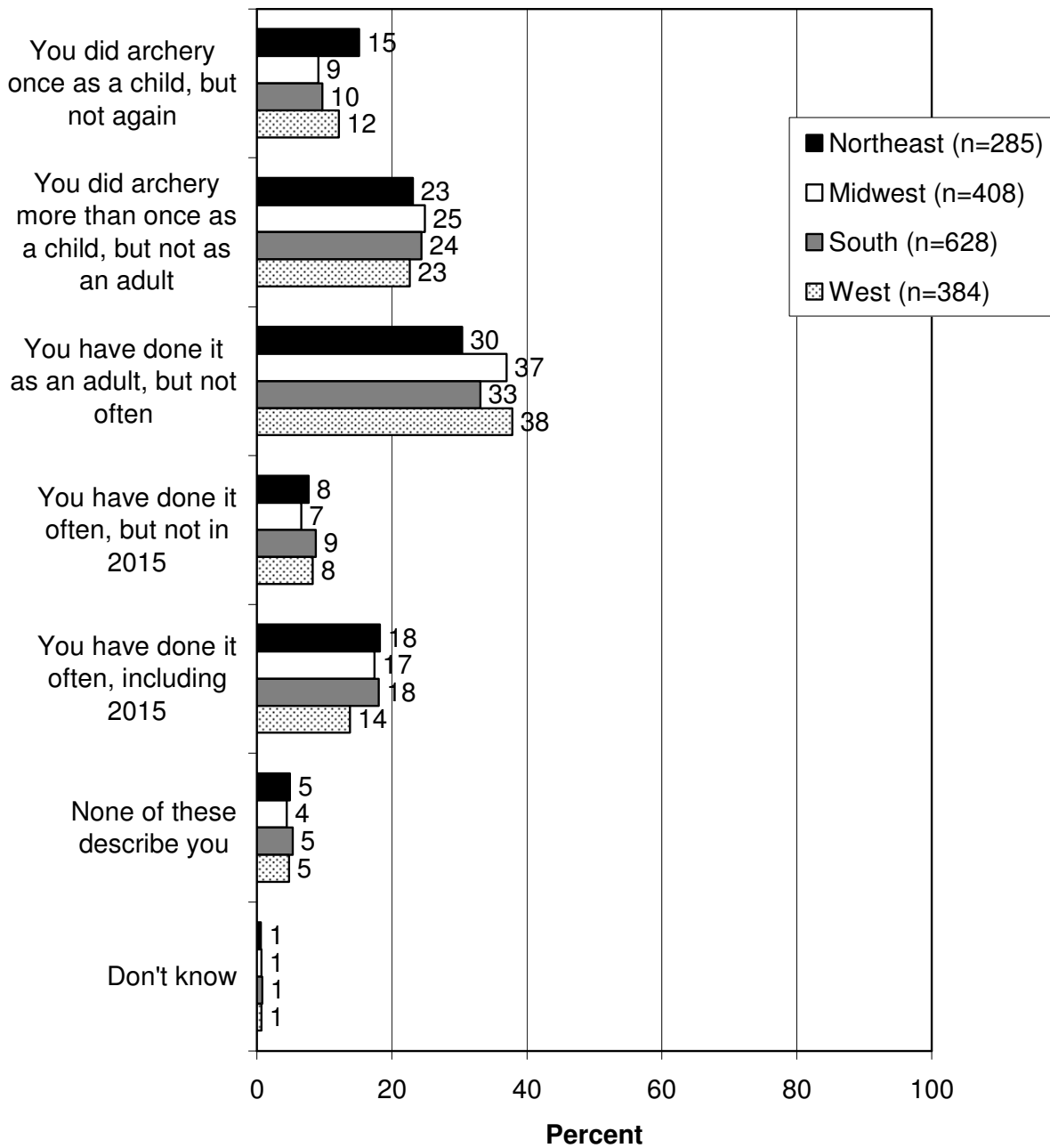
This portion of the survey was designed to learn about more about how participants got started with their target archery activities.

- Those who ever participated in archery activities were asked to describe their status as a participant:
 - 35% shot archery as a child but not as an adult.
 - 35% shot archery as an adult, but not often.
 - 25% shot archery often (17% did so in 2015).
 - Regional variations are shown.
- Most archery participants (79%) had their first experience with the activity before adulthood. The mean starting age of participants is 15.2 years old and the median is 13 years old. Regional variations are also shown.
- From the time of their first archery experience, a majority of those who ever participated in archery activities (62%) said that they do not participate most years. In ascending levels of frequency, 16% said they participate 1 out of every 2 to 3 years, 9% said they participate almost every year, and 11% said they participate every year. Regional variations are also shown.

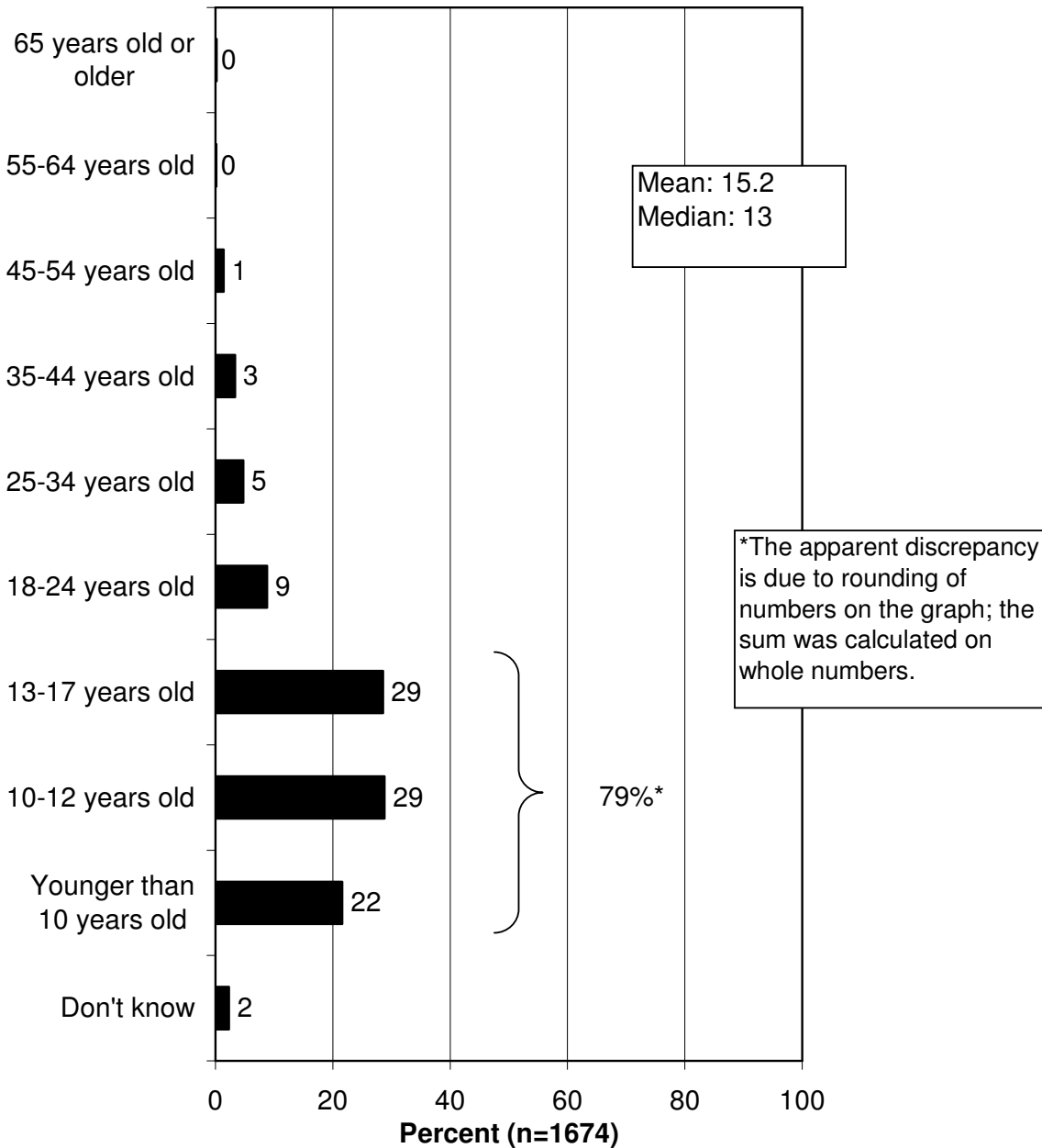
**Q59. Which of the following best describes you?
(Asked of those who have ever participated in
archery.)**



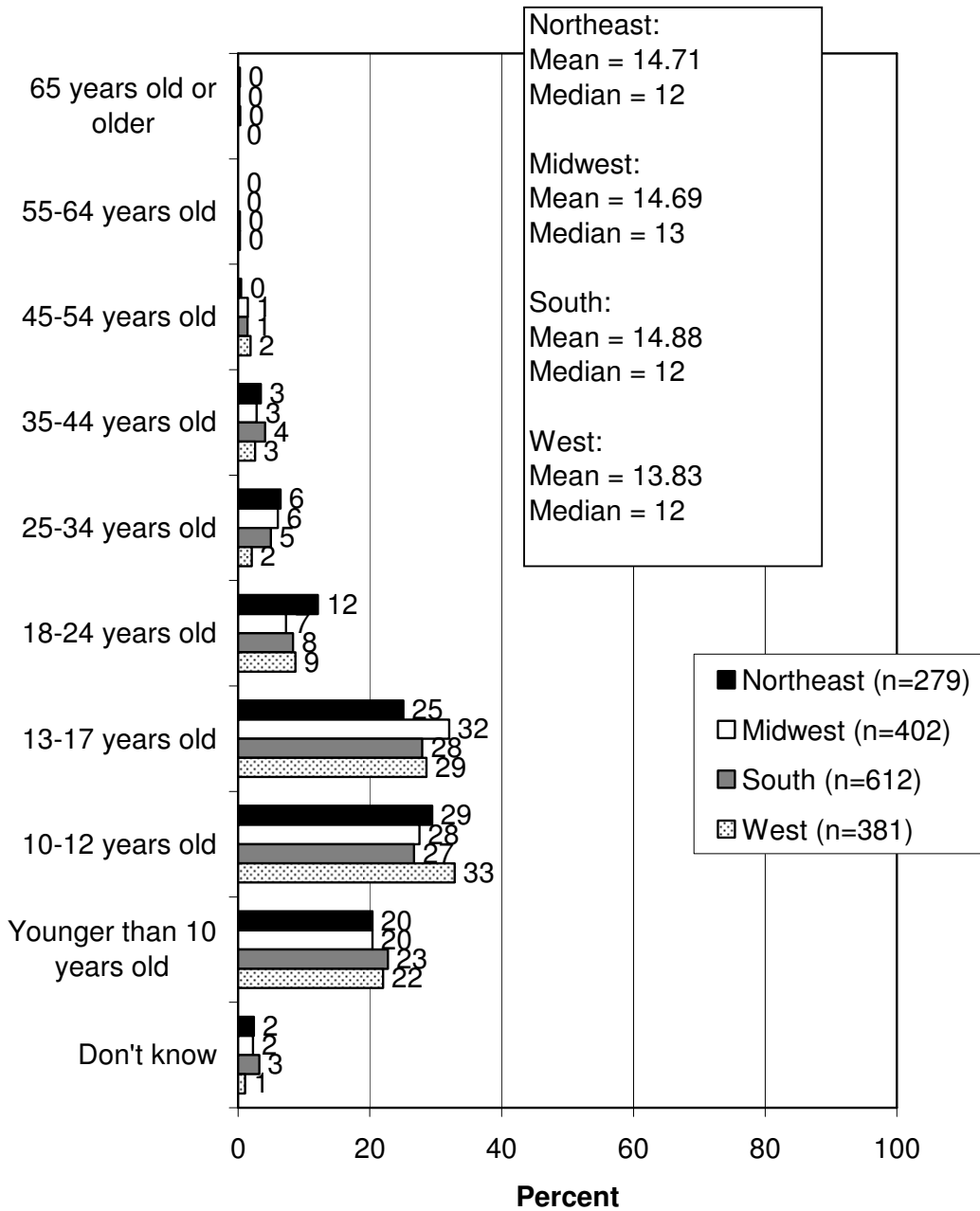
**Q59. Which of the following best describes you?
(Asked of those who have ever participated in archery.)**



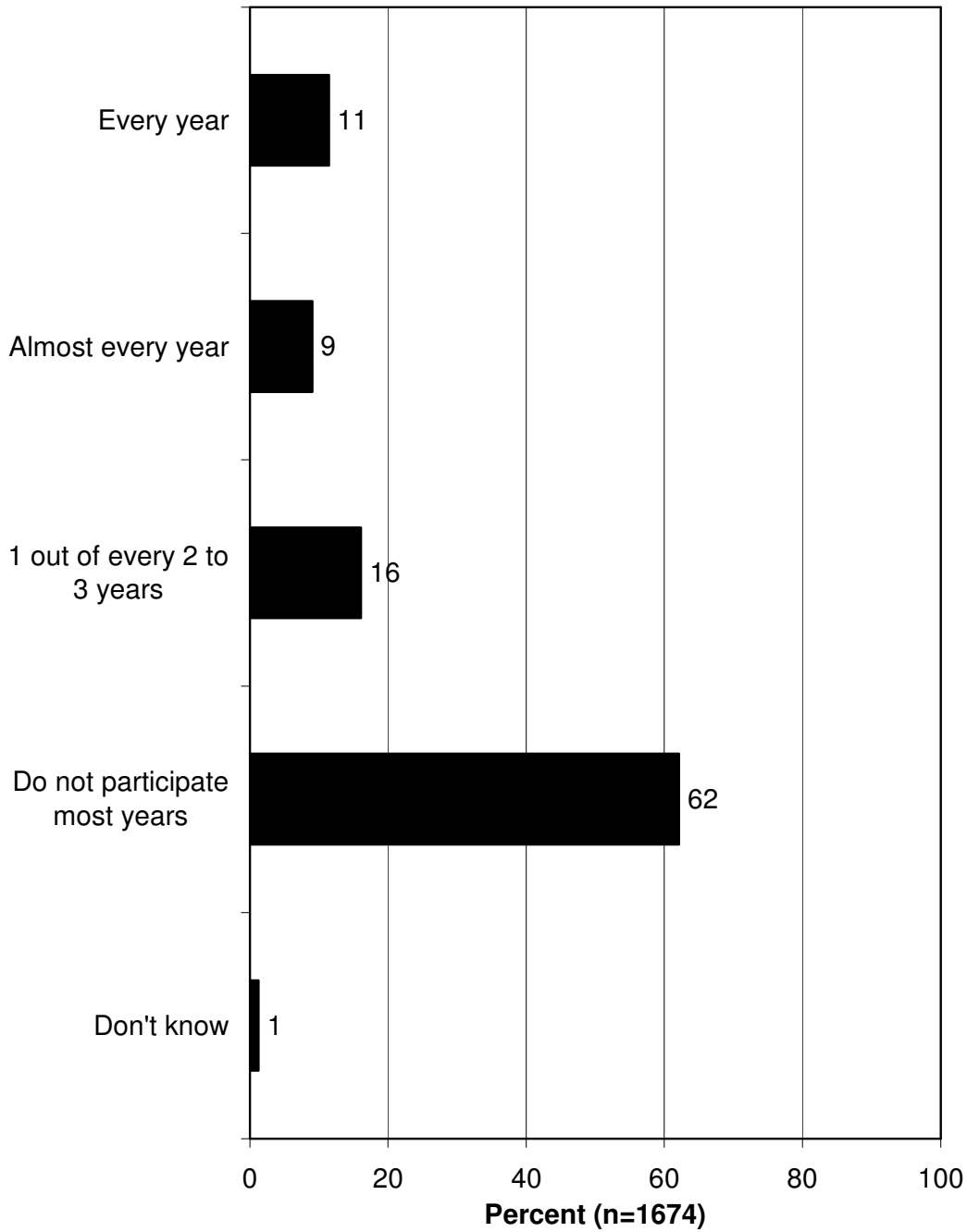
Q65. How old were you when you first participated in archery activities? (Asked of those who have ever participated in archery activities.)



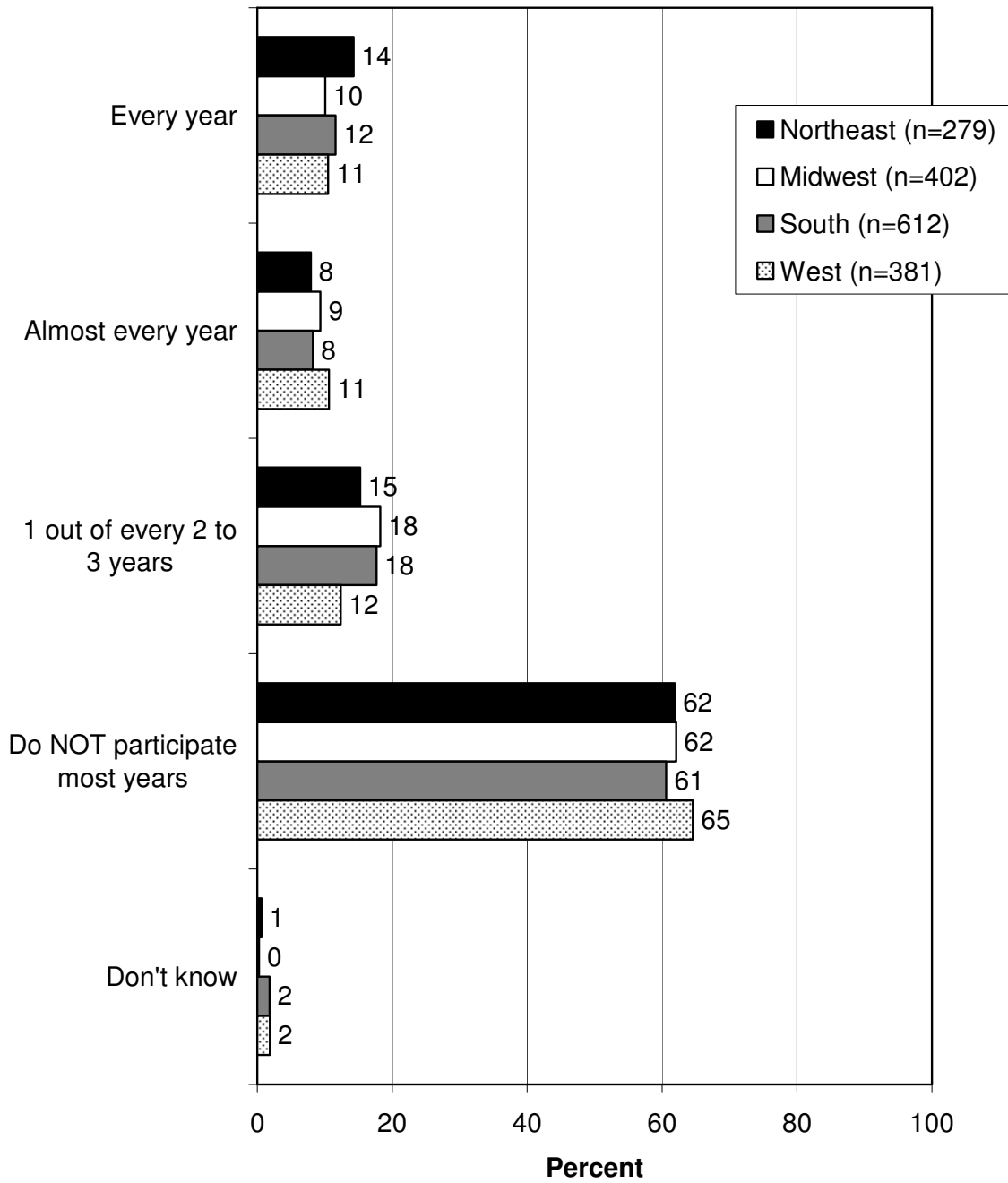
Q65. How old were you when you first participated in archery activities? (Asked of those who have ever participated in archery activities.)



Q66. How often have you participated in archery activities since you first started? (Asked of those who have ever participated in archery activities.)



Q66. How often have you participated in archery activities since you first started? (Asked of those who have ever participated in archery activities.)

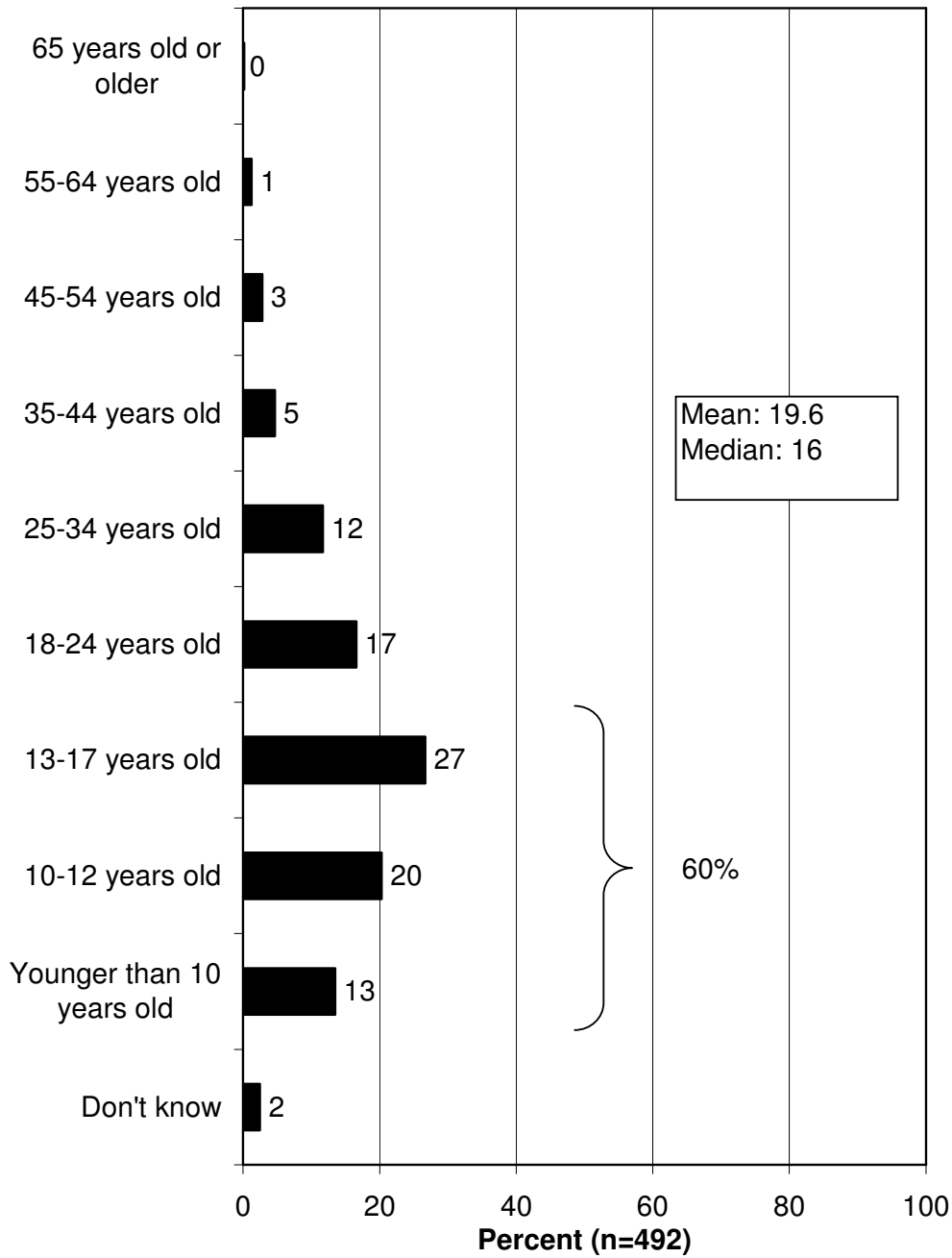


EARLY PARTICIPATION IN BOWHUNTING

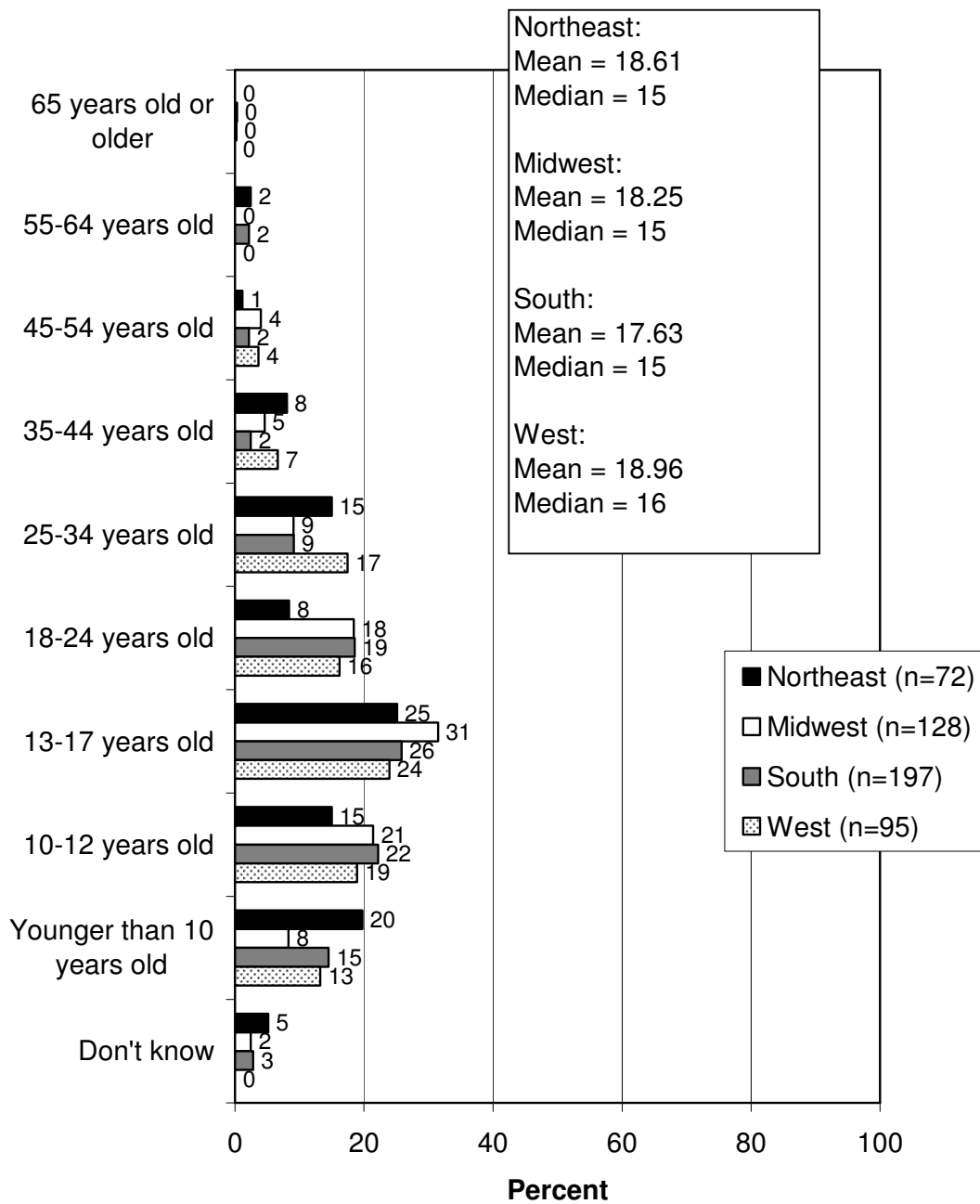
- The starting age of bowhunting participants skews a bit older compared to that of target archery participants, although a majority of bowhunters (60%) had their first experience with the activity before adulthood. The mean starting age of bowhunting participants is 19.6 years old and the median is 16 years old.
 - Regional variations are shown.

- Higher percentages of bowhunters continue the activity after their first experience compared to target archery participants. In ascending levels of frequency, 31% of bowhunters do not participate most years, 24% participate 1 out of every 2 to 3 years, 18% participate almost every year, and 25% participate every year.
 - Northeast Region bowhunters demonstrated more avidity than bowhunters from the other regions.

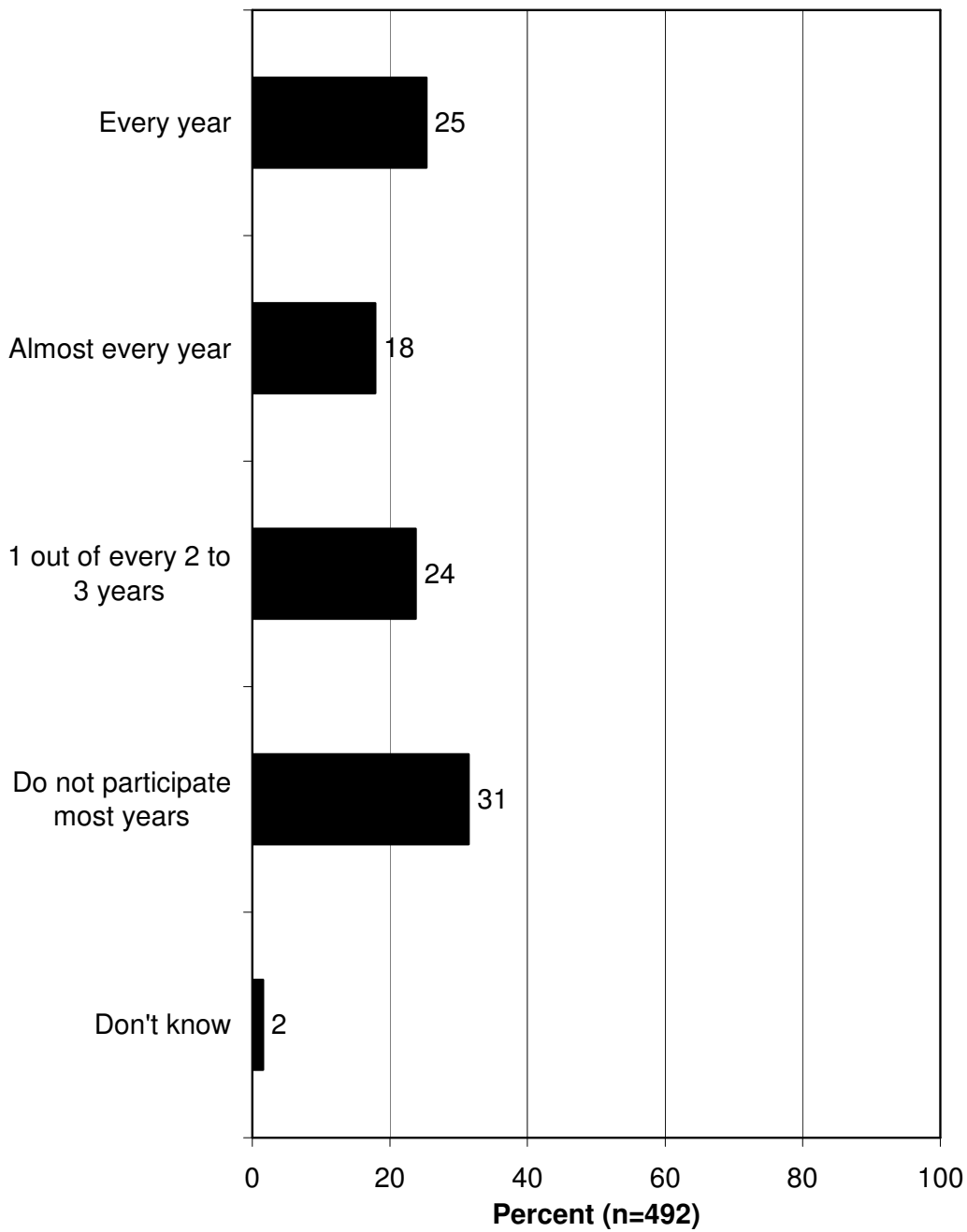
Q69. How old were you when you first participated in bowhunting? (Asked of those who have ever participated in bowhunting.)



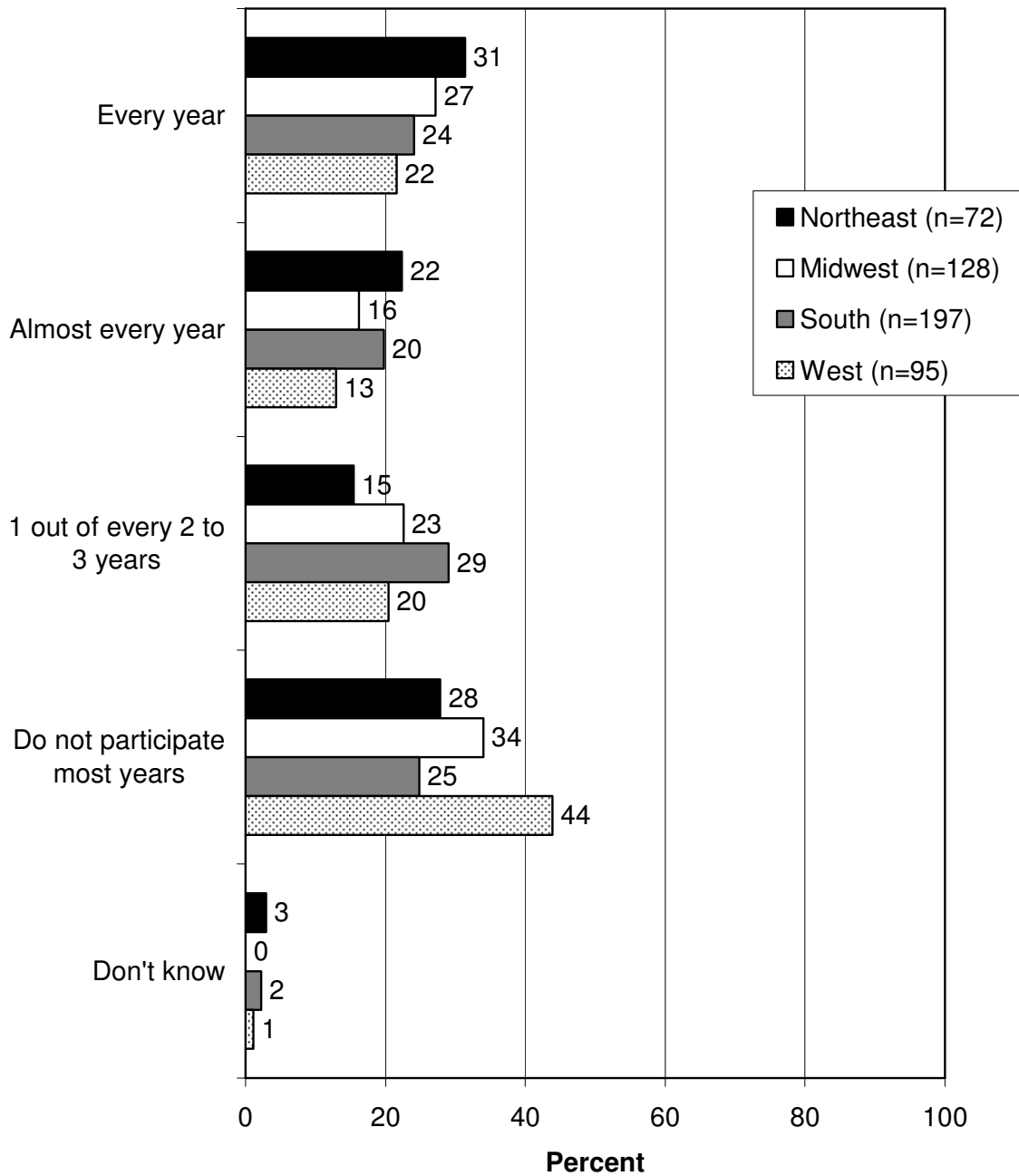
Q69. How old were you when you first participated in bowhunting? (Asked of those who have ever participated in bowhunting.)



Q70. How often have you participated in bowhunting since you first started? (Asked of those who have ever participated in bowhunting.)



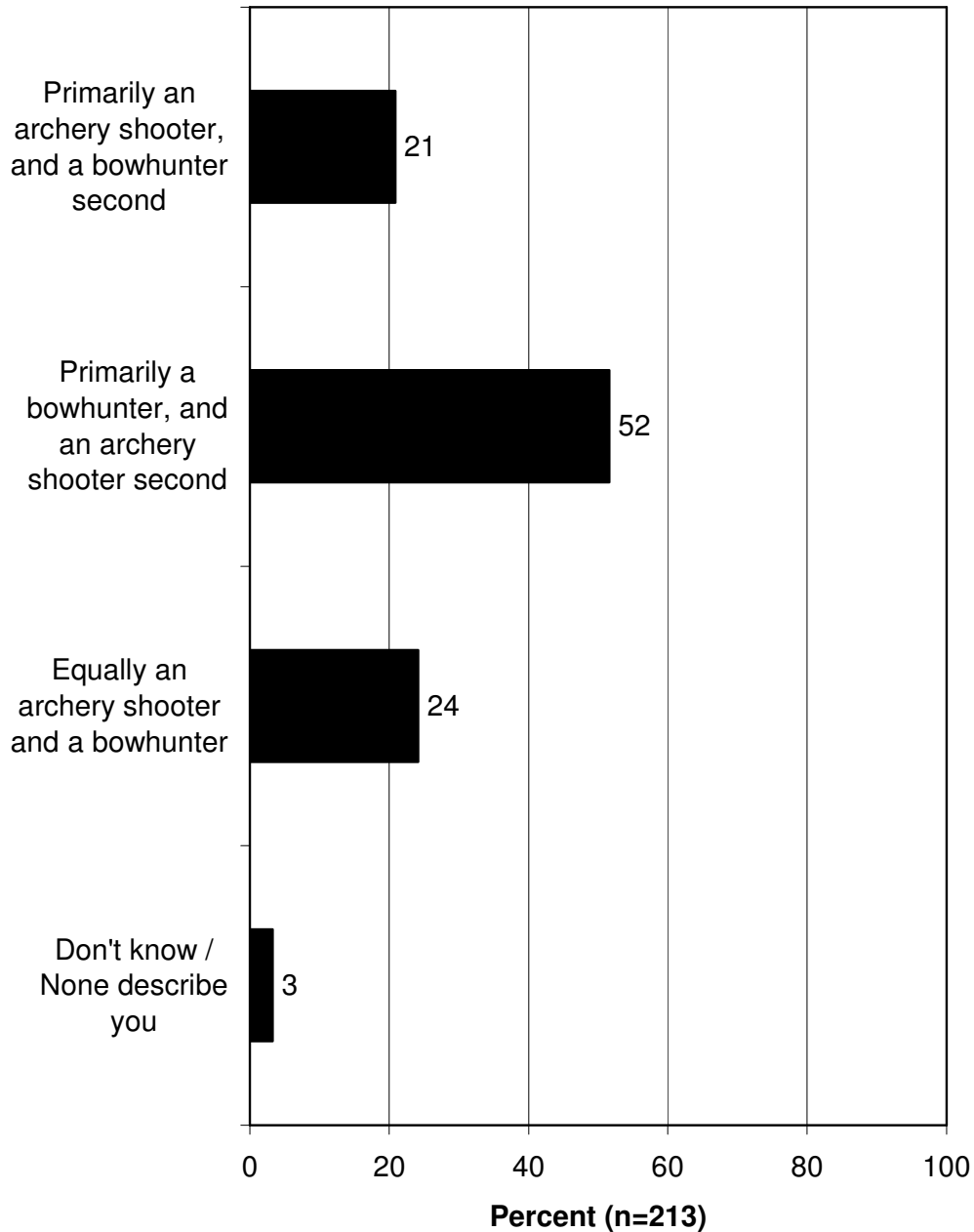
Q70. How often have you participated in bowhunting since you first started? (Asked of those who have ever participated in bowhunting.)



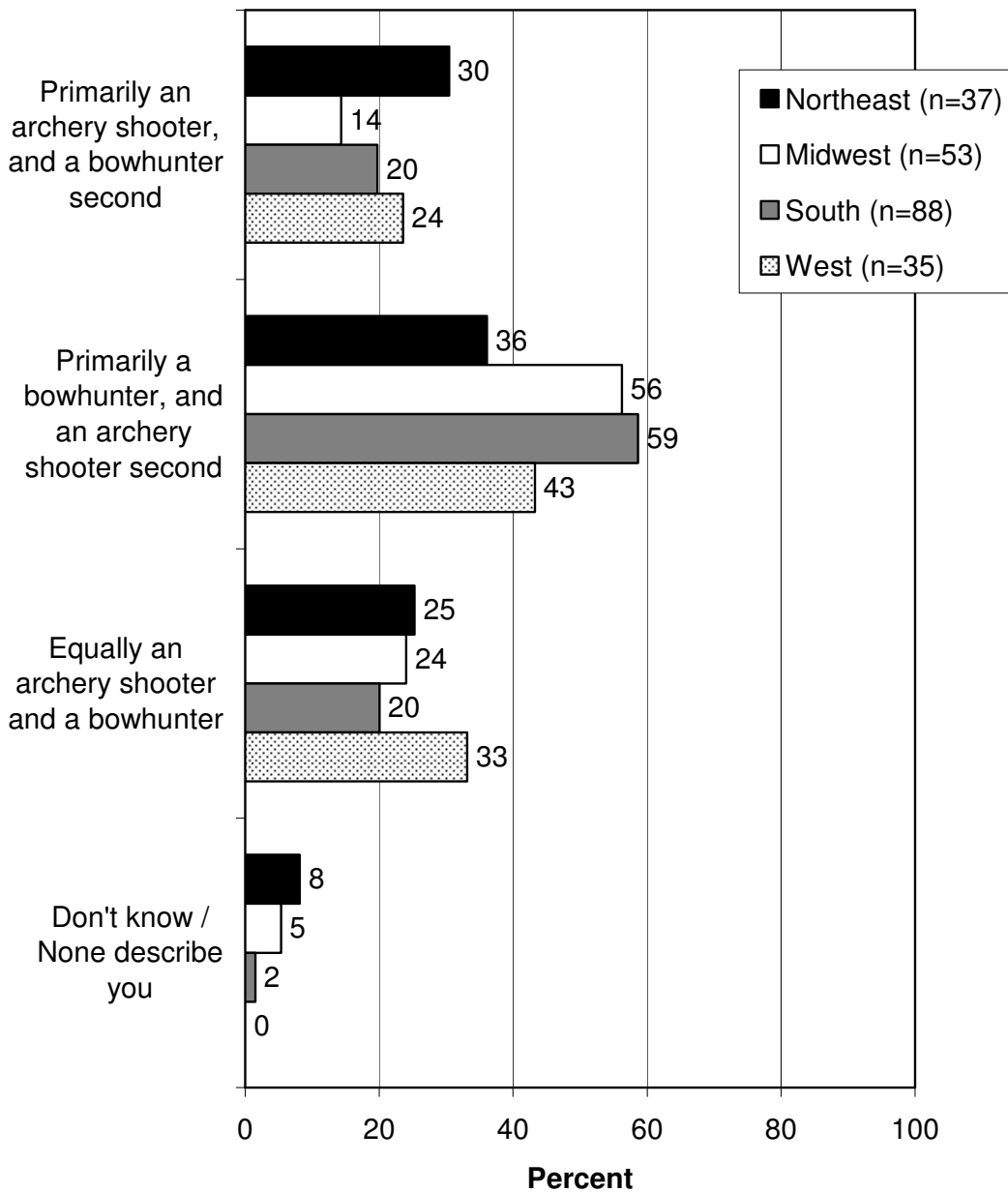
CURRENT PARTICIPATION IN ARCHERY ACTIVITIES AND BOWHUNTING

- Those who participated in both archery activities and bowhunting since 2011 were asked if they consider themselves primarily an archery shooter or a bowhunter. A majority (52%) consider themselves primarily a bowhunter, compared to 21% who consider themselves an archery shooter; 24% consider themselves to be both in equal measure.
 - Archers from the Midwest and South Regions were more likely to consider themselves a bowhunter than those from the Northeast and West Regions.
- Of those who participated in archery in 2015 (target or bowhunting), the most common archery activity by far was shooting casually or for fun (76% of archers did this), followed by bowhunting (35%) and practice shooting for competition or bowhunting (20%).
 - Archers from the South Region went bowhunting in 2015 markedly more often than those from the other regions.
- Of 2015 archery participants (target or bowhunting), nearly half (47%) participated less than once per month. In ascending order of frequency, 17% participated about once a month, 12% participated about twice a month, 8% participated about once a week, and 15% participated about twice a week. Regional variations are also shown.
- A majority (62%) of 2015 archery participants (target or bowhunting) used a compound bow, distantly followed by nearly equal percentages who used a crossbow (22%), a recurve bow (21%), or a long bow or any other type of traditional bow (19%).
 - Some differences in bow use are observed between the regions: Northeast Region archers were the least likely to use a compound bow, whereas West Region archers were the most likely to use a recurve bow or long bow/traditional bow.

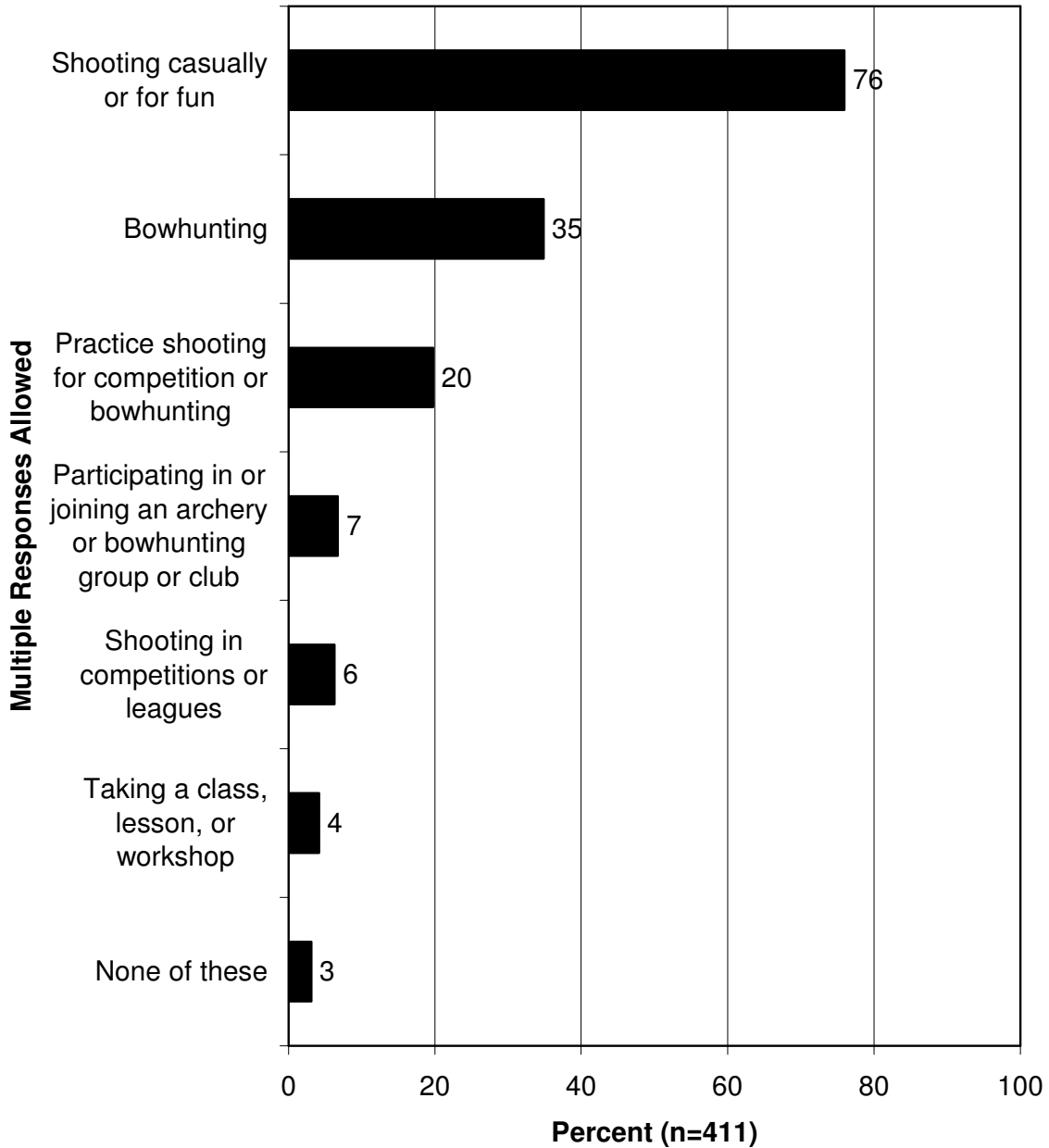
Q73. Which of the following do you consider yourself regarding your archery and bowhunting activities? (Asked of those who participated in archery activities in 2011 or later and bowhunting in 2011 or later.)



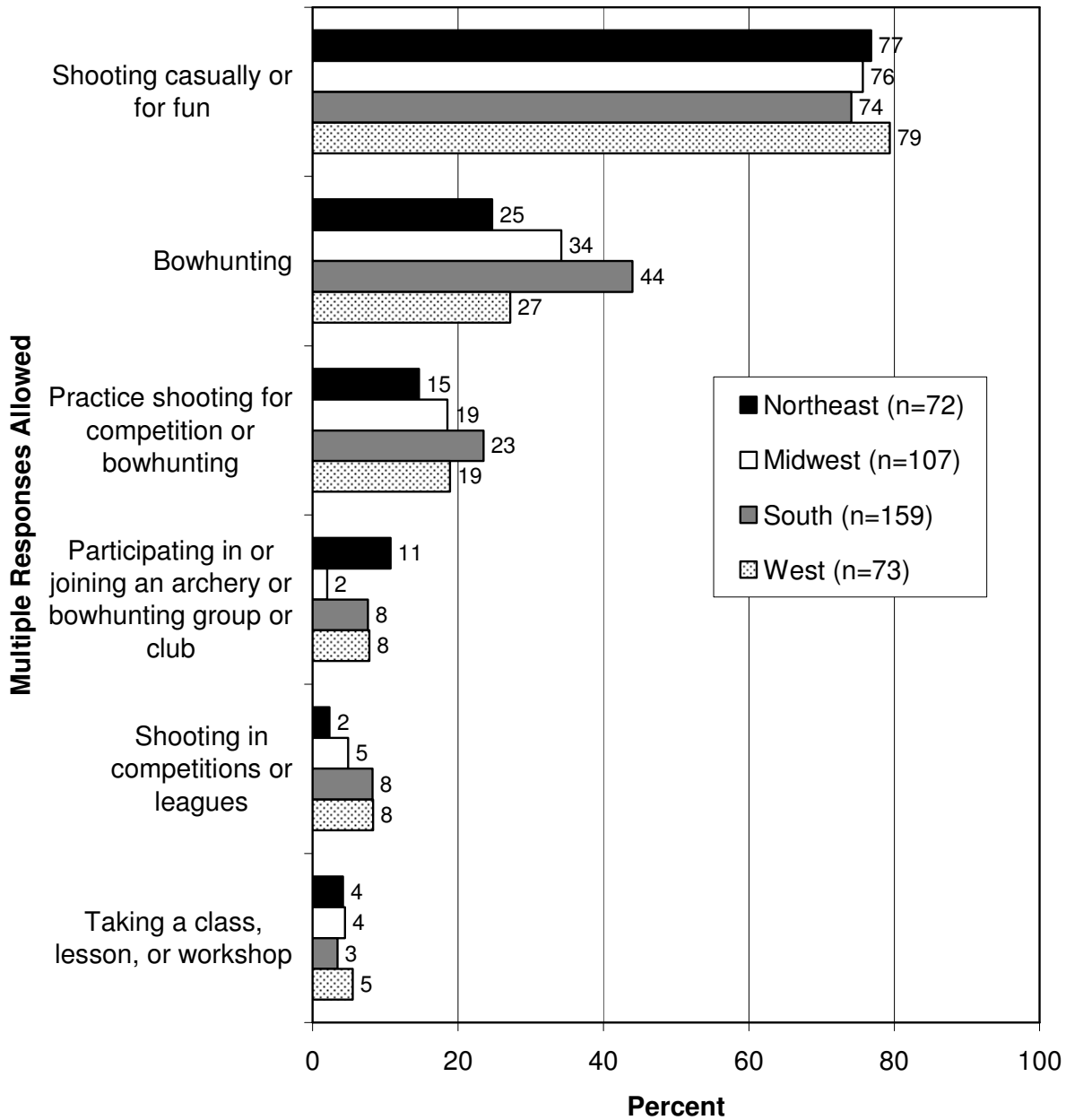
Q73. Which of the following do you consider yourself regarding your archery and bowhunting activities? (Asked of those who participated in archery activities in 2011 or later and bowhunting in 2011 or later.)



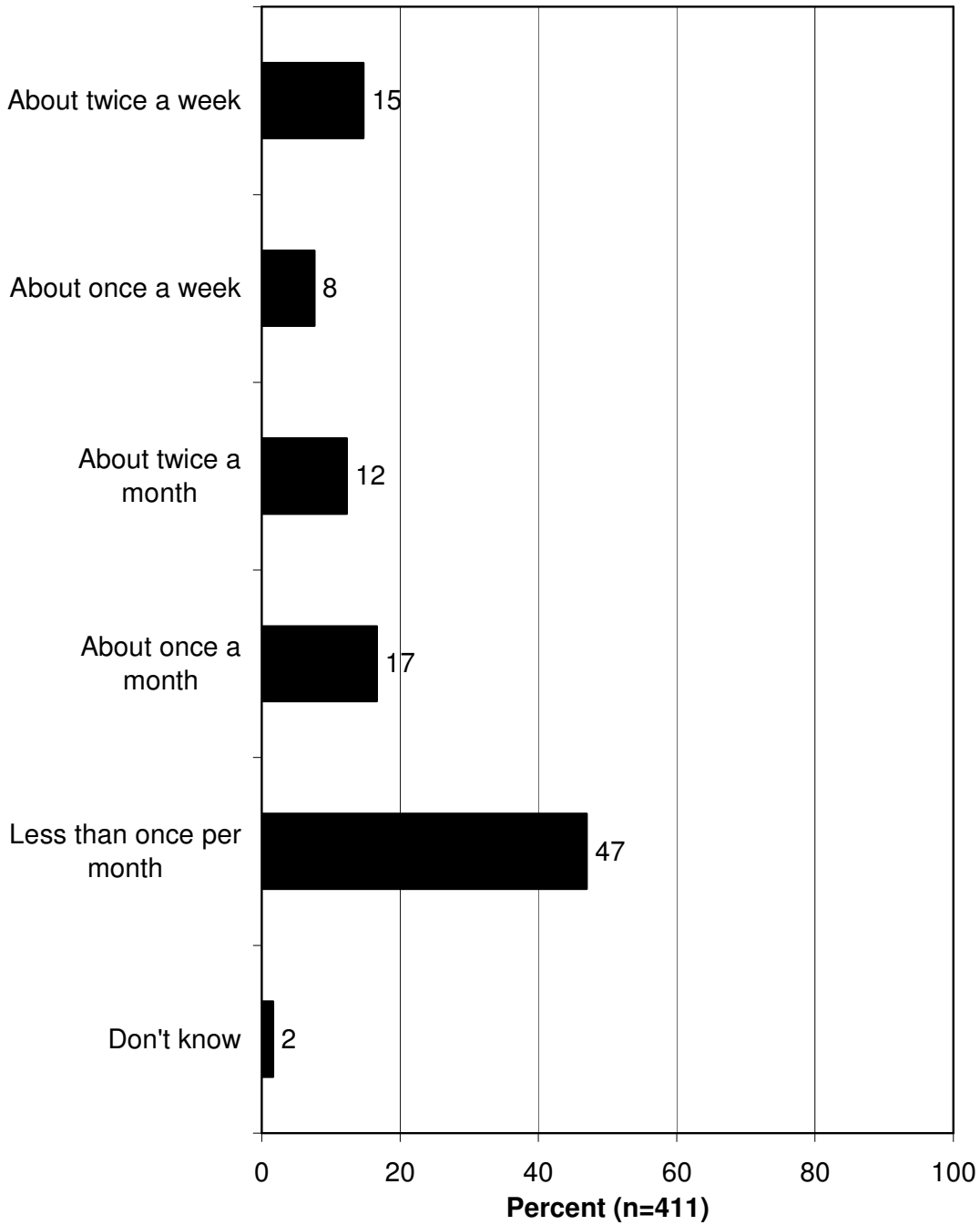
Q76. Thinking about 2015 only, in which of the following archery activities did you participate? (Asked of those who participated in archery in 2015.)



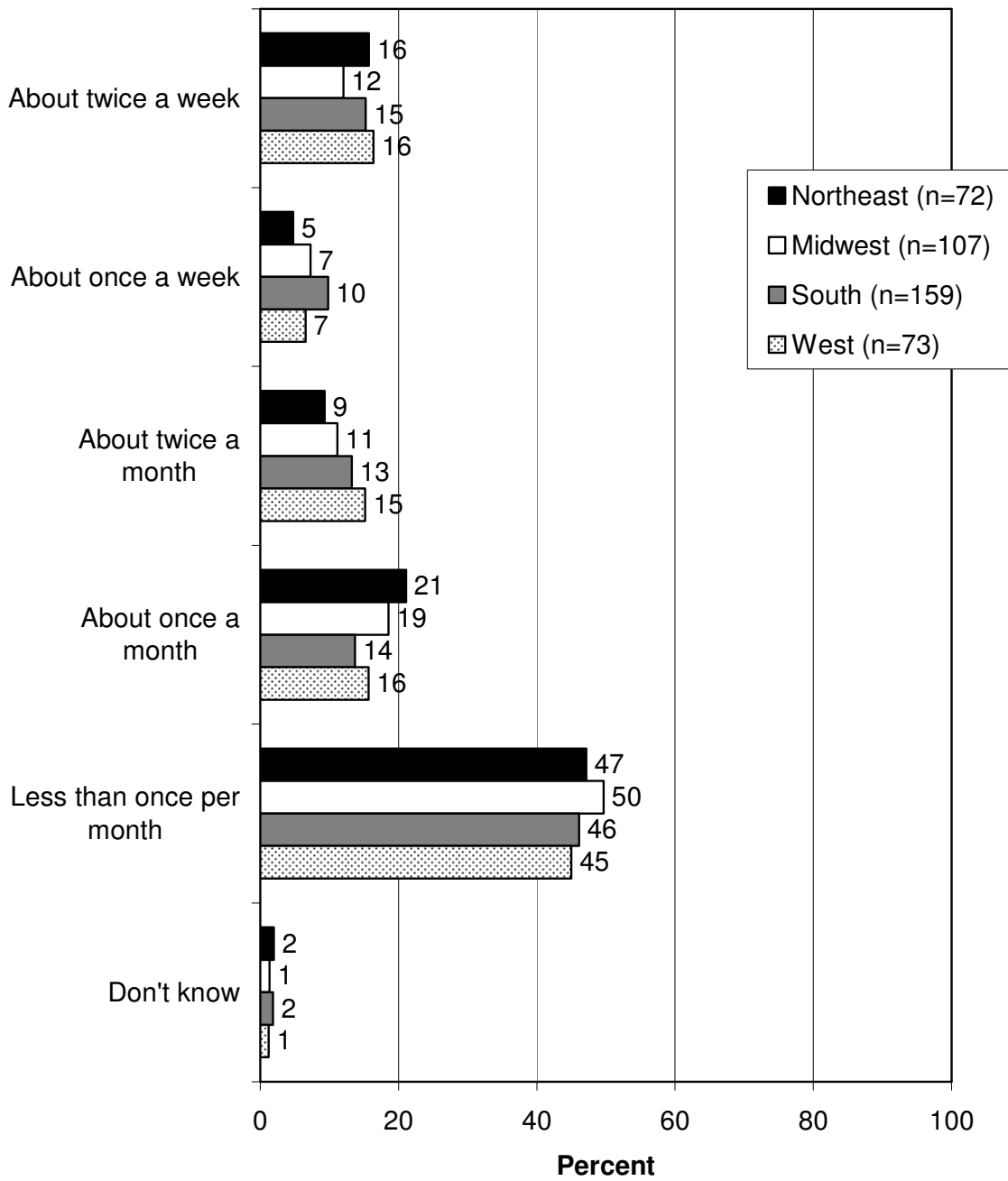
Q76. Thinking about 2015 only, in which of the following archery activities did you participate? (Asked of those who participated in archery in 2015.)



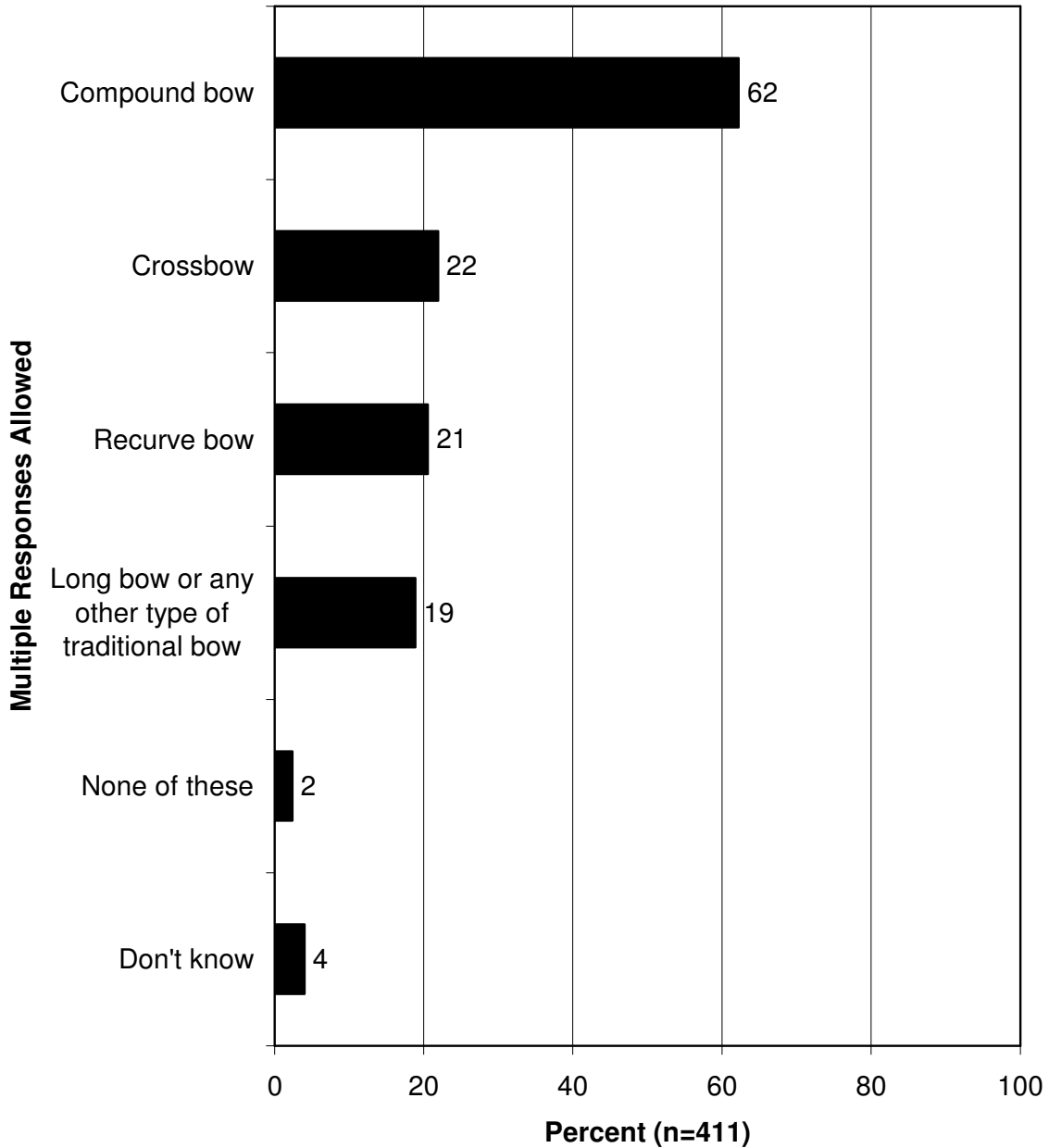
Q78. How often would you say you shot archery in 2015? (Asked of those who participated in archery in 2015.)



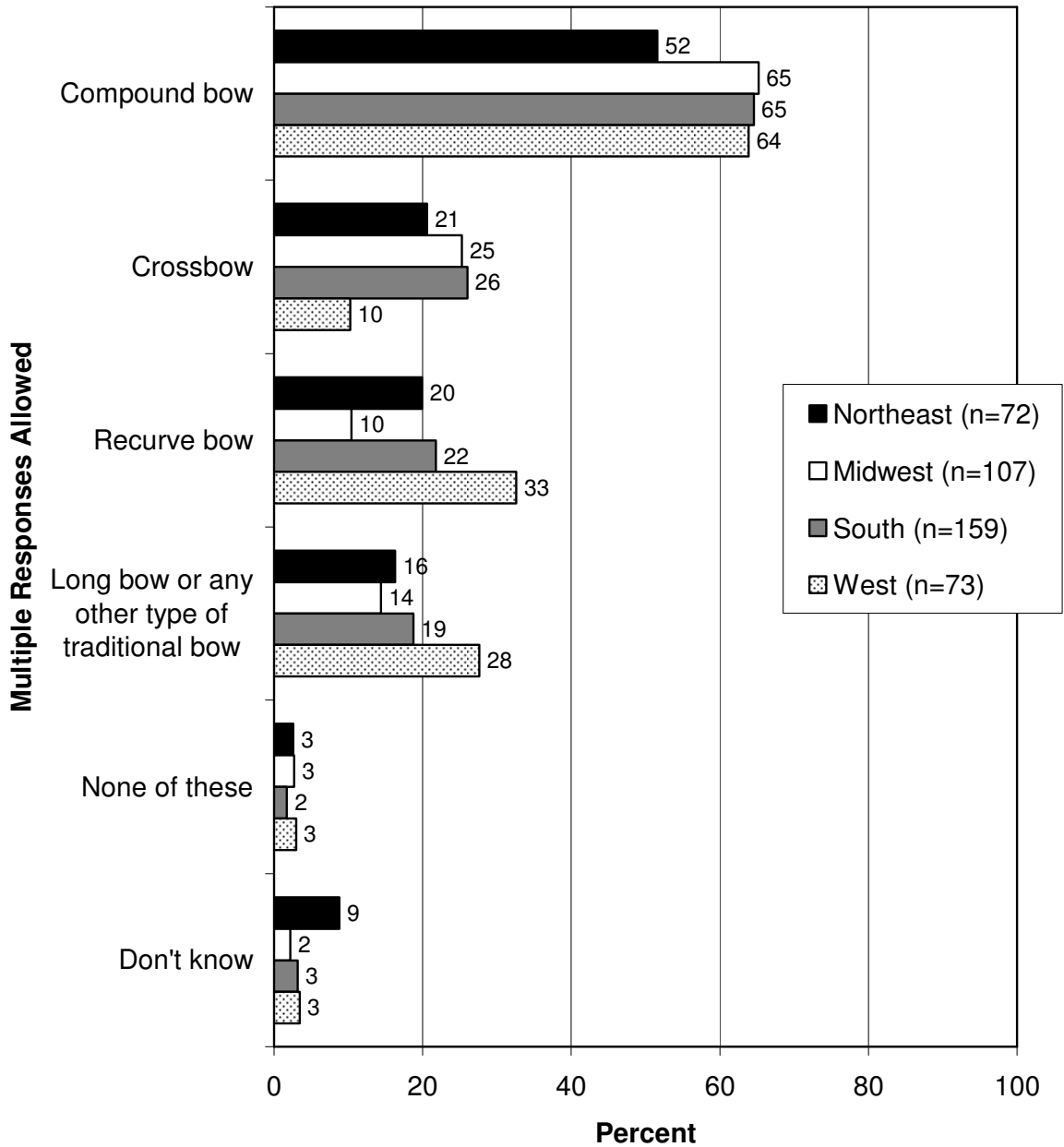
Q78. How often would you say you shot archery in 2015? (Asked of those who participated in archery in 2015.)



Q82. Which of the following types of bows did you use in 2015 for your archery (and bowhunting) activities? (Asked of those who participated in archery in 2015.)

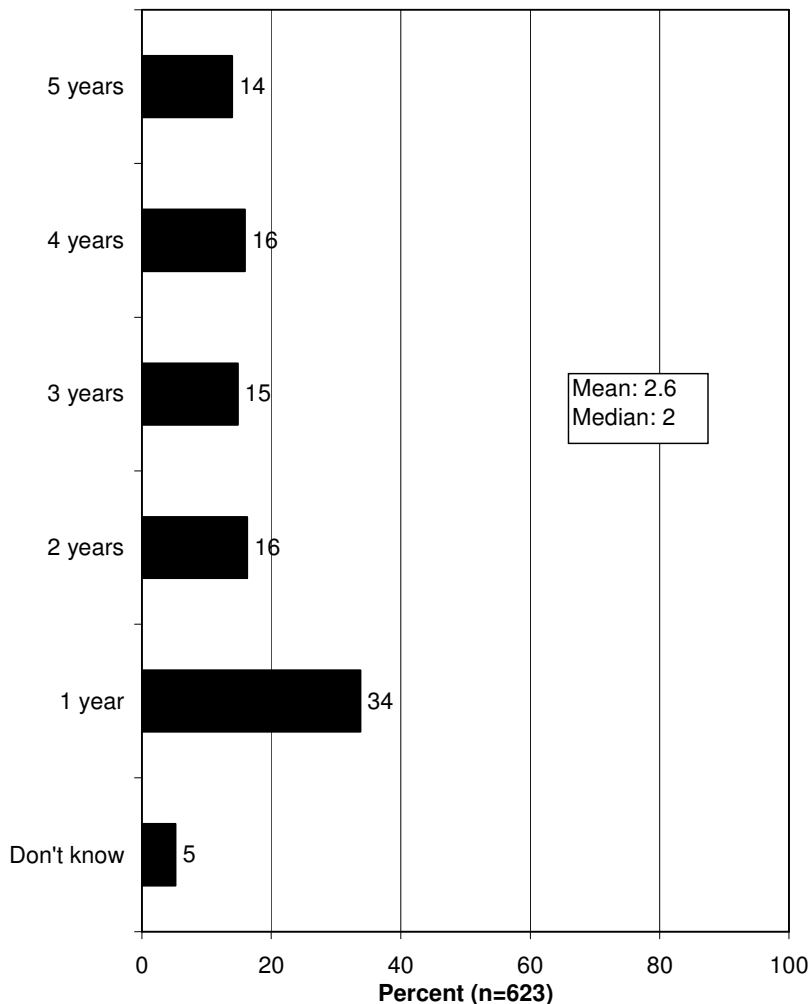


Q82. Which of the following types of bows did you use in 2015 for your archery (and bowhunting) activities? (Asked of those who participated in archery in 2015.)

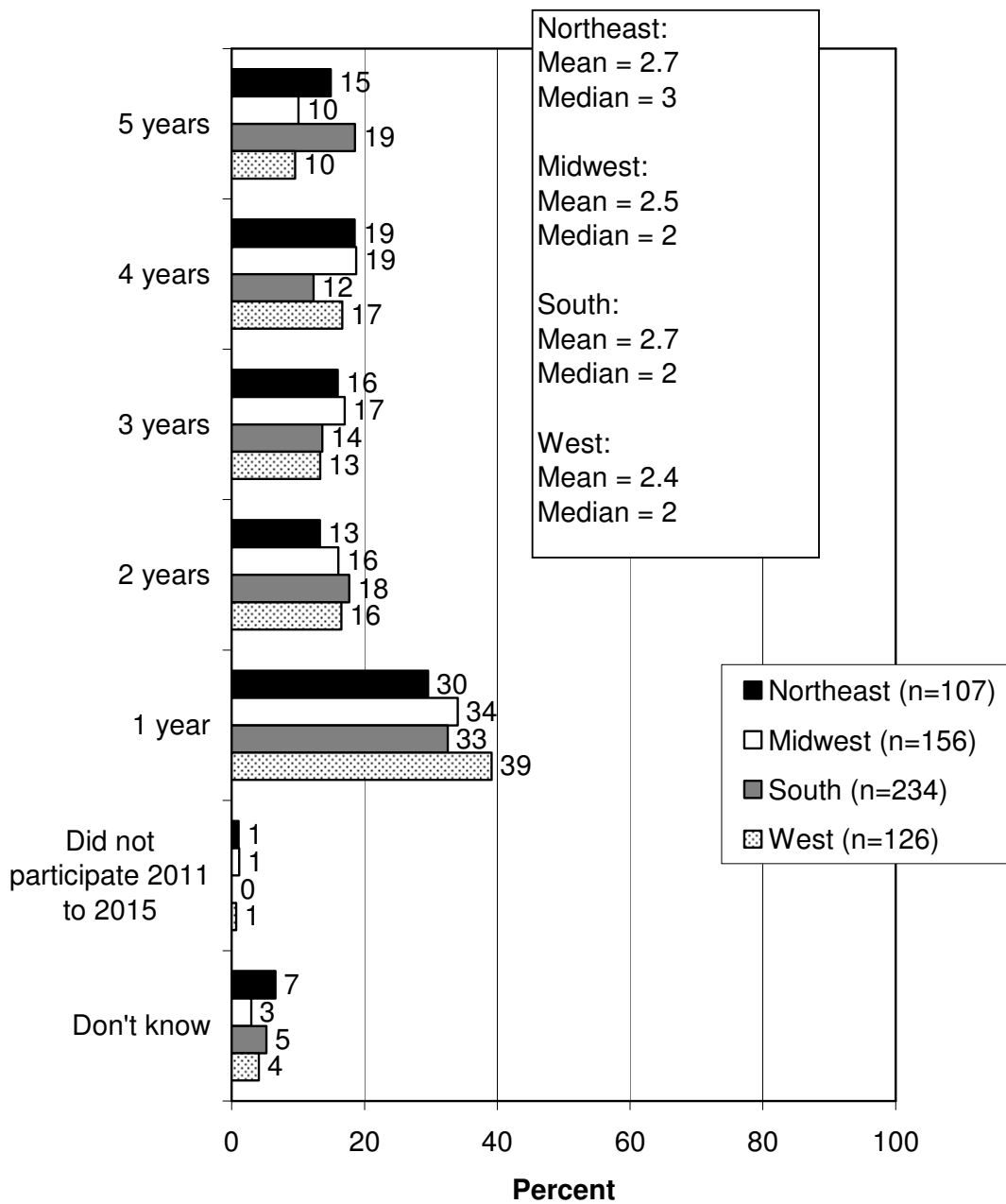


- Of those who participated in target archery activities in the past 5 years (i.e., since 2011), a plurality (34%) participated in 1 of the 5 years. There is a uniform distribution of those who participated in 2, 3, 4, or all 5 of the 5 years (14%-16% each). Regional variations are also shown.
- Of those who participated in target archery activities in 2015, a plurality (38%) participated for 1 to 5 days. At the other end of the avidity spectrum, 29% participated more than 20 days (7% participated more than 100 days). The mean number of days was 29.7 and median number of days was 10. Regional variations are also shown.

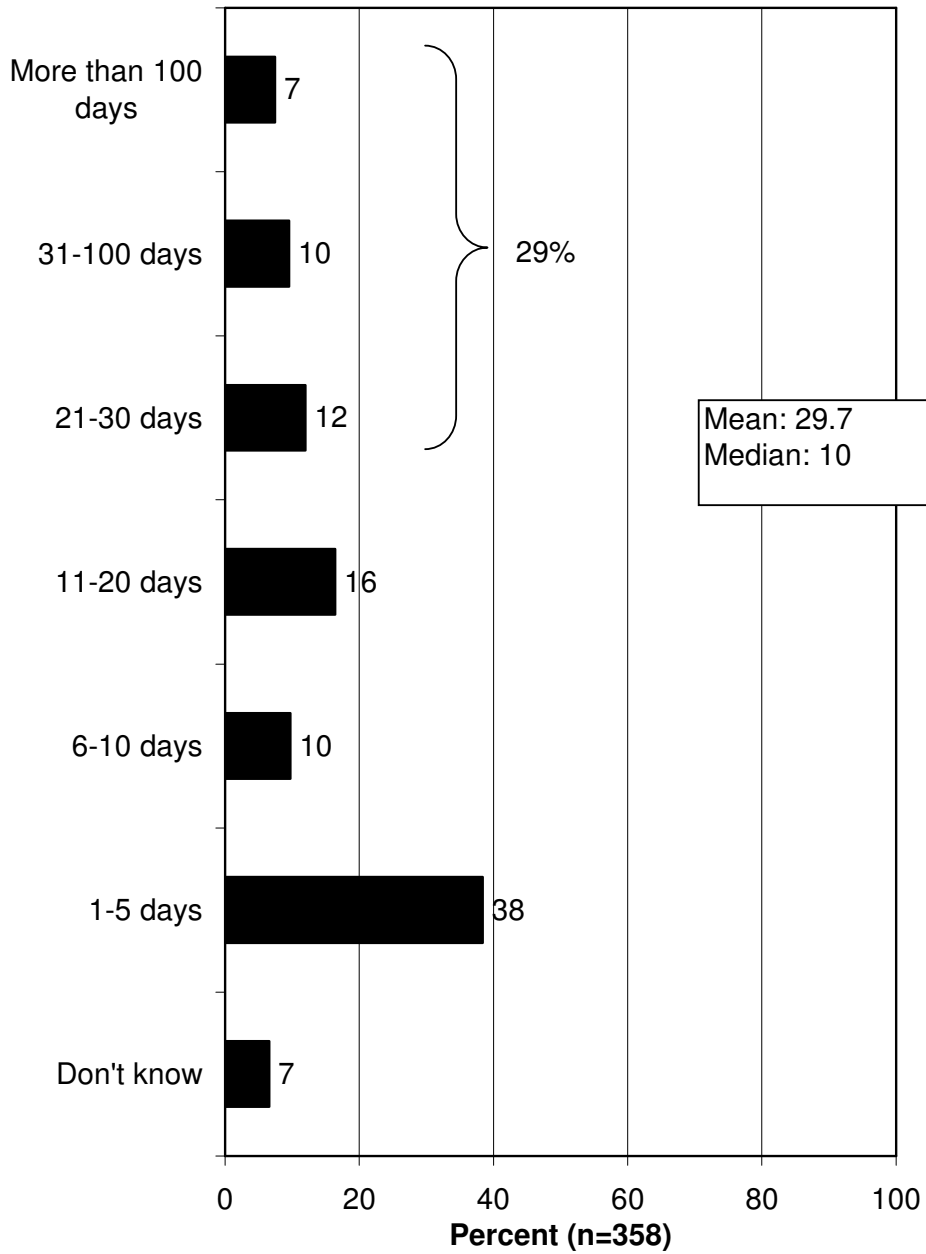
Q87. How many of the past 5 years, that is from 2011 to 2015, have you participated in archery activities? (Asked of those who participated in archery activities in 2011 or later.)



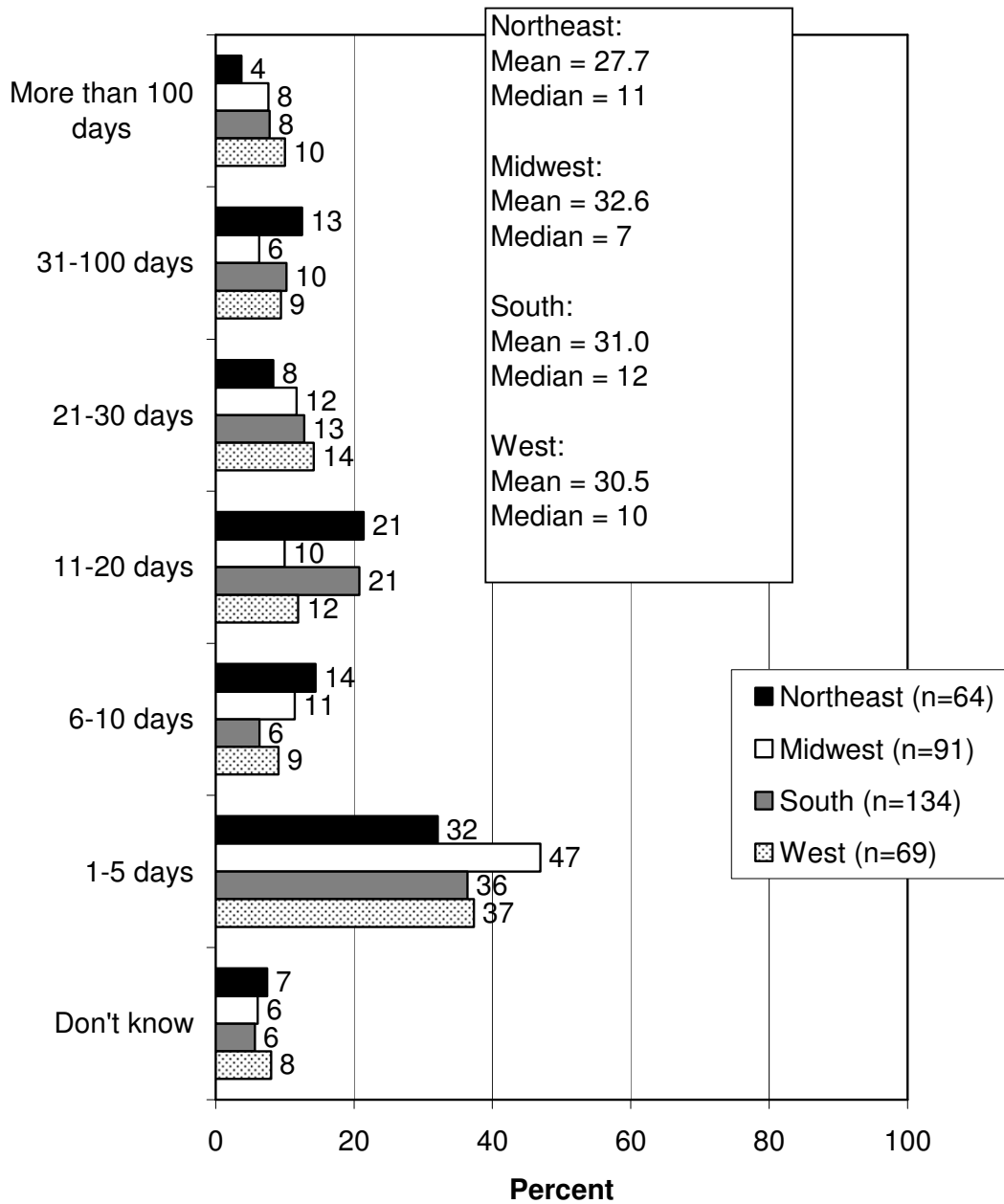
Q87. How many of the past 5 years, that is from 2011 to 2015, have you participated in archery activities? (Asked of those who participated in archery activities in 2011 or later.)



Q91. About how many days total did you participate in archery activities in 2015? (Asked of those who participated in archery activities in 2015.)

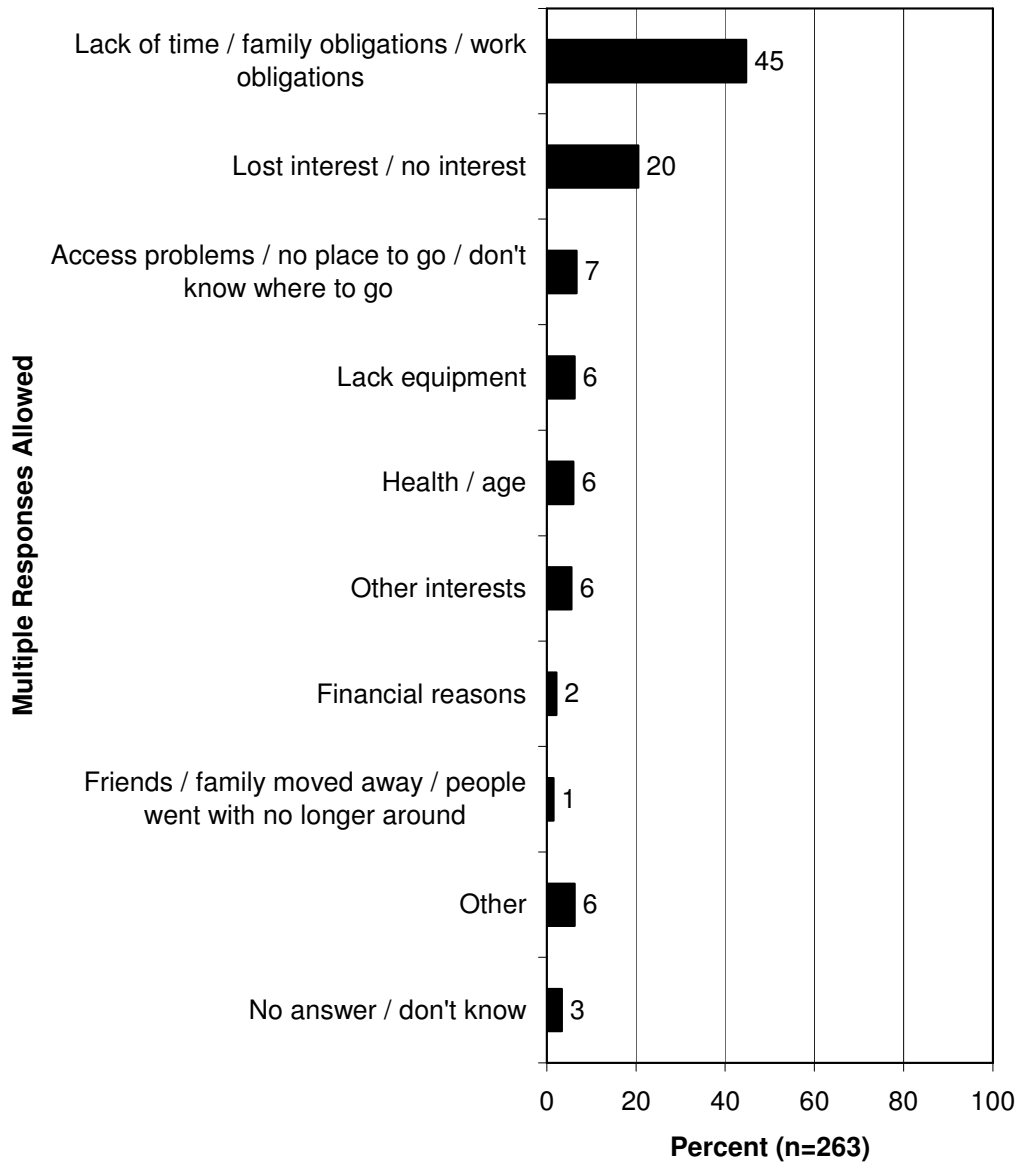


Q91. About how many days total did you participate in archery activities in 2015? (Asked of those who participated in archery activities in 2015.)



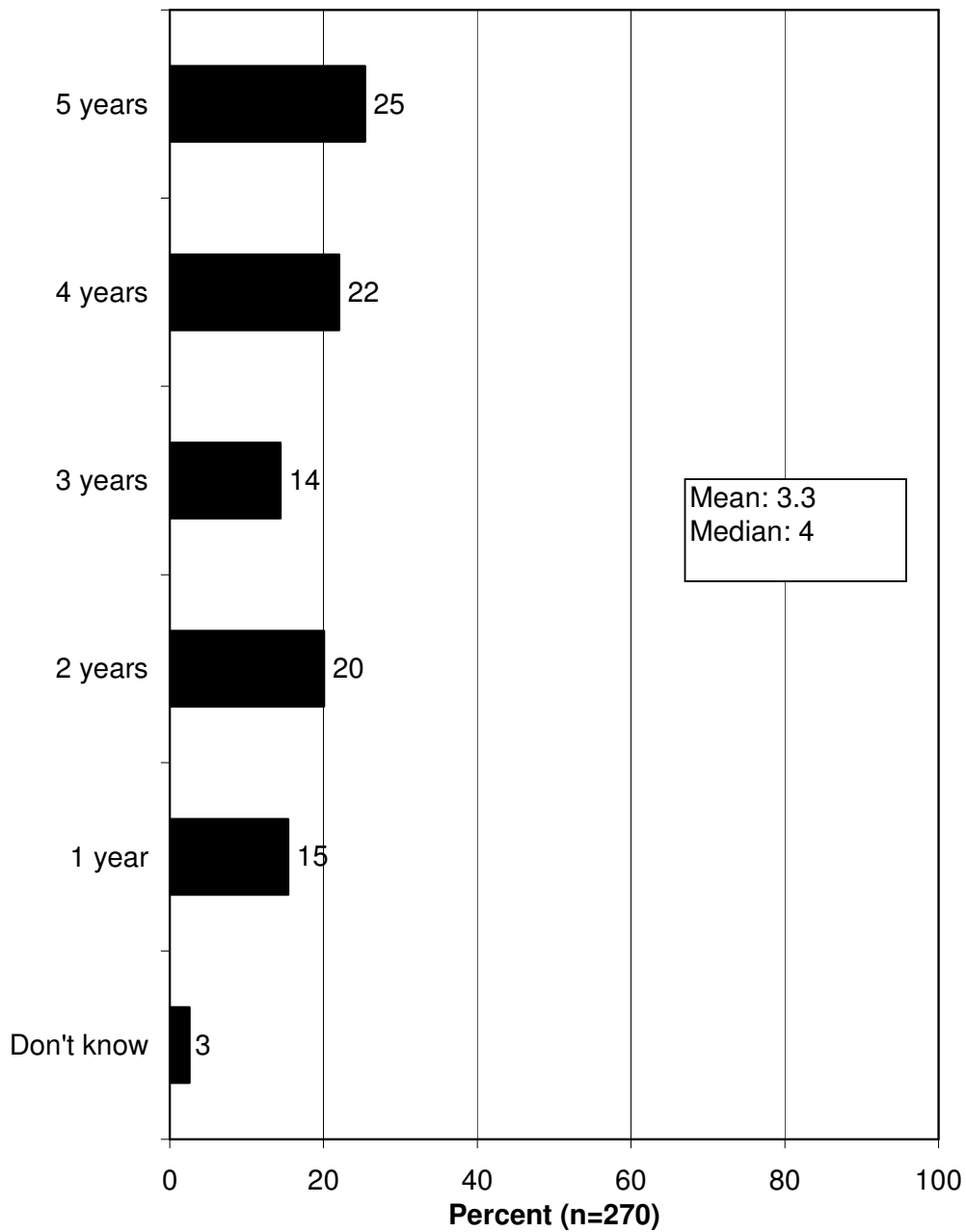
- In an open-ended question, those who participated in archery in 2011 or later but not in 2015 were asked why they did not participate in 2015. The top responses were lack of time (45% stated this) and loss or lack of interest (20%).

Q88. What are the main reasons you did not participate in archery activities in 2015? (Asked of those who participated in archery activities in 2011 or later but did not participate in 2015.)

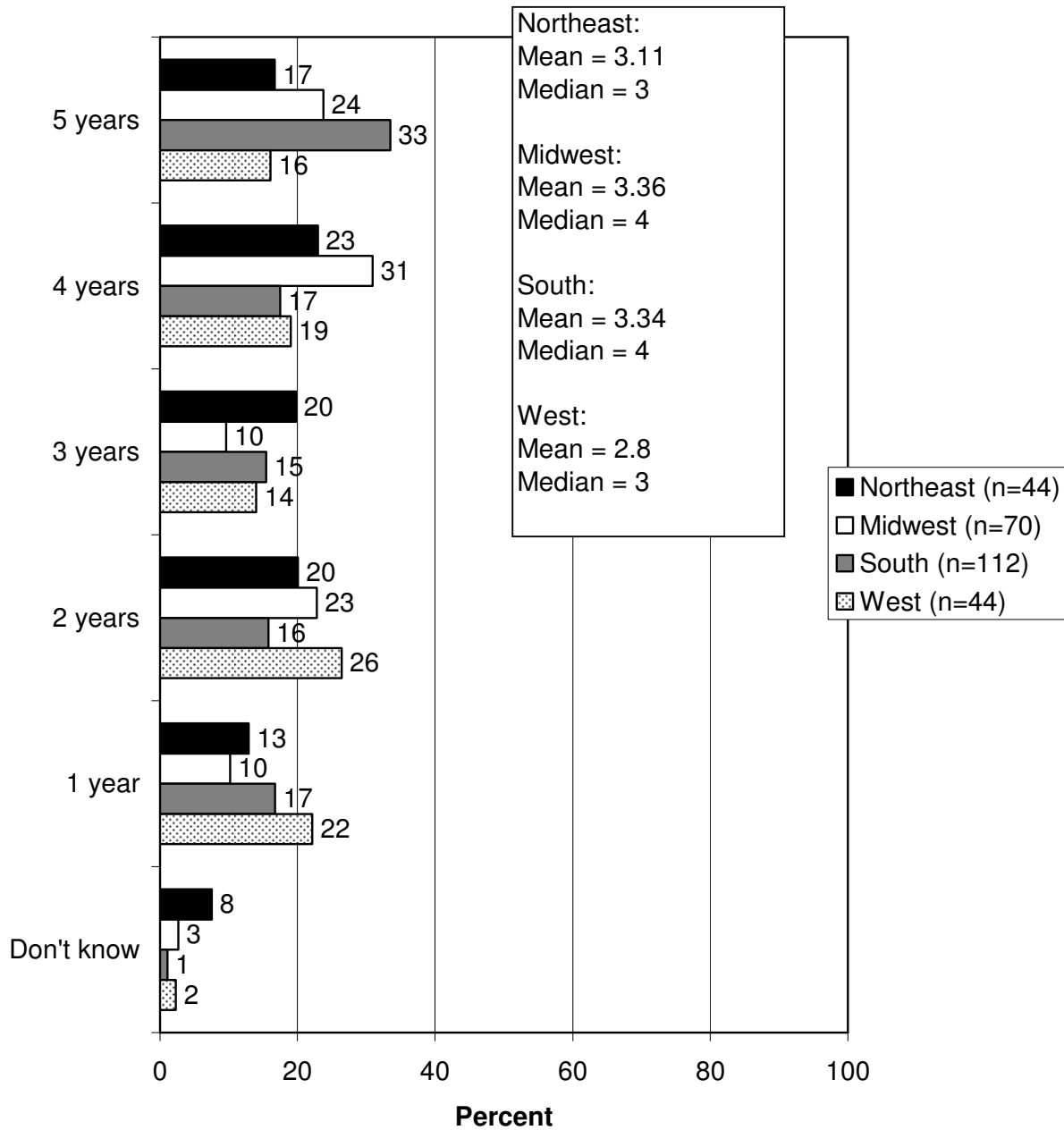


- In general, bowhunters are more avid than target archery shooters. Of those who went bowhunting in the past 5 years, a quarter (25%) participated in all 5 years. In descending order of frequency, 22% went bowhunting in 4 of the 5 years, 14% went 3 years, 20% went 2 years, and 15% went 1 year. Regional variations are also shown.
- Those who went bowhunting since 2011 were asked to rate the importance of a series of reasons for bowhunting, on a scale of 0 to 10, where 0 is not at all important and 10 is extremely important. The top response was “to get out or just enjoy the outdoors” (mean rating of 8.6), followed by “for fun and recreation” (8.1) and “to spend time with friends or family” (8.0). Regional variations are also shown.
- Those who went bowhunting in 2015 participated for a mean of 26.4 days and a median of 12 days.
 - Bowhunters from the Midwest and South Regions were notably more avid than those from the Northeast and West Regions.

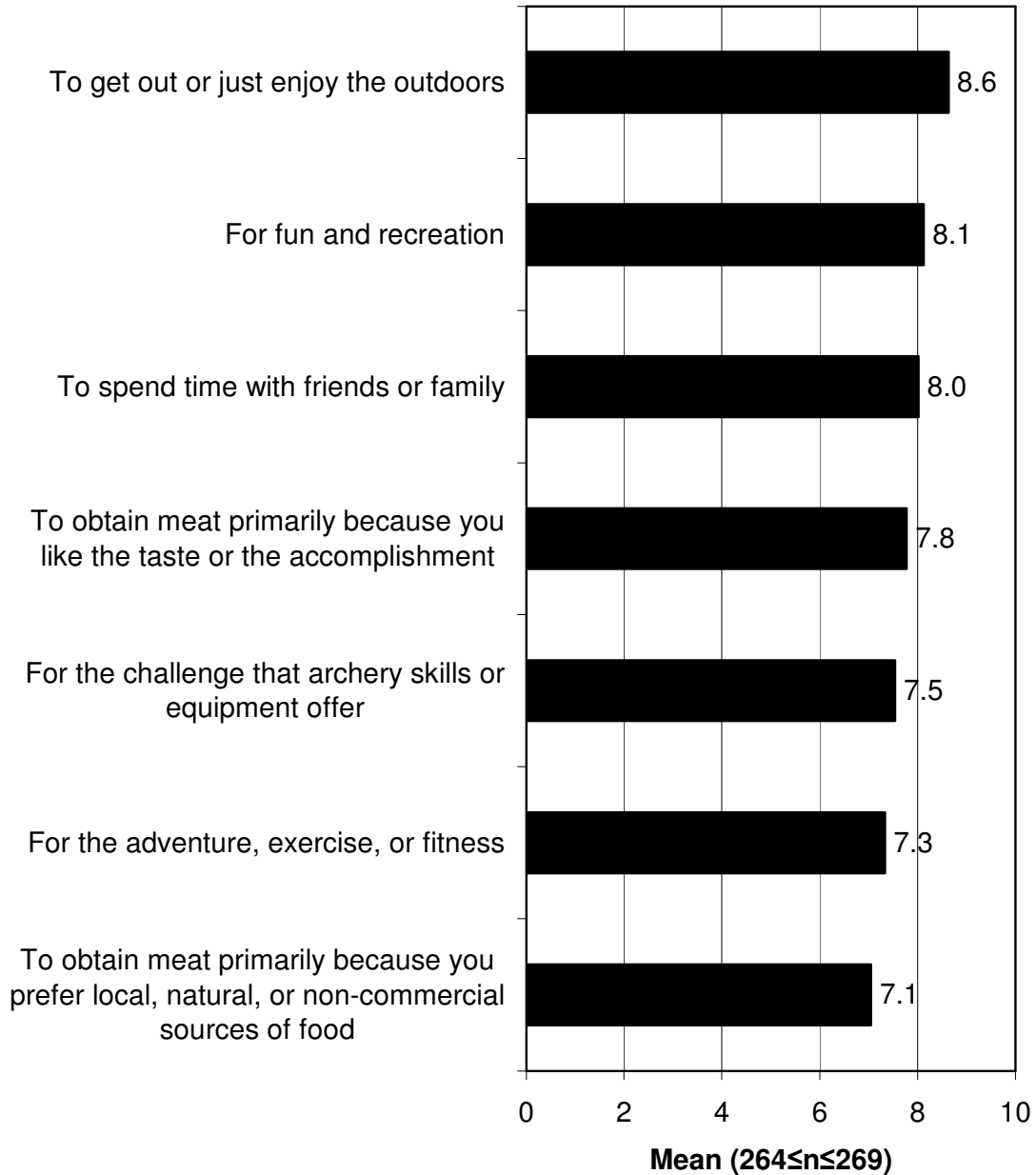
**Q95. How many of the past 5 years, that is from 2011 to 2015, have you participated in bowhunting?
(Asked of those who participated in bowhunting in 2011 or later.)**



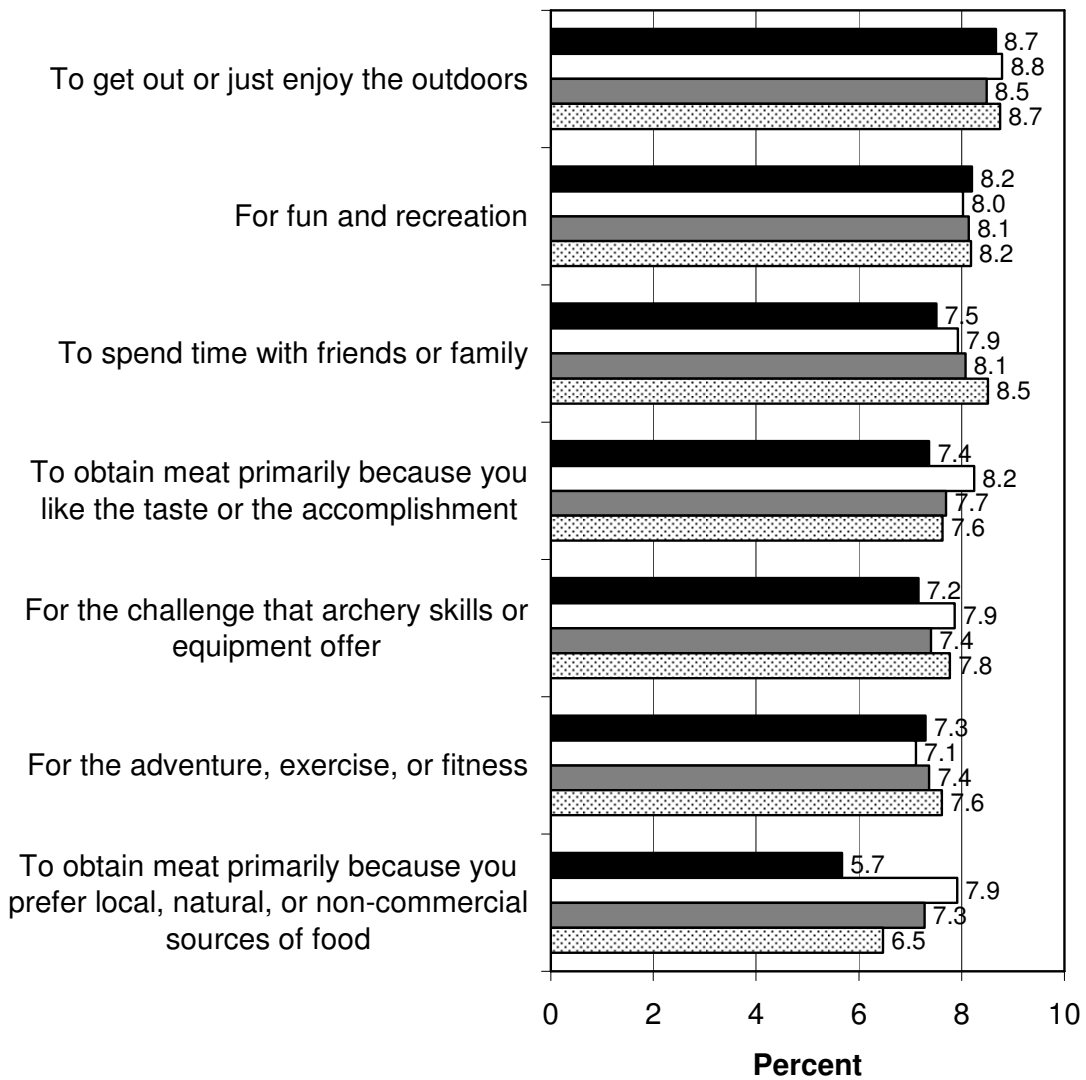
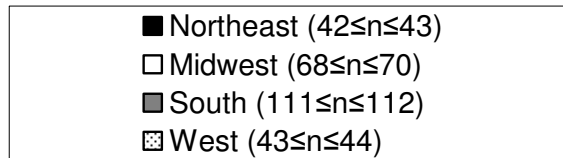
Q95. How many of the past 5 years, that is from 2011 to 2015, have you participated in bowhunting? (Asked of those who participated in bowhunting in 2011 or later.)



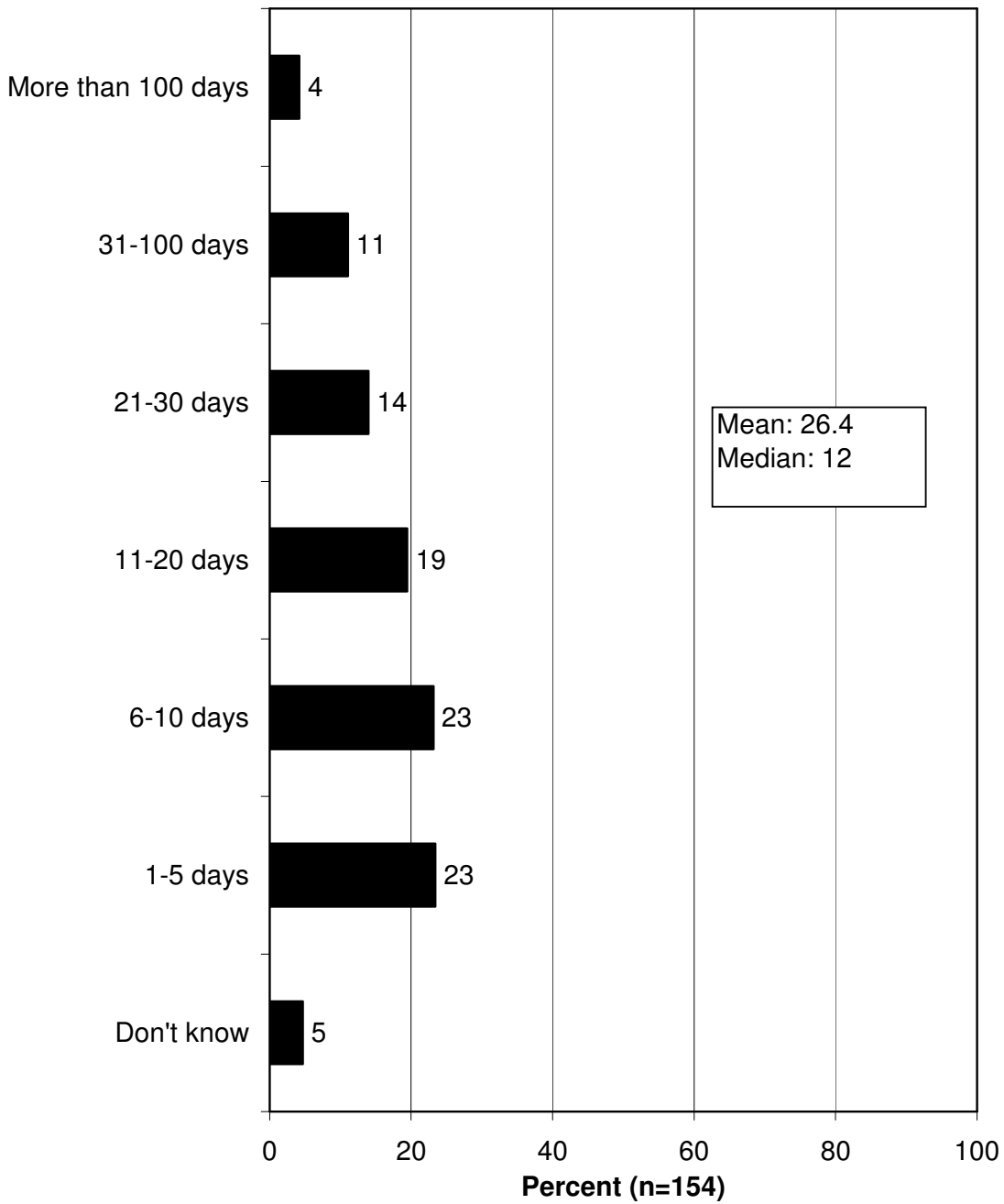
Q98-110. How important are each of the following to you as a reason to bowhunt, on a scale of 0 to 10, where 0 is not at all important and 10 is extremely important? (Asked of those who went bowhunting since 2011.)



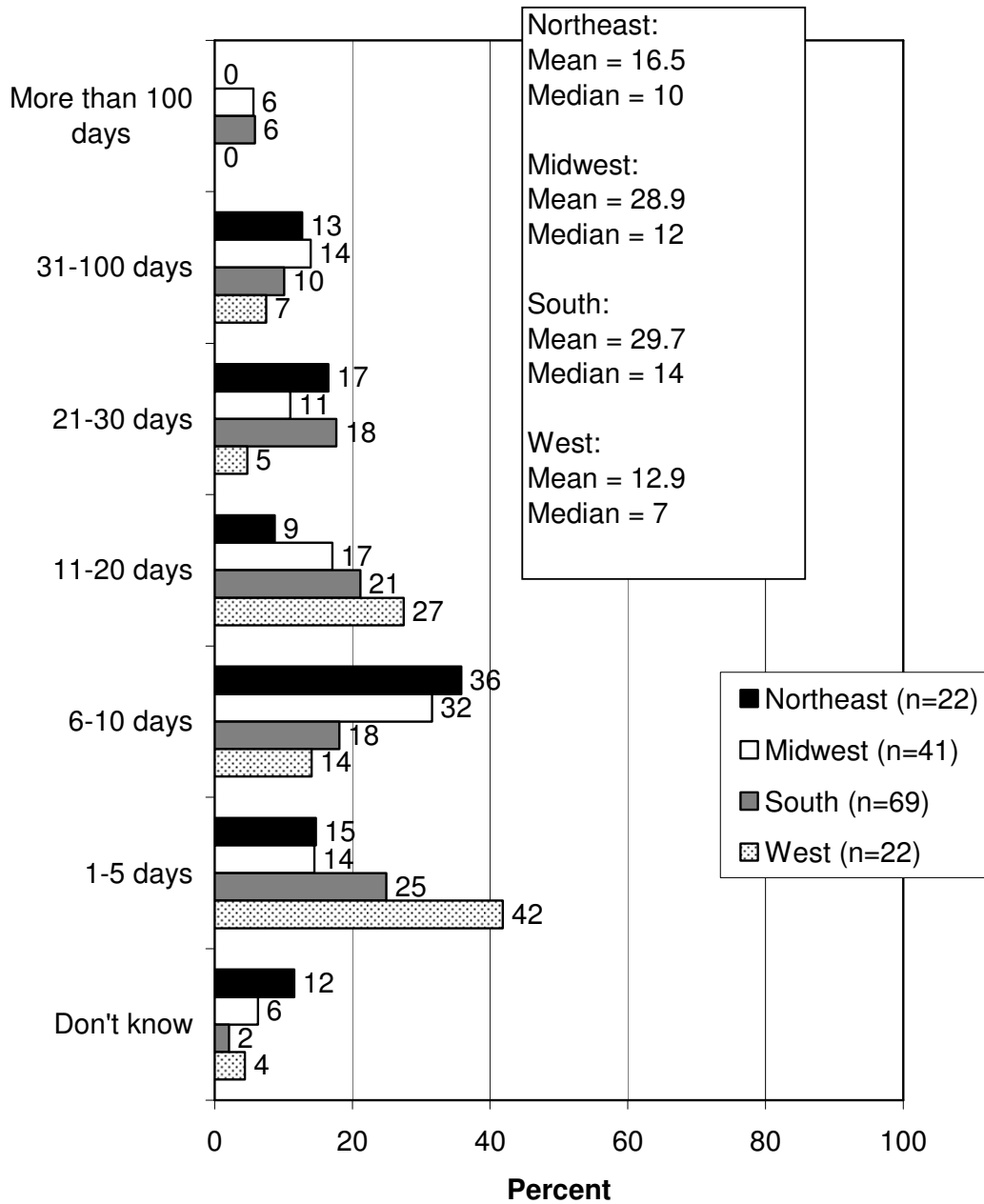
Q98-110. How important are each of the following to you as a reason to bowhunt, on a scale of 0 to 10, where 0 is not at all important and 10 is extremely important?



Q116. About how many days total did you participate in bowhunting in 2015? (Asked of those who participated in bowhunting in 2015.)

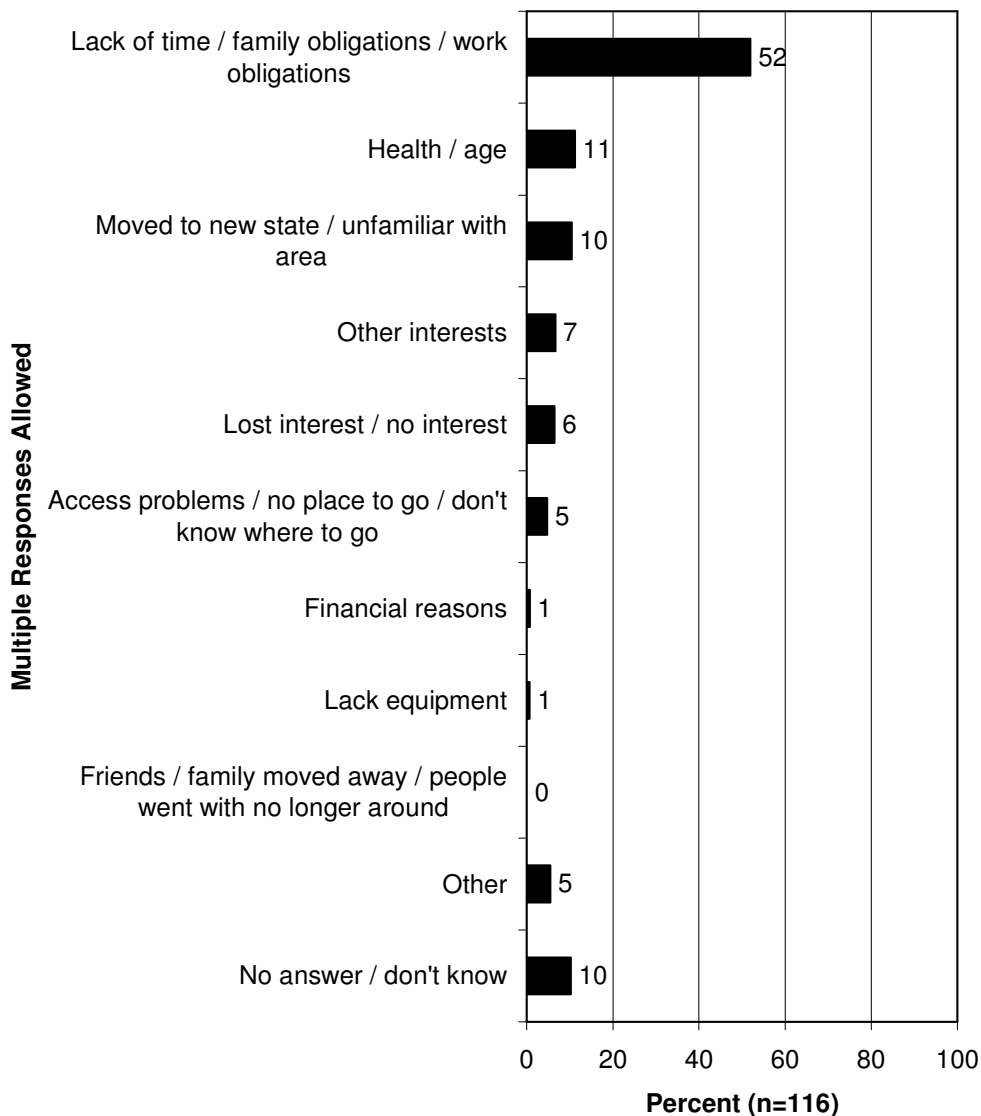


Q116. About how many days total did you participate in bowhunting in 2015? (Asked of those who participated in bowhunting in 2015.)



- In an open-ended question, those who went bowhunting in 2011 or later but not in 2015 were asked why they did not bowhunt in 2015. A majority (52%) cited a lack of time; other top responses were health or age (11% stated this) and that they moved to a new state or are unfamiliar with the area (10%).

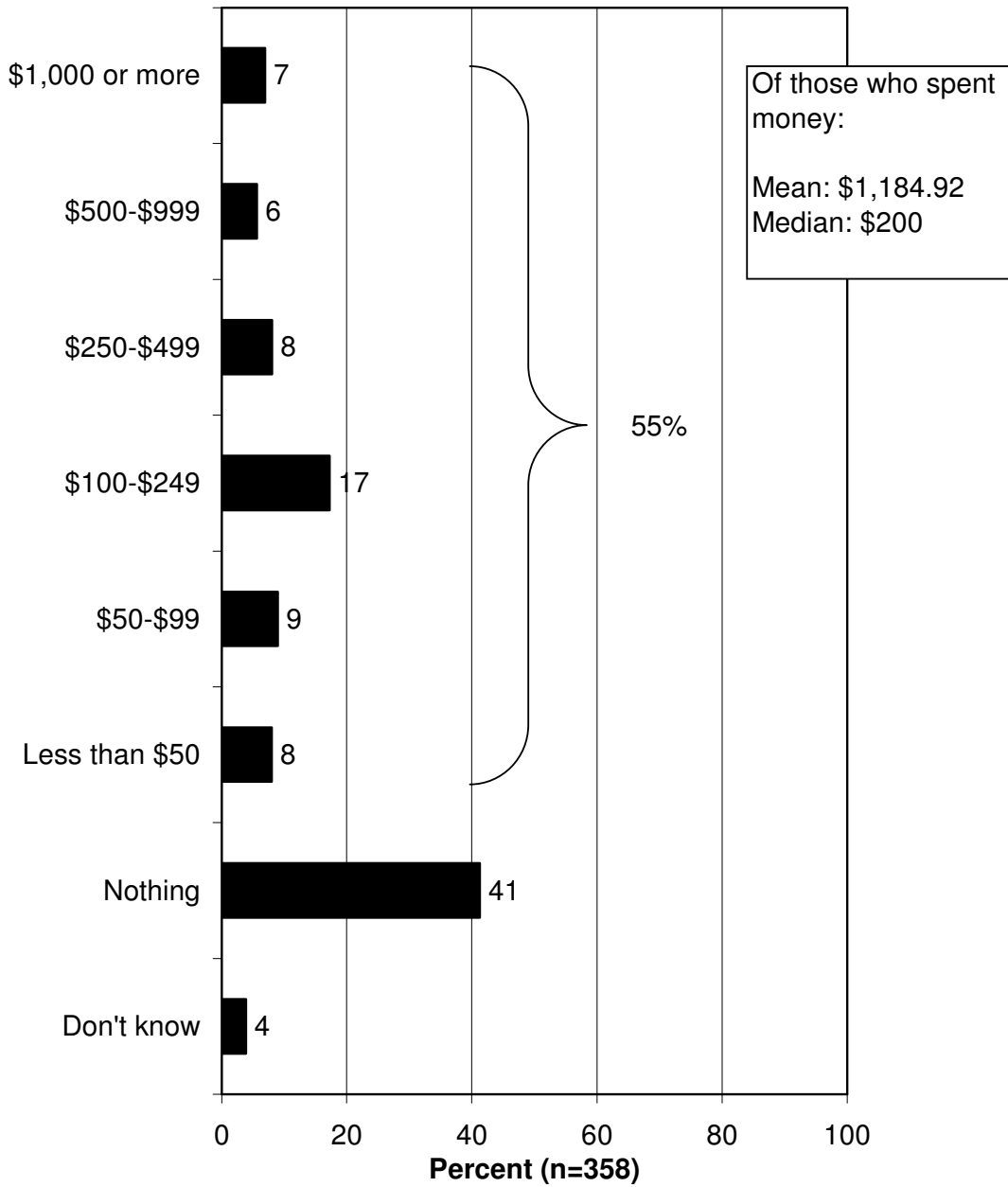
Q113. What are the main reasons you did not participate in bowhunting in 2015? (Asked of those who participated in bowhunting in 2011 or later but did not participate in 2015.)



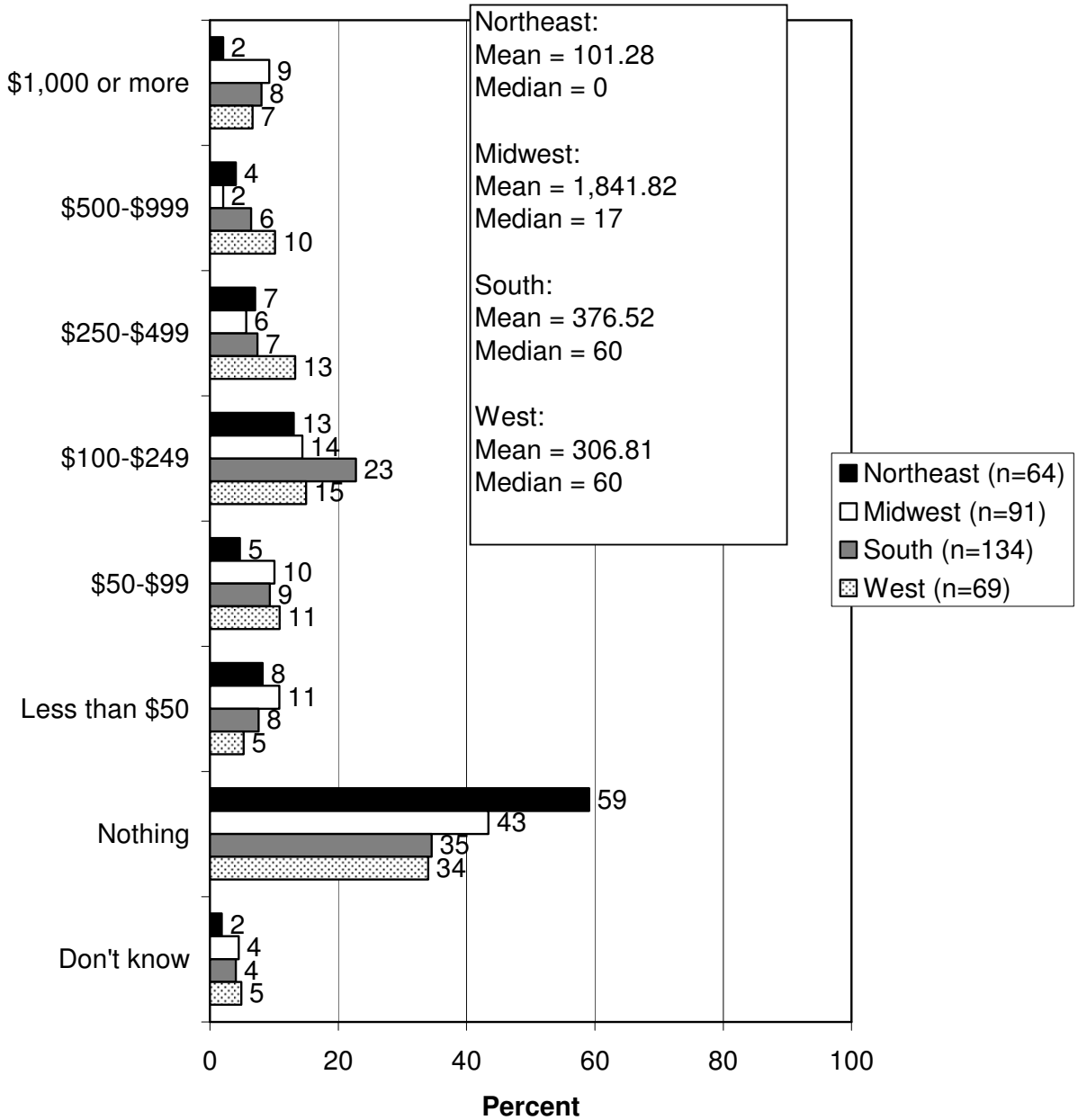
EXPENDITURES

- Those who participated in target archery activities in 2015 were asked about their expenditures related to the sport.
 - Over half (55%) of participants spent money on equipment for archery activities. Of those who spent money, the mean amount spent was \$1,185, although this average was driven up by the higher spenders; the median amount spent was \$200.
 - Mean spending on equipment was highest in the Midwest Region; this is the region in which the average was most inflated by the higher spenders.
 - Over a third (39%) of participants spent money on travel to participate in archery activities. Of those who spent money, the mean amount spent was \$1,419, although this average was driven up by the higher spenders; the median amount spent on travel was \$75.
 - Of those who spent money, mean spending on travel was highest in the Midwest Region; this is the region in which the average was most inflated by the higher spenders.

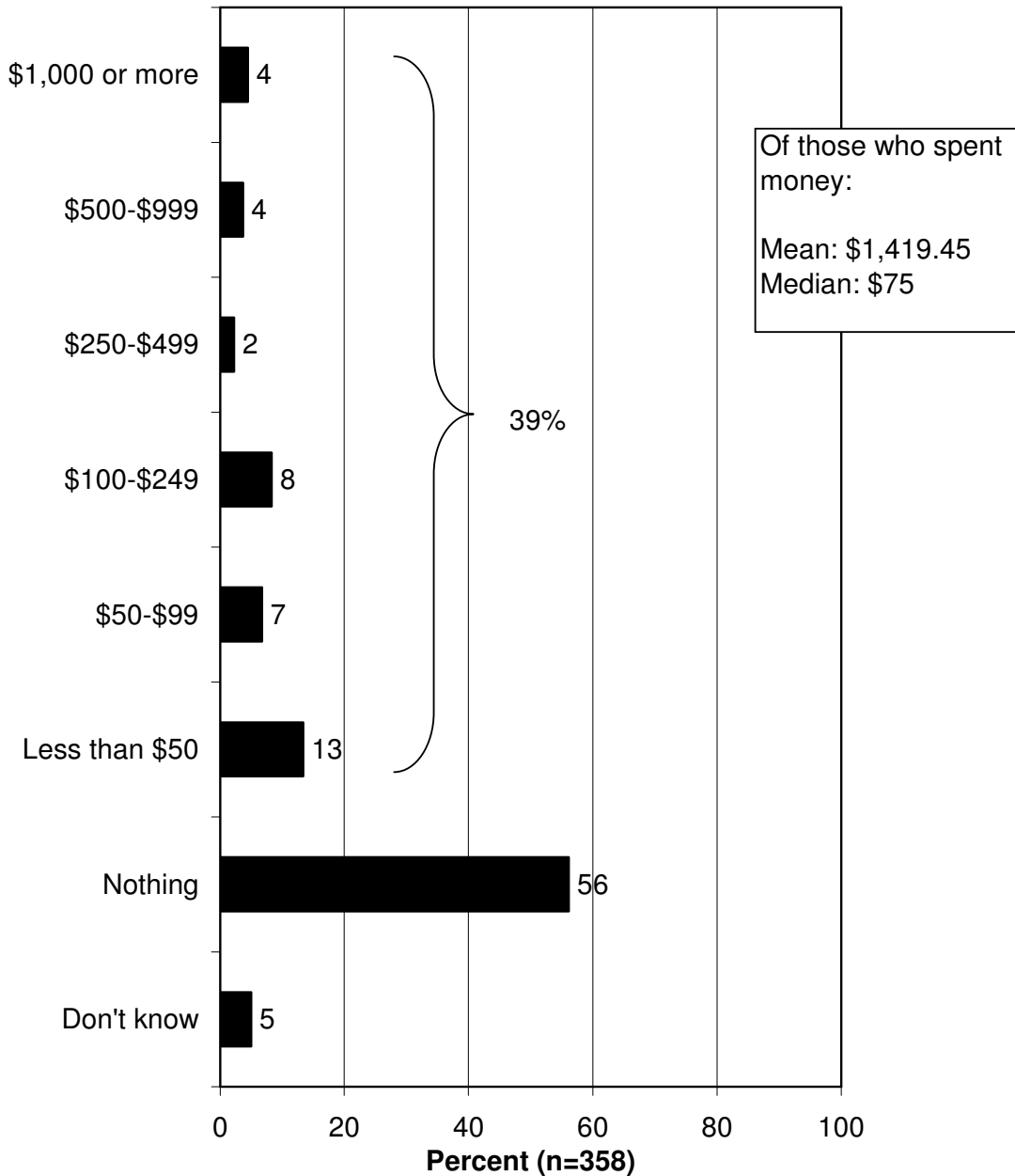
Q122. Overall, in 2015, about how much did you spend on equipment for archery activities [excluding bowhunting]? (Asked of those who participated in archery activities in 2015.)



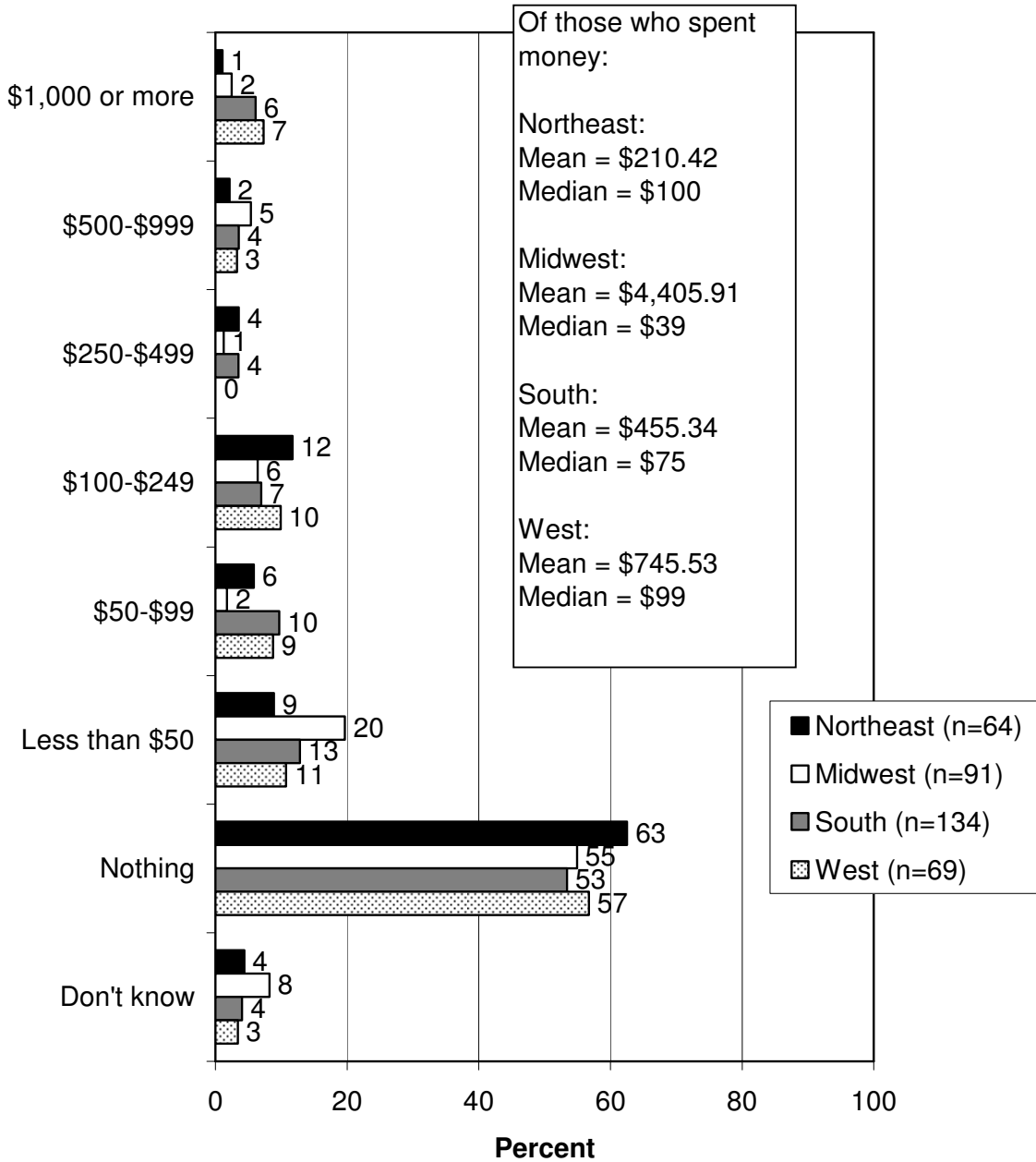
Q122. Overall, in 2015, about how much did you spend on equipment for archery activities [excluding bowhunting]? (Asked of those who participated in archery activities in 2015.)



Q125. In 2015, about how much did you spend on travel to participate in archery activities? (Asked of those who participated in archery activities in 2015.)

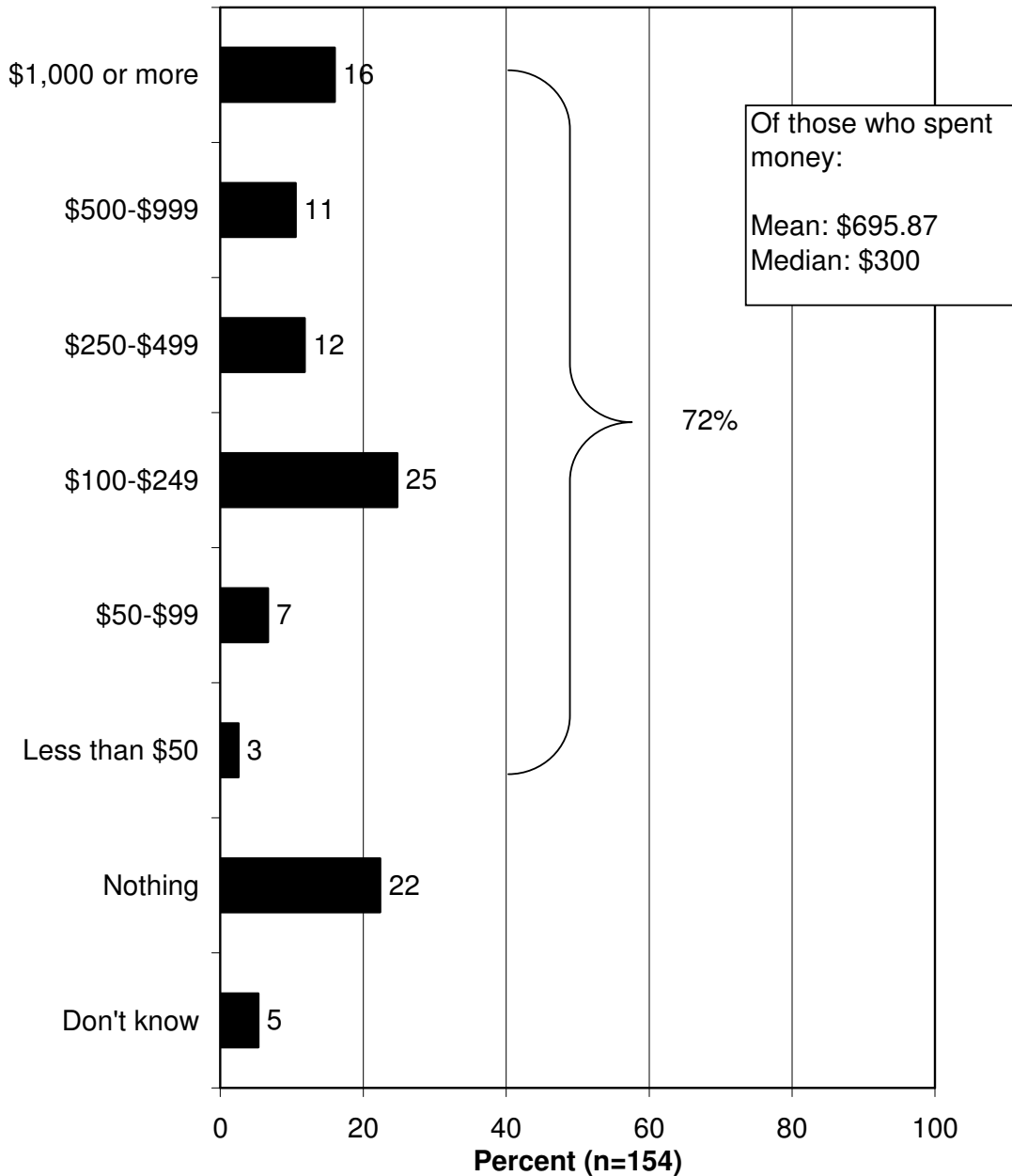


Q125. In 2015, about how much did you spend on travel to participate in archery activities? (Asked of those who participated in archery activities in 2015.)

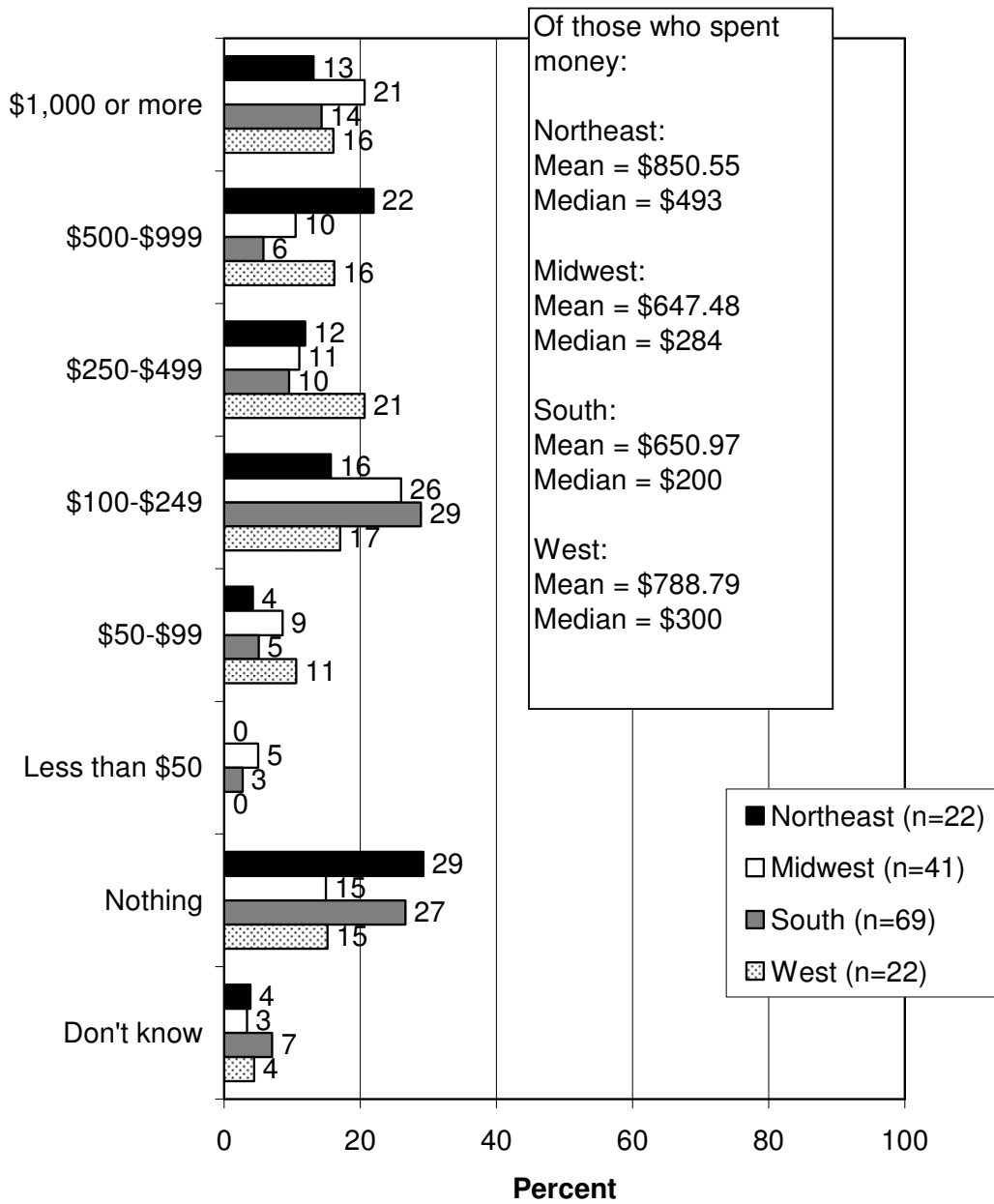


- Those who went bowhunting in 2015 were asked about their expenditures related to the sport.
 - A solid majority (72%) of bowhunters spent money on bowhunting equipment. Of those who spent money, the mean amount was \$696 and the median was \$300; 16% spent \$1,000 or more.
 - Regional variations are shown.
 - A solid majority (73%) of bowhunters spent money on travel to go bowhunting. Of those who spent money, the mean amount was \$575 and the median was \$200; 14% spent \$1,000 or more.
 - Of those who spent money, mean spending on travel was highest in the Midwest Region; this is the region in which the average was most inflated by the higher spenders.

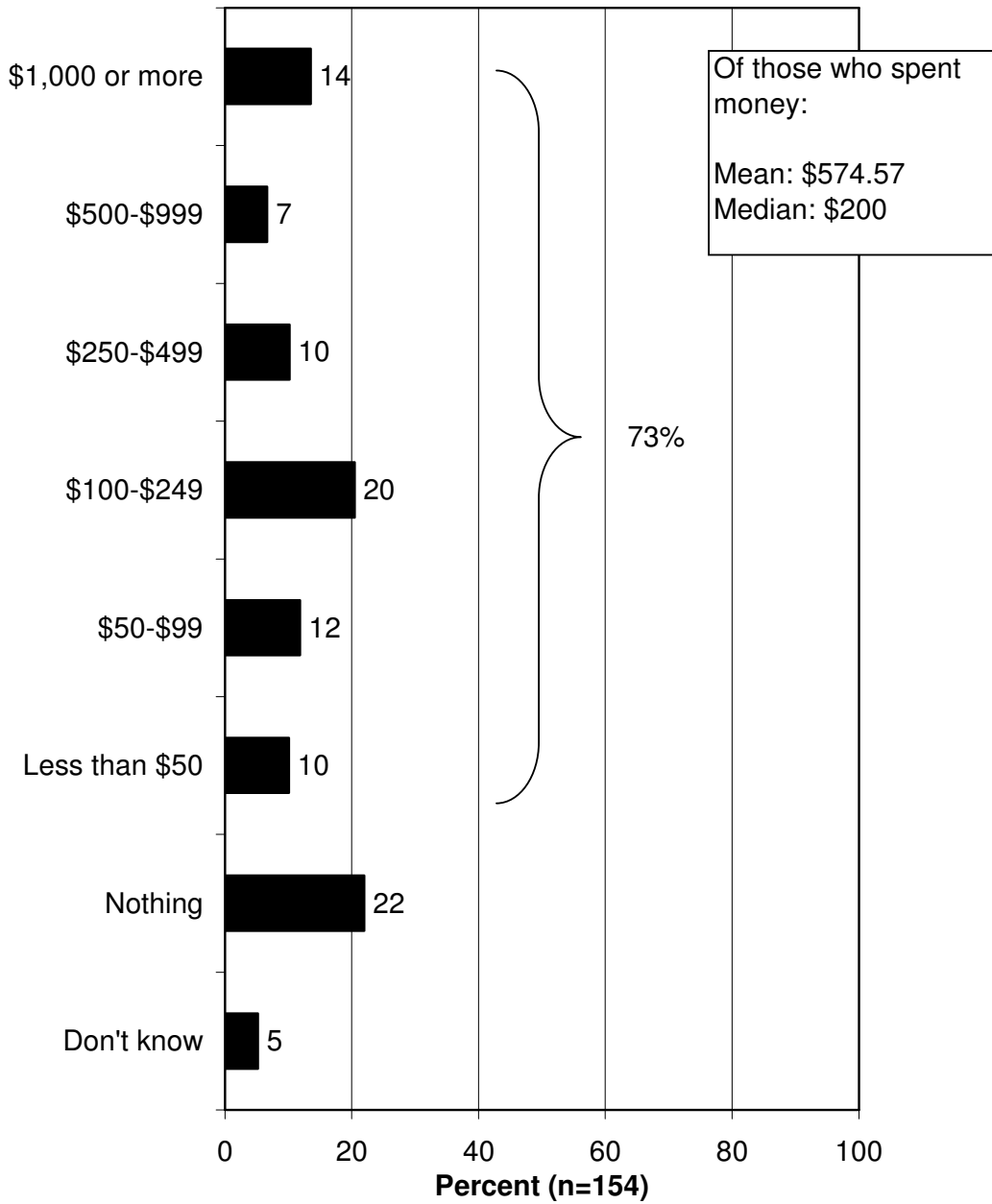
Q128. Overall, in 2015, about how much did you spend on equipment for bowhunting? (Asked of those who participated in bowhunting in 2015.)



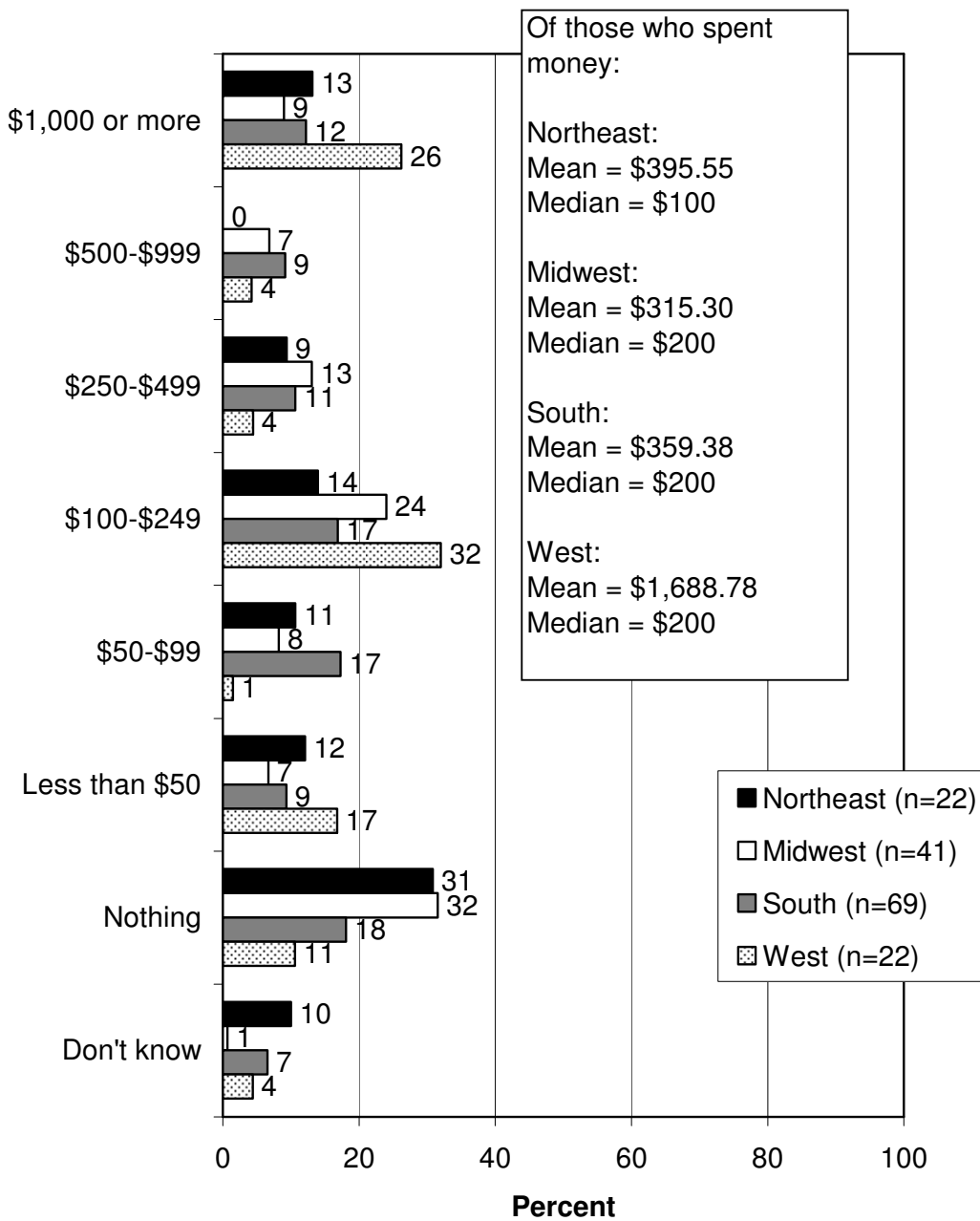
Q128. Overall, in 2015, about how much did you spend on equipment for bowhunting? (Asked of those who participated in bowhunting in 2015.)



Q131. In 2015, about how much did you spend on travel to participate in bowhunting? (Asked of those who participated in bowhunting in 2015.)

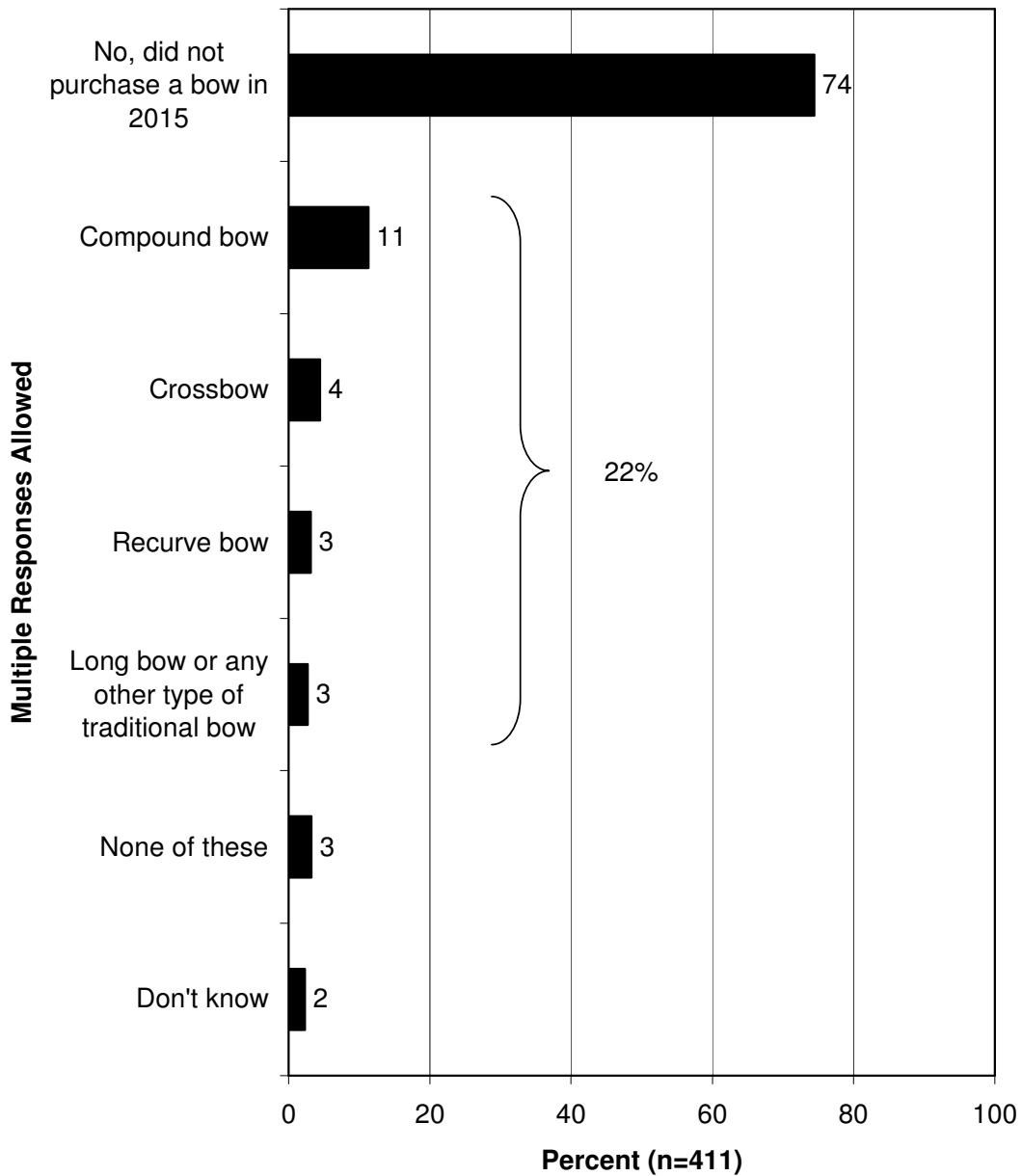


Q131. In 2015, about how much did you spend on travel to participate in bowhunting? (Asked of those who participated in bowhunting in 2015.)

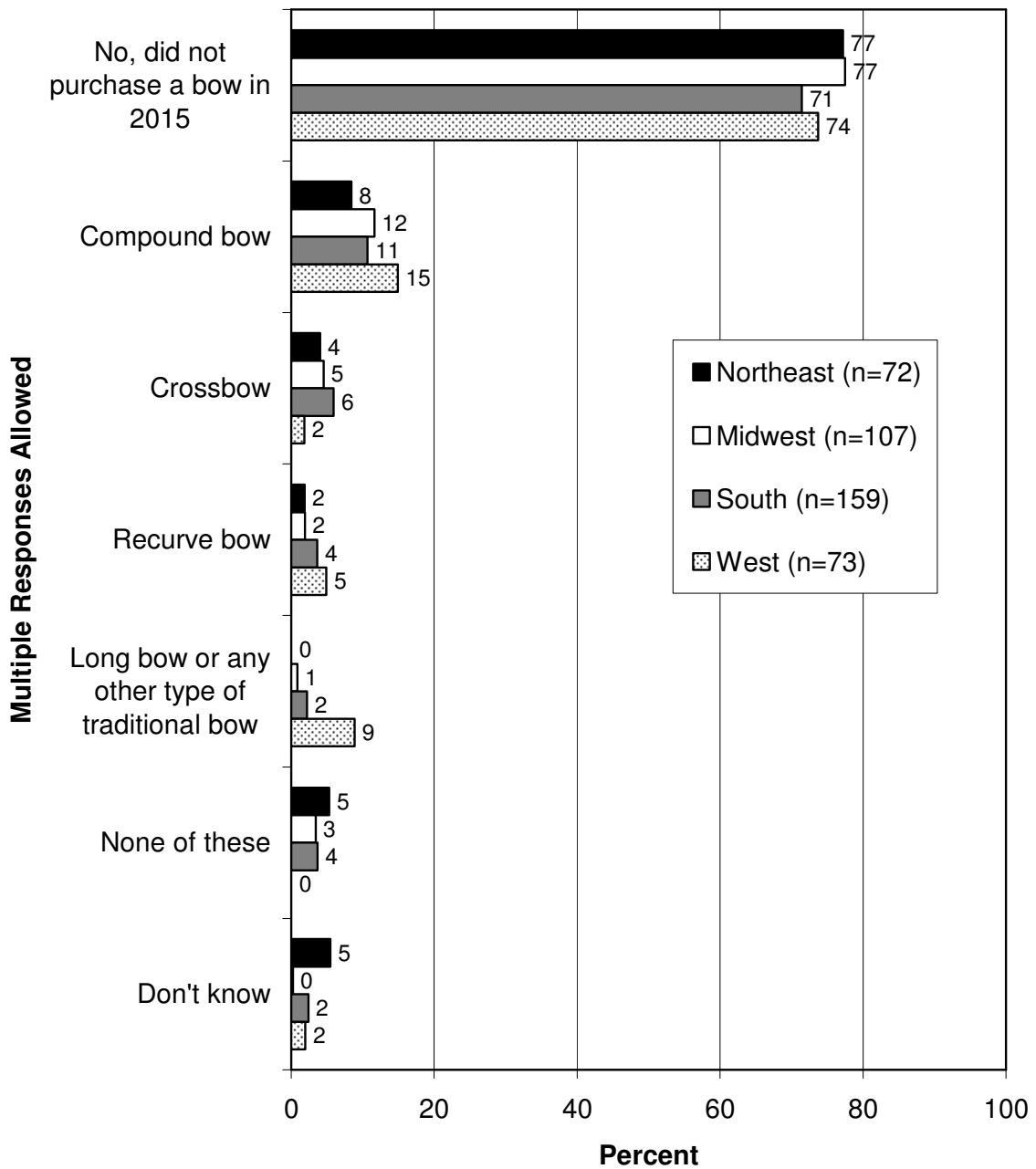


- Of those who participated in 2015 in any form of archery, 24% purchased a bow for their archery or bowhunting activities (11% purchased a compound bow, the most common type). Regional variations are also shown.

Q134. Did you purchase any bows for your archery or bowhunting activities in 2015? (Asked of those who participated in archery in 2015.)



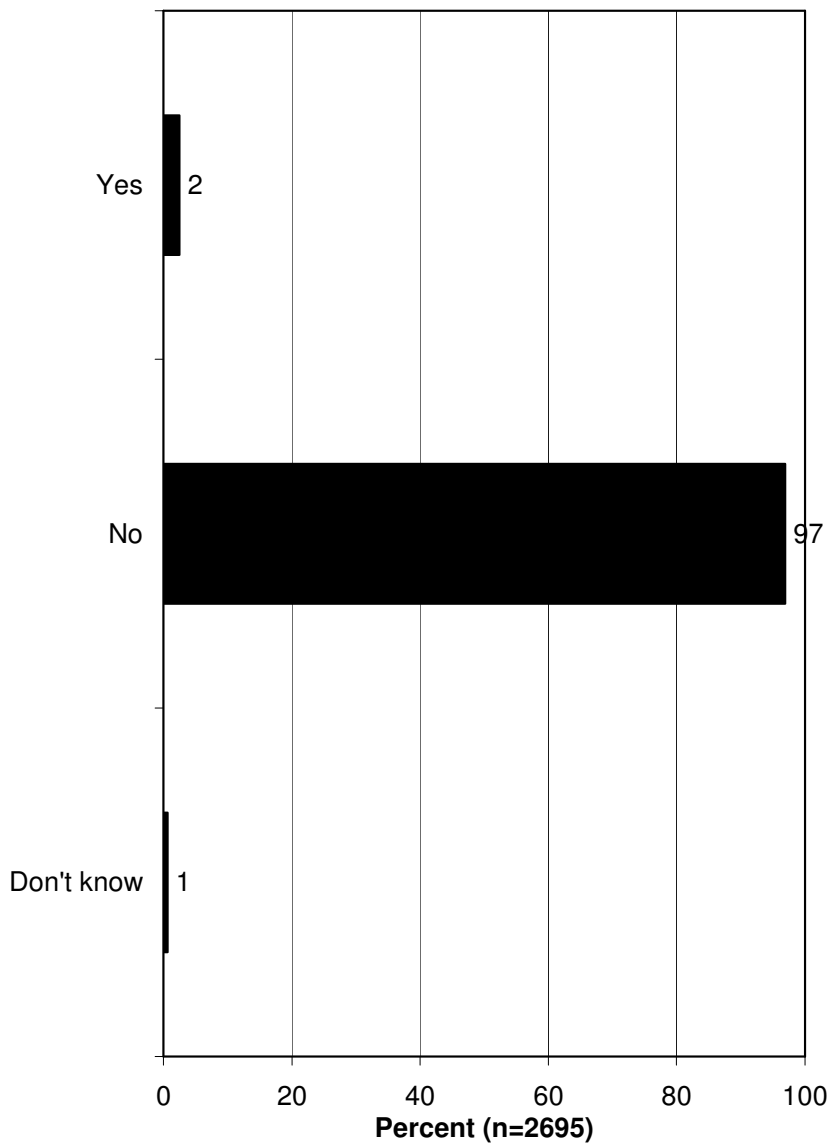
Q134. Did you purchase any bows for your archery or bowhunting activities in 2015? (Asked of those who participated in archery in 2015.)



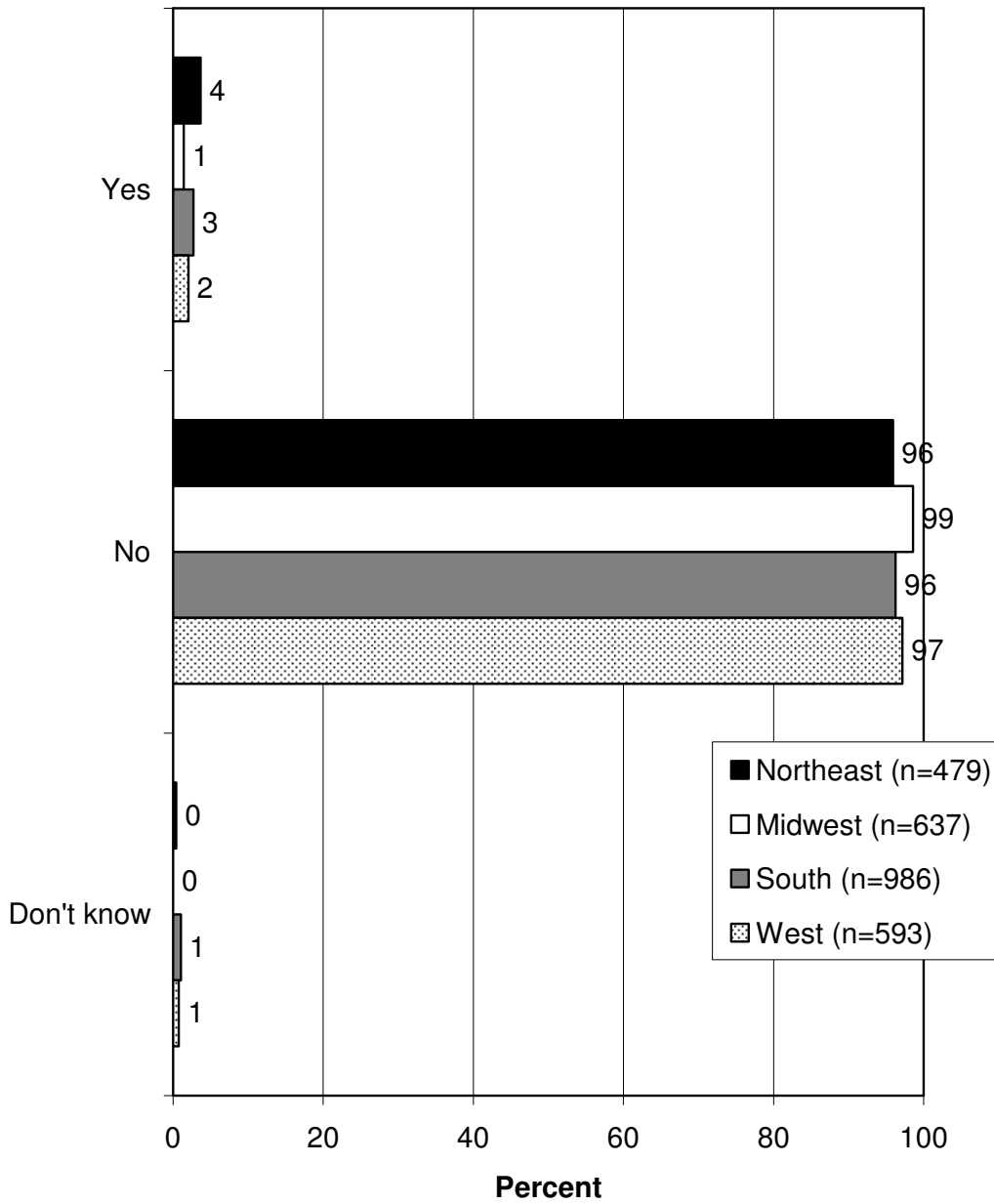
CONTINUED INTEREST/PARTICIPATION WITH AND WITHOUT SUPPORT

- A small number (2%) of those who ever participated in or expressed any interest in archery are involved in an archery or bowhunting organization. Regional variations are also shown.

**Q137. Are you a member of or do you belong to any organized archery or bowhunting groups or clubs?
(Asked of those who have ever participated in archery or were at least a little interested in archery.)**



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(Asked of those who have ever participated in archery or were at least a little interested in archery.)**

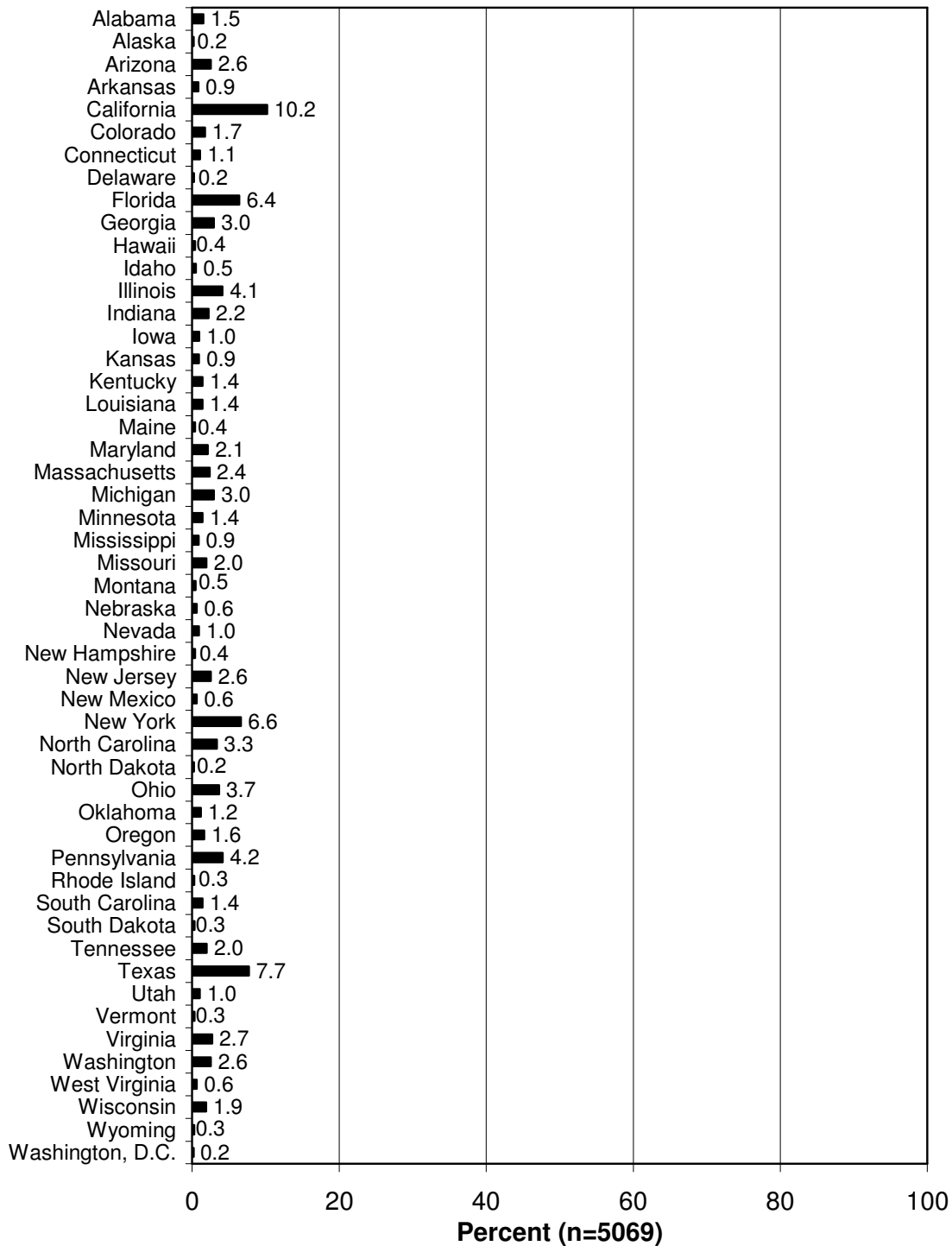


DEMOGRAPHIC DATA

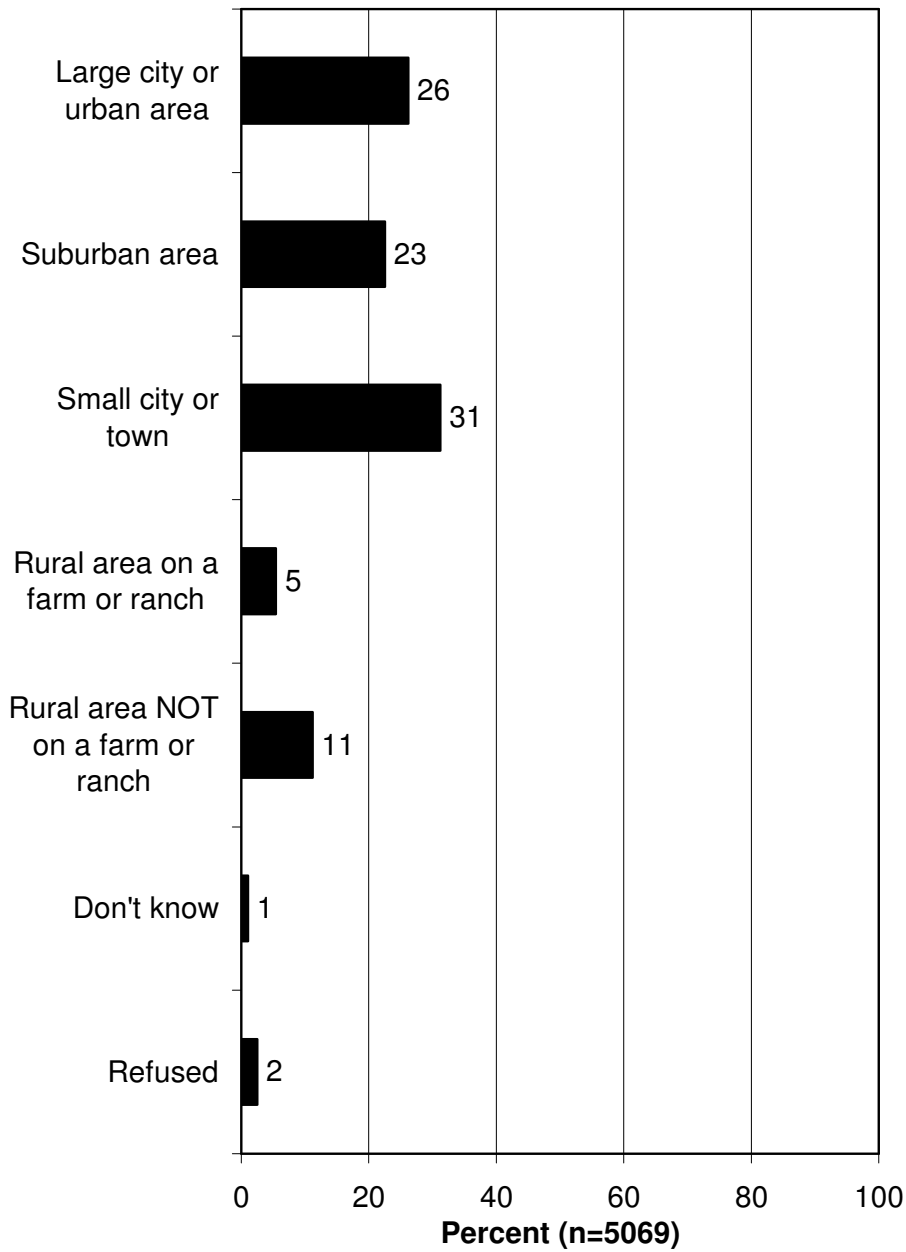
Demographic crosstabulations for selected survey responses have been presented throughout this report. The following is a summary of the demographic characteristics of all survey respondents. Nationwide and regional results are shown.

- The statewide distribution of survey respondents is shown. States with the highest percentage of respondents are California (10.2%), Texas (7.7%), and New York (6.6%). Every state (including Washington, D.C.) was represented in this survey.
- The distribution of the types of residence is shown. A plurality of respondents (31%) live in a small city or town, followed by large cities or urban areas (26%) and suburban areas (23%).
- The highest education level of survey respondents is most likely to be a Bachelor's degree (25% of respondents reported this), a high school degree or equivalent (22%), or some college or trade school but no degree (19%).
- The race or ethnicity of respondents is most often white or Caucasian (66%), followed by black or African American (13%) and Hispanic or Latino (8%).
- The distribution of annual household income is shown. Percentages of respondents are somewhat uniformly distributed across the income categories, but note that 24% of respondents refused the question.
- Survey respondents are slightly more often female (51%) than male (48%).

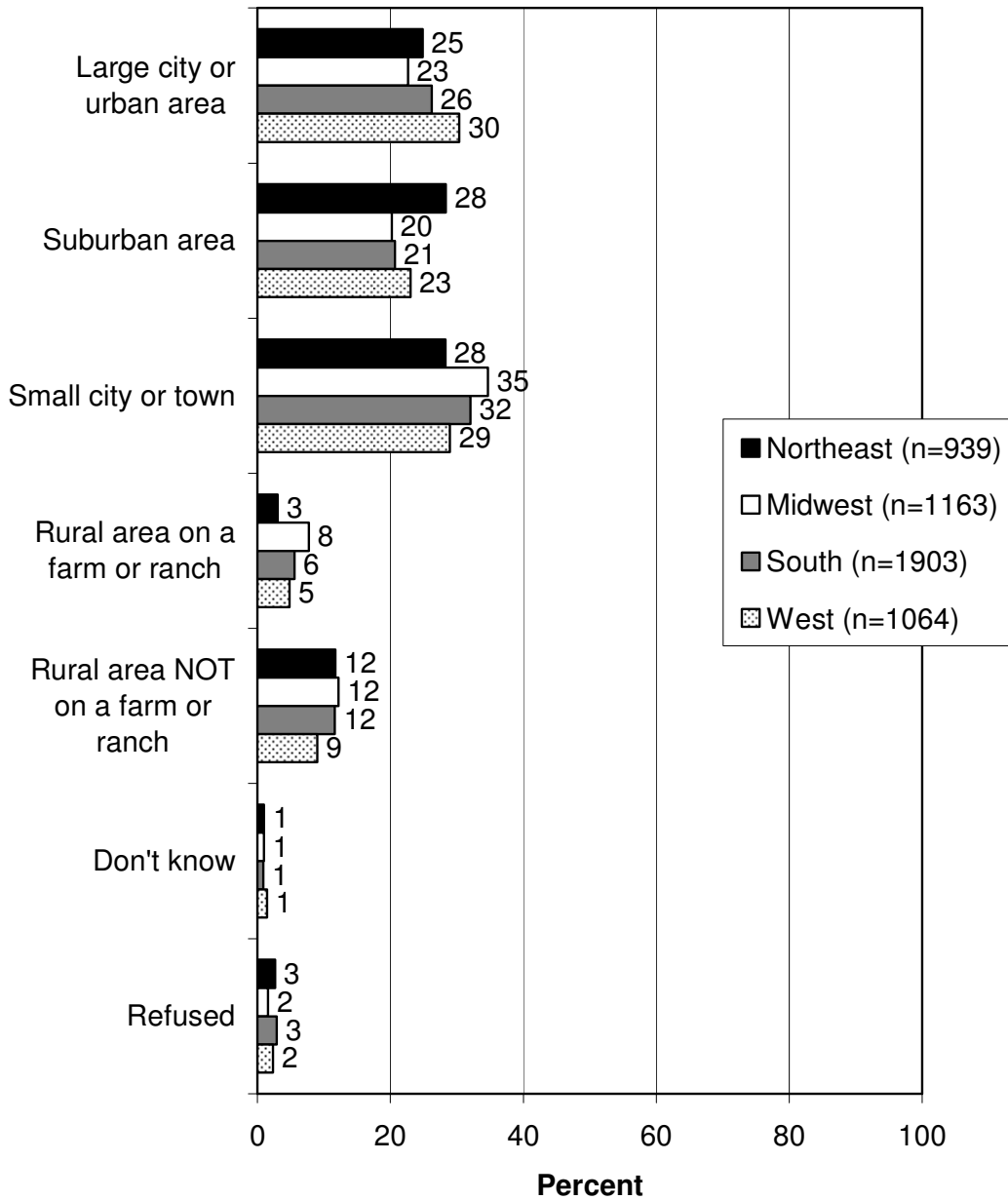
Q139. What state do you currently live in?



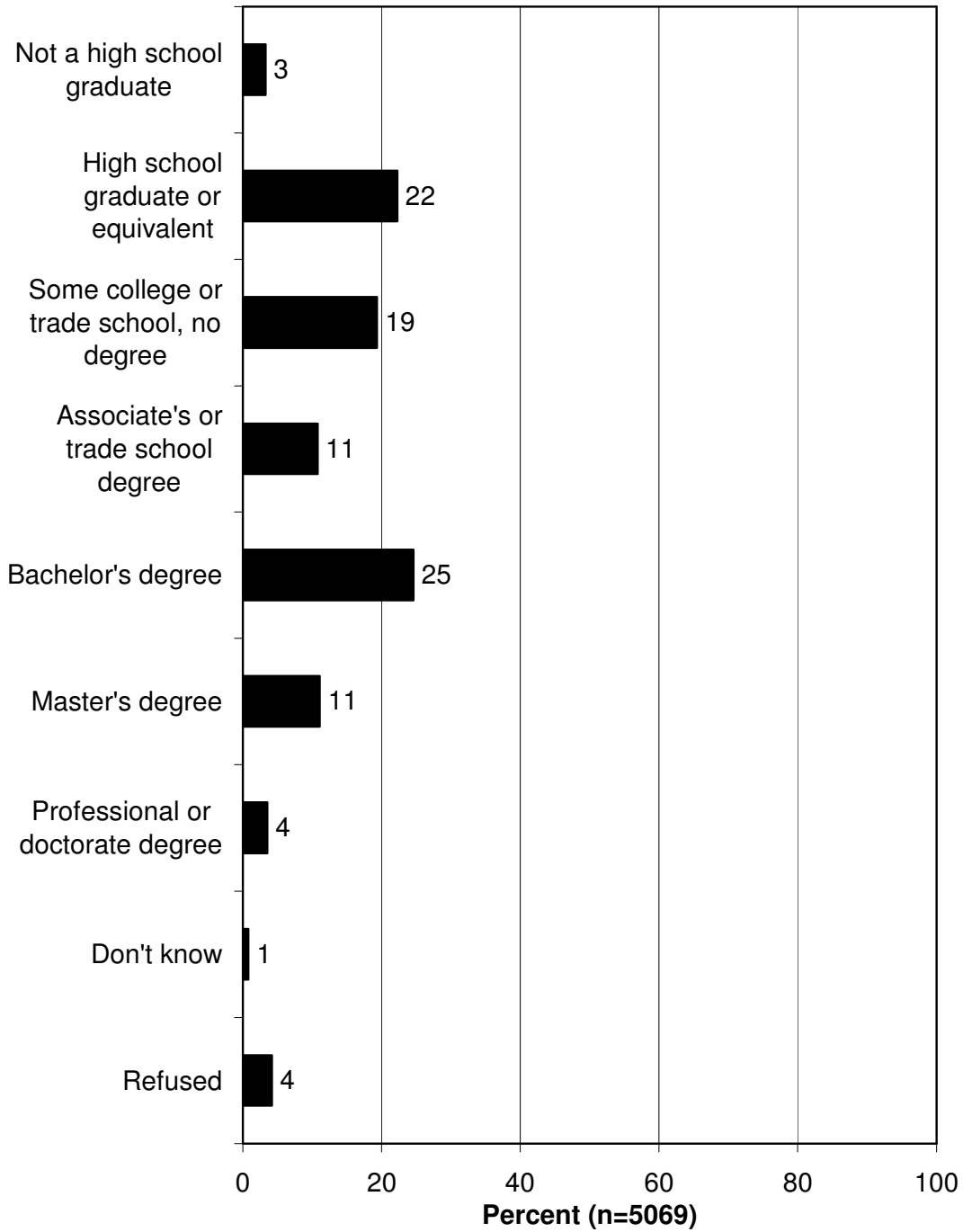
Q141. Do you consider your place of residence to be a large city or urban area, a suburban area, a small city or town, a rural area on a farm or ranch, or a rural area not on a farm or ranch?



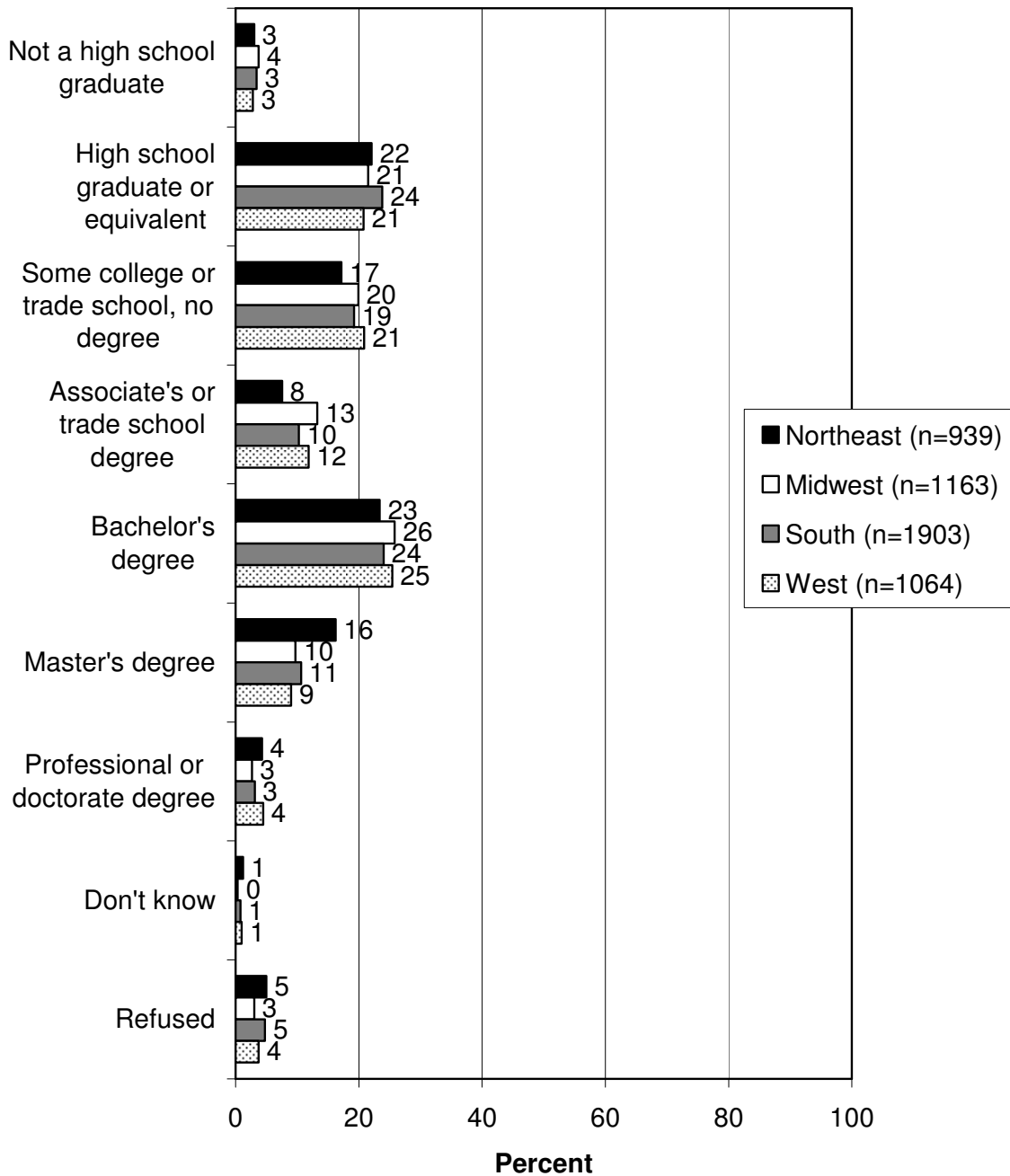
Q141. Do you consider your place of residence to be a large city or urban area, a suburban area, a small city or town, a rural area on a farm or ranch, or a rural area not on a farm or ranch?



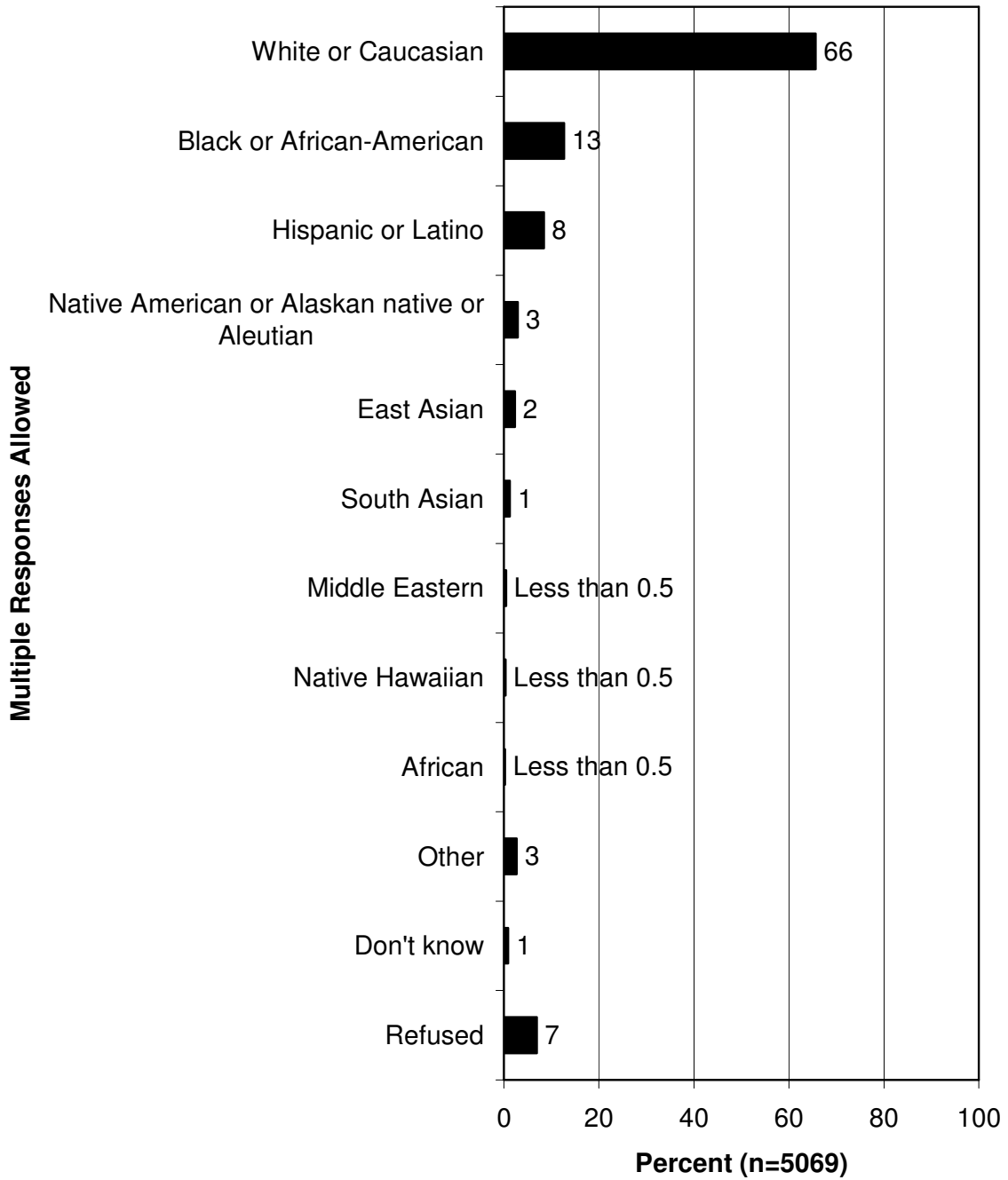
Q147. What is the highest level of education you have completed?



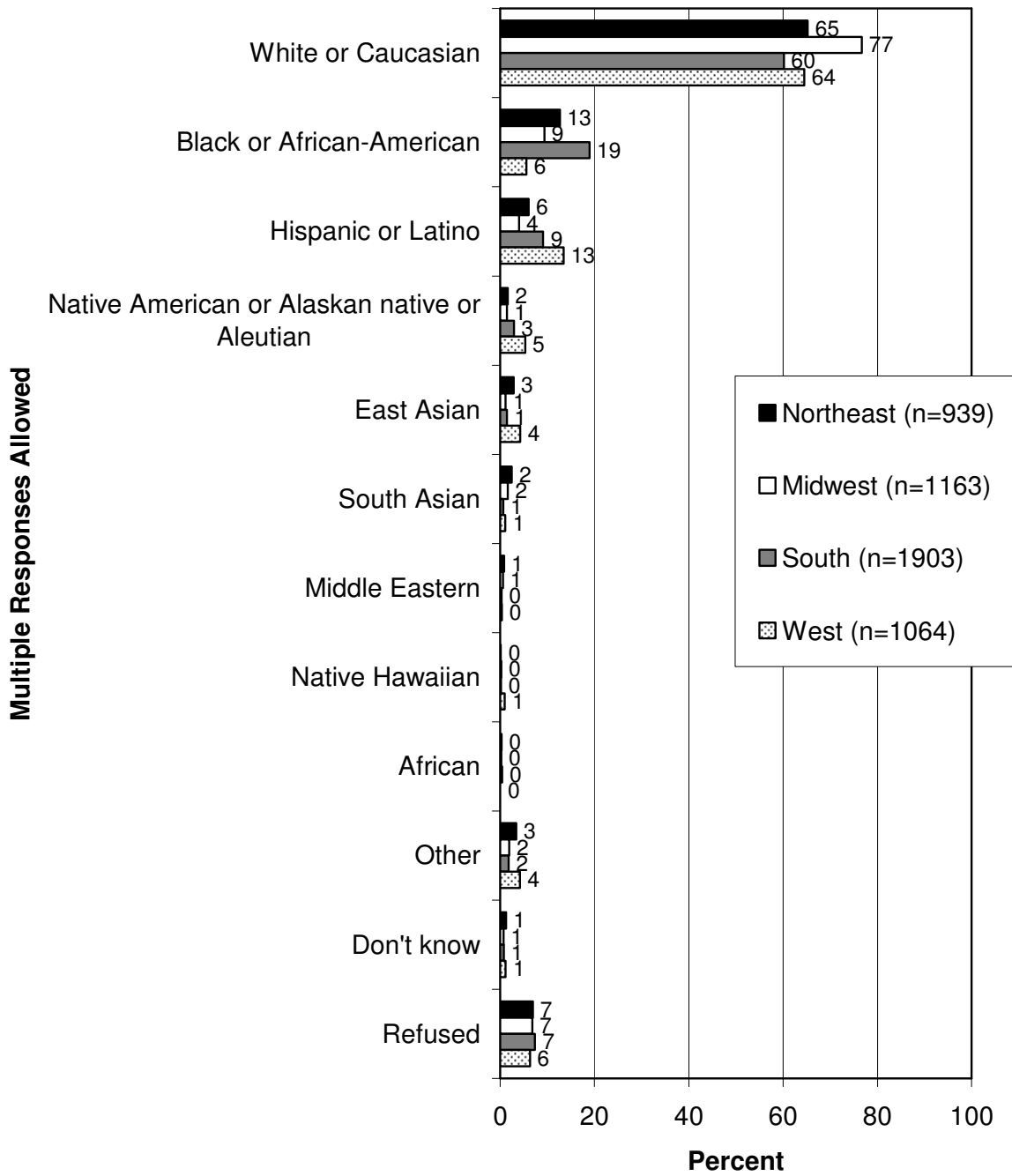
Q147. What is the highest level of education you have completed?



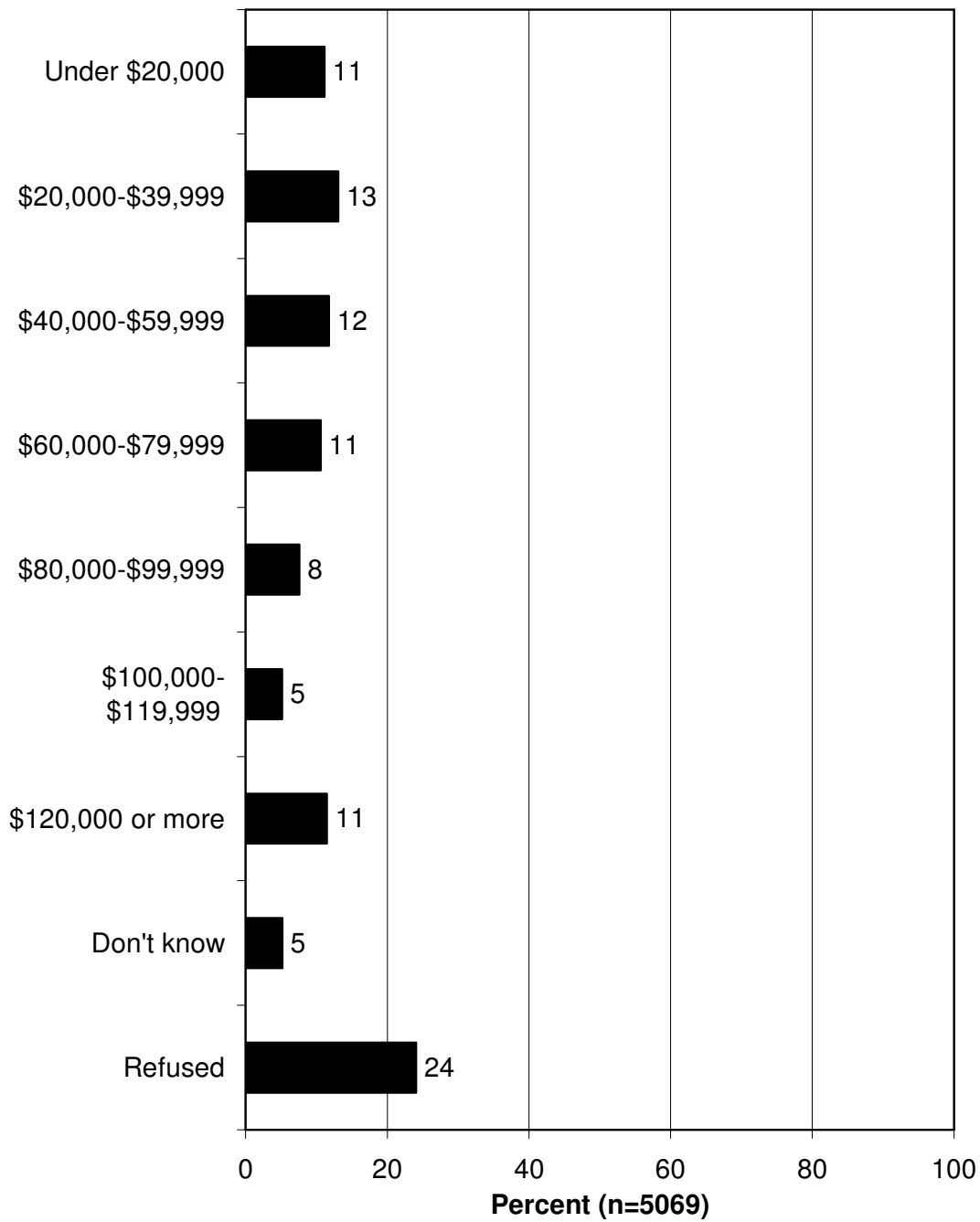
Q150. What races or ethnic backgrounds do you consider yourself?



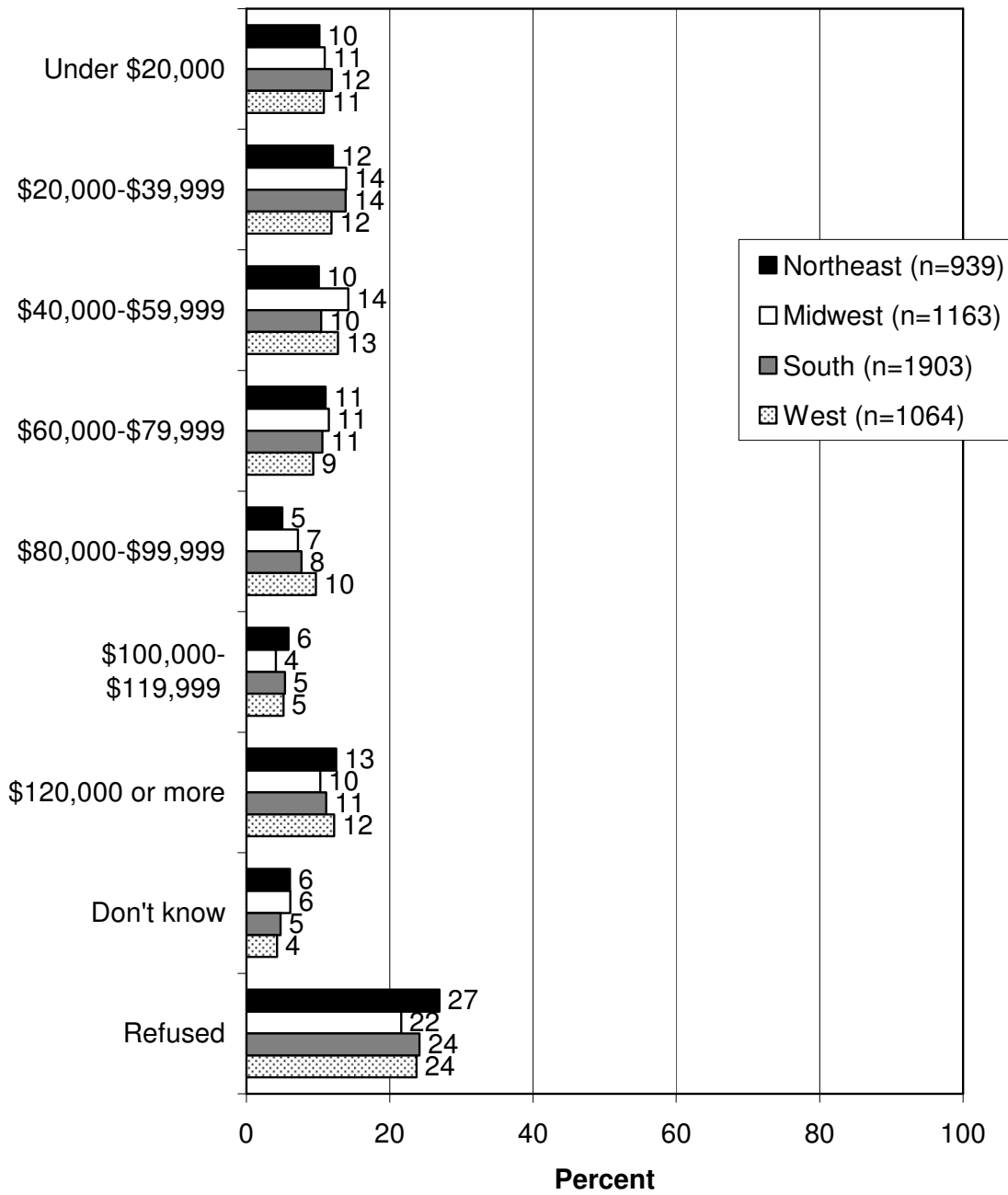
Q150. What races or ethnic backgrounds do you consider yourself?



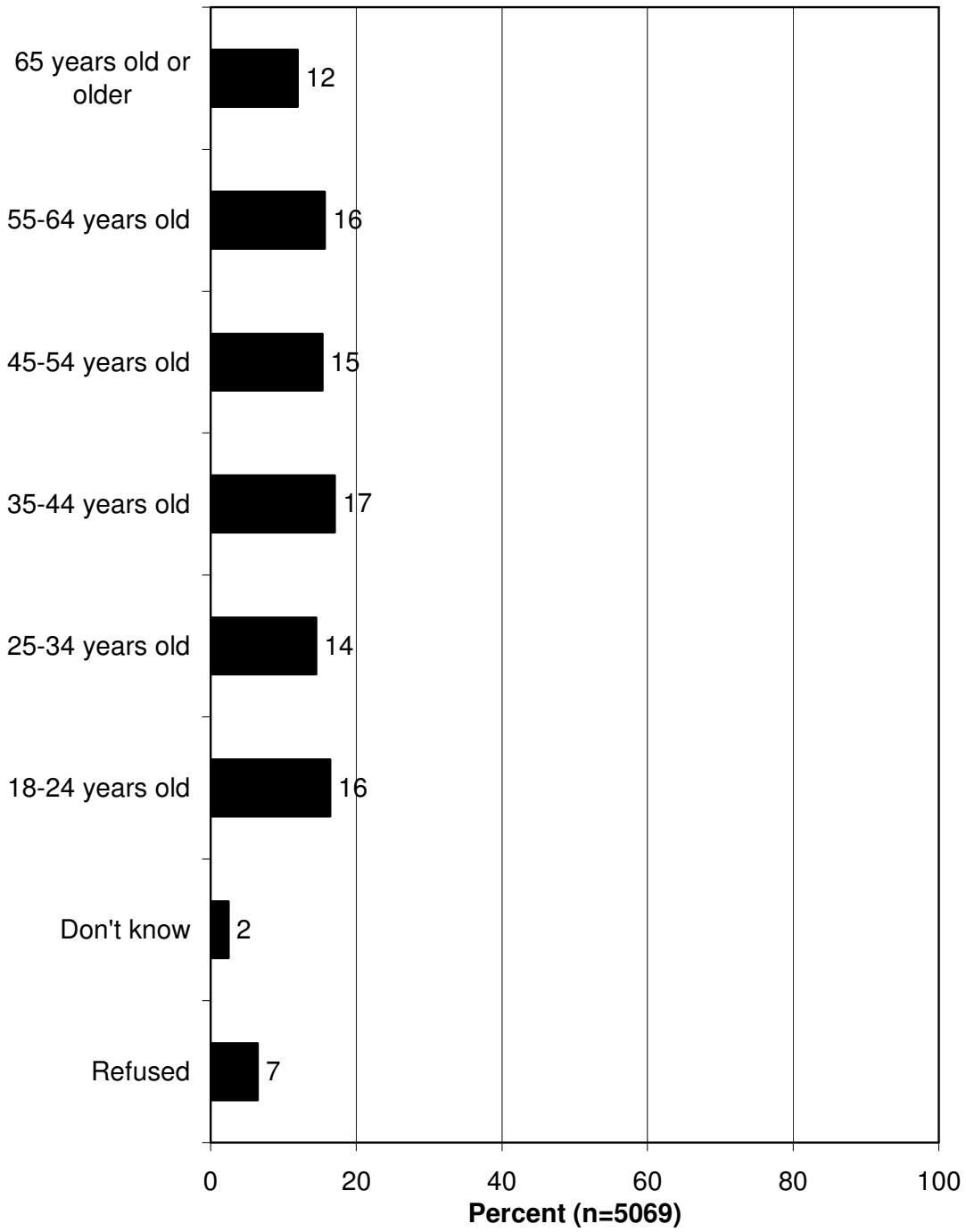
Q152. Which of these categories best describes your total household income before taxes last year?



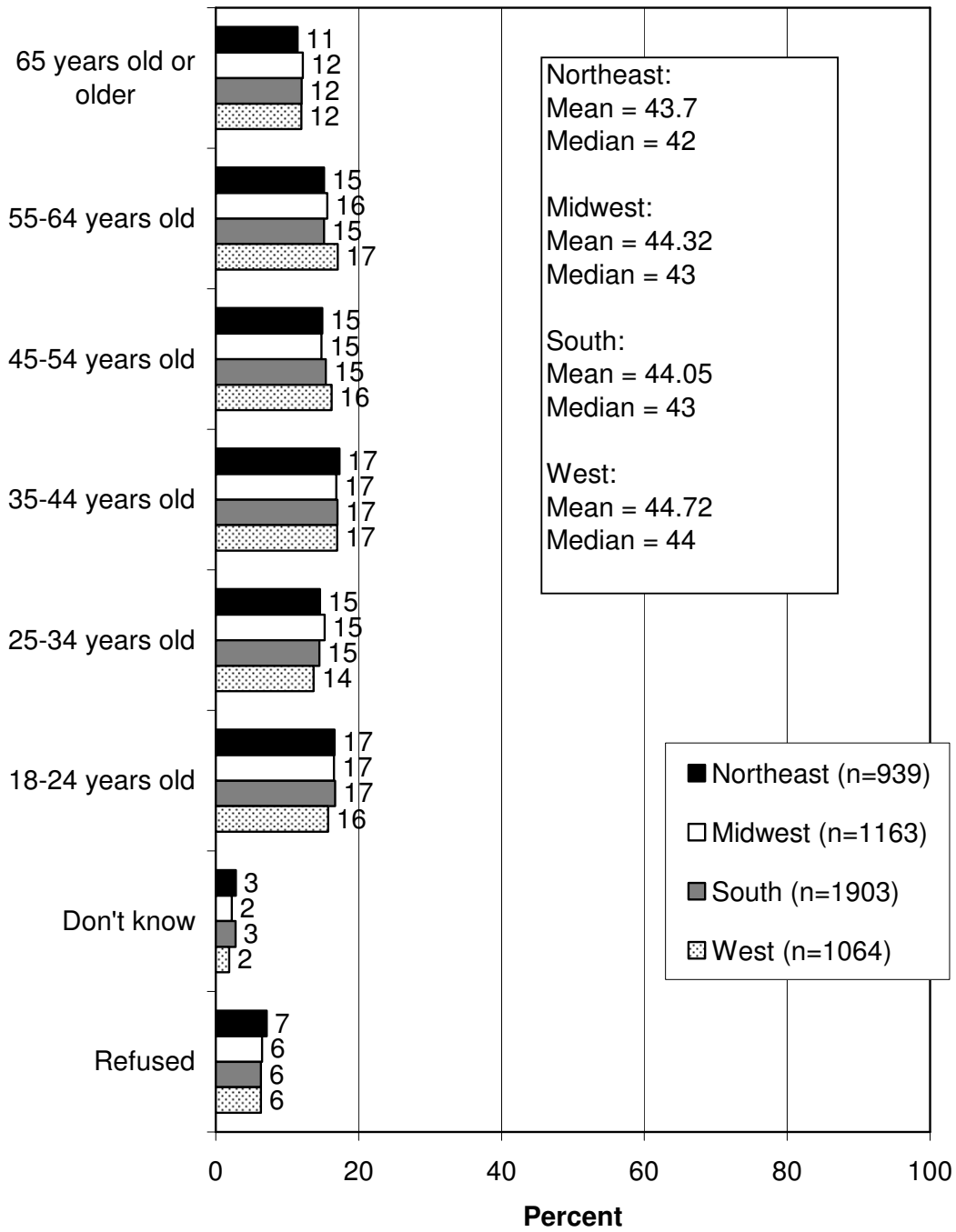
Q152. Which of these categories best describes your total household income before taxes last year?



Q153. May I ask your age?



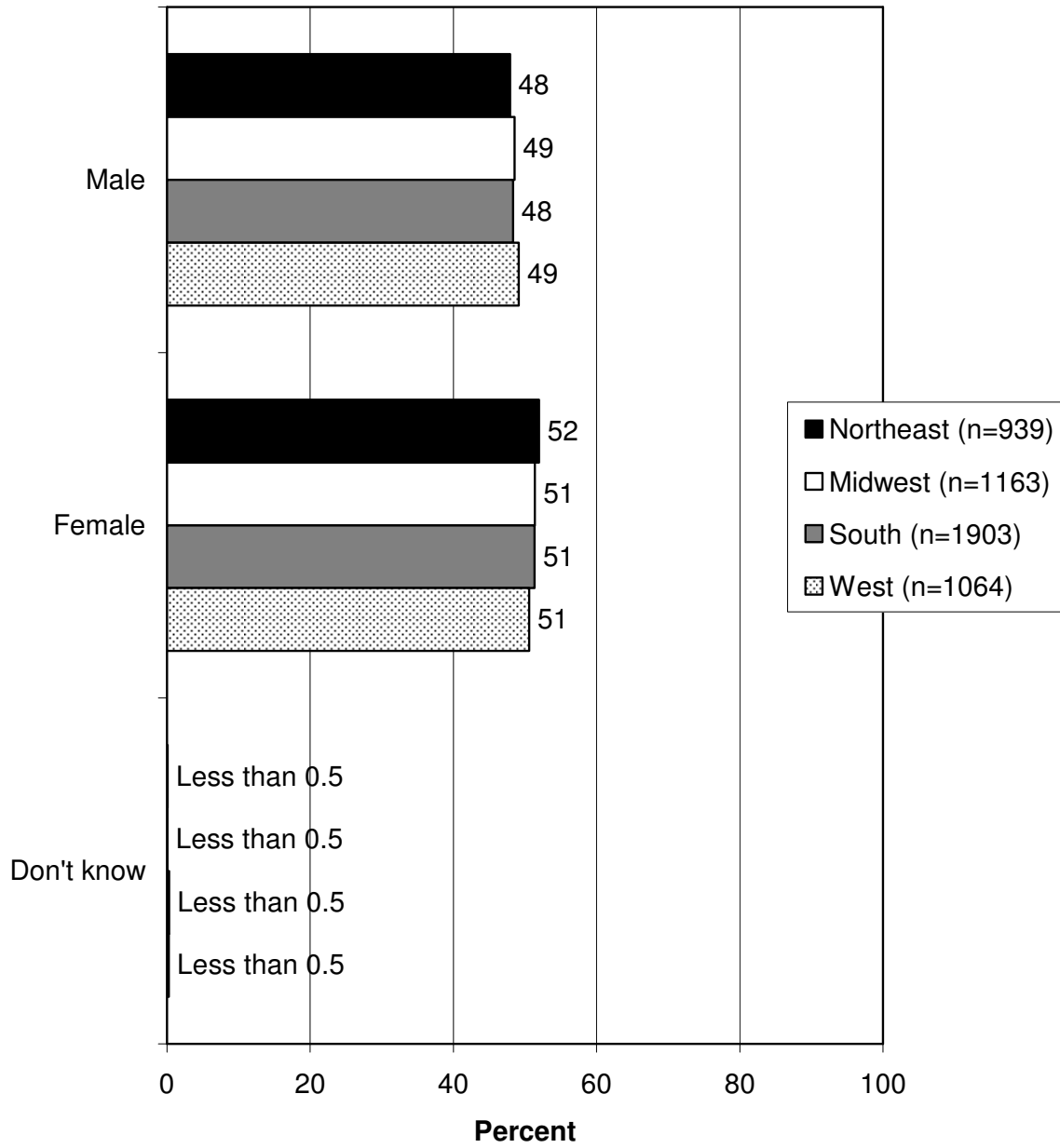
Q153. May I ask your age?



Q159. Respondent's gender (not asked; observed by interviewer).



Q159. Respondent's gender (not asked; observed by interviewer).



INTERNET SURVEY RESULTS AND COMPARISONS

Concurrent with the telephone survey, Responsive Management conducted a completely independent Google survey for comparison purposes, which was Internet-based. Note that it was *not* a panel sample, which are used in some Internet surveys, but was instead a scientifically based general population survey, with the sampling and surveying strategies carefully coordinated between Google and Responsive Management. (The data from the Internet survey were not included in the 5,069 respondents shown in the telephone survey results prior to this point in the report—in other words, the Internet survey produced a completely separate set of data consisting of 4,164 respondents.)

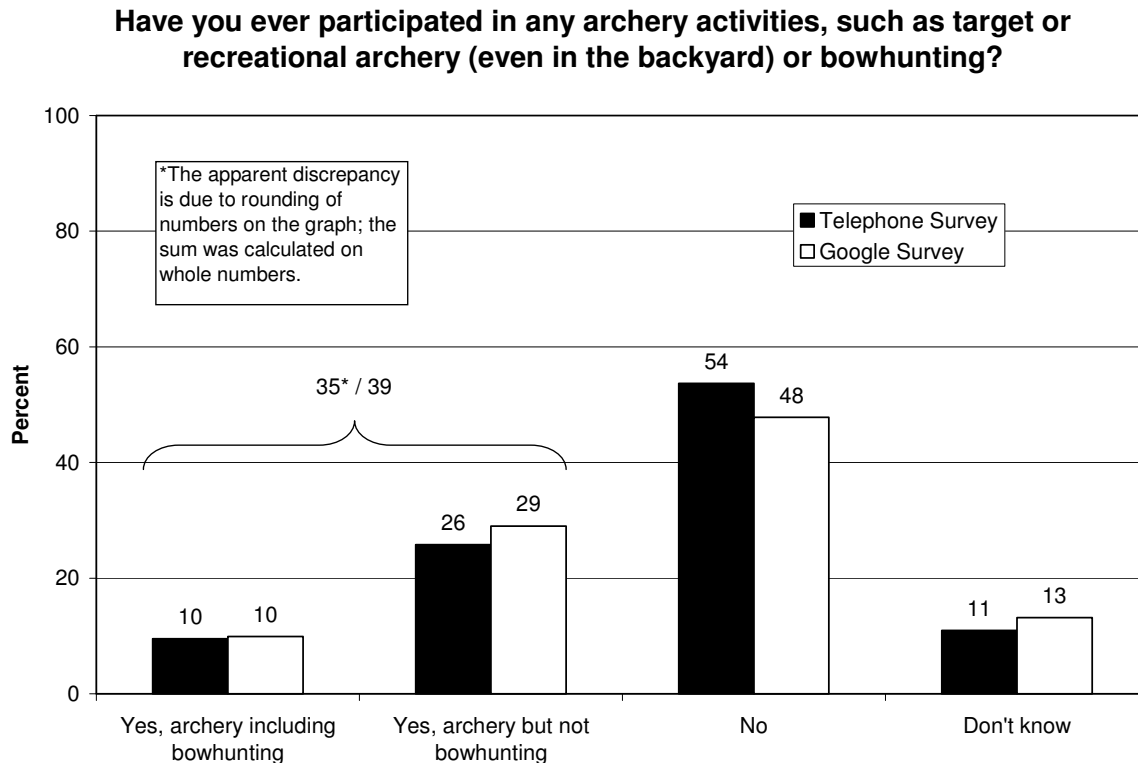
The Google Survey service has some shortcomings, compared to telephone surveying methodology. Primary among them is that the Google Survey is limited to only ten questions. A second limitation in Google Surveys is that weighting of the sample after the survey is conducted cannot be performed on certain types of questions, including those that allow multiple responses. A third limitation is that gender and age are inferred in the Google data rather than from the respondents themselves. The fourth limitation, of course, is simply that a live interviewer (and the interviewing software with its error checkers) is not present to flag inconsistent responses or probe for clarification. Nonetheless, on some questions, the Google data allowed for comparisons with the telephone survey data.

The succeeding pages present the following information:

- Graphs providing side-by-side comparisons of telephone survey results with Google survey results.
- A brief description of each comparison, including any notes regarding differences in survey wording or administration.

The most basic comparison is the rate of *ever having participated* in archery. Both the surveys found similar results. Responsive Management found that 35% had ever participated in archery including bowhunting (rounding on the graph causes the apparent discrepancy; the sum was calculated on unrounded numbers); Google found that 39% had ever participated.

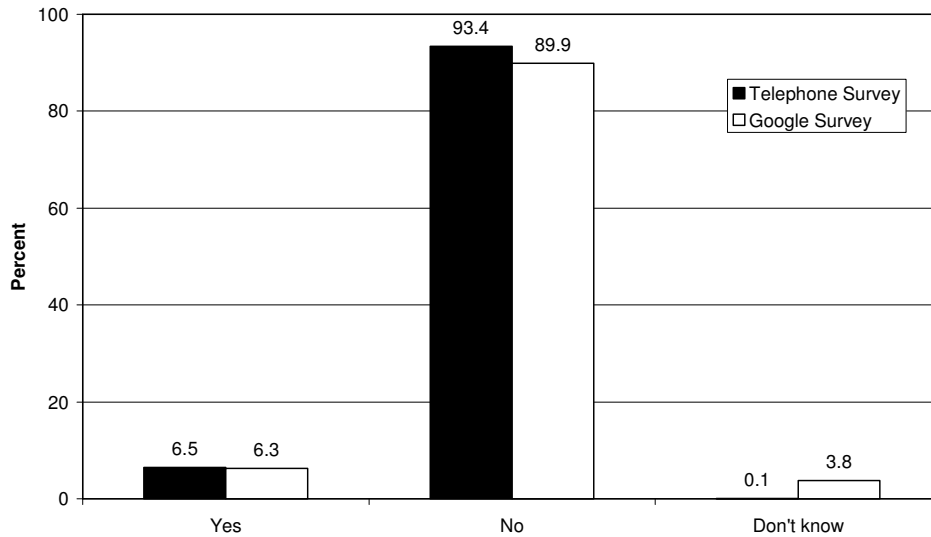
The breakdown into those who did archery including bowhunting (both at 10%) and those who did archery but not bowhunting (26% in the telephone results, 29% in the Internet results) are fairly similar, as well.



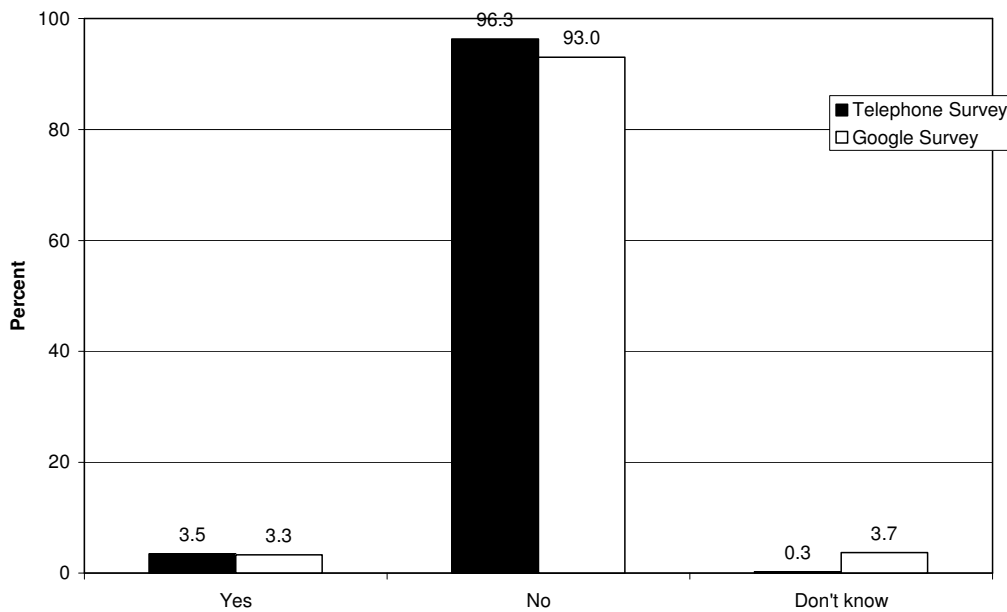
There are differences in the methodology on this question. In the Google survey, this question was given after two other archery questions had been asked, so the respondent knew the survey was about archery at this point. In contrast, the telephone survey administered this question within a series of “ruse” questions about activities unrelated to archery, so the respondent would not have known the survey was about archery at that point. (The ruse methodology could not be used in the Google survey because it would have used up most of the ten-question limit to get to that point.)

The next comparisons are of the percentages who did archery activities other than bowhunting and the percentages who did bowhunting in the two surveys. The telephone survey found that 6.5% had done archery other than bowhunting, compared to 6.3% in the Google survey. The results regarding bowhunting are very similar, as well: 3.5% in the telephone survey, compared to 3.3% in the Internet survey.

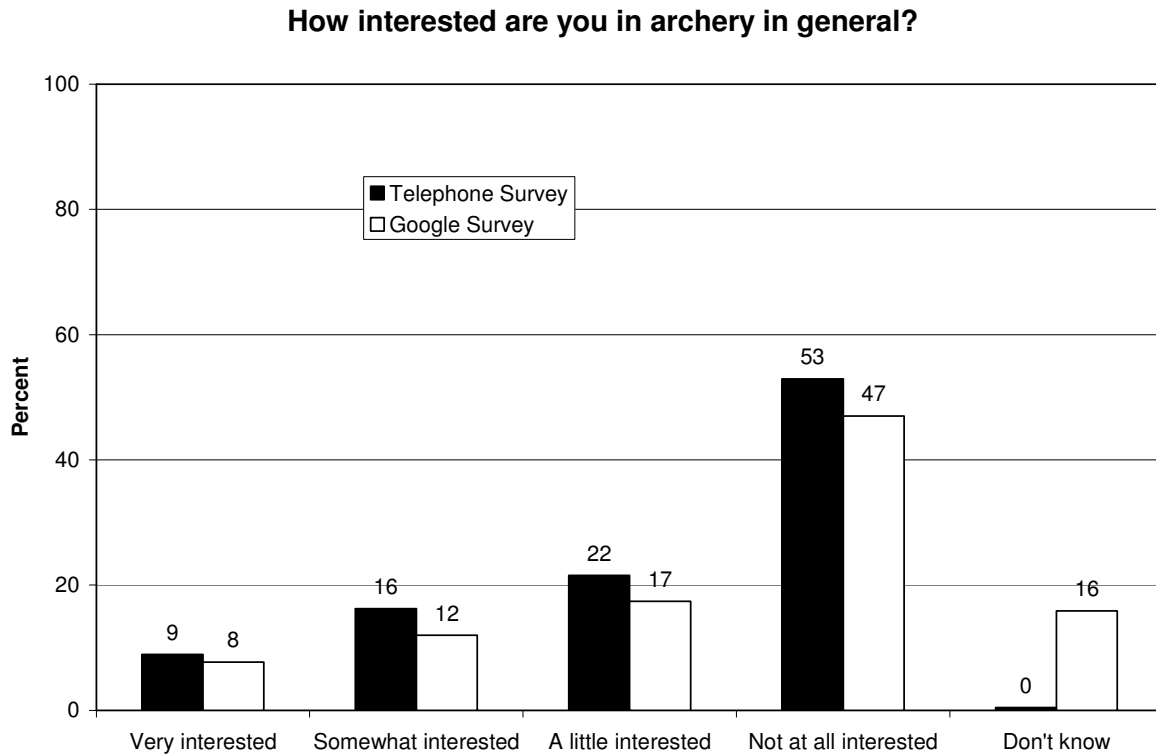
Did you do any archery activities other than bowhunting in 2015 (January 2015 to December 2015)?



Did you go bowhunting in 2015 (January 2015 to December 2015)?



A final question that can be compared asked about respondents' interest in archery in general. Again, results are close. As can be seen in the following graph, the various levels of interest are quite close. The most striking difference is simply that the Google survey has a much higher percentage saying, "Don't know." Had the "don't know" responders been encouraged to give a response from the interest continuum, they likely would have been distributed through all the answers, thus providing results that would have been even closer than they are below. (This points out one of the aforementioned limitations of Internet surveys in that a live interviewer was not present to prompt for an answer.)



ABOUT RESPONSIVE MANAGEMENT

Responsive Management is an internationally recognized public opinion and attitude survey research firm specializing in natural resource and outdoor recreation issues. Our mission is to help natural resource and outdoor recreation agencies and organizations better understand and work with their constituents, customers, and the public.

Utilizing our in-house, full-service telephone, mail, and web-based survey center with 50 professional interviewers, we have conducted more than 1,000 telephone surveys, mail surveys, personal interviews, and focus groups, as well as numerous marketing and communication plans, needs assessments, and program evaluations. Clients include the federal natural resource and land management agencies, most state fish and wildlife agencies, state departments of natural resources, environmental protection agencies, state park agencies, tourism boards, most of the major conservation and sportsmen's organizations, and numerous private businesses. Responsive Management also collects data for many of the nation's top universities.

Specializing in research on public attitudes toward natural resource and outdoor recreation issues, Responsive Management has completed a wide range of projects during the past 22 years, including dozens of studies of hunters, anglers, wildlife viewers, boaters, park visitors, historic site visitors, hikers, birdwatchers, campers, and rock climbers. Responsive Management has conducted studies on endangered species; waterfowl and wetlands; and the reintroduction of large predators such as wolves, grizzly bears, and the Florida panther. Responsive Management has assisted with research on numerous natural resource ballot initiatives and referenda and has helped agencies and organizations find alternative funding and increase their membership and donations. Additionally, Responsive Management has conducted major organizational and programmatic needs assessments to assist natural resource agencies and organizations in developing more effective programs based on a solid foundation of fact.

Responsive Management has conducted research on public attitudes toward natural resources and outdoor recreation in almost every state in the United States, as well as in Canada, Australia, the United Kingdom, France, Germany, and Japan. Responsive Management has also conducted focus groups and personal interviews with residents of the African countries of Algeria, Cameroon, Mauritius, Namibia, South Africa, Tanzania, Zambia, and Zimbabwe. Responsive Management routinely conducts surveys in Spanish and has conducted surveys in Chinese, Korean, Japanese and Vietnamese and has completed numerous studies with specific target audiences, including Hispanics; African-Americans; Asians; women; children; senior citizens; urban, suburban, and rural residents; large landowners; and farmers.

Responsive Management's research has been upheld in U.S. District Courts; used in peer-reviewed journals; and presented at major natural resource, fish and wildlife, and outdoor recreation conferences across the world. Company research has been featured in most of the nation's major media, including CNN, *The New York Times*, *The Wall Street Journal*, and on the front pages of *USA Today* and *The Washington Post*. Responsive Management's research has also been highlighted in *Newsweek* magazine.

Visit the Responsive Management website at:
www.responsivemanagement.com