

# SPORT SHOOTING PARTICIPATION IN THE UNITED STATES IN 2014

Conducted for the National Shooting Sports Foundation



by Responsive Management

Responsive Management™



2015

# **SPORT SHOOTING PARTICIPATION IN THE UNITED STATES IN 2014**

**2015**

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## **EXECUTIVE SUMMARY**

### **INTRODUCTION AND METHODOLOGY**

This study was conducted for the National Shooting Sports Foundation (NSSF), following up on similar studies in 2010 (about 2009 participation) and 2013 (about 2012 participation), to determine the regional and national participation rates in target shooting and sport shooting. The study entailed a telephone survey of U.S. residents ages 18 years old and older. Calculations based on 234,564,071 figure for U.S. residents ages 18 years old and older .

For the survey, telephones were selected as the sampling medium because of the almost universal ownership of telephones, particularly with the coverage provided by dual-frame samples that include both cell phones and landlines. Telephone surveys tend to 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.

The telephone survey questionnaire was developed cooperatively by Responsive Management and the NSSF, based on previous similar surveys conducted for the NSSF. Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey.

The methodology used a dual-frame sample, which consisted of a random sample of landline telephones and a random sample of cell phone numbers, called in their proper proportions, which ensures that all people in the pool of telephone users have an approximately equal chance of being called. The scientific sampling plan entailed obtaining a target number of interviews in each state, from both landlines and cell phones in their proper proportions, so that the number of respondents in each state in the sample would be exactly proportional to the state's population and, by extension, within the United States population as a whole. The sample was obtained from Survey Sampling International and DatabaseUSA, companies specializing in providing scientifically valid telephone survey samples. The overall sample with landlines and cell phones was representative of all Americans 18 years old and older. Responsive Management obtained 5,103 completed interviews overall.

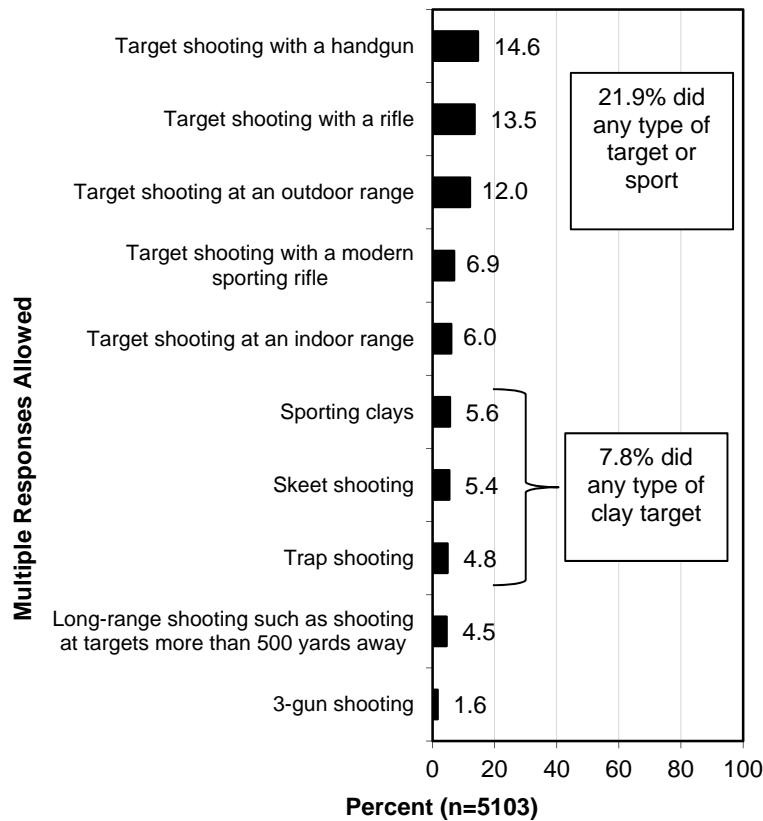
The software used for data collection was Questionnaire Programming Language. The analysis of data was performed using Statistical Package for the Social Sciences as well as proprietary software developed by Responsive Management.

### **PARTICIPATION IN TARGET AND SPORT SHOOTING**

The survey found that 21.9% of the U.S. adult population, or an estimated 51 million adults, participated in any type of target or sport shooting in 2014. As shown in the graph that follows, the most popular types are target shooting with a handgun (14.6% participated), target shooting with a rifle (13.5%), and target shooting at an outdoor range (12.0%). Note that respondents could have done more than one shooting activity. The actual numbers of participants are tabulated following the graph.

Initial survey question: We are interested in activities you may have done in 2014. Please tell me if you did any of the following in 2014. What about...? Go target shooting or sport shooting, including any informal target shooting on your own property.

**Participation in the following sport shooting activities.**



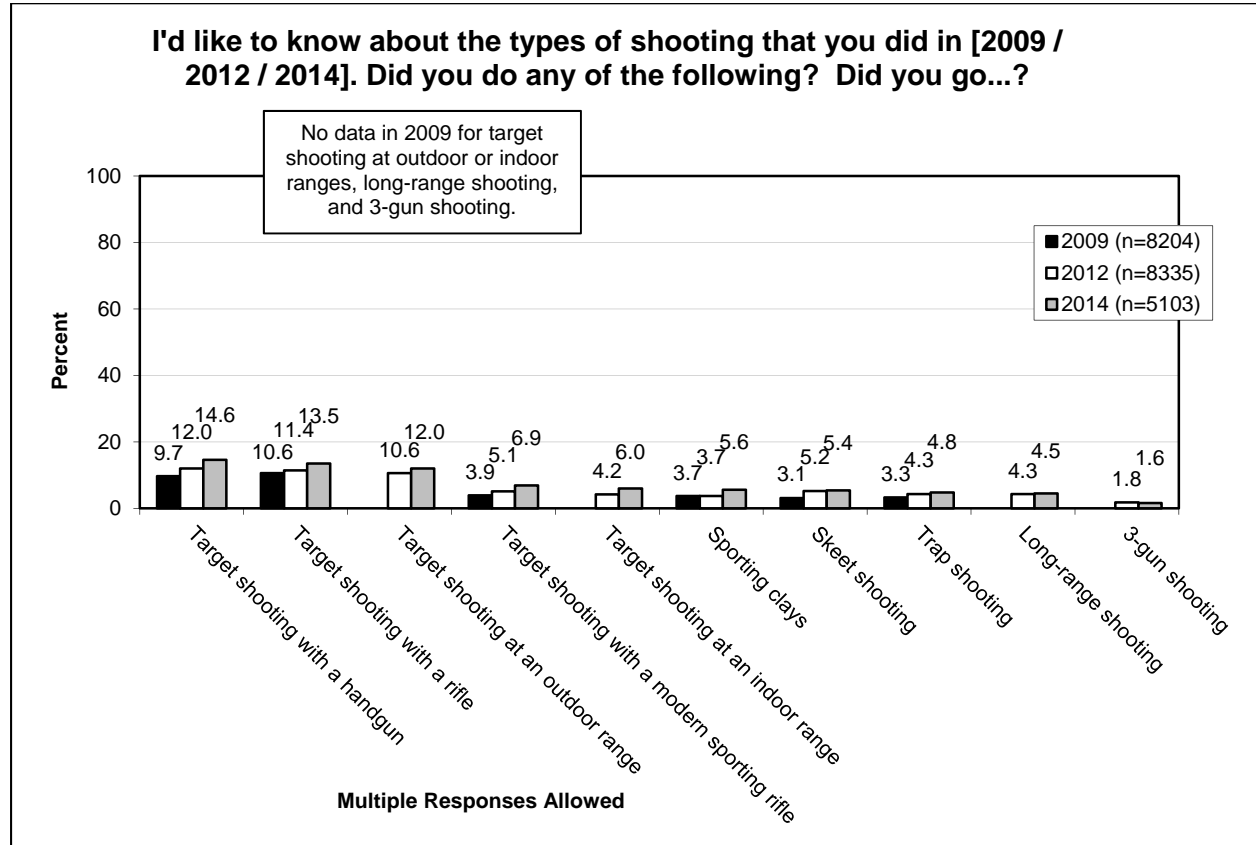
**National Participation in Target and Sport Shooting**

Activity	Estimated Total Participants*	95% Confidence Interval	
		Lower Limit	Upper Limit
<b>Any target shooting or sport shooting</b>	<b>51,226,765</b>	<b>48,567,512</b>	<b>53,886,018</b>
Target shooting with a handgun	34,221,107	31,949,047	36,493,168
Target shooting with a rifle	31,764,116	29,561,757	33,966,476
Target shooting at an outdoor range	28,075,842	25,986,547	30,165,138
Any type of clay target shooting (sporting clays, skeet, or trap)	18,396,758	16,667,771	20,125,745
Target shooting with a modern sporting rifle	16,267,924	14,632,709	17,903,139
Target shooting at an indoor range	14,007,982	12,782,759	15,533,204
Sporting clays	13,033,633	11,559,165	14,508,101
Skeet shooting	12,596,361	11,145,408	14,047,314
Trap shooting	11,227,278	9,853,226	12,601,330
Long-range shooting	10,434,630	9,107,621	11,761,639
3-gun shooting	3,837,132	3,020,666	4,653,599

\*Ages 18 years old and older

**TRENDS IN PARTICIPATION IN TARGET AND SPORT SHOOTING**

The current survey found a 21.9% participation rate in any type of target or sport shooting, which is an increase over the 15.1% rate among Americans in 2009 and 17.4% in 2012. Additionally, as shown in the trends graph below, the participation rate in each shooting activity shows an increase (except for 3-gun shooting), although the increase is so small for some activities that the rate could be said to have stayed essentially the same. The tabulation compares estimated numbers of participants; the estimated number of target/sport shooters in 2014 increased 25.6% over the 2012 number.



Activity	Estimated Total Participants* in 2009	Estimated Total Participants* in 2012	Estimated Total Participants* in 2014	%Change Compared to 2012
<b>National</b>				
Any target shooting or sport shooting	34,382,566	40,779,651	51,226,765	+25.6
Target shooting with a handgun	22,169,700	28,209,283	34,221,107	+21.3
Target shooting with a rifle	24,045,795	26,822,425	31,764,116	+18.4
Target shooting w/ a Modern Sporting Rifle	8,868,085	11,976,702	16,267,924	+35.8
Skeet shooting	6,979,680	12,090,346	12,596,361	+4.2
Trap shooting	7,582,479	10,116,684	11,227,278	+11.0
Sporting clays	8,399,989	8,789,340	13,033,633	+48.3
Any clay target shooting (skeet, trap, sc)	11,597,841	17,758,371	18,396,758	+3.6

\*Ages 18 years old and older

## DAYS OF PARTICIPATION IN TARGET AND SPORT SHOOTING

The tabulation below shows the mean and median days spent in the various shooting activities, among those who participated in each activity. Nationally, shooting with a modern sporting rifle is the activity with the highest mean days of participation, followed by 3-gun shooting. The top-ranked activity in mean days is shaded dark green; those activities within 2.0 percentage points of the top activity are shaded light green.

Activity	Mean Days Spent on Activity in 2014	Median Days Spent on Activity in 2014
<b>National</b>		
Target shooting with a traditional rifle	14.42	5
Target shooting with a modern sporting rifle	17.84	6
Target shooting with a handgun	16.32	6
Trap shooting	14.23	5
Skeet shooting	13.88	5
Sporting clays	13.10	5
3-gun shooting	17.43	4
Long-range shooting	15.62	5

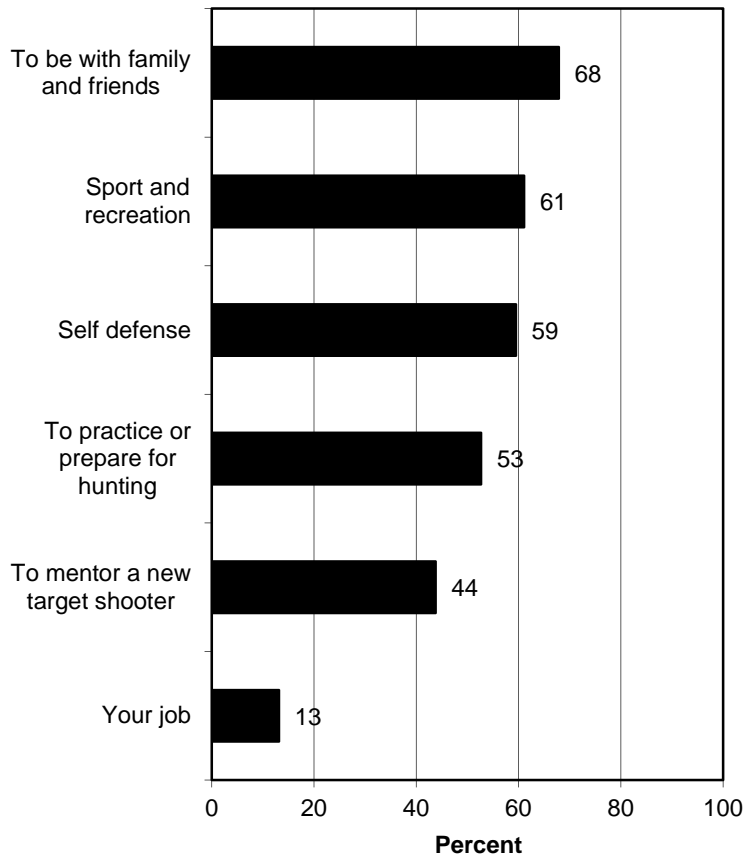
In addition to the tabulation above, the survey also provided data about the number of times that respondents went shooting at a range in 2014: the mean number is 9.85 times, and the median is 4 times.

## MOTIVATIONS FOR TARGET AND SPORT SHOOTING

The survey asked a series of questions examining motivations for target/sport shooting. The social reasons top the list: to be with family and friends (68% said it was *very* important) and for the sport and recreation (61%). More practical reasons are lower down, but still very important to a majority: self defense (59%) and to practice or prepare for hunting (53%). The graph on the following page shows the percentage who indicated that the reason was a very important reason to go target or sport shooting; these questions were asked of those who had gone target or sport shooting in 2014.



**Percent who consider each of the following to be a very important reason to go target shooting.  
(Asked of those who went target or sport shooting in 2014.)**

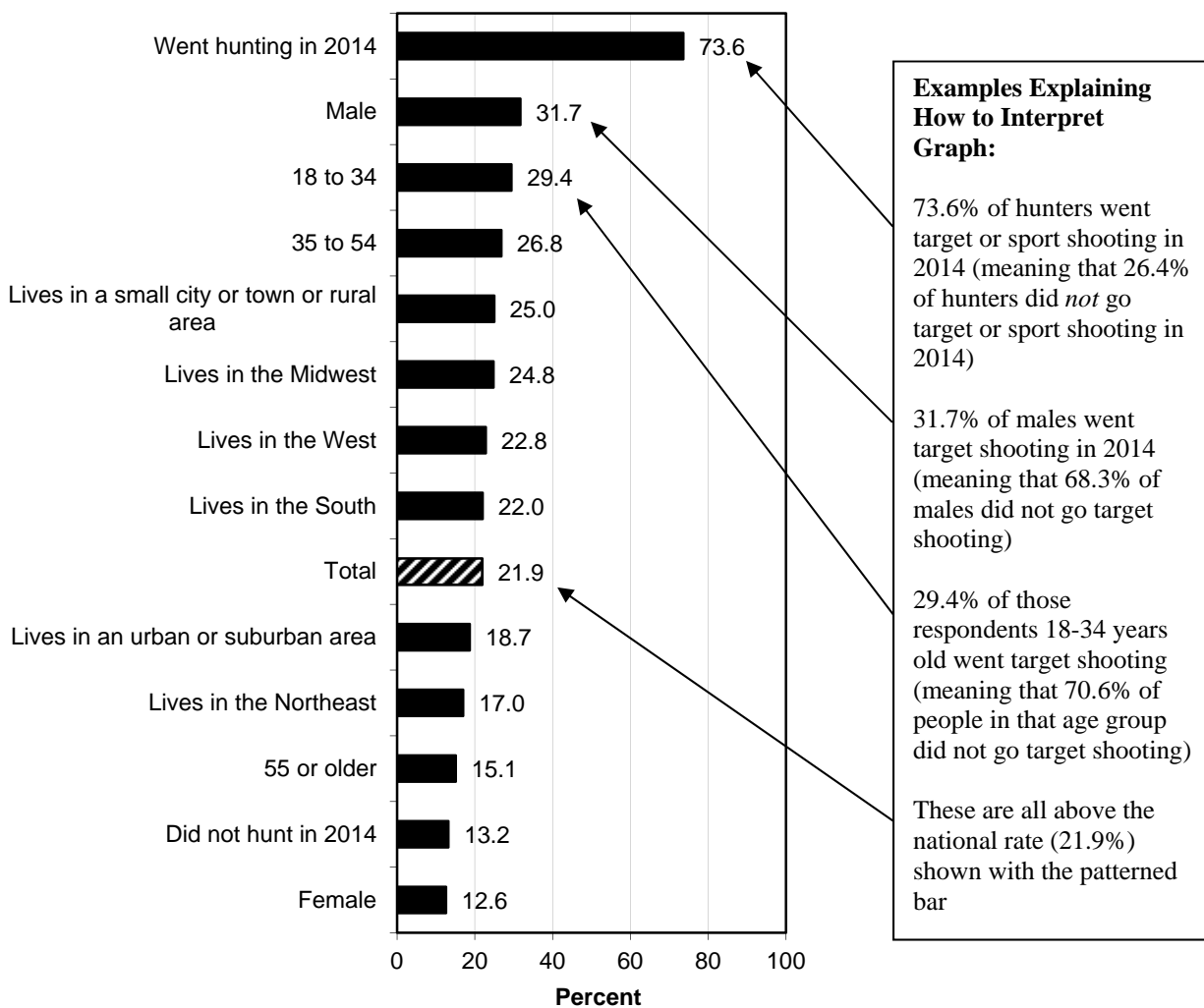


**DEMOGRAPHIC CHARACTERISTICS OF SHOOTERS**

This report includes an analysis of the demographic makeup of shooters. Participation in target and sport shooting is correlated with hunting participation, being male, being 18 to 34 years old, and being on the rural side of the urban-rural continuum. The Midwest Region is positively correlated, while the Northeast Region is negatively correlated.

The graph on the following page shows the rate of target/sport shooting participation in the population as a whole (21.9%, the bar that is patterned in the middle of the graph). Those demographic groups above the patterned bar have participation rates higher than the overall rate. For instance, 31.7% of males participated in target/sport shooting (compared to only 12.6% of females, shown in the last bar at the bottom of the graph).

**Percent of each of the following groups who target or sport shot in 2014:**



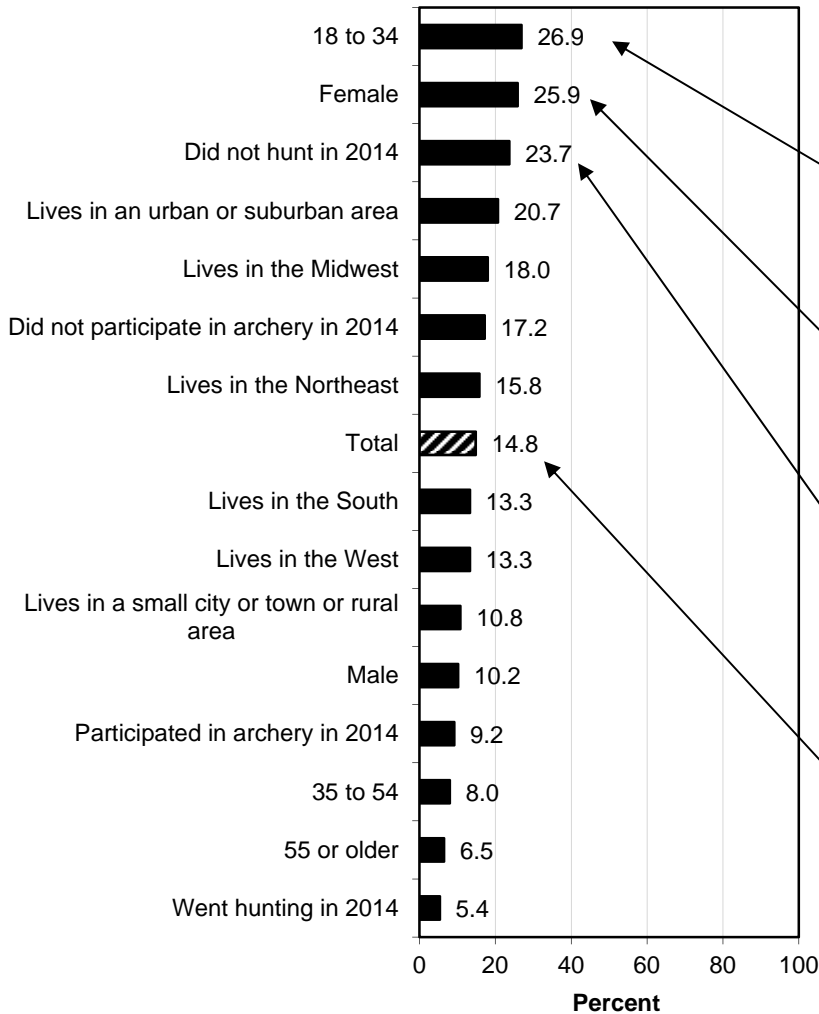
## DEMOGRAPHIC CHARACTERISTICS OF NEW SHOOTERS

For this analysis, new shooters were defined as those who started shooting within the past 5 years. The analysis first shows that 15% of those who participated in target or sport shooting in 2014 were first initiated into the shooting sports within the previous 5 years.

The analysis looked at the group of all target/sport shooters and then separated out new shooters. Among all target shooters, these new shooters are correlated with the following demographic factors, as shown in the graph that follows: being 18 to 34 years old, being female, not being a hunter, and living on the urban side of the urban-rural continuum. In this graph, 14.8% of all

shooters are new shooters (the patterned bar). Those groups above the bar are positively correlated with being a new shooter. For instance, 25.9% of female target/sport shooters are new shooters (compared to 10.2% of male shooters being new shooters).

**Among all target/sport shooters, the percent of each of the following groups who are new shooters:**



**Examples Explaining How to Interpret Graph:**

26.9% of target shooters who are 18-34 years old are new to shooting (meaning that 73.1% of shooters in that age group are *not* new to shooting)

25.9% of female shooters are new to shooting (meaning that 74.1% of female shooters are not new to shooting)

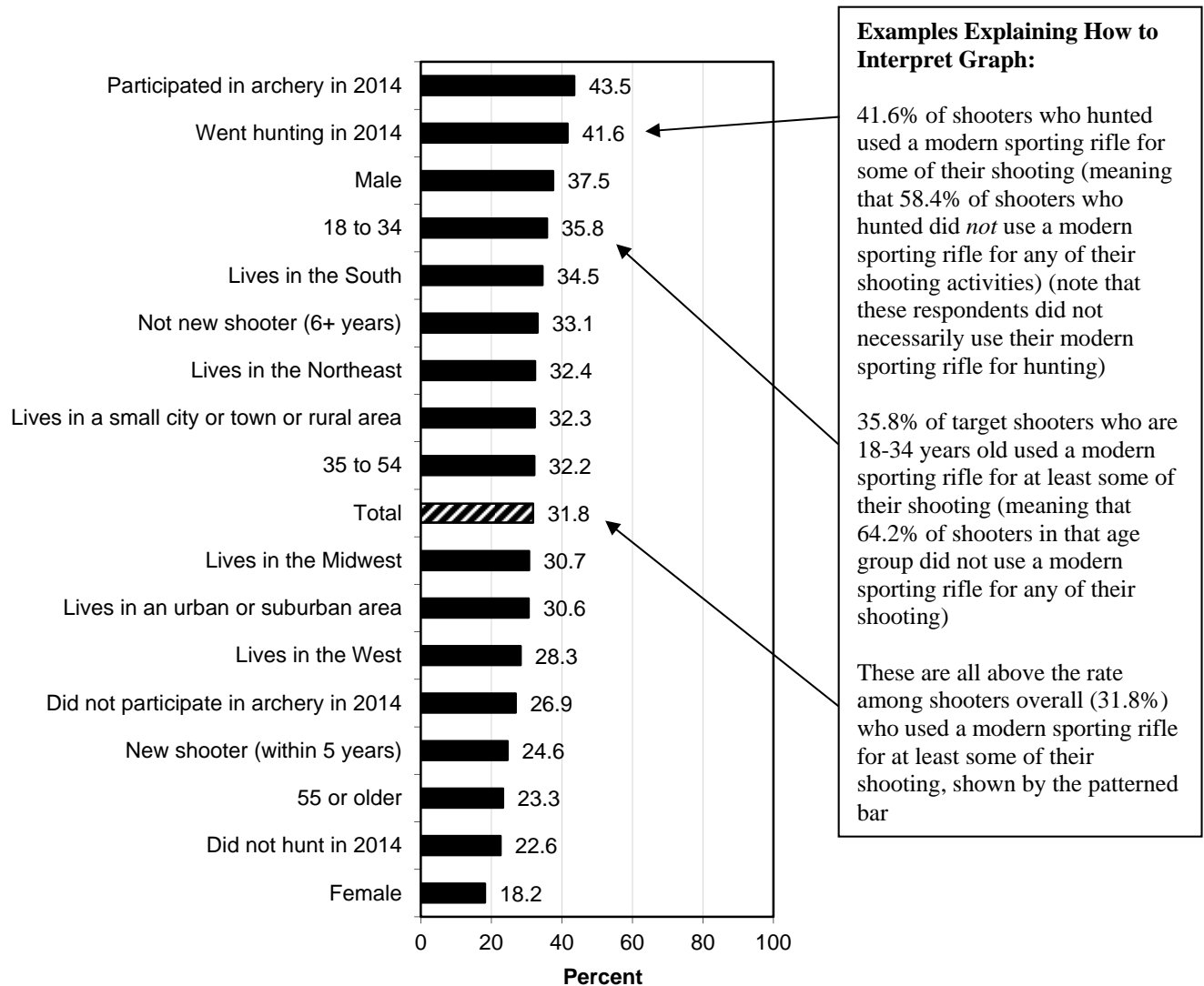
23.7% of shooters who do not hunt are new to shooting (meaning that 76.3% of shooters who do not hunt are not new to shooting)

These are all above the rate among shooters overall (14.8%) who are new to shooting, shown by the patterned bar

## DEMOGRAPHIC CHARACTERISTICS OF MODERN SPORTING RIFLE SHOOTERS

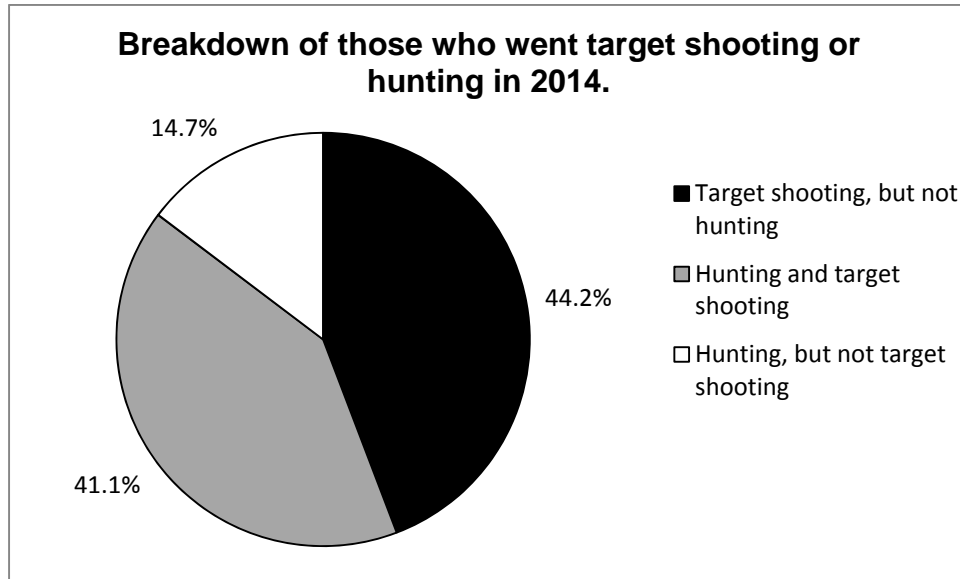
The analyses explored the demographic makeup of those who shoot with a modern sporting rifle. As shown below, the analysis looks at subgroups within all target/sport shooters. This analysis shows that target/sport shooters who also participated in archery are positively correlated with shooting a modern sporting rifle. In addition, positive correlations were found to target/sport shooters who hunt and to male target/sport shooters. The groups with participation rates in shooting a modern sporting rifle that are higher than the rate of such use overall are at the top of the graph, above the percentage of shooters overall who used a modern sporting rifle (31.8%, shown by the patterned bar).

### Among target shooters, the percent of each of the following groups who shot with a modern sporting rifle in 2014:



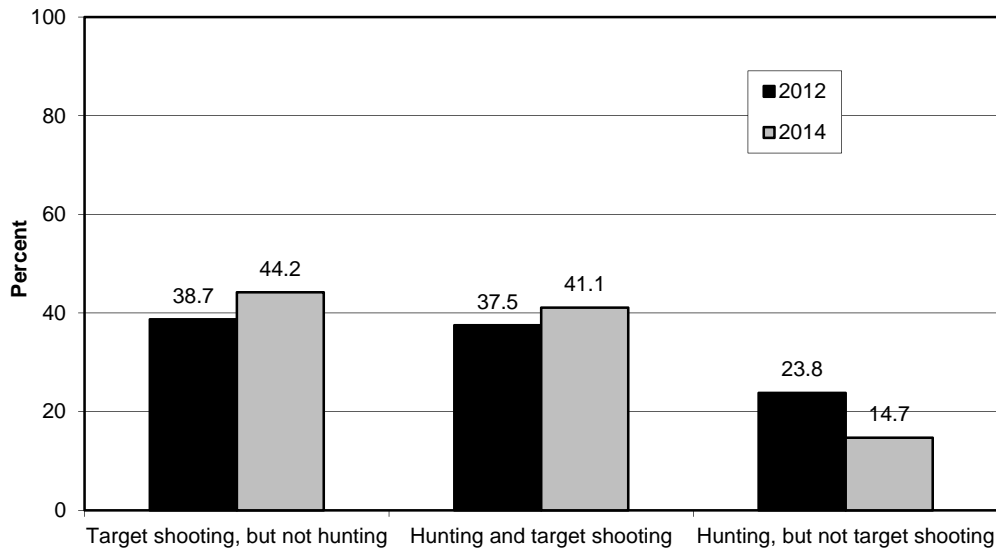
**OVERLAP OF PARTICIPATION IN TARGET SHOOTING AND HUNTING**

The survey also obtained information on participation in hunting, and the pie graph below shows the proportions of target shooters, hunters, and those who do both. The entire pie consists of those who *either* hunted (with firearms or archery) or went target/sport shooting. About 2 in 5 of those who either hunted or went target/sport shooting did both activities.



A trend graph shows that hunting exclusive of target/sport shooting has declined from 2012 to 2014.

**Breakdown of those who went target shooting or hunting in [2012 / 2014].**



## LIKELIHOOD TO GO TARGET OR SPORT SHOOTING IN THE FUTURE

There appears to be some interest in target or sport shooting among those who did *not* go target or sport shooting in 2014: 8% of those who did *not* participate in target or sport shooting in 2014 said that they would be *very* likely to participate in target or sport shooting in the following 2 years. Demographic analyses compare those who say that they are *very* likely to those who are *not at all* likely, thereby giving a little insight into who these people are.

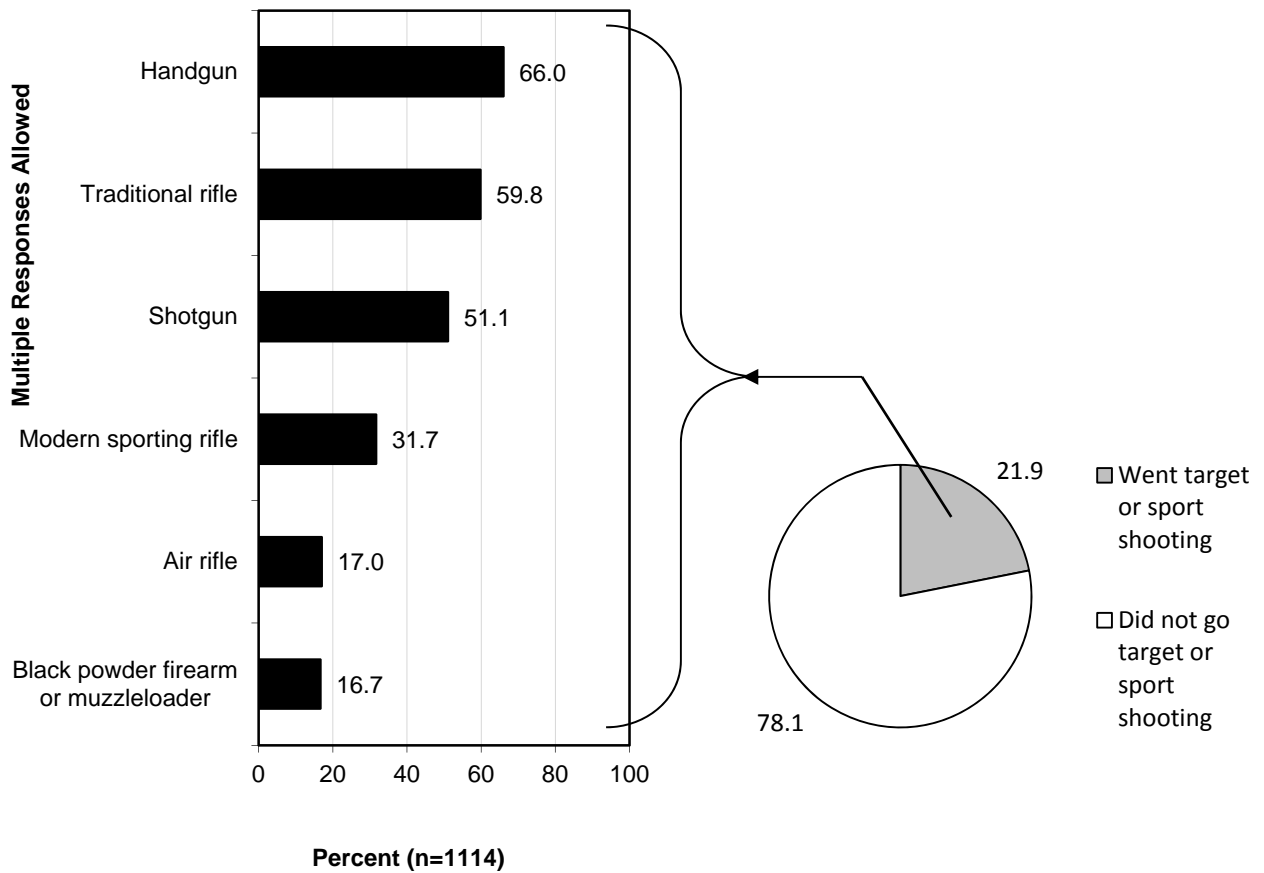
Men show a bit more interest than women in target/sport shooting, among people who did not shoot in 2014. The age crosstabulations suggest that younger people have a greater propensity to be likely to go target/sport shooting in the next 2 years. Non-shooters in the Northeast are markedly less interested in shooting, compared to the other regions, particularly the Midwest Region.

The above looked at those who had *not* participated in target or sport shooting; however, the same question was also asked of those who *had* participated. Of 2014 sport shooting participants, 63% are *very* likely to go sport shooting in the following 2 years, and 18% are *somewhat* likely (a sum of 81% who plan to continue in the sport). The same demographic analyses were run comparing those who are *very* likely to those who are *not at all* likely; gender had the most marked differences in the results. The gender crosstabulations found that women appear to be more likely to drop out of target/sport shooting: females make up only 25% of those who had shot in 2014 and are *very* likely to shoot in the next 2 years, while they make up 37% of those who had shot in 2014 but are unlikely to shoot in the next 2 years.

**TYPES OF FIREARMS USED IN TARGET OR SPORT SHOOTING AND HUNTING**

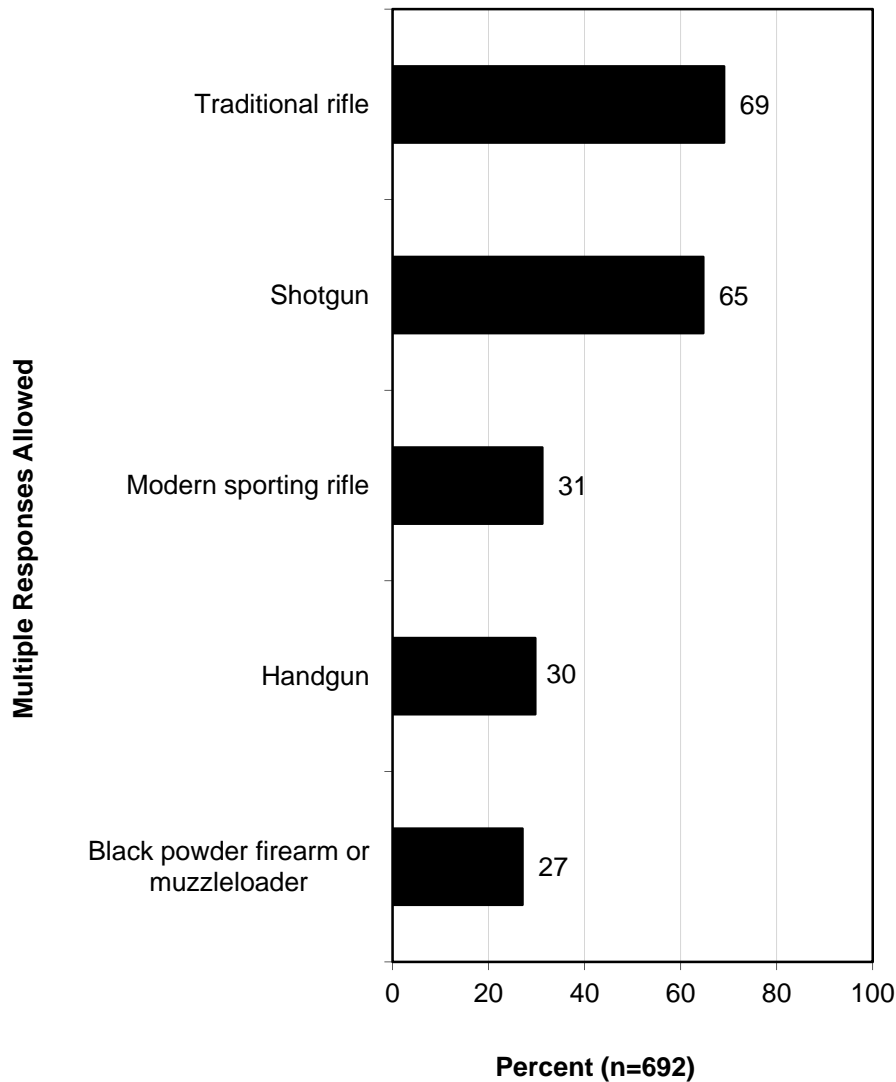
The graph below shows the percentages of target or sport shooters using various types of firearms (in total, 21.9% of all U.S. residents went target or sport shooting). Handguns and traditional rifles top the list, closely followed by shotguns. For each of these three types, a majority of those who go target or sport shooting use it.

**Which of the following firearms or equipment did you use when target shooting in 2014?  
(Asked of those who went target or sport shooting in 2014.)**



The survey also asked those who hunted to indicate the various firearms they used while hunting in 2014. While traditional rifles and shotguns top the list (69% and 65%, respectively), about a third use modern sporting rifles and handguns as part of their hunting (31% and 30%, respectively).

**Please indicate which of the following firearms you used for hunting in 2014. What about...?  
(Asked of those who went hunting with firearms in 2014.)**

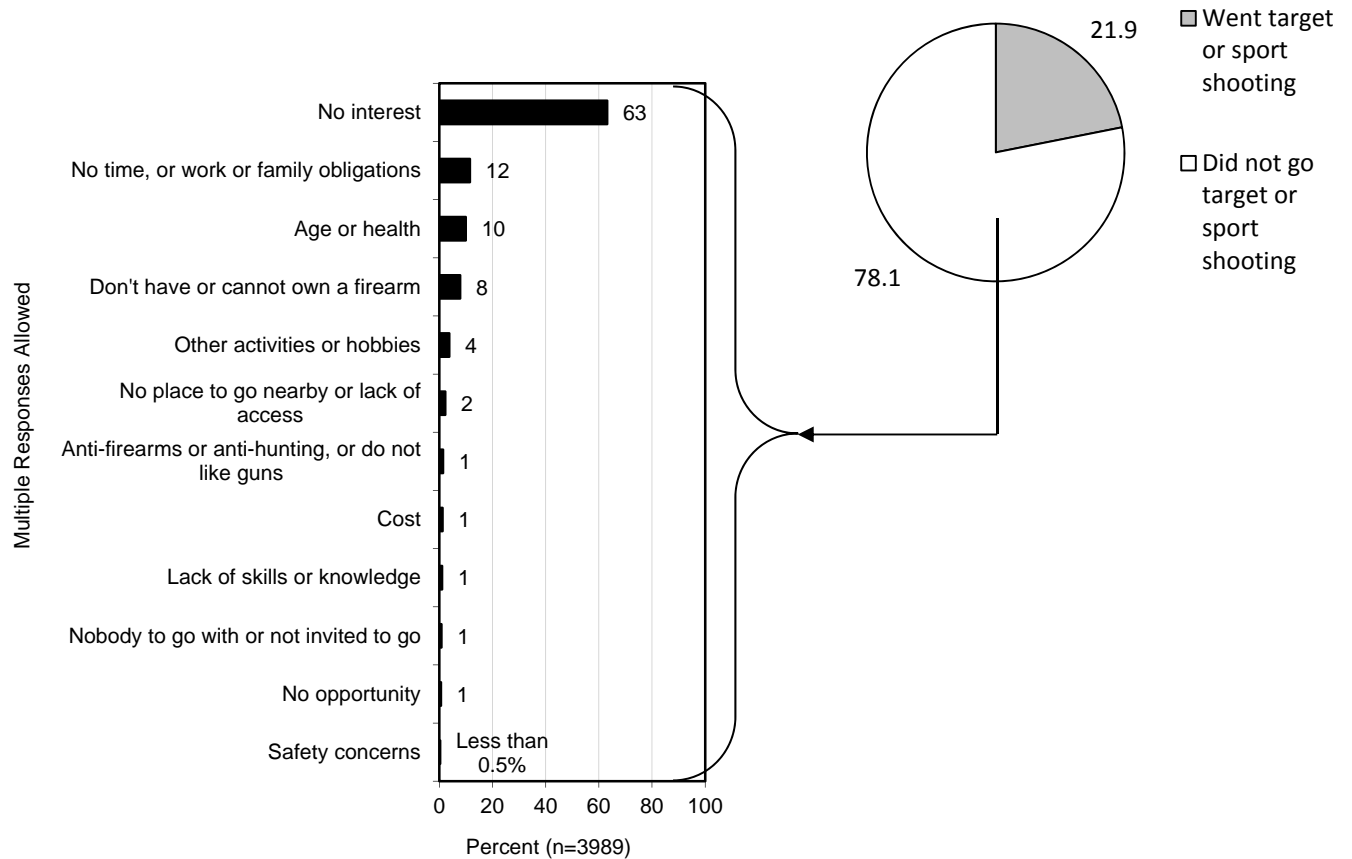




**REASONS FOR NOT PARTICIPATING IN TARGET OR SPORT SHOOTING**

The survey asked those who did not participate in target/sport shooting for their reasons for not doing so (78.1% of U.S. residents did not go target or sport shooting in 2014). While simple lack of interest is, by far, the top reason (63% of those who did not target or sport shoot), other important reasons include lack of time because of family or work obligations (12%), age/health (10%), and lacking a firearm (8%). Other than lack of interest, the most typical reasons are social constraints over which agencies and the shooting industry may have little influence.

**In just a few words, tell me why you did not go target shooting in 2014. (Asked of those who did not go target or sport shooting.)**



**PUTTING RESPONSIVE MANAGEMENT’S PARTICIPATION DATA INTO CONTEXT**

The report includes a final section that has an extensive examination of Responsive Management’s data collection methods and its data. Its methods were compared to a variety of other data collection methods, and its data, likewise, were compared to other data. The evidence helps to validate the accuracy of Responsive Management’s research on these sports.

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## **INTRODUCTION AND METHODOLOGY**

This study was conducted for the National Shooting Sports Foundation (NSSF), following up on similar studies in 2010 (about 2009 participation) and 2013 (about 2012 participation), to determine the regional and national participation rates in target shooting and sport shooting. The study entailed a scientific telephone survey, using a dual-frame sample that included both cell phones and landlines in their proper proportions, of randomly selected residents of the United States 18 years old and older. Calculations based on 234,564,071 figure for U.S. residents ages 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 dual-frame samples that include both cell phones and landlines. Telephone surveys tend to 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 NSSF, based on previous similar surveys conducted for the NSSF. As in the previous surveys on sport shooting participation, the survey used a “ruse” line of questioning at the beginning of the survey. This was done because the main objective of the survey was to determine national and regional participation rates in the shooting sports, and the survey was worded to avoid bias that would arise from the tendency for those who do *not* shoot to refuse to participate in a survey about shooting. Therefore, the survey starts by asking about some general activities, mixing shooting and hunting participation in with participation in other non-shooting activities. Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey.

### **SURVEY SAMPLE**

The methodology used a dual-frame sample, which consisted of a random sample of landline telephones and a random sample of cell phone numbers, called in their proper proportions, which ensures that all people in the pool of telephone users have an approximately equal chance of being called. The scientific sampling plan entailed obtaining a target number of interviews in each state, from both landlines and cell phones in their proper proportions, so that the number of respondents in each state in the sample would be exactly proportional to the state’s population and, by extension, within the United States population as a whole.

The sample was obtained from Survey Sampling International and DatabaseUSA, companies specializing in providing scientifically valid telephone survey samples. The overall sample with landlines and cell phones was representative of all Americans 18 years old and older.

## **TELEPHONE INTERVIEWING FACILITIES**

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

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

For this survey, interviewers fluent in Spanish conducted interviews with respondents who had previously been called but could not take the survey in English. Those respondents were put on a callback list and were called by interviewers fluent in Spanish.

## **INTERVIEWING DATES AND TIMES**

Responsive Management's calling times 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 February and March 2015.** Responsive Management obtained 5,103 completed interviews overall.

## **TELEPHONE SURVEY DATA COLLECTION AND QUALITY CONTROL**

The software used for data collection was Questionnaire Programming Language (QPL). 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 contained 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.

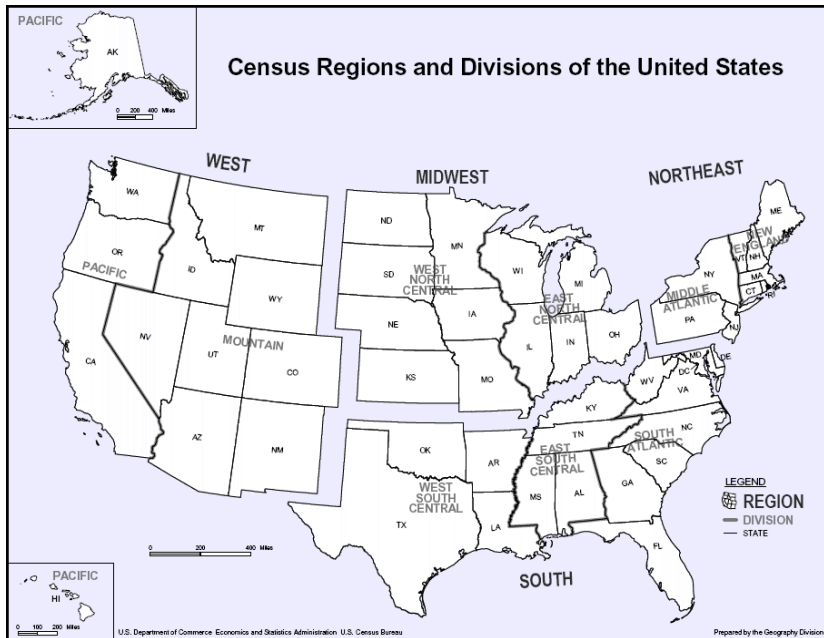
## DATA ANALYSIS

The analysis of data was performed using Statistical Package for the Social Sciences as well as proprietary software developed by Responsive Management. As noted previously, there were set goals for the numbers of interviews in each state, and the demographic breakdown of the resulting sample was very close to the reported demographic breakdown of the population as a whole in each state (using U.S. Census data). Nonetheless, the results were slightly weighted by age and gender to be exactly proportional to the total population of each region and of the United States as a whole.

In the analysis, each state was sampled proportionately to preserve proper distribution within each region and in the U.S. as a whole, and each respondent was then assigned a region based on the state; the analysis was conducted on a regional basis and on the U.S. as a whole, but not at the state level. The number of completed interviews from each state is shown in the tabulation below:

State of Residence	Completed Interviews	State of Residence	Completed Interviews	State of Residence	Completed Interviews
Alabama	78	Louisiana	77	Ohio	192
Alaska	16	Maine	52	Oklahoma	61
Arizona	102	Maryland	96	Oregon	71
Arkansas	48	Massachusetts	107	Pennsylvania	213
California	597	Michigan	161	Rhode Island	21
Colorado	80	Minnesota	87	South Carolina	77
Connecticut	59	Mississippi	47	South Dakota	15
Delaware	15	Missouri	99	Tennessee	107
Florida	302	Montana	16	Texas	389
Georgia	155	Nebraska	36	Utah	43
Hawaii	23	Nevada	44	Vermont	18
Idaho	26	New Hampshire	28	Virginia	137
Illinois	202	New Jersey	148	Washington	113
Indiana	106	New Mexico	34	West Virginia	33
Iowa	50	New York	317	Wisconsin	94
Kansas	49	North Carolina	156	Wyoming	9
Kentucky	73	North Dakota	13	Washington D.C.	11
				TOTAL	5,103

As mentioned, the states were also grouped into regions to aid in comparison and analysis. The four main U.S. Census Bureau regions were used. The map on the following page 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, the sampling error is at most plus or minus 1.37 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 1.37 percentage points of each other. Sampling error was calculated using the formula described below, with a sample size of 5,103 and a population size of 234,564,071 United States residents 18 years old and older.

### Sampling Error Equation

$$B = \left( \sqrt{\frac{N_p(.25)}{N_s} - .25} \right) (1.96)$$

Where: B = maximum sampling error (as decimal)  
 $N_p$  = population size (i.e., total number who could be surveyed)  
 $N_s$  = sample size (i.e., total number of respondents surveyed)

Derived from formula: p. 206 in Dillman, D. A. 2000. *Mail and Internet Surveys*. John Wiley & Sons, NY.

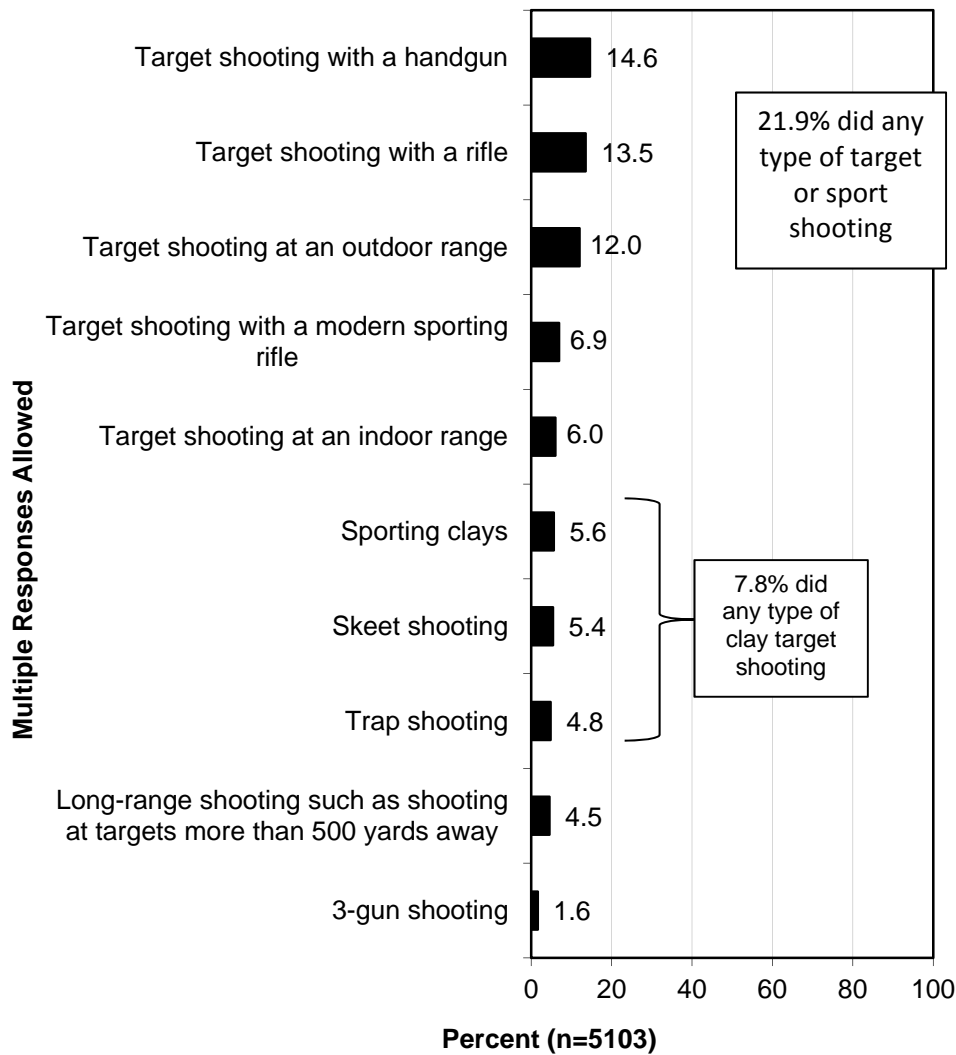
**Note:** This is a simplified version of the formula that calculates the maximum sampling error using a 50:50 split (the most conservative calculation because a 50:50 split would give maximum variation).

## SURVEY RESULTS

### PARTICIPATION IN TARGET AND SPORT SHOOTING

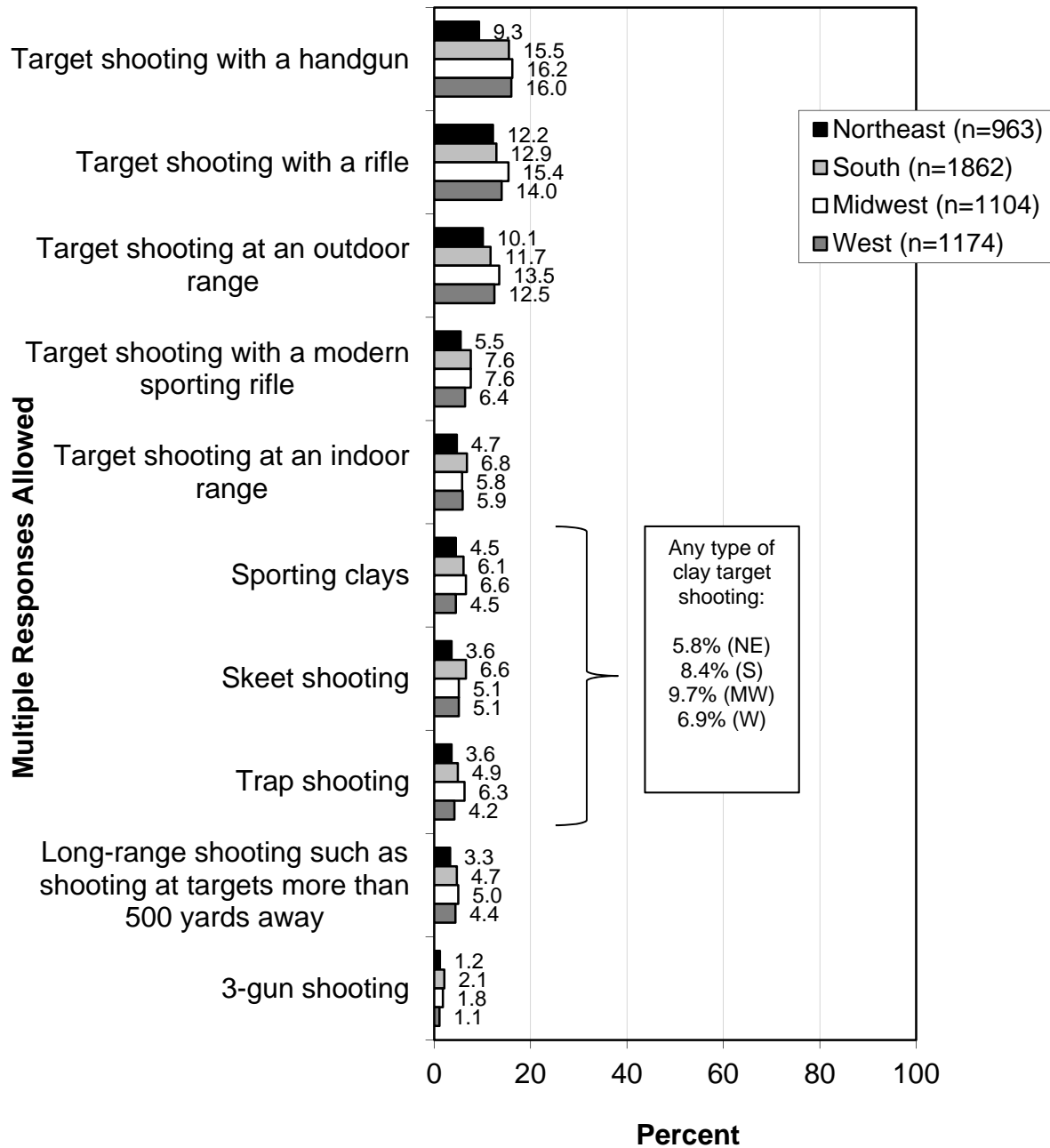
The survey found that 21.9% of the U.S. adult population, or an estimated 51 million adults, participated in any type of target or sport shooting in 2014. As shown in the graph below, the most popular types are target shooting with a handgun (14.6% participated), target shooting with a rifle (13.5%), and target shooting at an outdoor range (12.0%). Note that respondents could have done more than one shooting activity. The actual numbers of participants are tabulated following the regional graphs.

**Participation in the following sport shooting activities.**



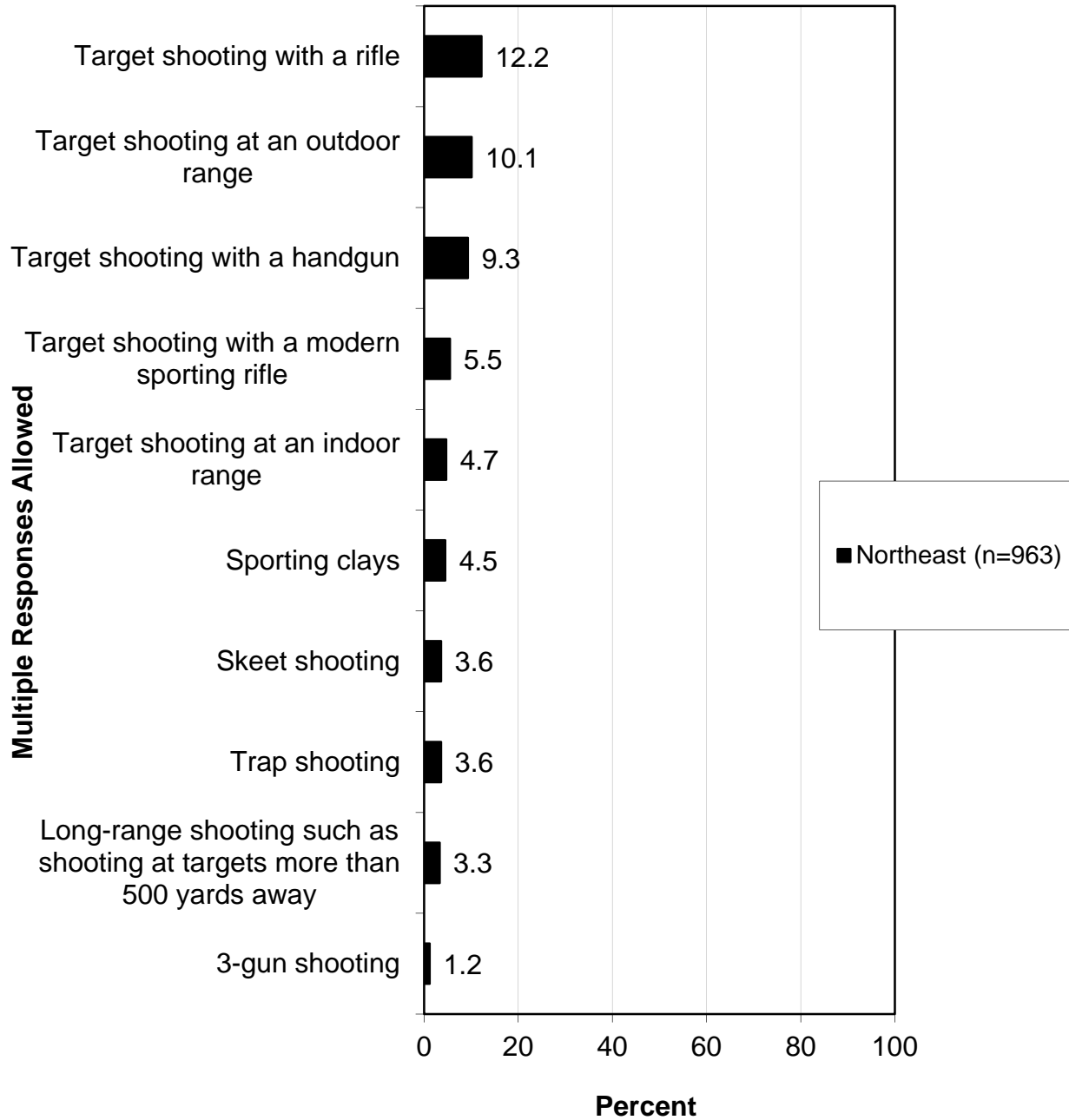
The graph below compares the regions on this question, followed by an individual graph for each region with the activities ranked from highest to lowest participation in each region.

### Participation in the following sport shooting activities.

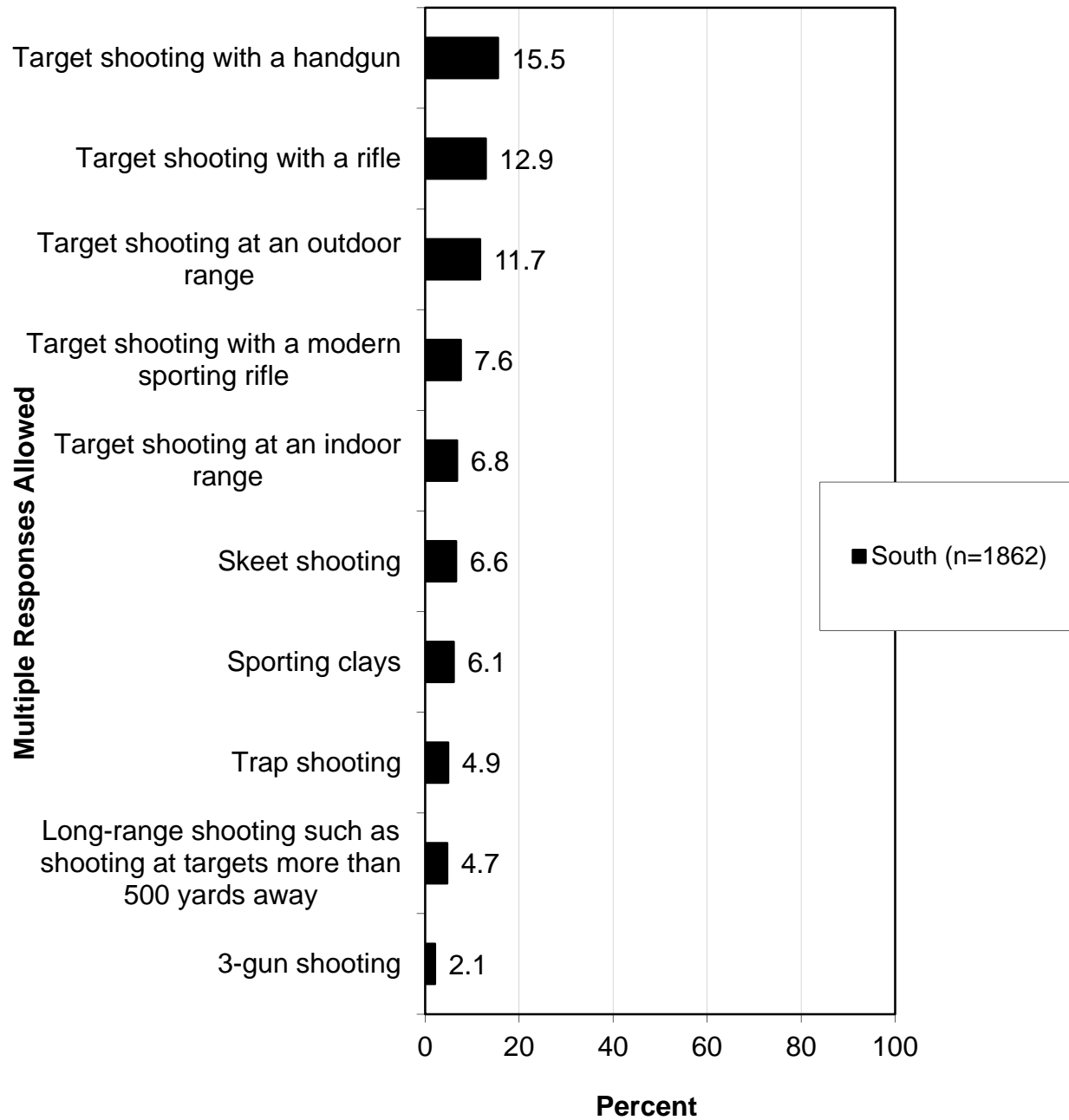




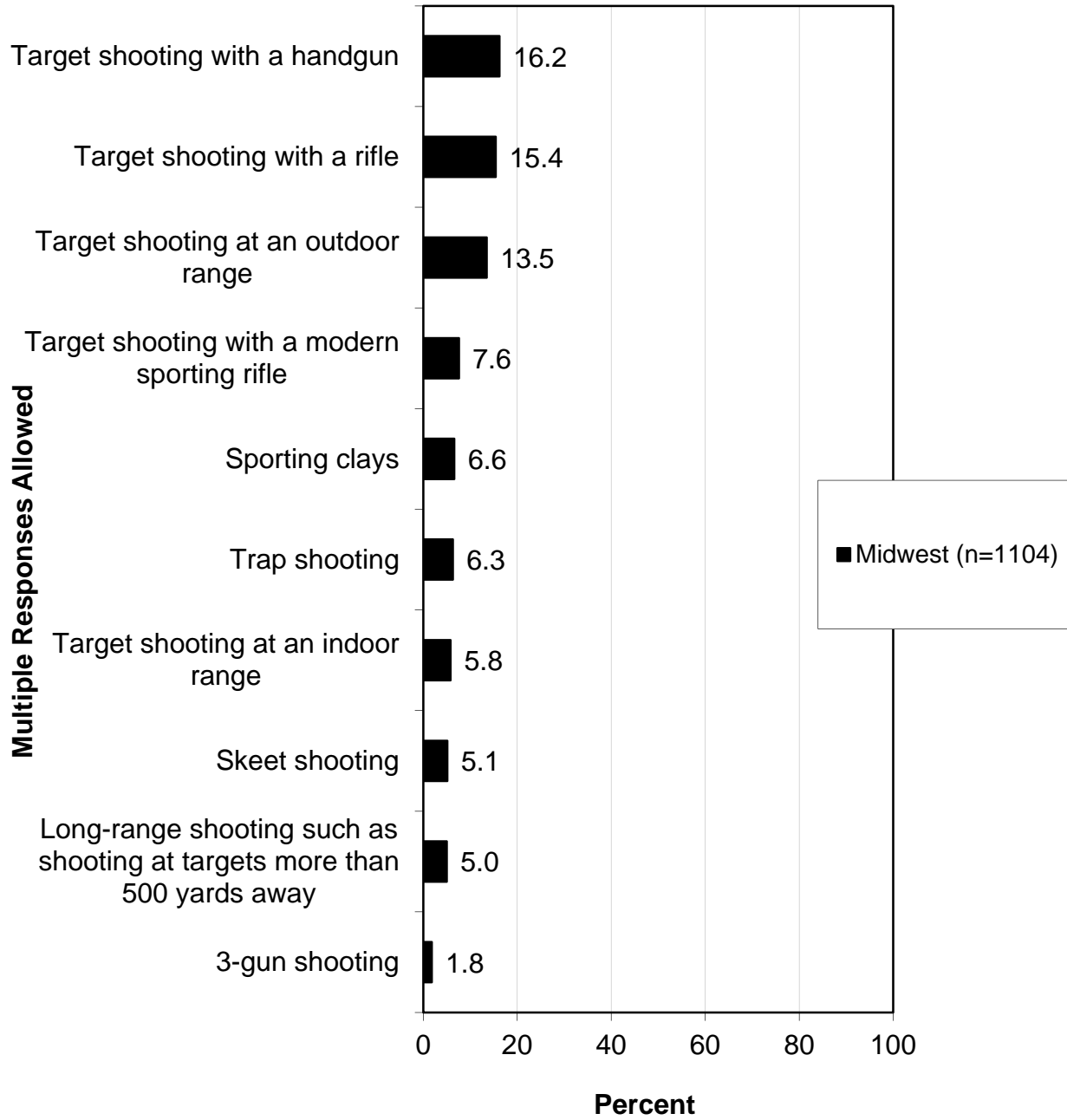
### Participation in the following sport shooting activities.



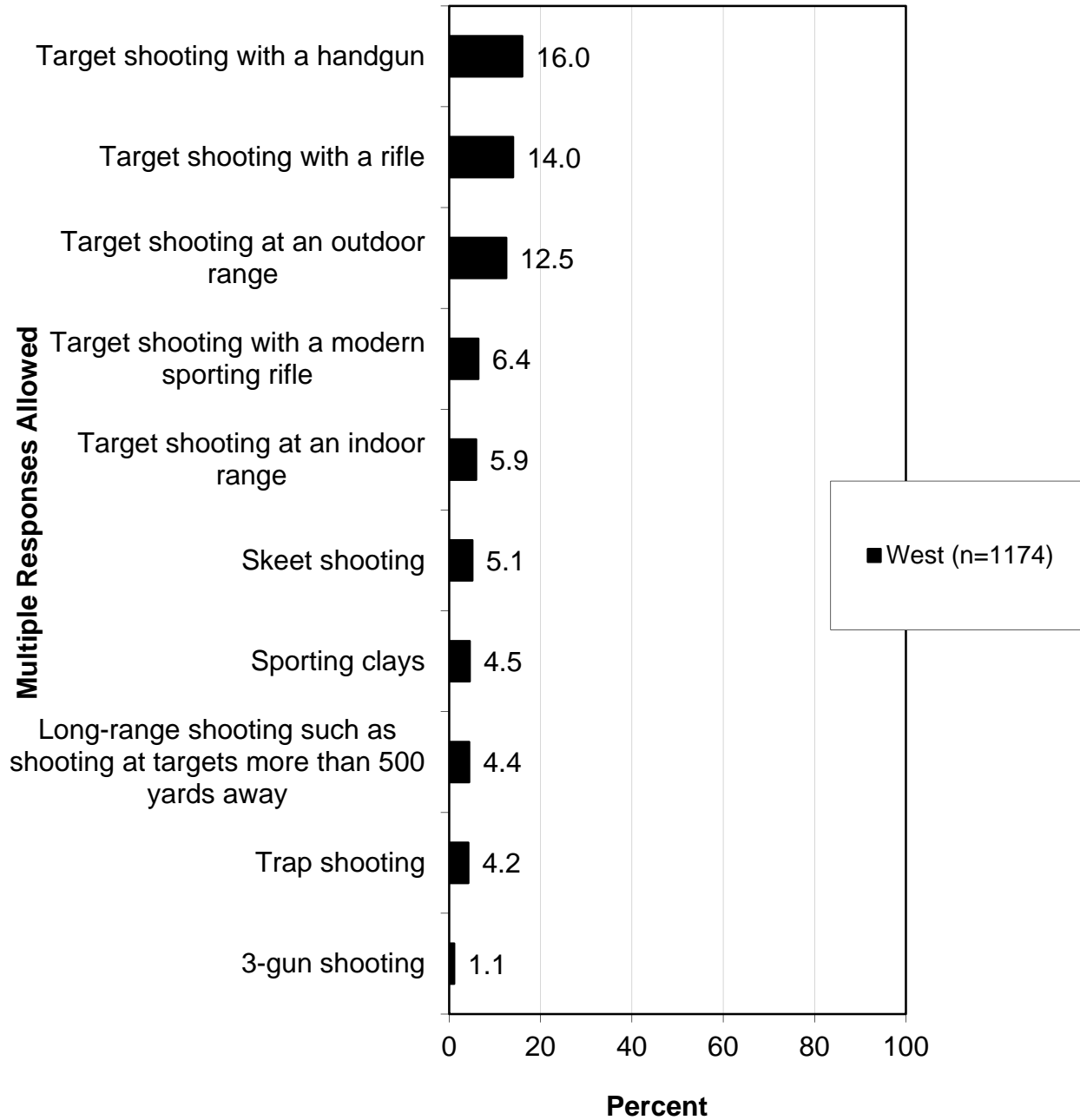
## Participation in the following sport shooting activities.



### Participation in the following sport shooting activities.



### Participation in the following sport shooting activities.



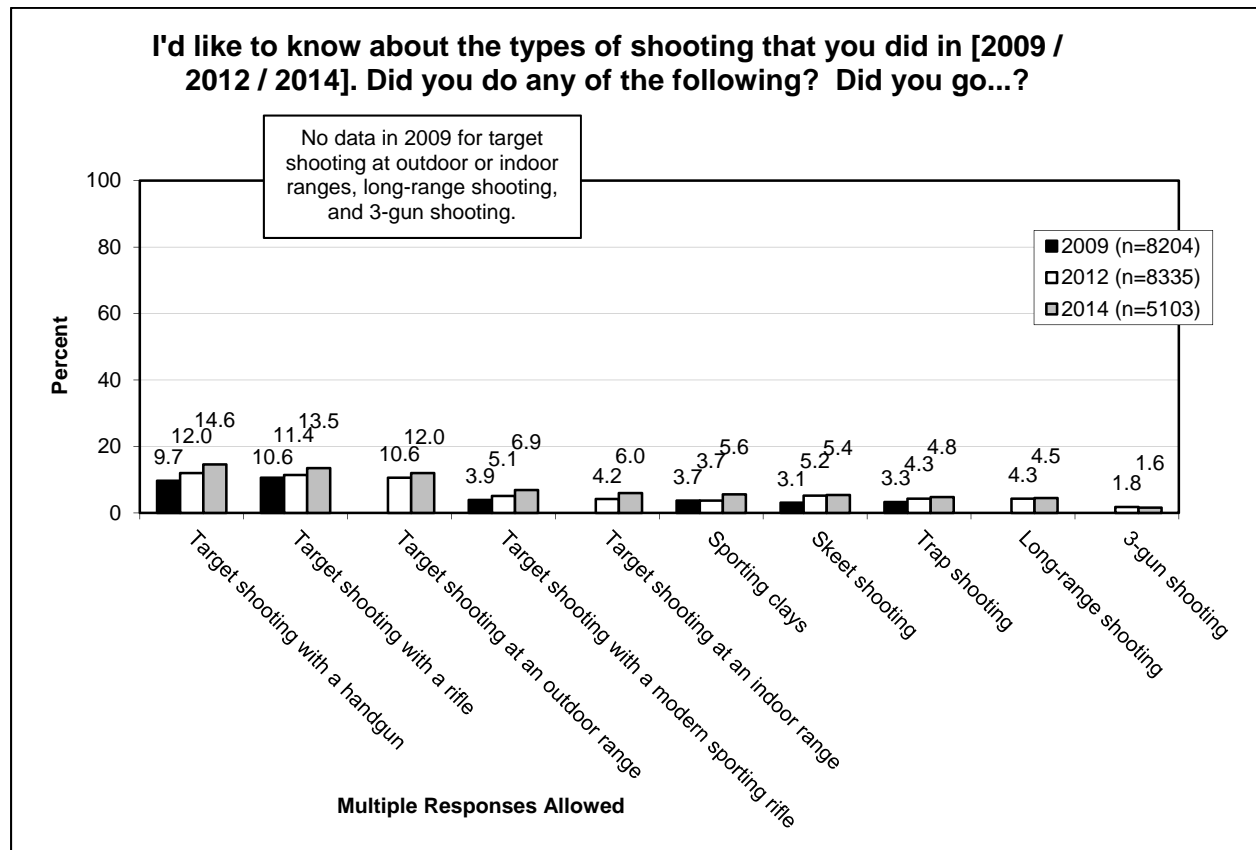
The tabulation below shows estimates of numbers of participants nationally and by region.

Activity	Estimated Total Participants (ages 18 years and older)	95% Confidence Interval	
		Lower Limit	Upper Limit
<b>National</b>			
<b>Any target shooting or sport shooting</b>	<b>51,226,765</b>	<b>48,567,512</b>	<b>53,886,018</b>
Target shooting with a handgun	34,221,107	31,949,047	36,493,168
Target shooting with a rifle	31,764,116	29,561,757	33,966,476
Target shooting at an outdoor range	28,075,842	25,986,547	30,165,138
Any type of clay target shooting (sporting clays, skeet, or trap)	18,396,758	16,667,771	20,125,745
Target shooting with a modern sporting rifle	16,267,924	14,632,709	17,903,139
Target shooting at an indoor range	14,007,982	12,782,759	15,533,204
Sporting clays	13,033,633	11,559,165	14,508,101
Skeet shooting	12,596,361	11,145,408	14,047,314
Trap shooting	11,227,278	9,853,226	12,601,330
Long-range shooting	10,434,630	9,107,621	11,761,639
3-gun shooting	3,837,132	3,020,666	4,653,599
<b>Northeast Region</b>			
<b>Any target shooting or sport shooting</b>	<b>7,310,715</b>	<b>6,290,198</b>	<b>8,331,232</b>
Target shooting with a rifle	5,251,338	4,361,804	6,140,872
Target shooting at an outdoor range	4,331,227	3,513,583	5,148,872
Target shooting with a handgun	4,017,408	3,226,751	4,808,065
Any type of clay target shooting (sporting clays, skeet, or trap)	2,490,617	1,856,313	3,124,921
Target shooting with a modern sporting rifle	2,369,462	1,749,544	2,989,381
Target shooting at an indoor range	2,035,759	1,458,794	2,612,724
Sporting clays	1,949,118	1,383,967	2,514,269
Skeet shooting	1,561,698	1,053,440	2,069,957
Trap shooting	1,531,689	1,028,156	2,035,223
Long-range shooting	1,410,819	926,857	1,894,781
3-gun shooting	502,853	210,782	794,923
<b>South Region</b>			
<b>Any target shooting or sport shooting</b>	<b>19,087,871</b>	<b>17,454,861</b>	<b>20,720,882</b>
Target shooting with a handgun	13,421,864	11,996,339	14,847,390
Target shooting with a rifle	11,152,632	9,833,240	12,472,023
Target shooting at an outdoor range	10,165,577	8,897,729	11,433,425
Any type of clay target shooting (sporting clays, skeet, or trap)	7,265,016	6,173,402	8,356,630
Target shooting with a modern sporting rifle	6,581,539	5,537,794	7,625,284
Target shooting at an indoor range	5,863,399	4,873,840	6,852,958
Skeet shooting	5,728,268	4,749,363	6,707,174
Sporting clays	5,332,187	4,385,425	6,278,948
Trap shooting	4,222,828	3,374,571	5,071,086
Long-range shooting	4,107,269	3,270,113	4,944,425
3-gun shooting	1,813,747	1,249,770	2,377,723

Activity	Estimated Total Participants (ages 18 years and older)	95% Confidence Interval	
		Lower Limit	Upper Limit
<b>Midwest Region</b>			
<b>Any target shooting or sport shooting</b>	<b>12,605,352</b>	<b>11,310,438</b>	<b>13,900,266</b>
Target shooting with a handgun	8,242,288	7,136,999	9,347,577
Target shooting with a rifle	7,819,018	6,737,143	8,900,893
Target shooting at an outdoor range	6,868,386	5,843,257	7,893,516
Any type of clay target shooting (sporting clays, skeet, or trap)	4,915,836	4,029,897	5,801,775
Target shooting with a modern sporting rifle	3,870,597	3,075,217	4,665,977
Sporting clays	3,344,681	2,601,177	4,088,184
Trap shooting	3,196,573	2,468,584	3,924,562
Target shooting at an indoor range	2,952,173	2,250,774	3,653,573
Skeet shooting	2,613,679	1,951,384	3,275,973
Long-range shooting	2,543,890	1,890,024	3,197,756
3-gun shooting	932,724	530,240	1,335,207
<b>West Region</b>			
<b>Any target shooting or sport shooting</b>	<b>12,288,624</b>	<b>10,992,760</b>	<b>13,584,489</b>
Target shooting with a handgun	8,618,627	7,486,663	9,750,591
Target shooting with a rifle	7,551,182	6,479,249	8,623,116
Target shooting at an outdoor range	6,732,981	5,711,912	7,754,049
Any type of clay target shooting (sporting clays, skeet, or trap)	3,725,290	2,942,336	4,508,244
Target shooting with a modern sporting rifle	3,472,320	2,714,192	4,230,448
Target shooting at an indoor range	3,181,617	2,453,834	3,909,400
Skeet shooting	2,729,206	2,052,157	3,406,255
Sporting clays	2,427,687	1,787,258	3,068,117
Long-range shooting	2,391,239	1,755,410	3,027,067
Trap shooting	2,293,324	1,670,059	2,916,588
3-gun shooting	598,976	275,275	922,677

### TRENDS IN PARTICIPATION IN TARGET AND SPORT SHOOTING

The current survey is similar to surveys conducted regarding Americans’ target shooting activities in 2009 and 2012, to which the current survey’s results are compared. The current survey found a 21.9% participation rate in any type of target or sport shooting, which is an increase over the 15.1% rate among Americans in 2009 and 17.4% in 2012. Additionally, as shown in the trends graph below, the participation rate in each shooting activity shows an increase (except for 3-gun shooting), although the increase is so small for some activities that the rate could be said to have stayed essentially the same. The tabulation compares estimated numbers of participants; the estimated number of target/sport shooters in 2014 increased 25.6% over the 2012 number.



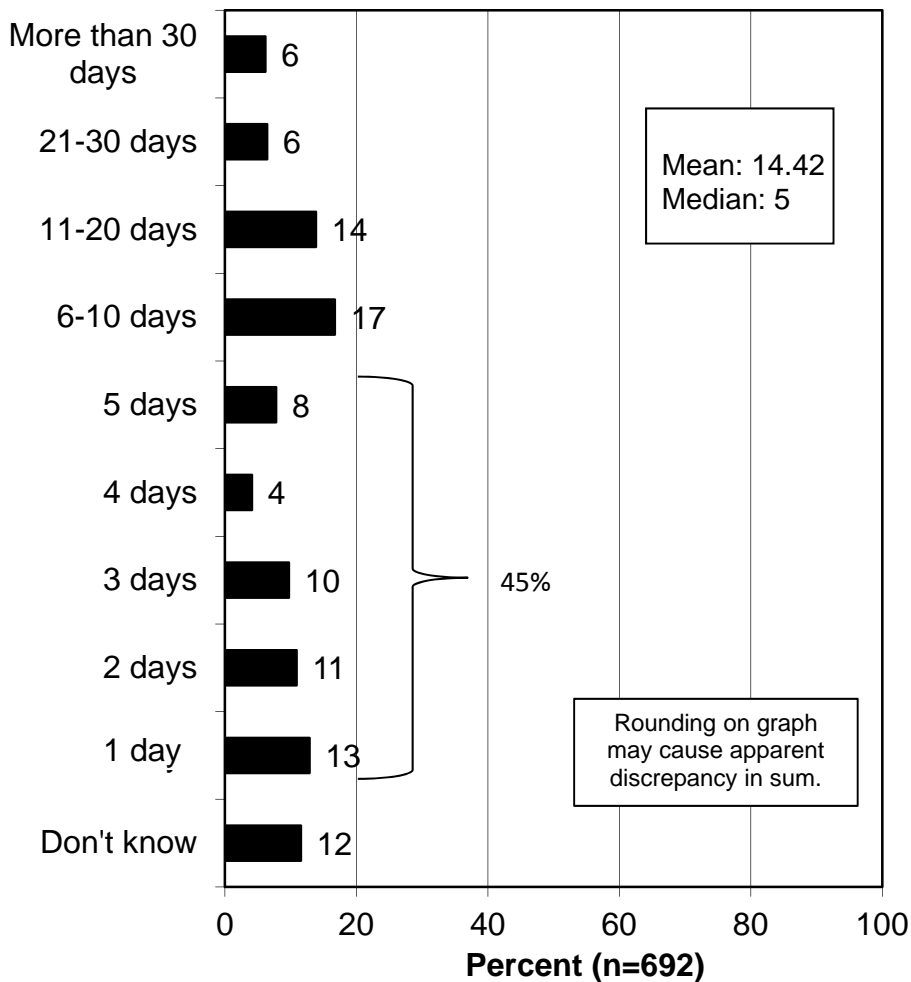
Activity	Estimated Total Participants* in 2009	Estimated Total Participants* in 2012	Estimated Total Participants* in 2014	%Change Compared to 2012
<b>National</b>				
Any target shooting or sport shooting	34,382,566	40,779,651	51,226,765	+25.6
Target shooting with a handgun	22,169,700	28,209,283	34,221,107	+21.3
Target shooting with a rifle	24,045,795	26,822,425	31,764,116	+18.4
Target shooting w/ a Modern Sporting Rifle	8,868,085	11,976,702	16,267,924	+35.8
Skeet shooting	6,979,680	12,090,346	12,596,361	+4.2
Trap shooting	7,582,479	10,116,684	11,227,278	+11.0
Sporting clays	8,399,989	8,789,340	13,033,633	+48.3
Any clay target shooting (skeet, trap, sc)	11,597,841	17,758,371	18,396,758	+3.6

\*Ages 18 years old and older

## DAYS OF PARTICIPATION IN TARGET AND SPORT SHOOTING

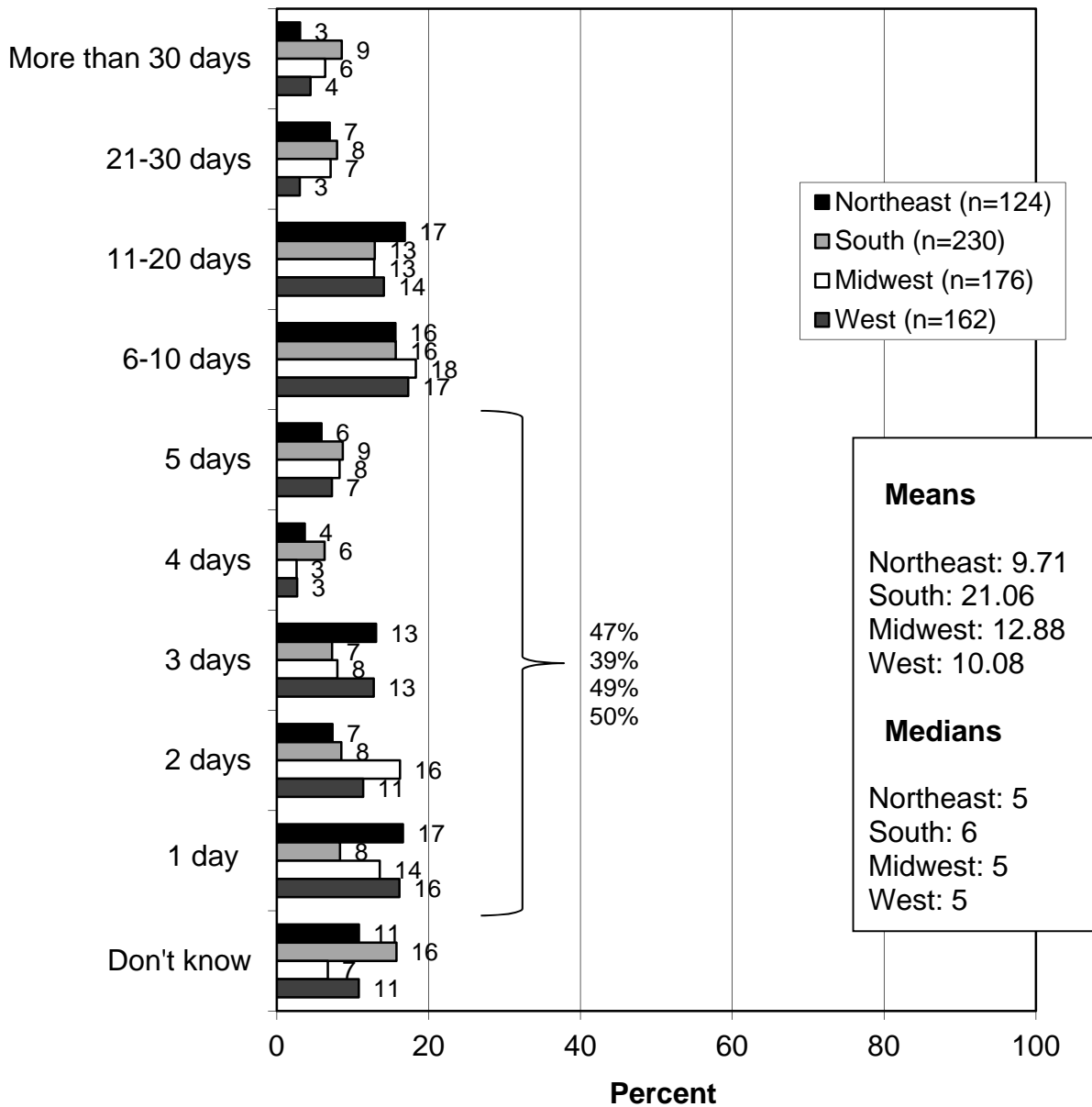
The survey asked about the days of participation. For each type of target or sport shooting, a graph shows the number of days of participation among those who participated. Regional graphs are also included for each activity. Following the graphs is a tabulation showing the mean and median number of days spent participating in the activity.

### How many days did you target shoot with a traditional rifle, in other words a rifle with bolt or lever action, in 2014? (Asked of those who went target shooting with a traditional rifle in 2014.)

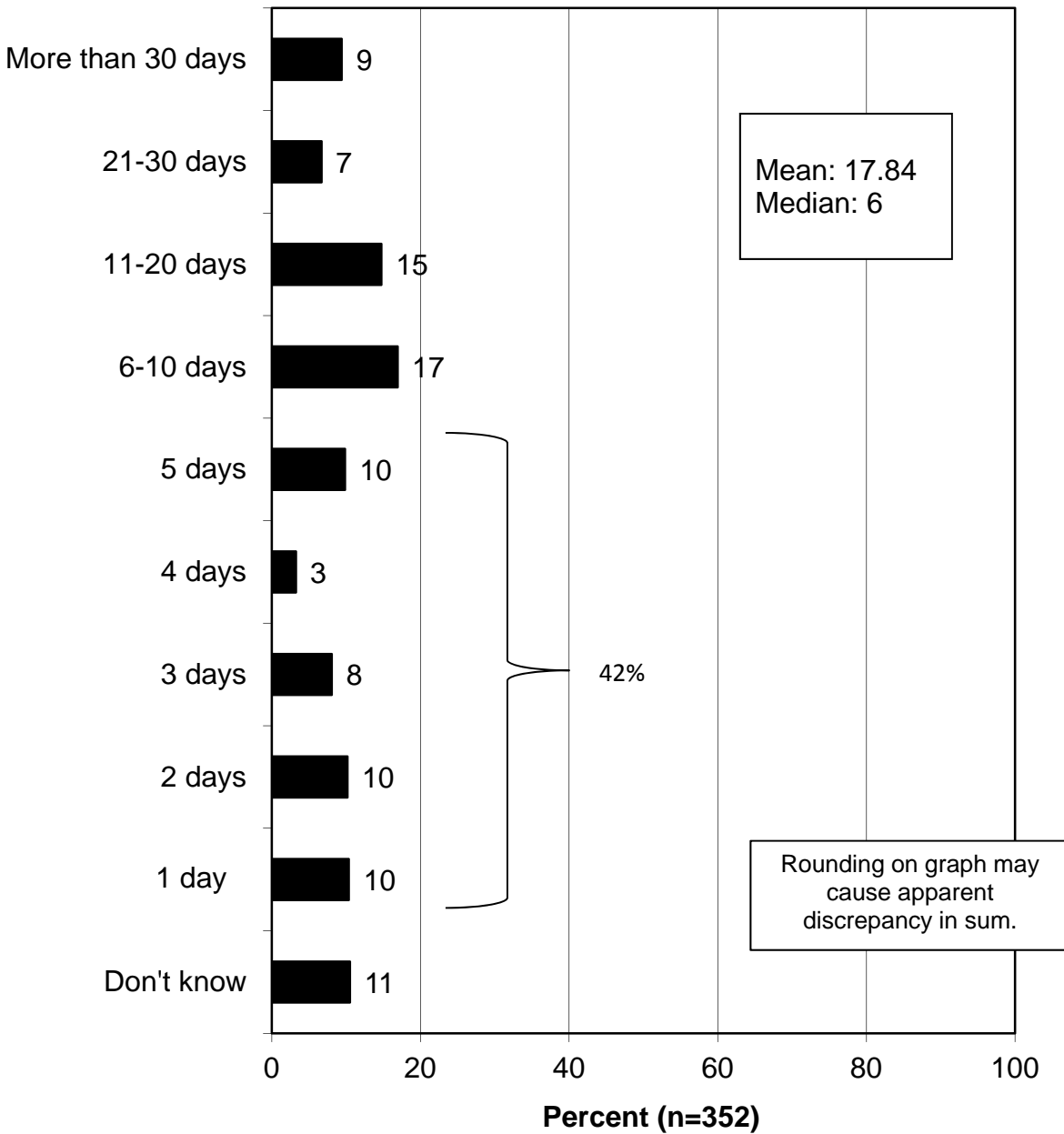




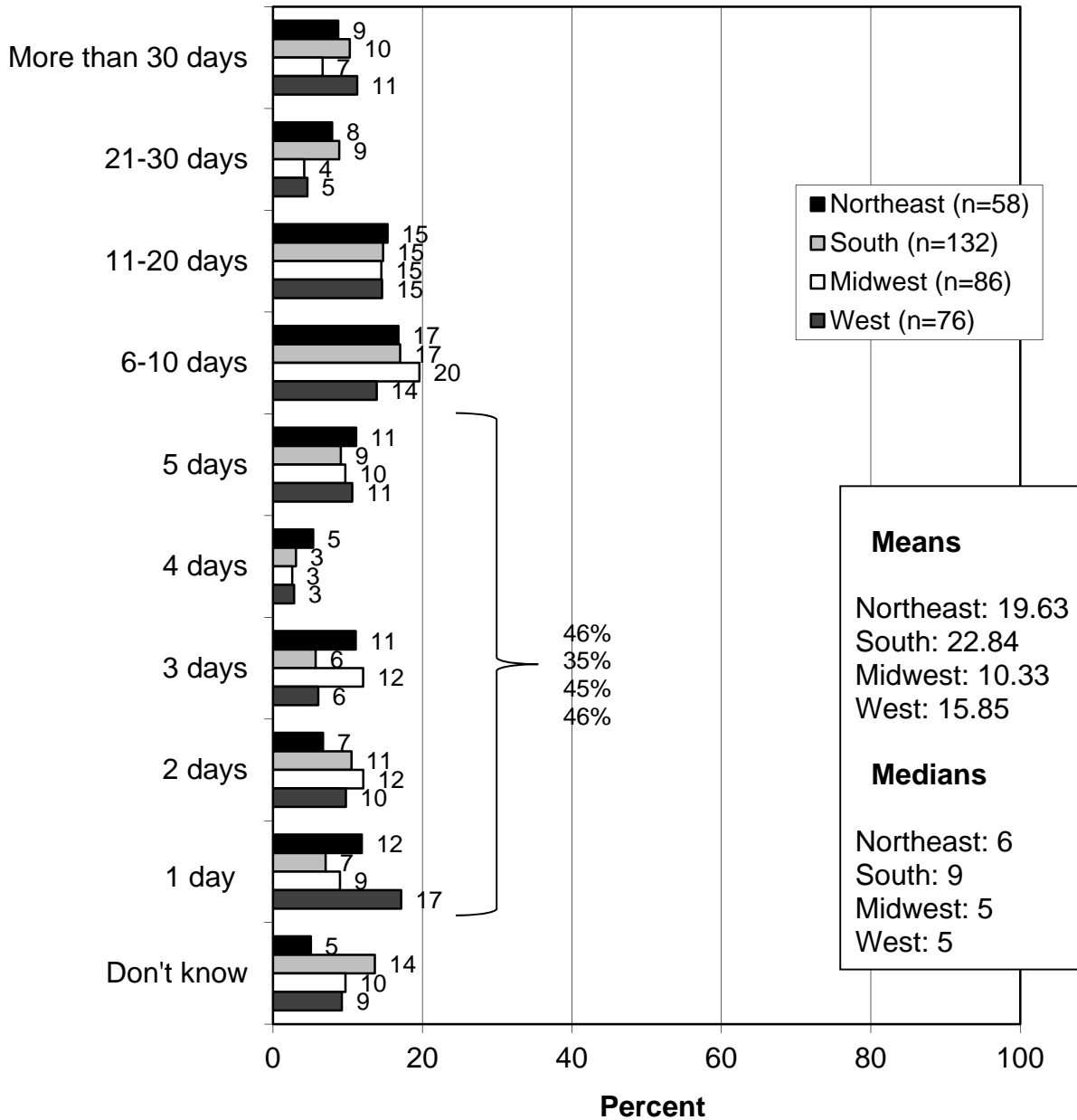
**How many days did you target shoot with a traditional rifle, in other words a rifle with bolt or lever action, in 2014?  
(Asked of those who went target shooting with a traditional rifle in 2014.)**



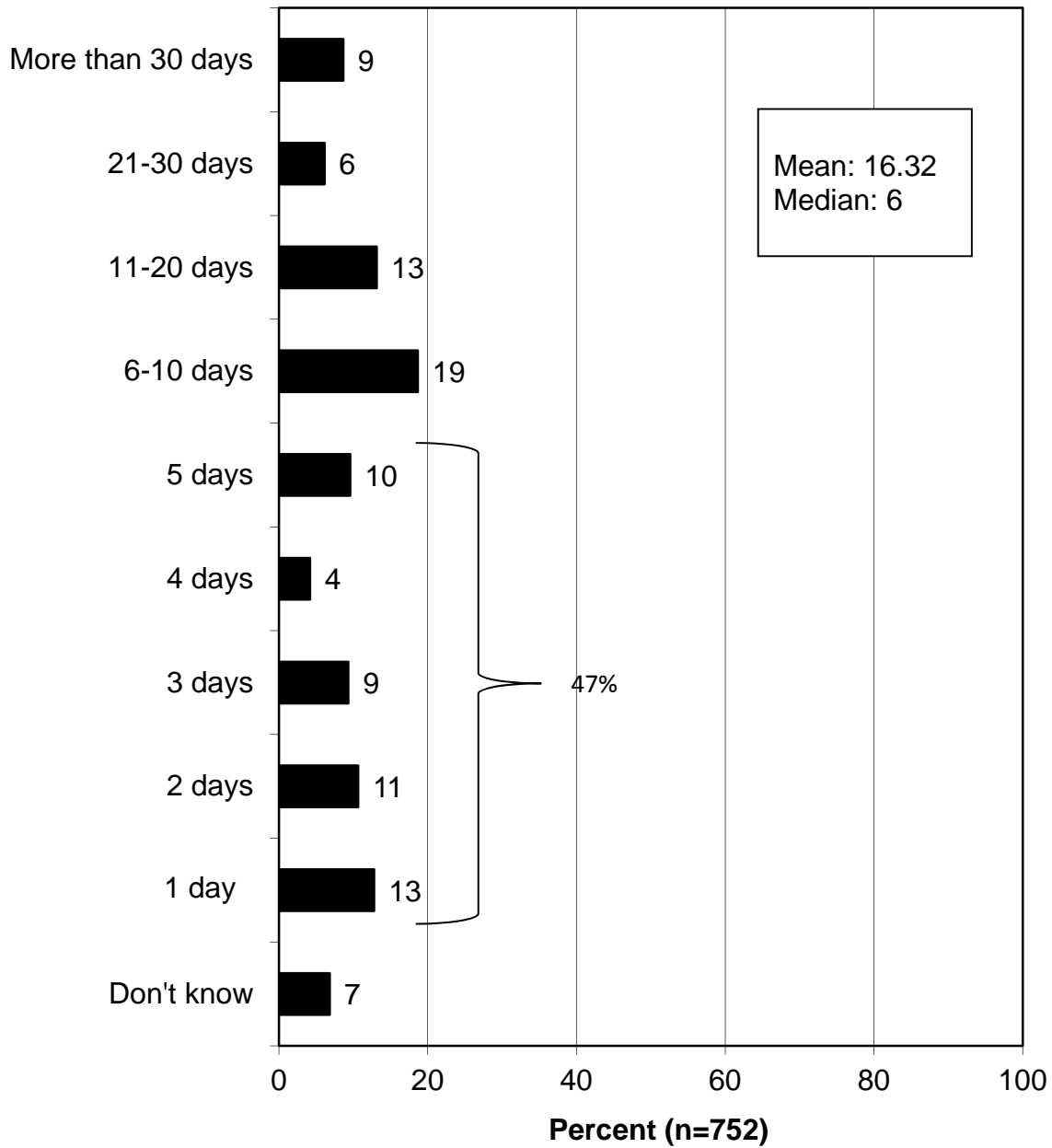
**How many days did you target shoot with a modern sporting rifle in 2014?  
(Asked of those who went target shooting with a modern sporting rifle in 2014.)**



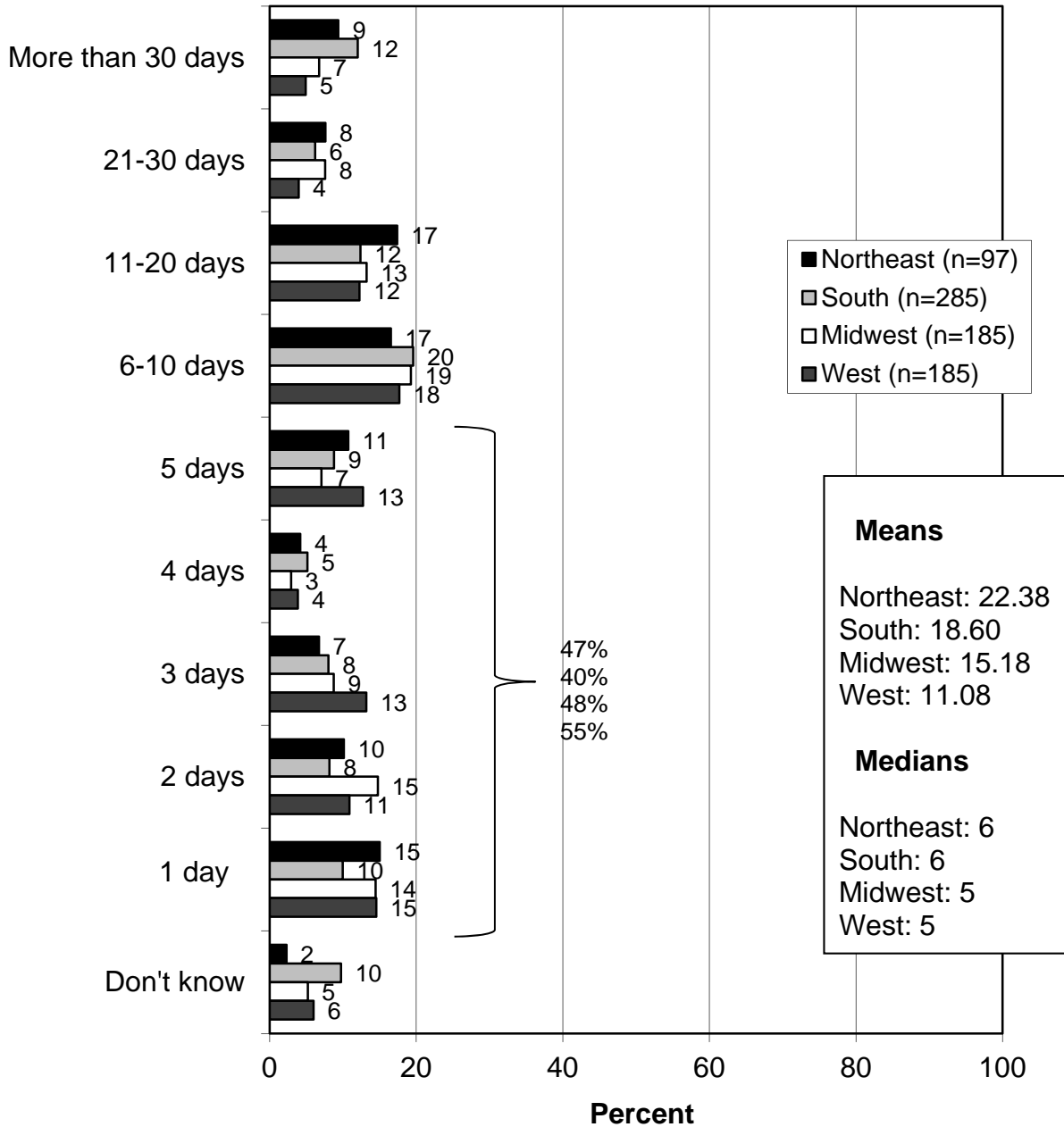
**How many days did you target shoot with a modern sporting rifle in 2014?  
(Asked of those who went target shooting with a modern sporting rifle in 2014.)**



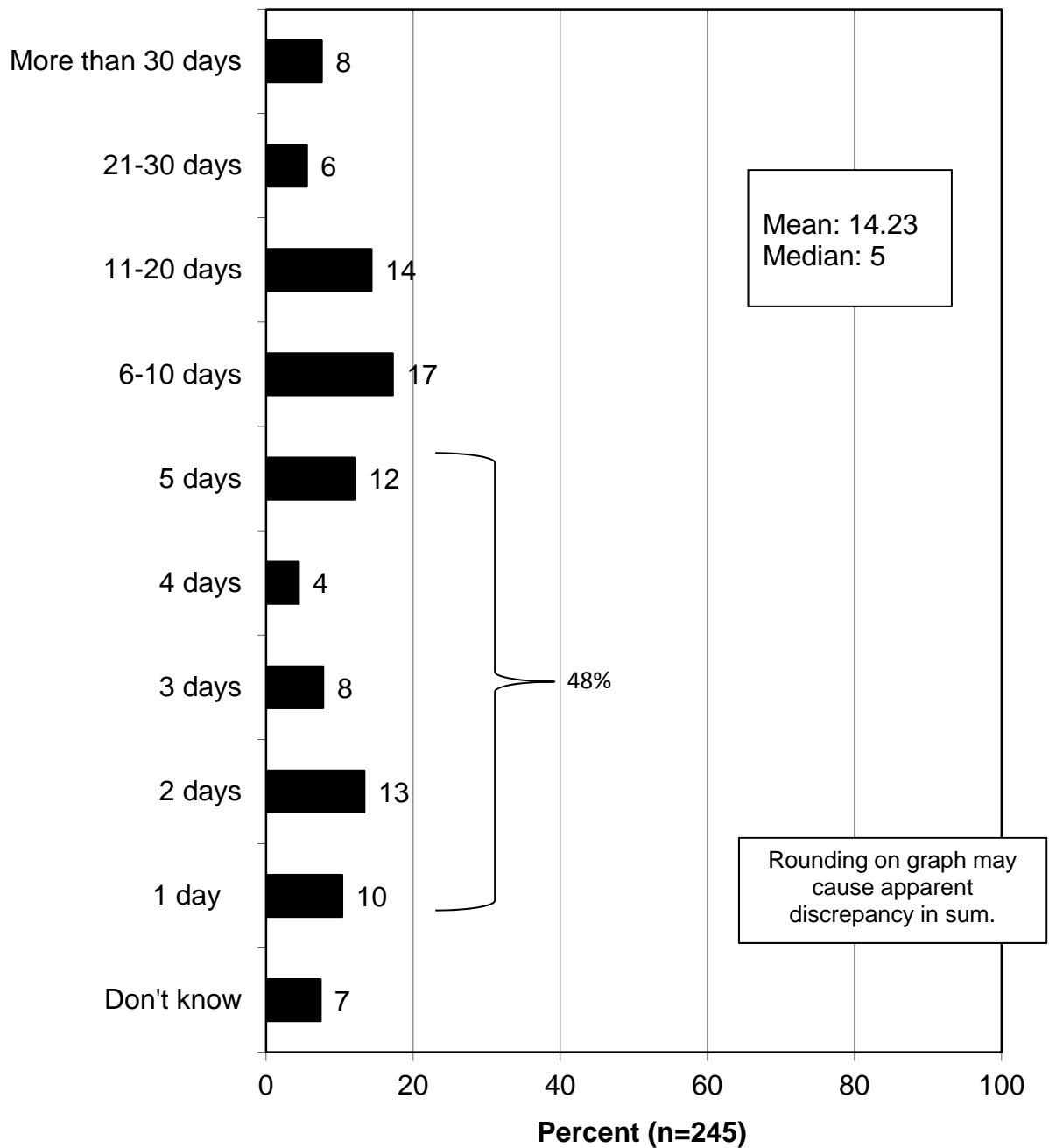
**How many days did you target shoot with a handgun in 2014?  
(Asked of those who went target shooting with a handgun in 2014.)**



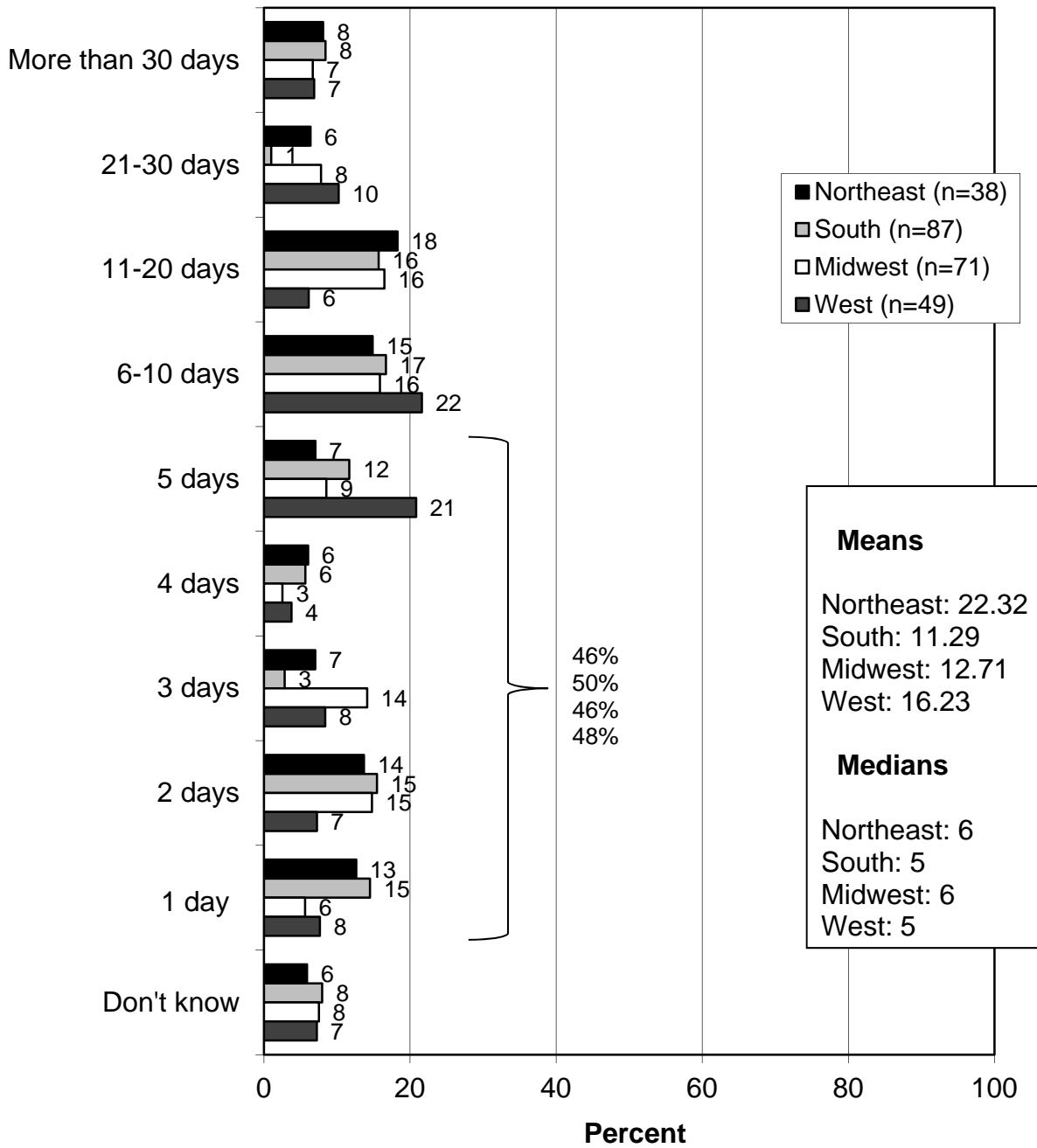
### How many days did you target shoot with a handgun in 2014? (Asked of those who went target shooting with a handgun in 2014.)



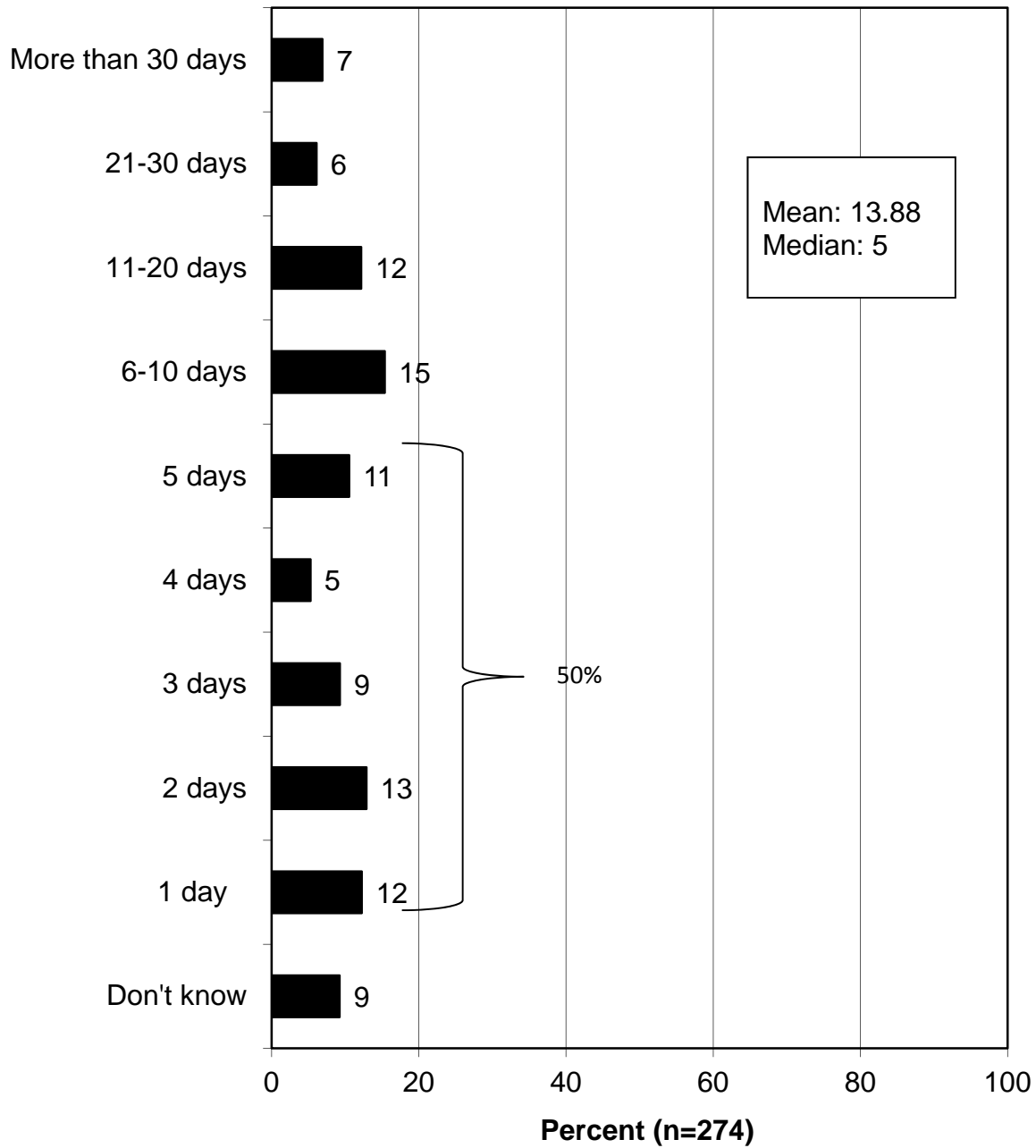
**How many days did you trap shoot in 2014?  
(Asked of those who went trap shooting in  
2014.)**



### How many days did you trap shoot in 2014? (Asked of those who went trap shooting in 2014.)

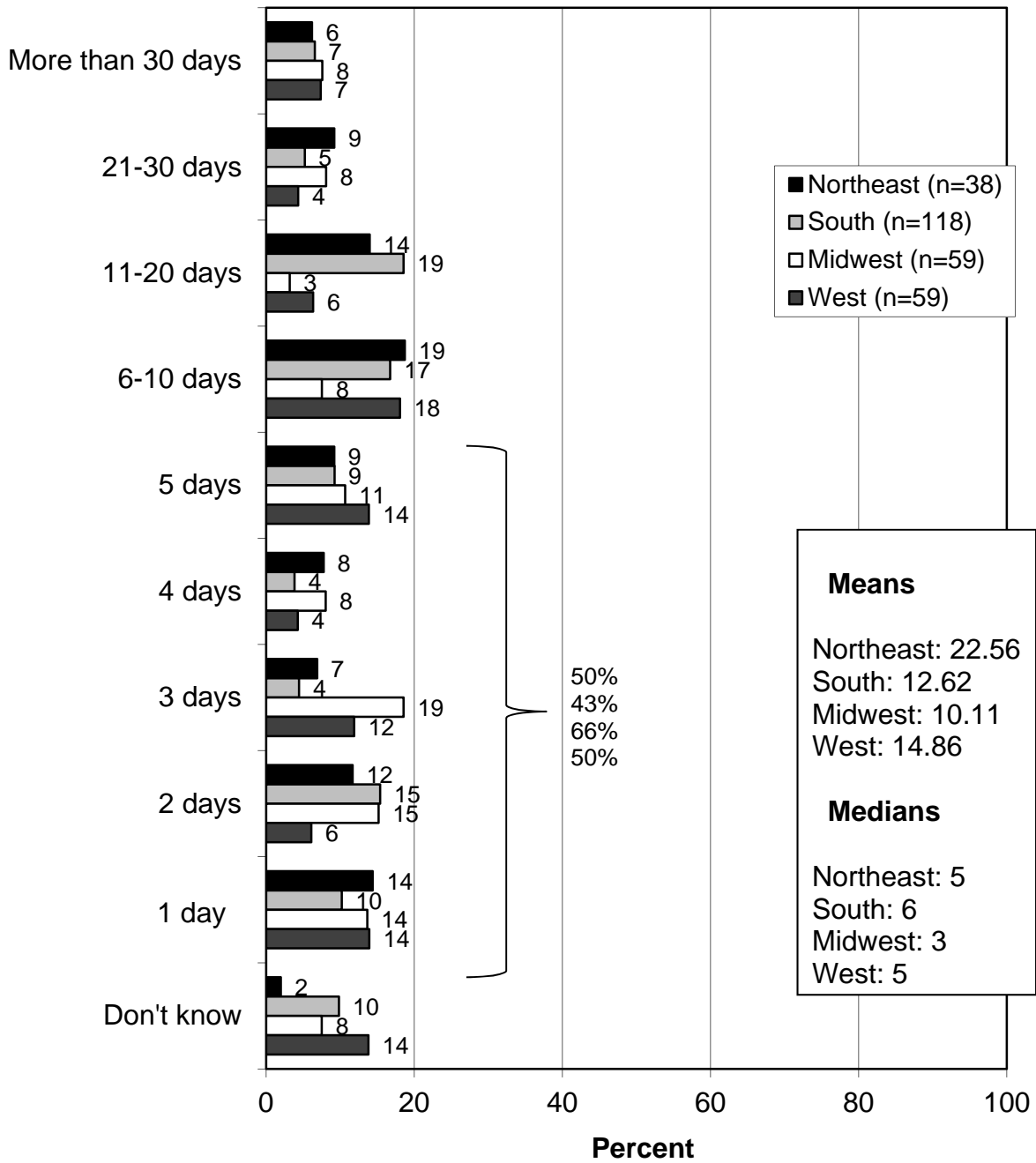


**How many days did you skeet shoot in 2014?  
(Asked of those who went skeet shooting in  
2014.)**

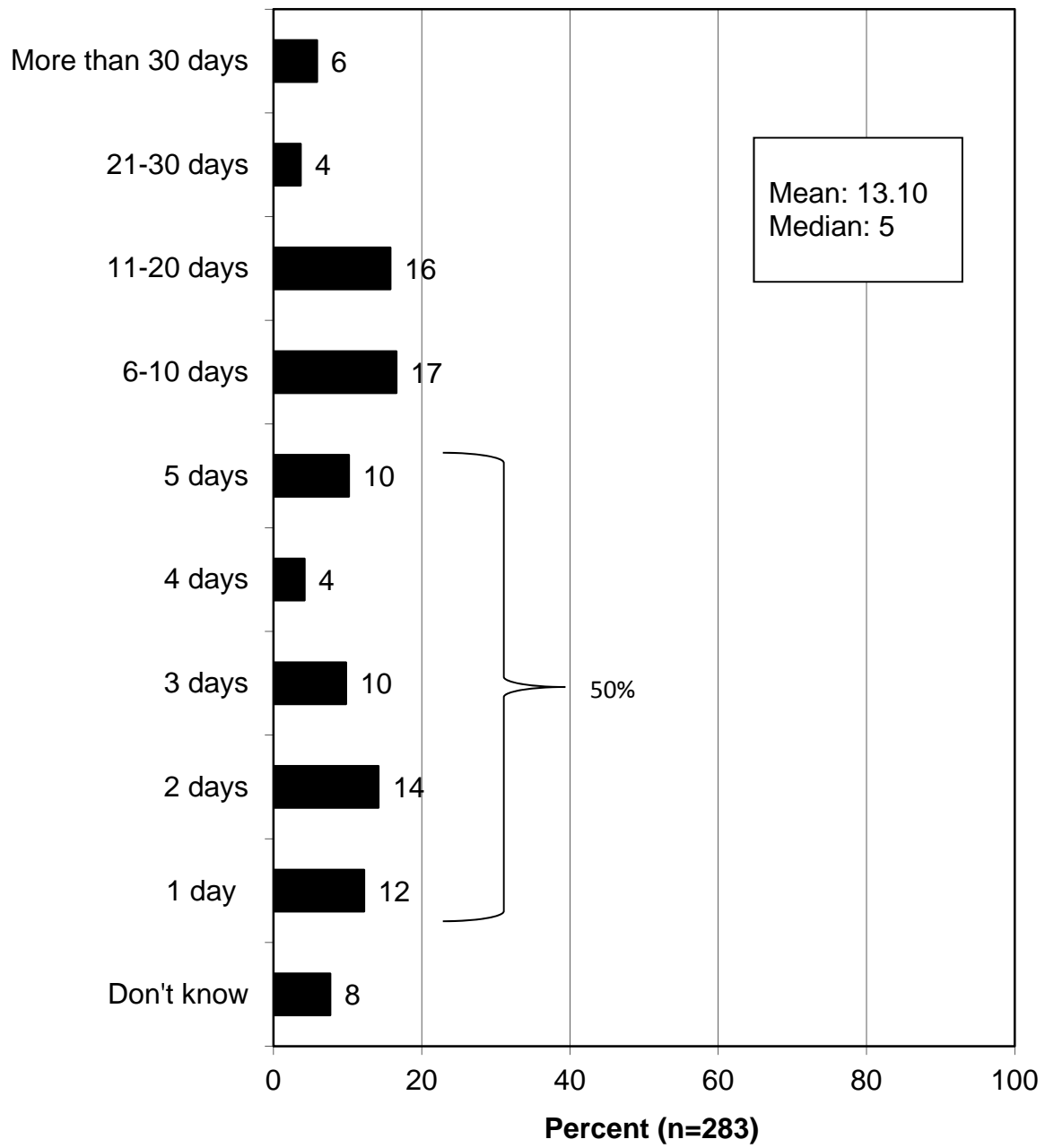




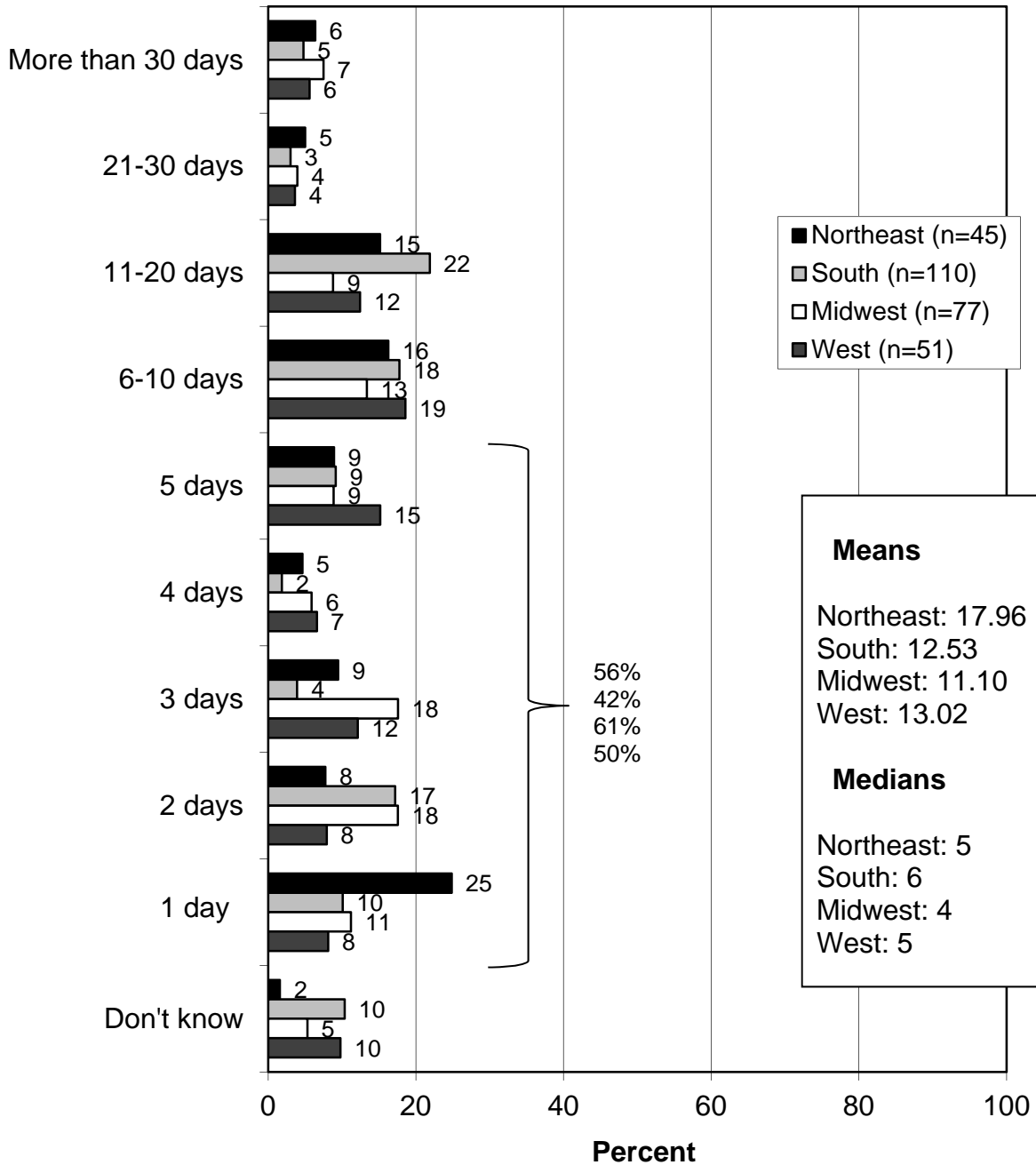
### How many days did you skeet shoot in 2014? (Asked of those who went skeet shooting in 2014.)



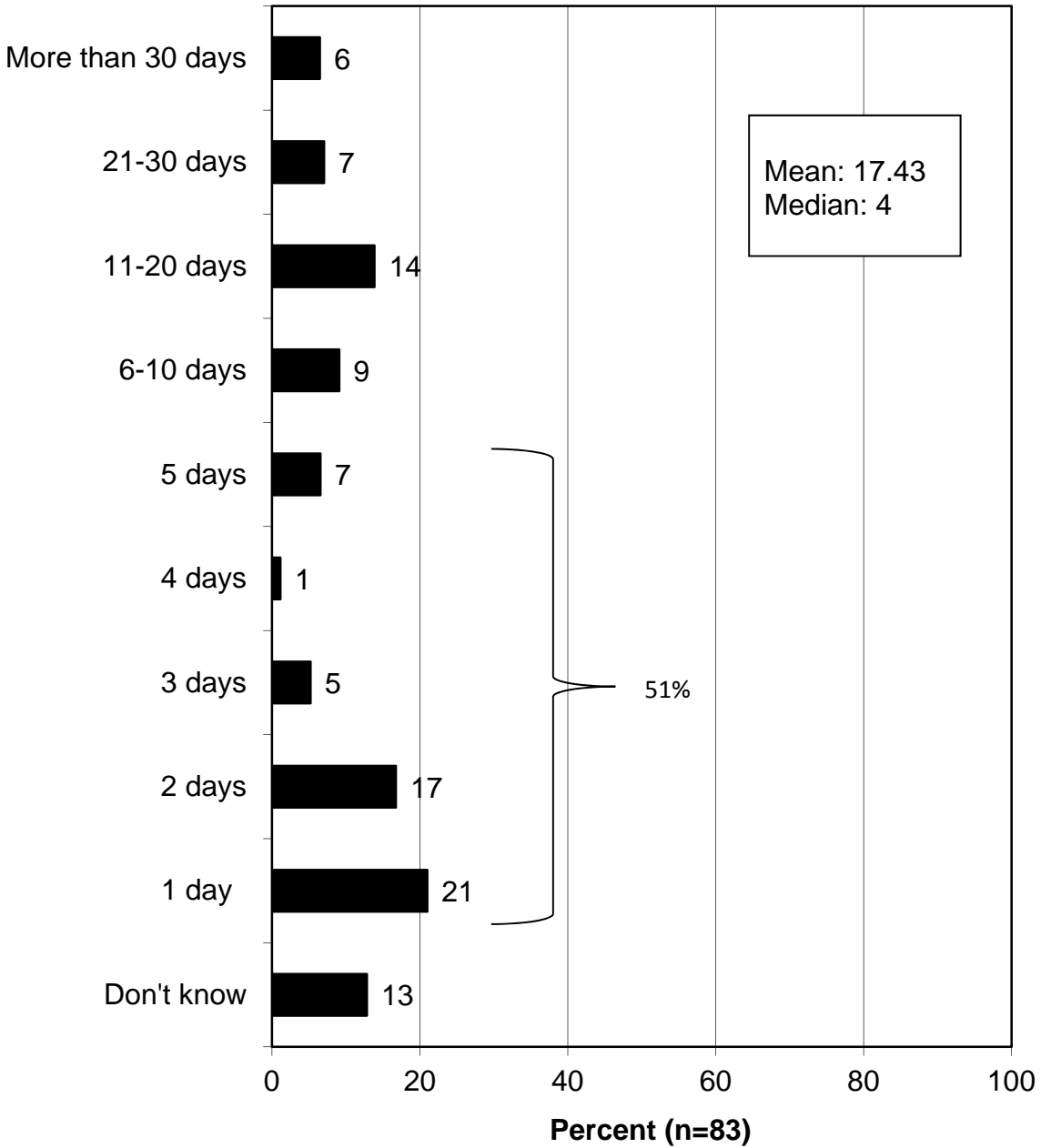
**How many days did you shoot sporting clays in 2014?  
(Asked of those who shot sporting clays in 2014.)**



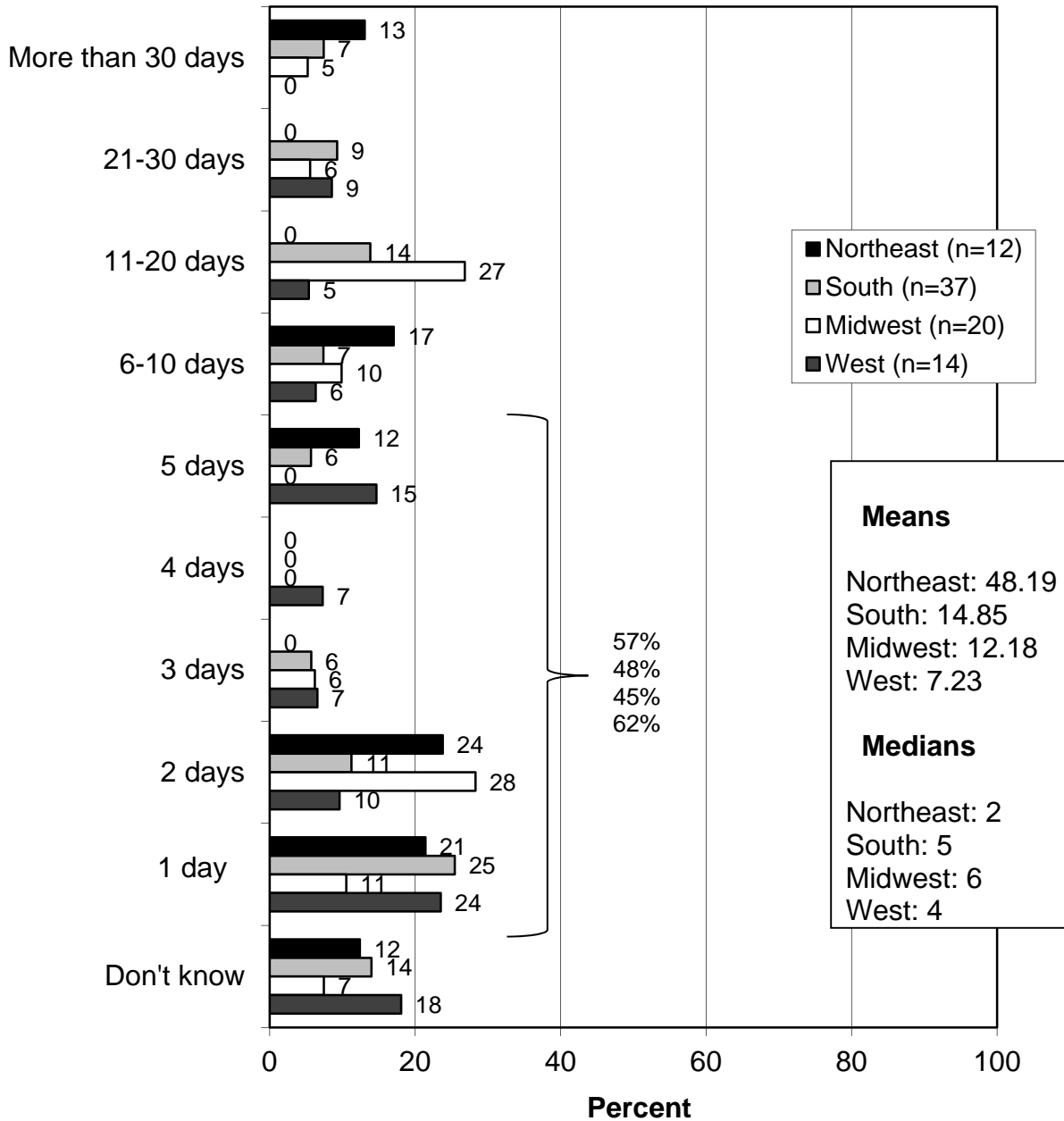
## How many days did you shoot sporting clays in 2014? (Asked of those who shot sporting clays in 2014.)



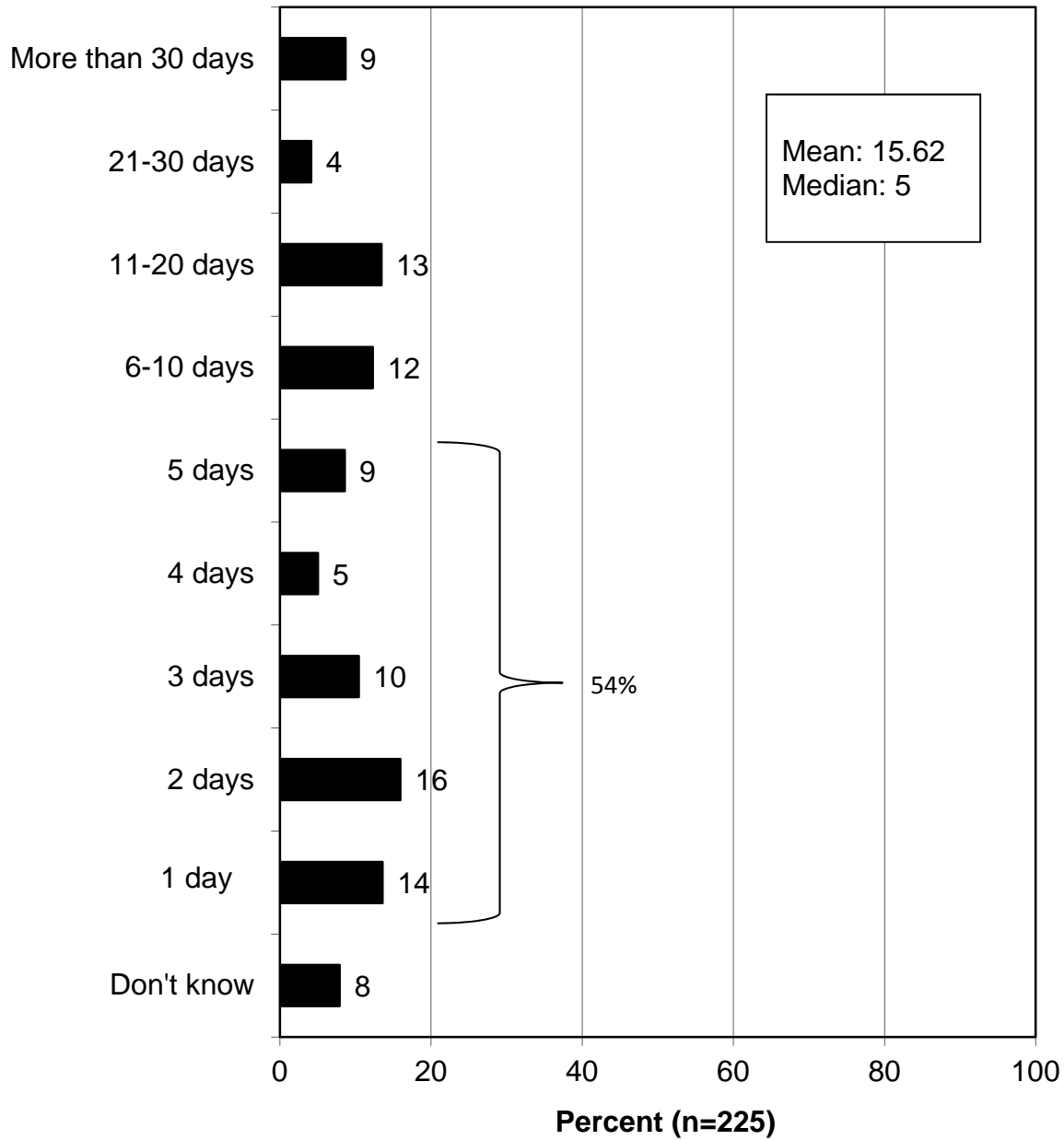
**How many days did you go 3-gun shooting in 2014?  
(Asked of those who went 3-gun shooting in 2014.)**



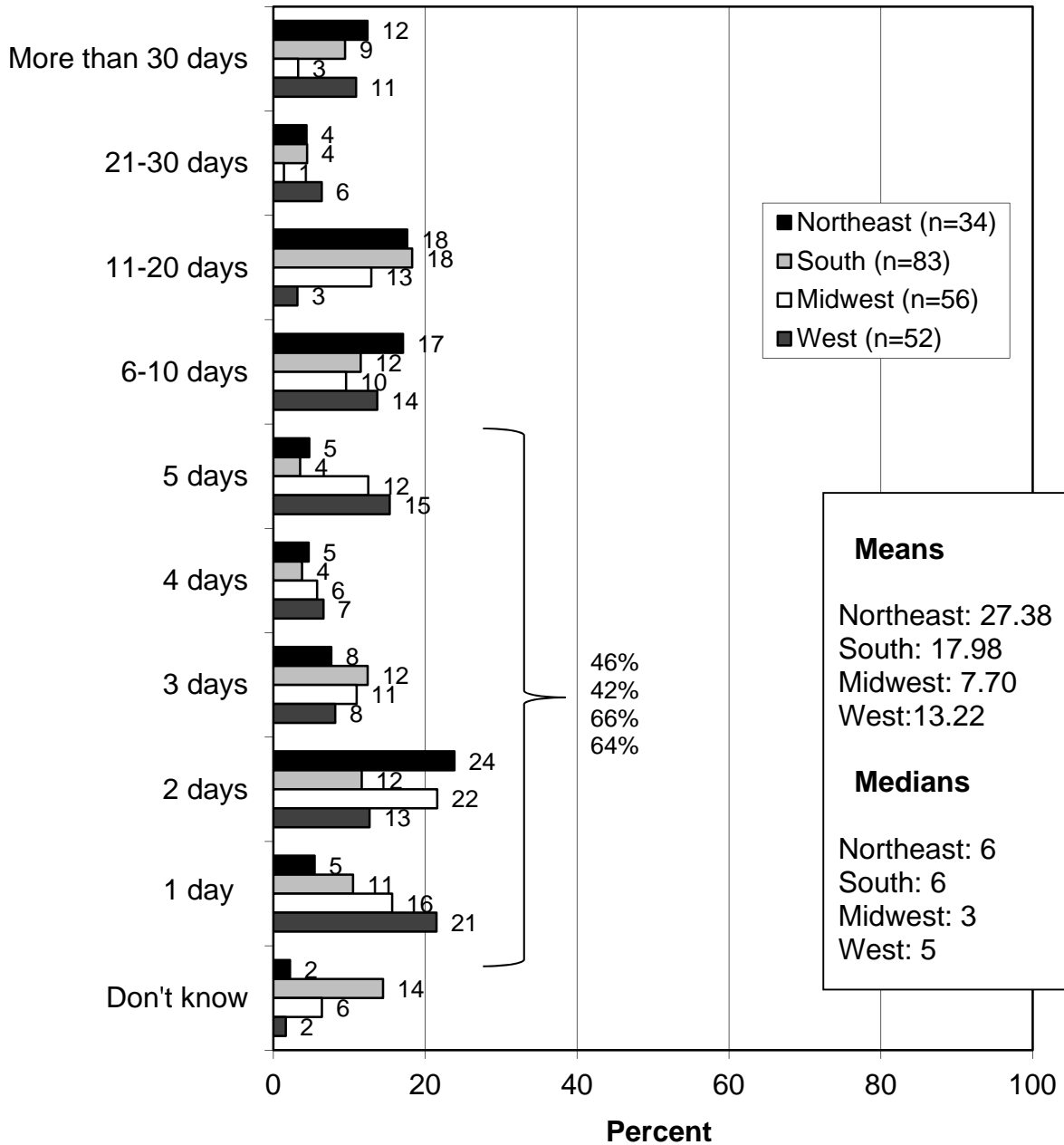
## How many days did you go 3-gun shooting in 2014? (Asked of those who went 3-gun shooting in 2014.)



**How many days did you go long-range target shooting in 2014?  
(Asked of those who went long-range target shooting in 2014.)**



### How many days did you go long-range target shooting in 2014? (Asked of those who went long-range target shooting in 2014.)



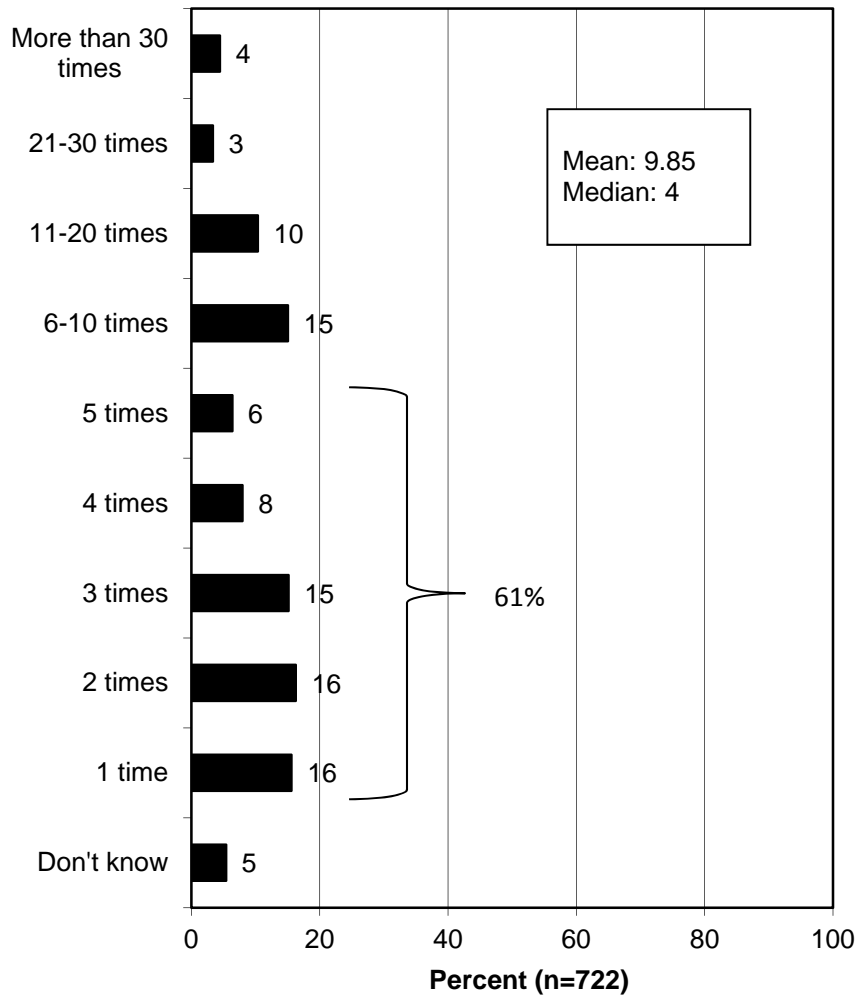
The tabulation below shows the mean and median days spent in the various shooting activities, among those who participated in each activity. Nationally, shooting with a modern sporting rifle is the activity with the highest mean days of participation, followed by 3-gun shooting. In each region, the top-ranked activity in mean days is shaded dark green; any activity within 2.0 percentage points of the top activity is shaded light green.

Activity	Mean Days Spent on Activity in 2014	Median Days Spent on Activity in 2014
<b>National</b>		
Target shooting with a traditional rifle	14.42	5
Target shooting with a modern sporting rifle	17.84	6
Target shooting with a handgun	16.32	6
Trap shooting	14.23	5
Skeet shooting	13.88	5
Sporting clays	13.10	5
3-gun shooting	17.43	4
Long-range shooting	15.62	5
<b>Northeast Region</b>		
Target shooting with a traditional rifle	9.71	5
Target shooting with a modern sporting rifle	19.63	6
Target shooting with a handgun	22.38	6
Trap shooting	22.32	6
Skeet shooting	22.56	5
Sporting clays	17.96	5
3-gun shooting	4.04	2
Long-range shooting	10.53	5
<b>South Region</b>		
Target shooting with a traditional rifle	21.06	6
Target shooting with a modern sporting rifle	22.84	9
Target shooting with a handgun	18.60	6
Trap shooting	11.29	5
Skeet shooting	12.62	6
Sporting clays	12.53	6
3-gun shooting	14.85	5
Long-range shooting	17.98	6
<b>Midwest Region</b>		
Target shooting with a traditional rifle	12.88	5
Target shooting with a modern sporting rifle	10.33	5
Target shooting with a handgun	15.18	5
Trap shooting	12.71	6
Skeet shooting	10.11	3
Sporting clays	11.10	4
3-gun shooting	12.18	6
Long-range shooting	7.70	3
<b>West Region</b>		
Target shooting with a traditional rifle	10.08	5
Target shooting with a modern sporting rifle	15.85	5
Target shooting with a handgun	11.08	5
Trap shooting	16.23	5
Skeet shooting	14.86	5
Sporting clays	13.02	5
3-gun shooting	7.23	4
Long-range shooting	13.22	5

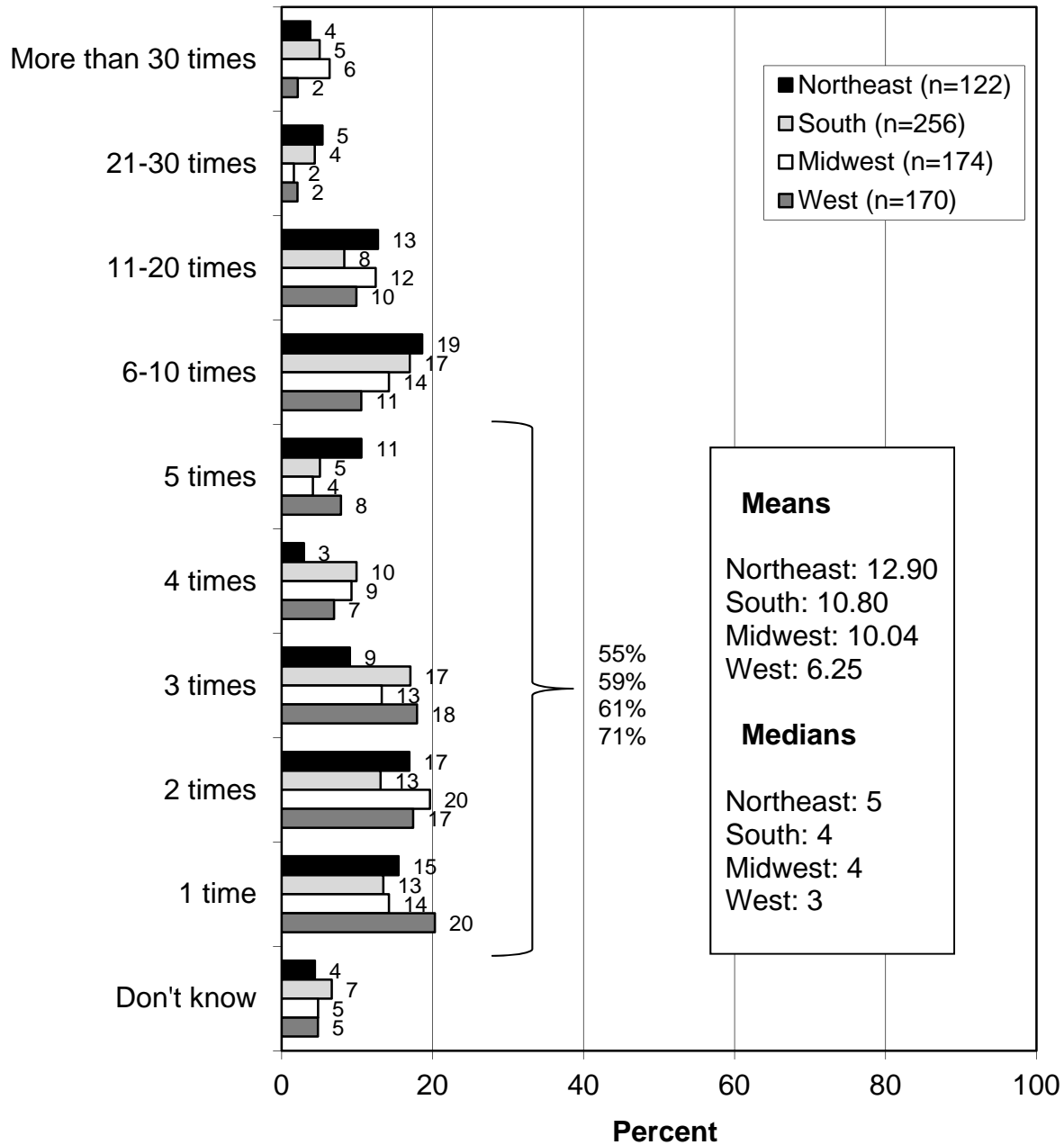


Another question looked at the number of times sport shooters had target shot at a range in 2014. A graph showing regional results is on the next page.

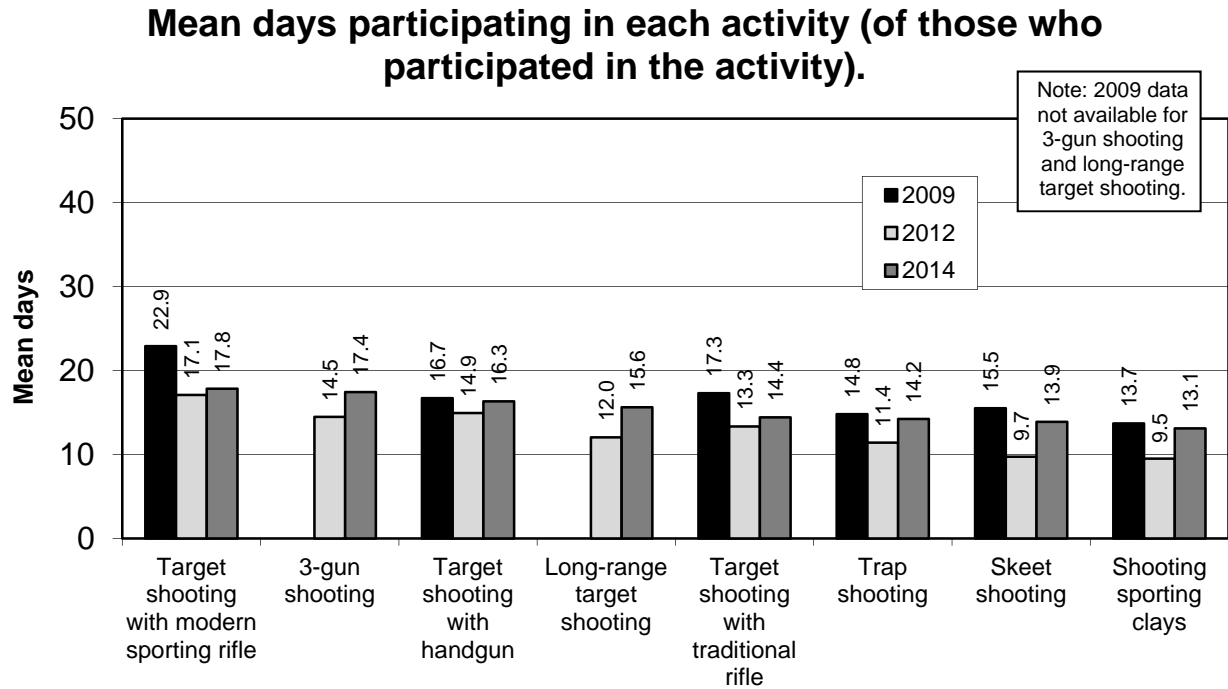
**Approximately how many times did you go target shooting at a range in 2014?  
(Asked of those who shot at a range in 2014.)**



**Approximately how many times did you go target shooting at a range in 2014?  
(Asked of those who shot at a range in 2014.)**



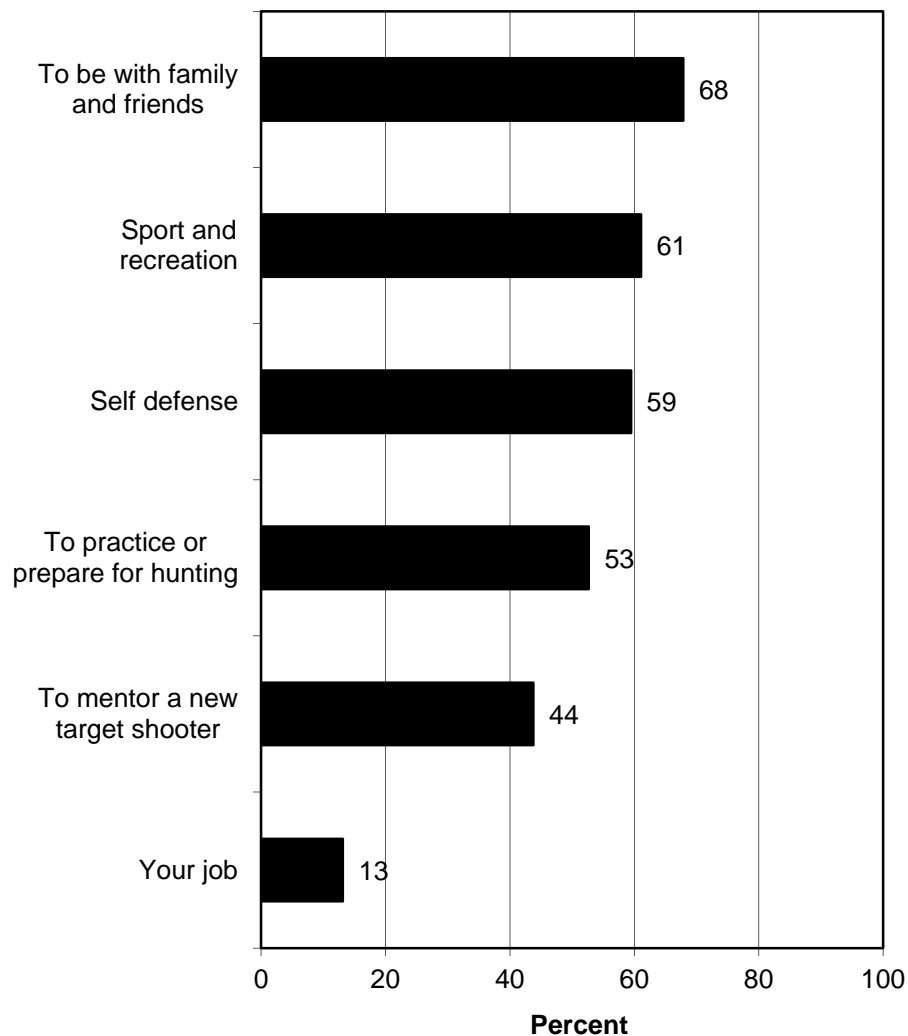
The following graph shows the trend in mean days of participating in the various shooting activities. In general, mean days are slightly more in 2014 than in 2012.



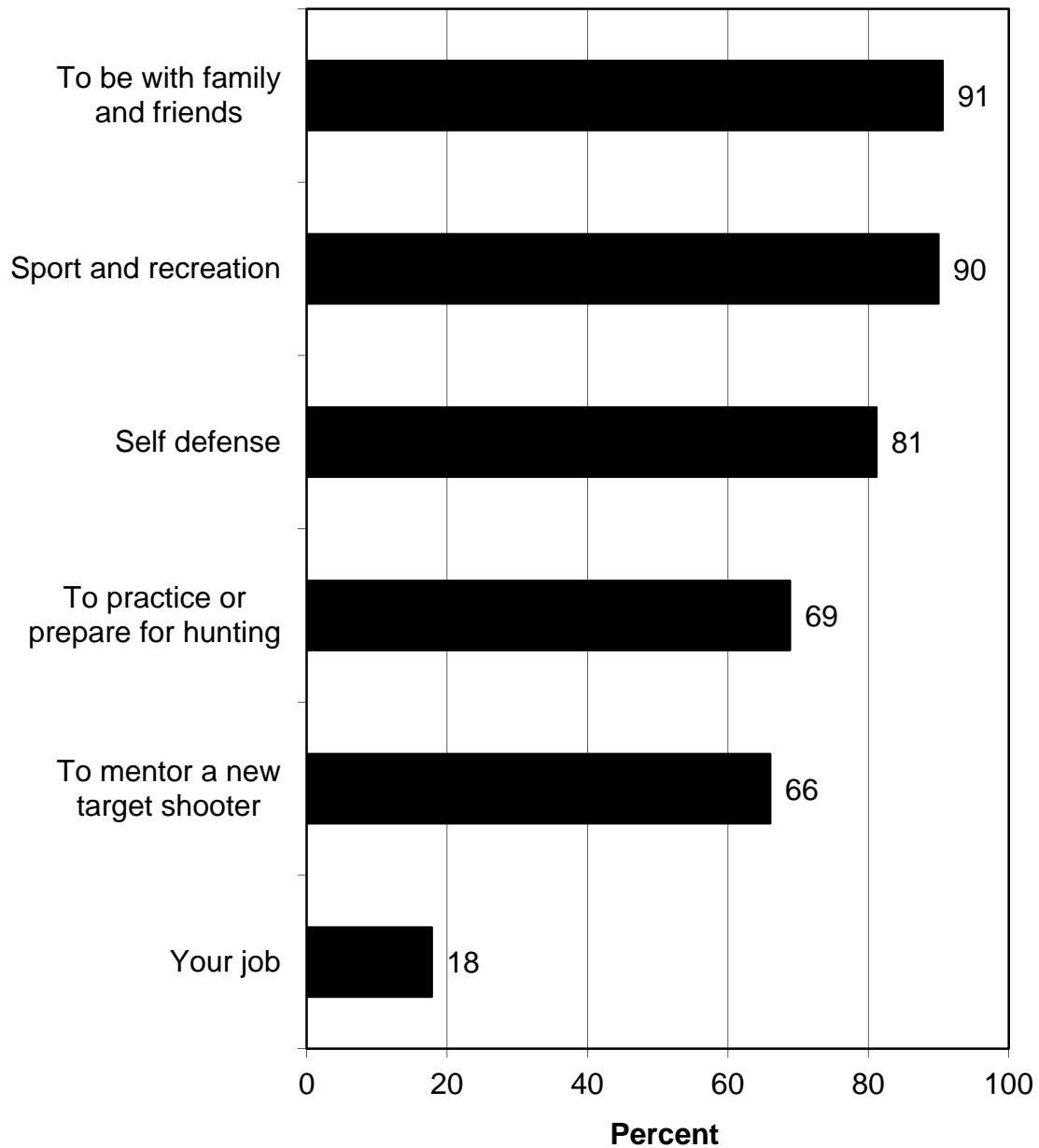
## MOTIVATIONS FOR TARGET AND SPORT SHOOTING

The survey asked a series of questions examining motivations for target/sport shooting. The social reasons top the list: to be with family and friends (68% said it was *very* important) and for the sport and recreation (61%). More practical reasons are lower down, but still very important to a majority: self defense (59%) and to practice or prepare for hunting (53%). (There are three graphs of overall results: *very* important by itself, *very* or *somewhat* important combined, and *not at all* important. There are then the same three graphs regionally.)

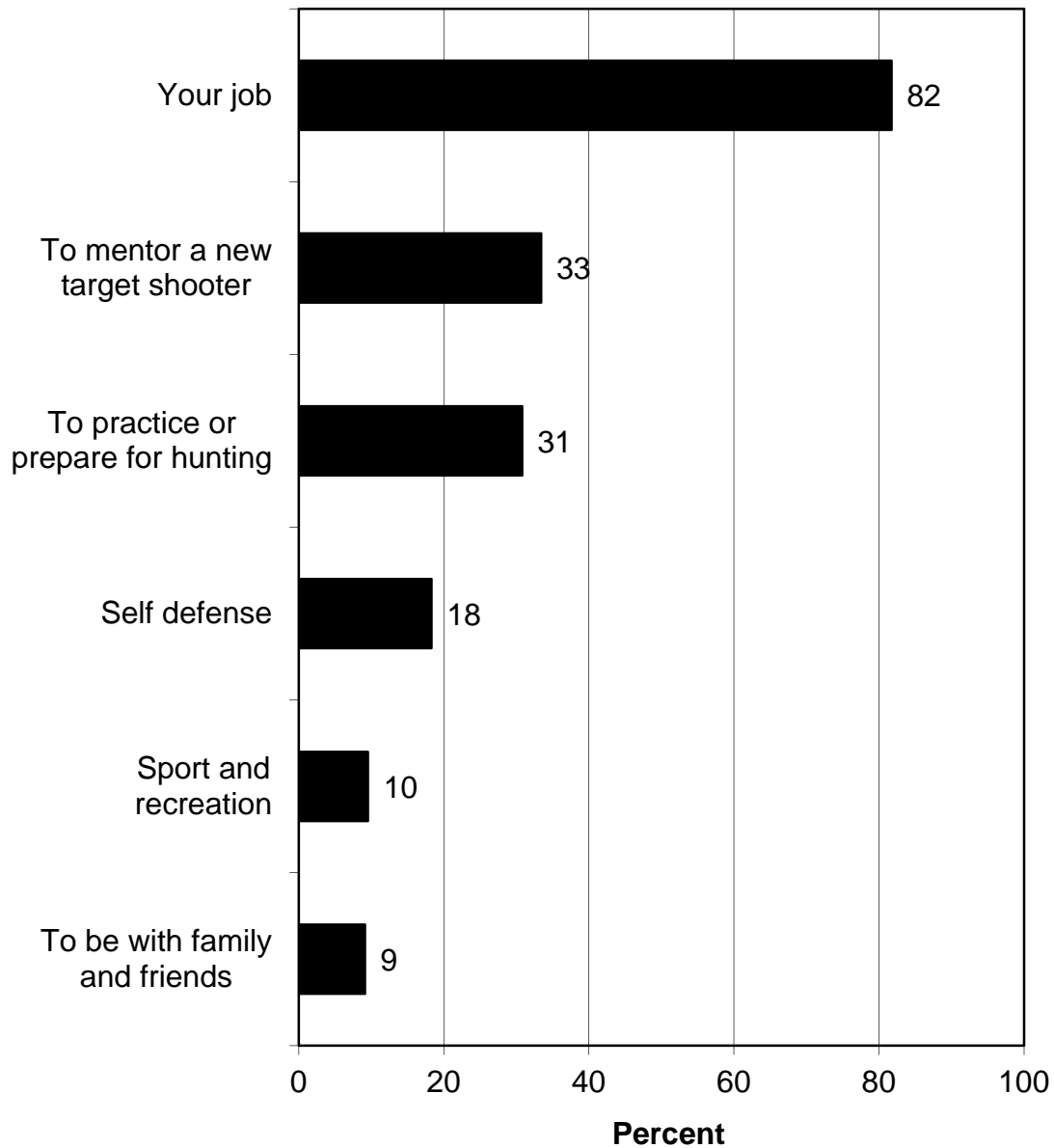
**Percent who consider each of the following to be a very important reason to go target shooting.  
(Asked of those who went target or sport shooting in 2014.)**



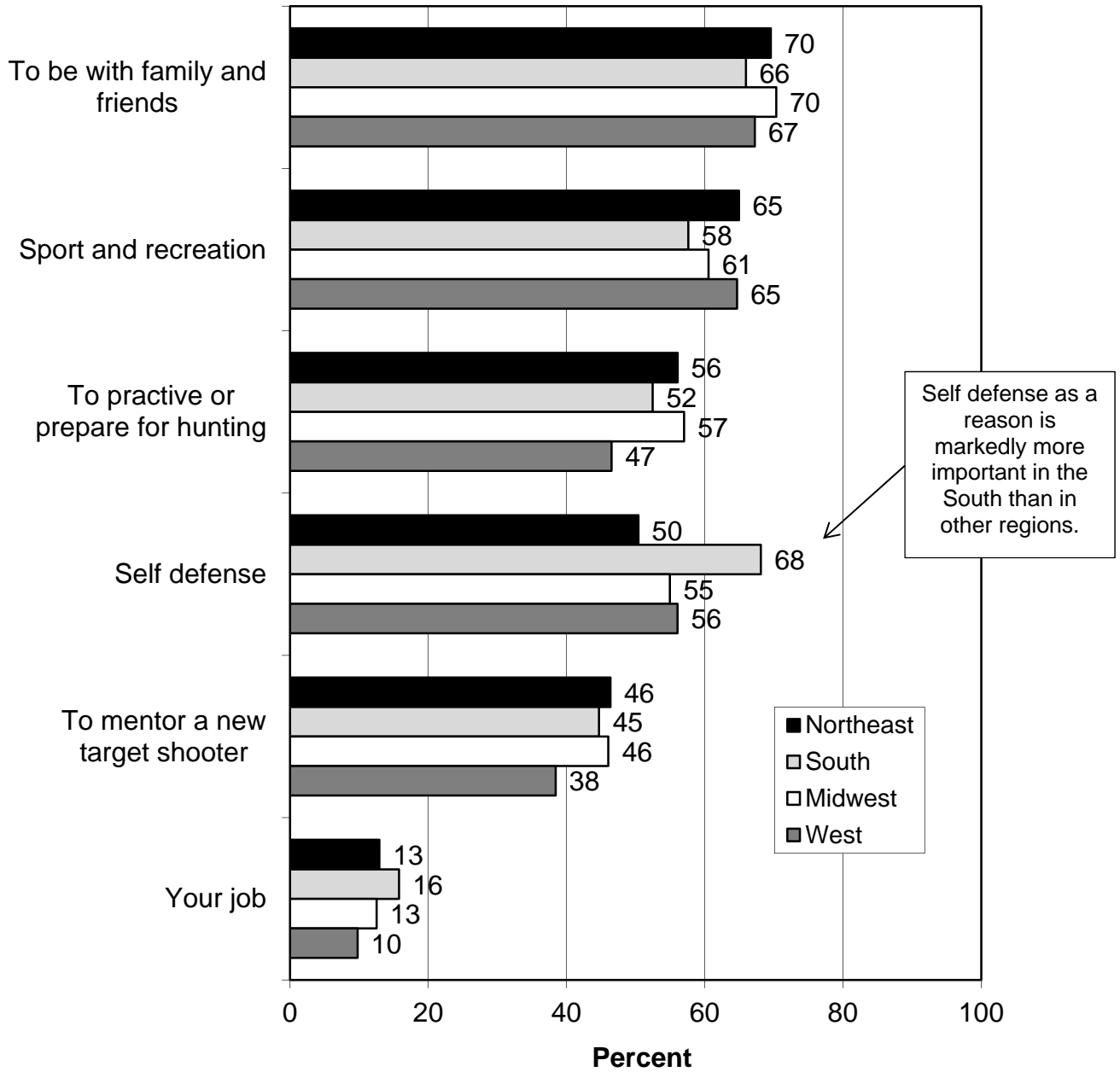
**Percent who consider each of the following to be a very or somewhat important reason to go target shooting.  
(Asked of those who went target or sport shooting in 2014.)**



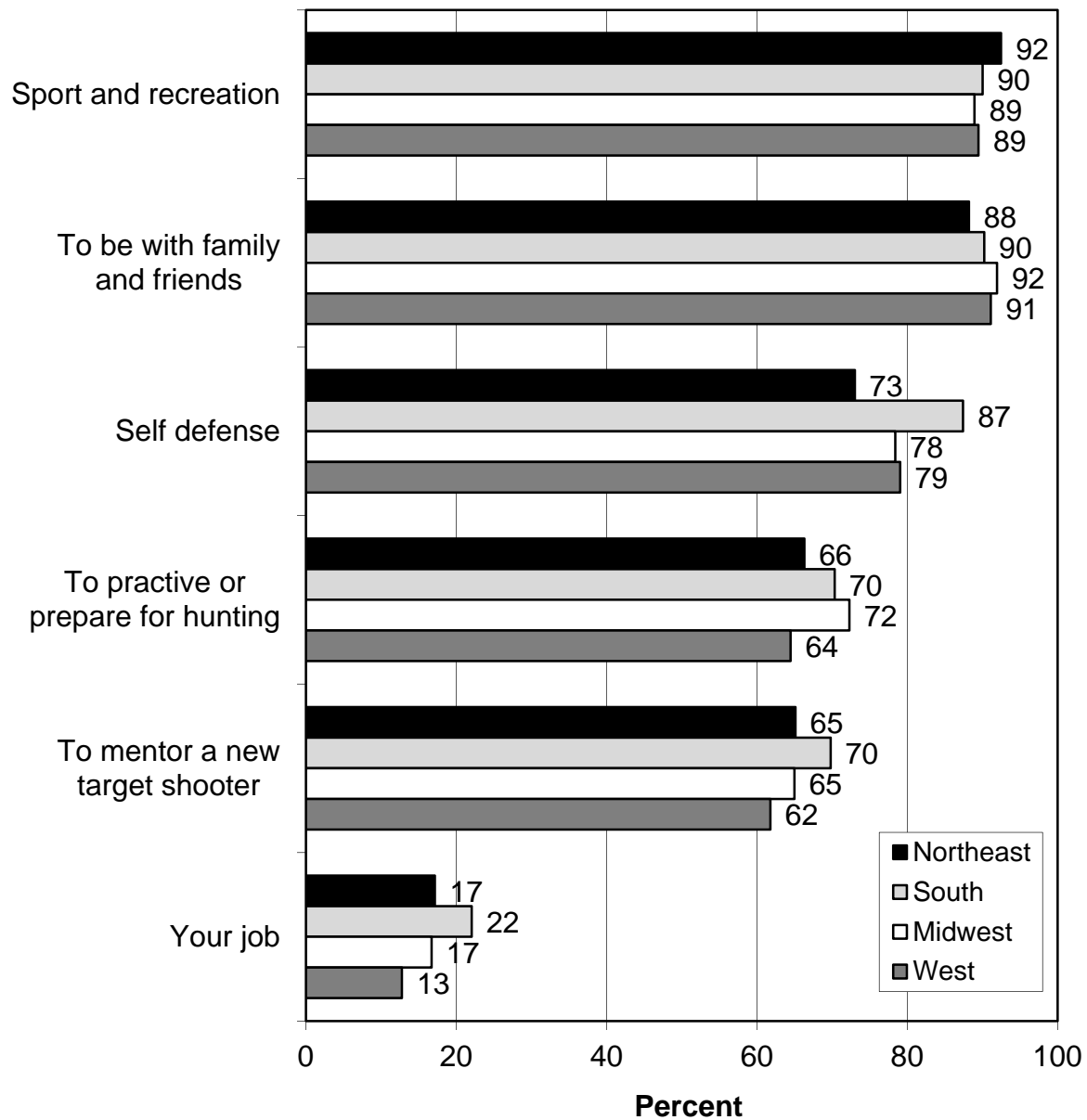
**Percent who consider each of the following to be not at all important as a reason to go target shooting.  
(Asked of those who went target or sport shooting in 2014.)**



**Percent who consider each of the following to be a very important reason to go target shooting.  
(Asked of those who went target or sport shooting in 2014.)**

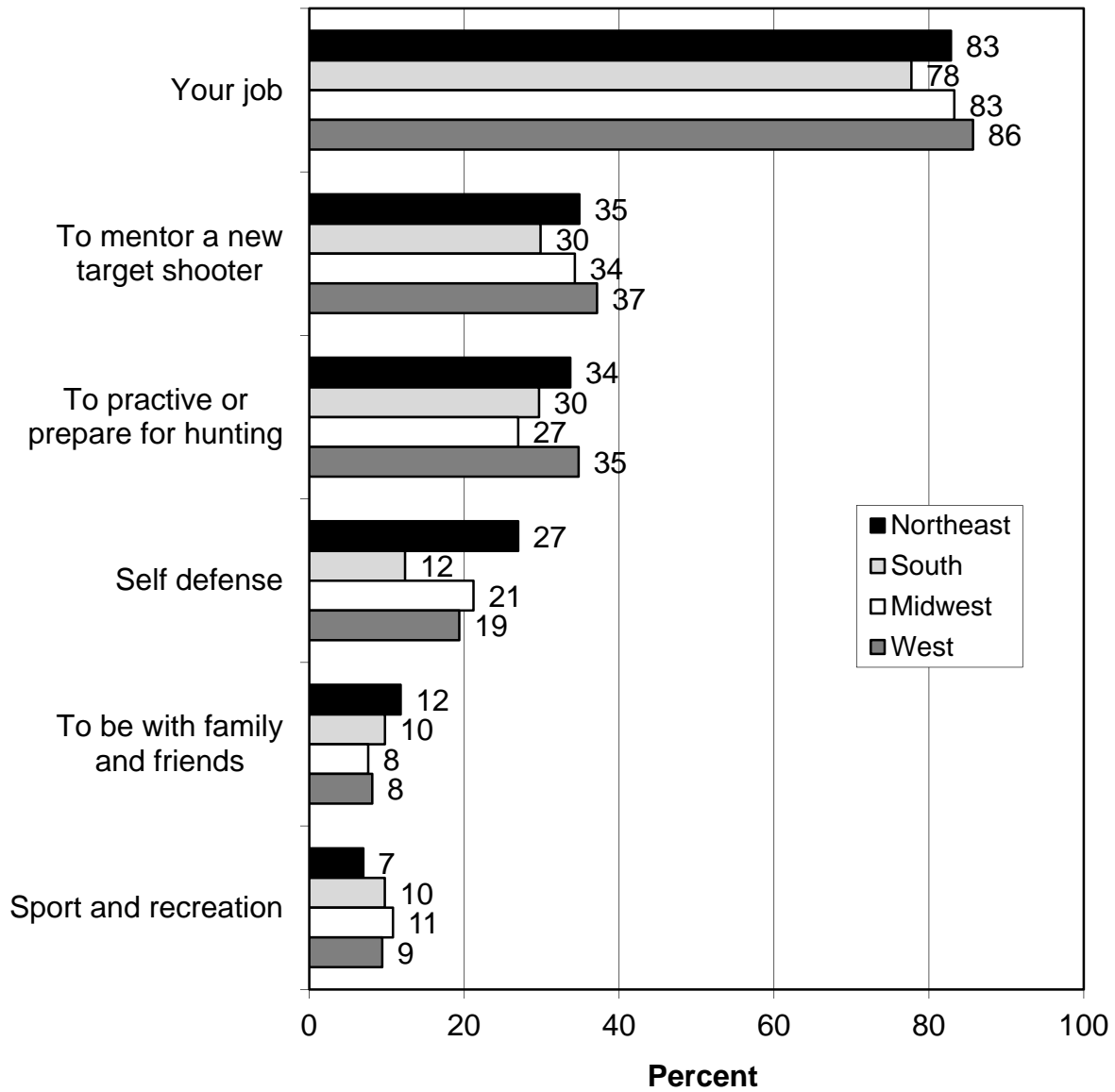


**Percent who consider each of the following to be a very or somewhat important reason to go target shooting.  
(Asked of those who went target or sport shooting in 2014.)**





**Percent who consider each of the following to be not at all important as a reason to go target shooting.  
(Asked of those who went target or sport shooting in 2014.)**

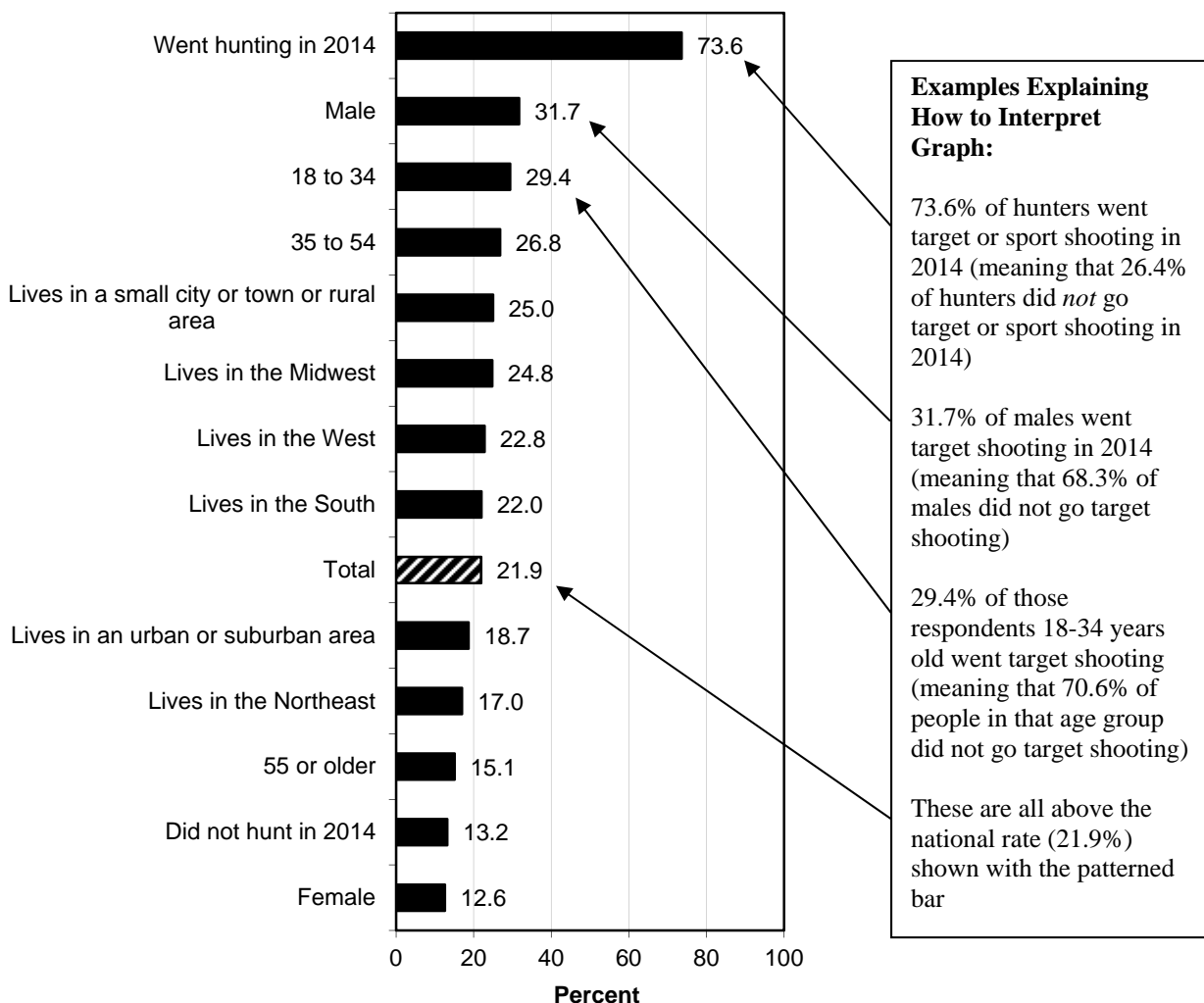


## DEMOGRAPHIC CHARACTERISTICS OF SHOOTERS

This report includes an analysis of the demographic makeup of shooters. As shown in the graph that follows, participation in target and sport shooting is correlated with hunting participation, being male, being 18 to 34 years old, and being on the rural side of the urban-rural continuum. The Midwest Region is positively correlated, while the Northeast Region is negatively correlated.

The graph shows the rate of target/sport shooting participation in the population as a whole (21.9%, the bar that is patterned in the middle of the graph). Those demographic groups above the patterned bar have participation rates higher than the overall rate. For instance, 31.7% of males participated in target/sport shooting (compared to only 12.6% of females, shown in the last bar at the bottom of the graph).

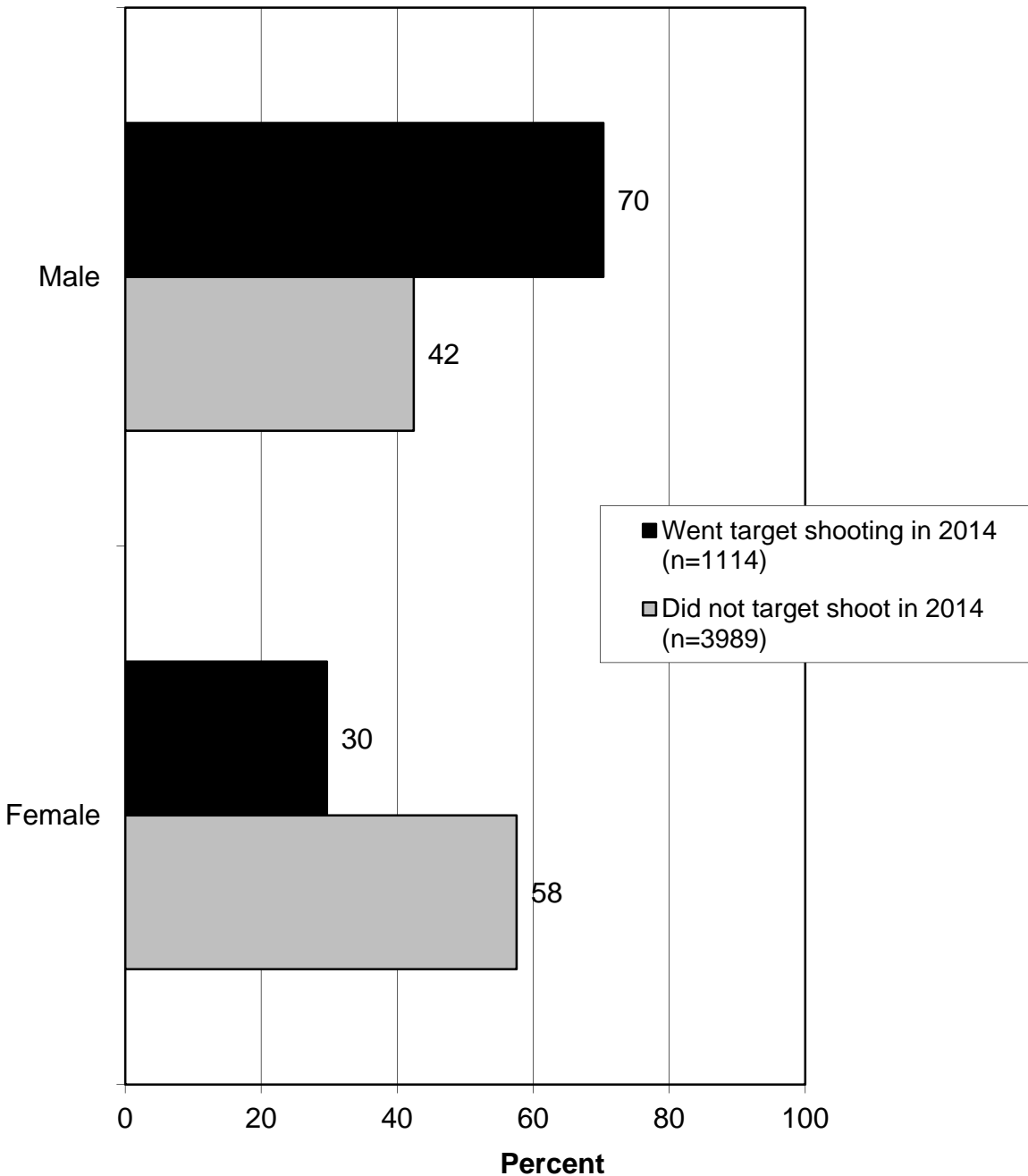
**Percent of each of the following groups who target or sport shot in 2014:**



The following crosstabulations reinforce the findings already discussed. Nonetheless, it is interesting to see the exact breakdown of target/sport shooters.

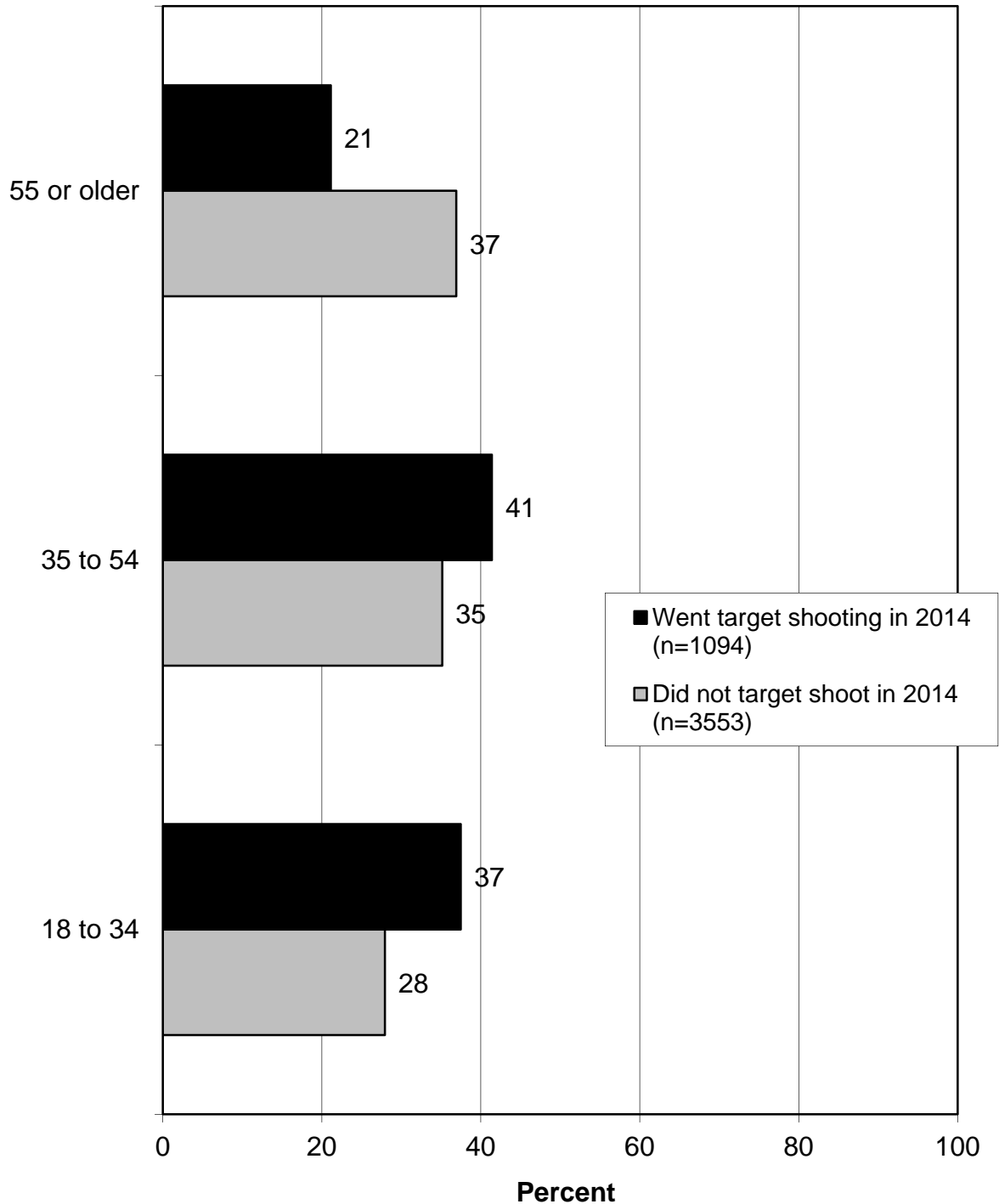
Target/sport shooters are mostly male (70% of 2014 sport shooters are male, compared to 42% of non-shooters). Note, however, that nearly a third of shooters are female.

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

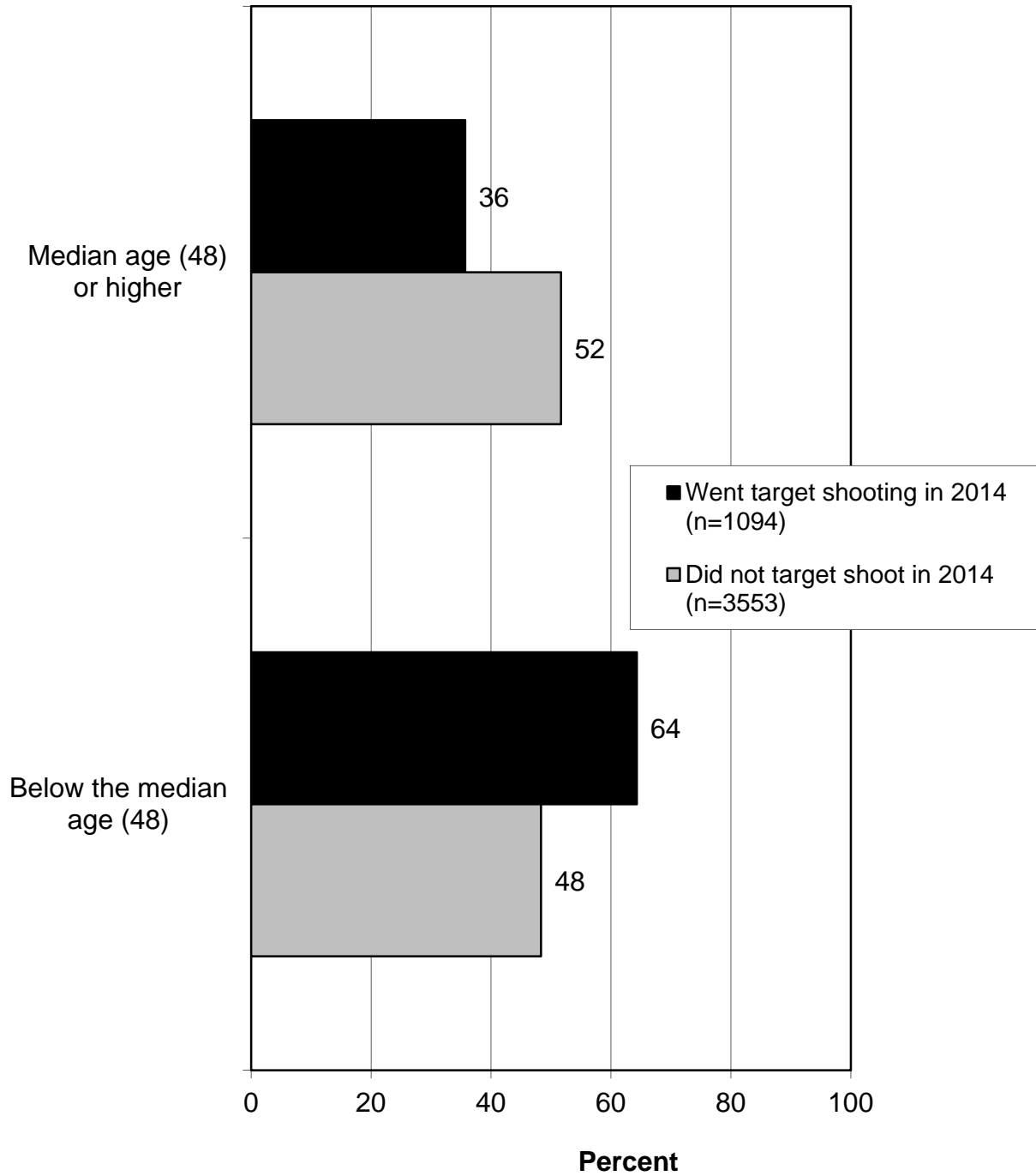


Target/sport shooters tend to be younger (37% of 2014 sport shooters are 18 to 34 years old, compared to 28% of non-shooters—the median age split is also shown). The difference is quite marked in the “55 years old and older” category.

### Respondent's age.

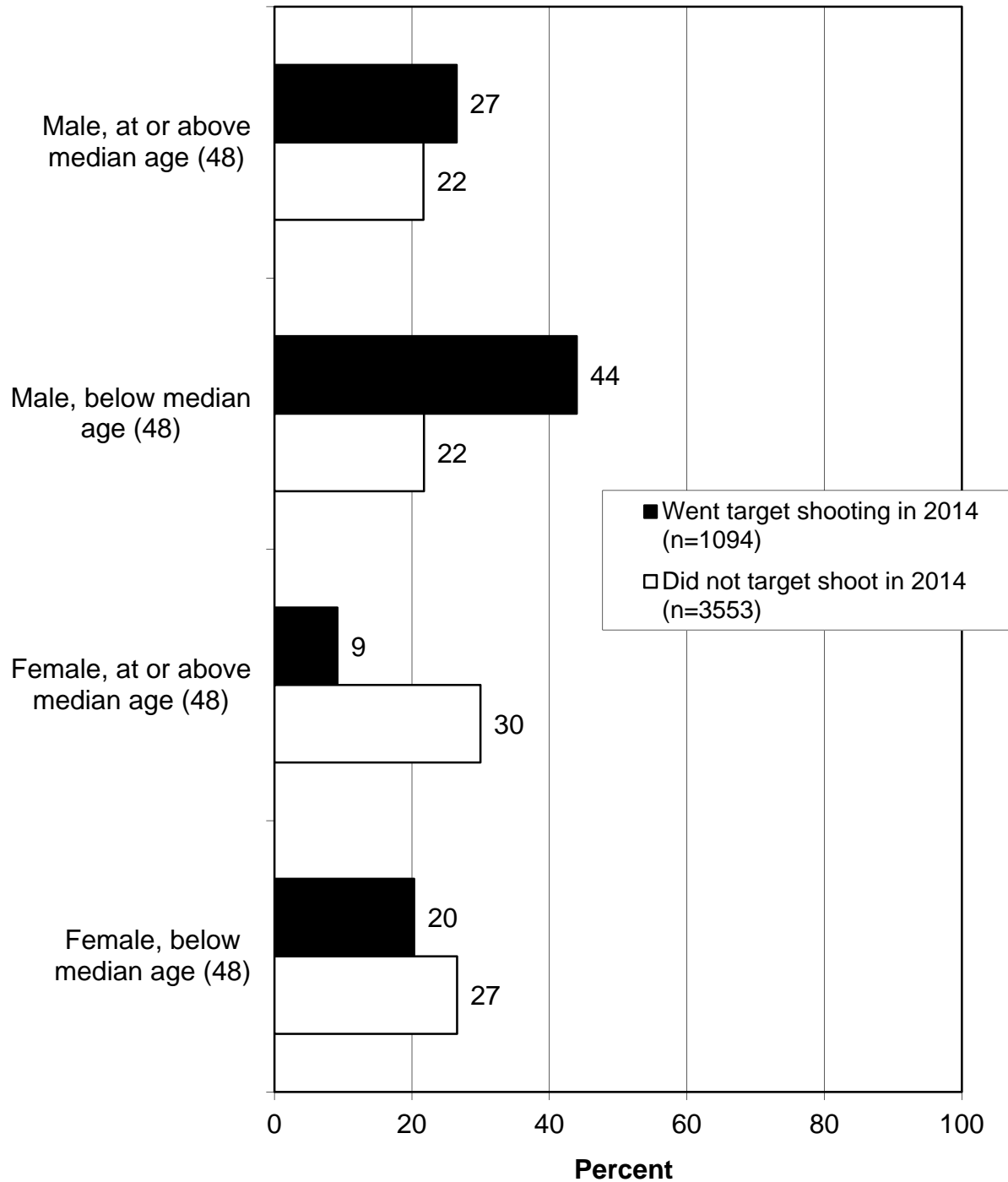


### Median split of age.



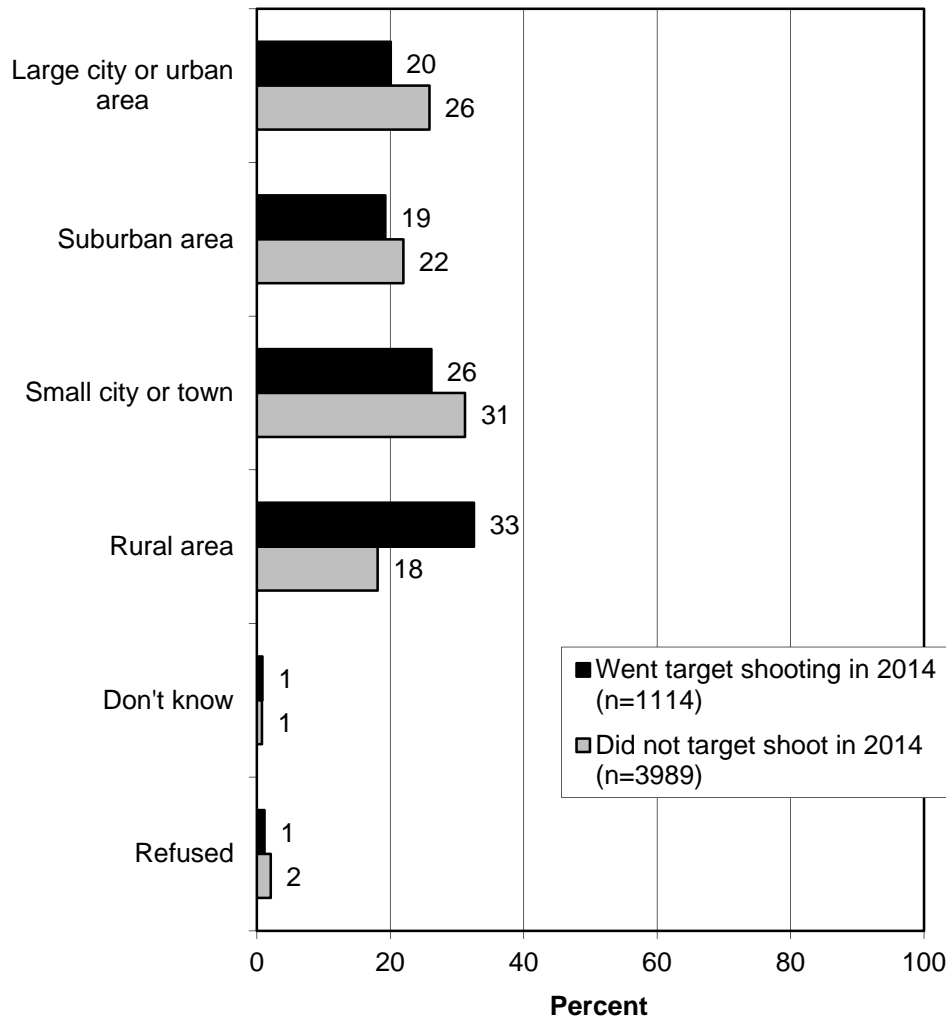
In particular, women older than the median age are not well represented among active target/sport shooters in 2014.

### Gender / median age categories.



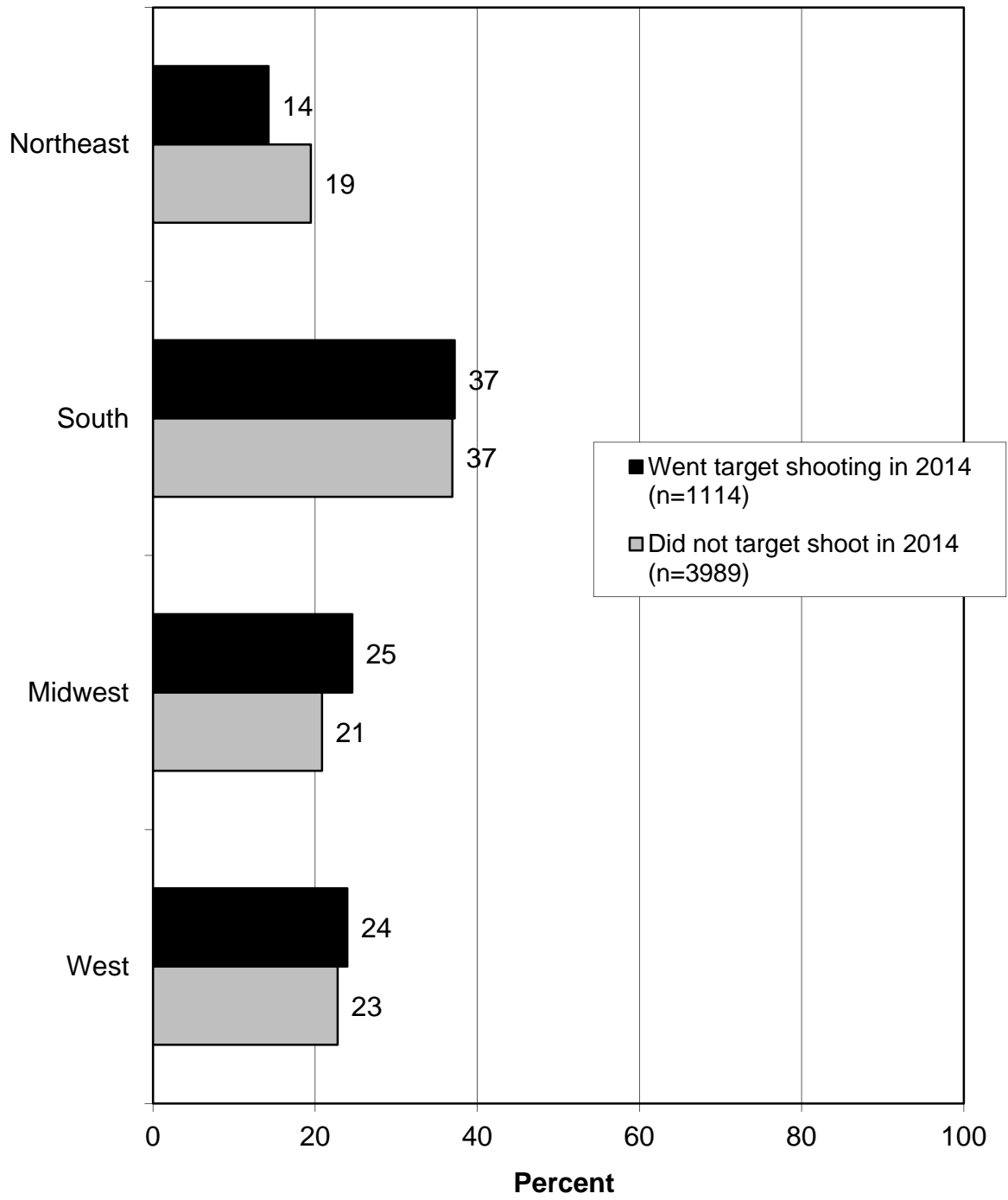
While shooters are more rural than urban (33% among 2014 shooters, compared to 18% among non-shooters), it is worth noting that 2 in 5 shooters are from a large city/urban area or a suburban area.

**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?**



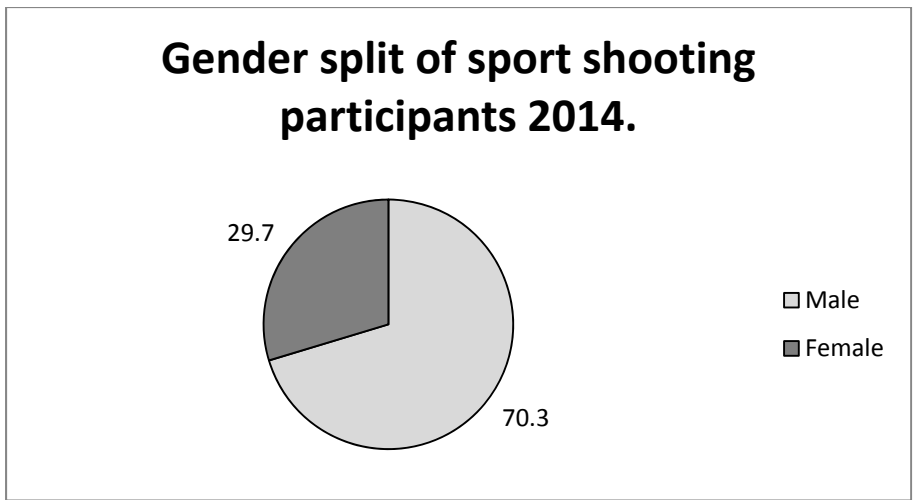
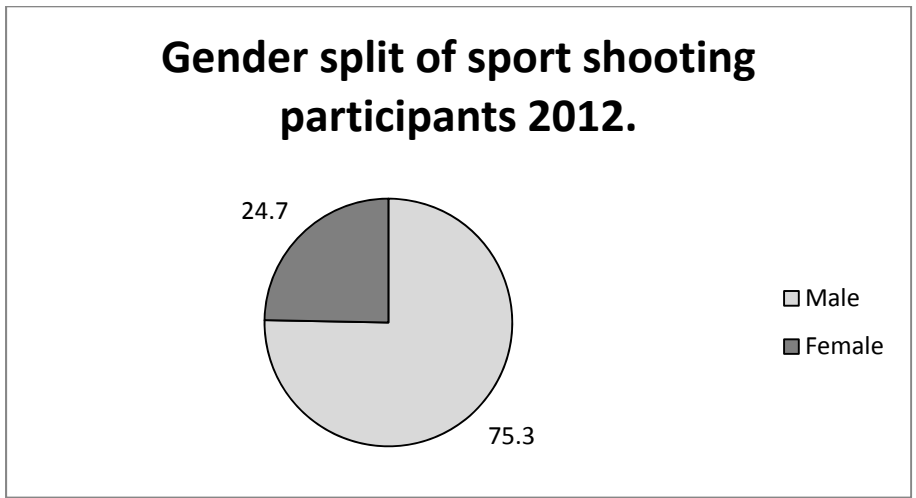
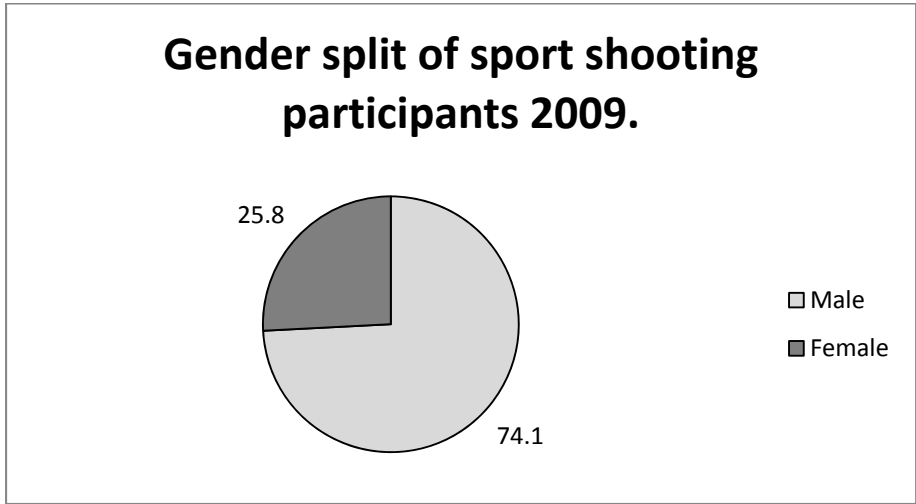
Finally, the Midwest Region is correlated to target/sport shooting participation, although the greatest number of target/sport shooters are from the South relative to the other regions.

### U.S. Census Region.



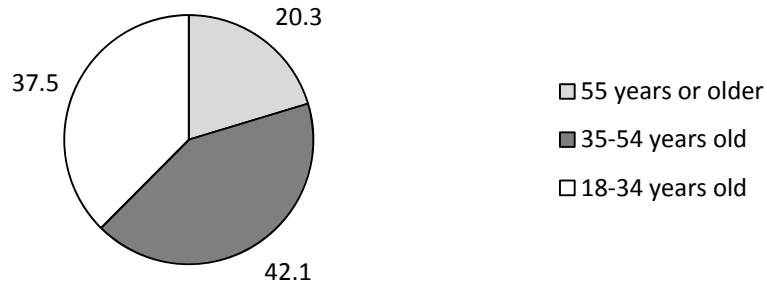


The following four pages present demographic trends data for the surveys in 2009, 2012, and 2014. Women make up a larger proportion in 2014 than in previous years.

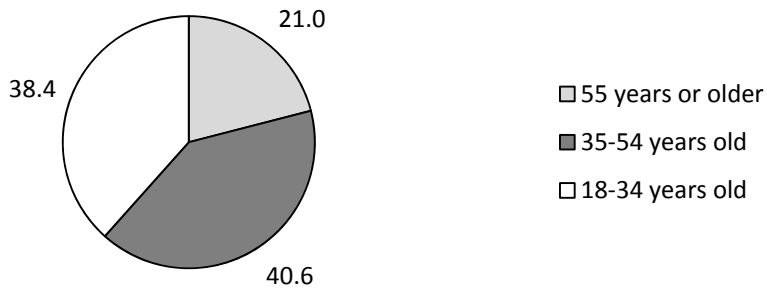


The trends regarding age are fairly consistent across the three survey years.

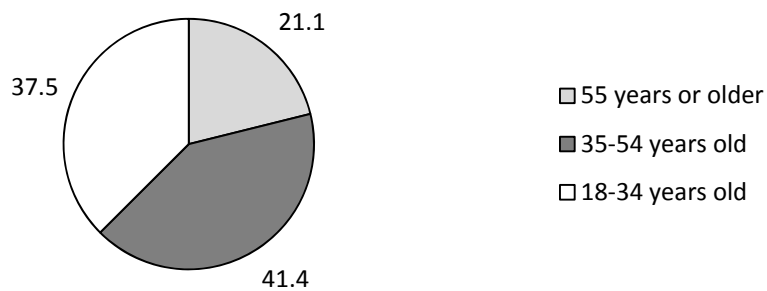
### Age breakdown of sport shooting participants 2009.



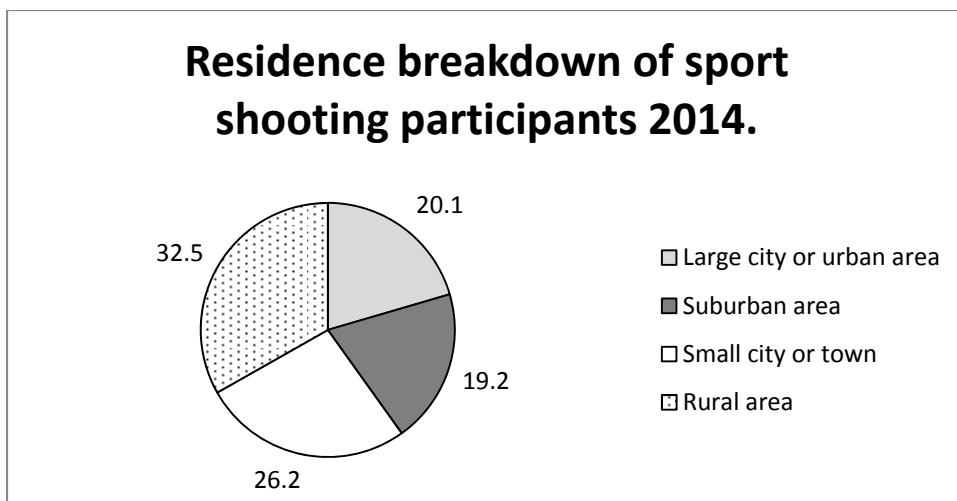
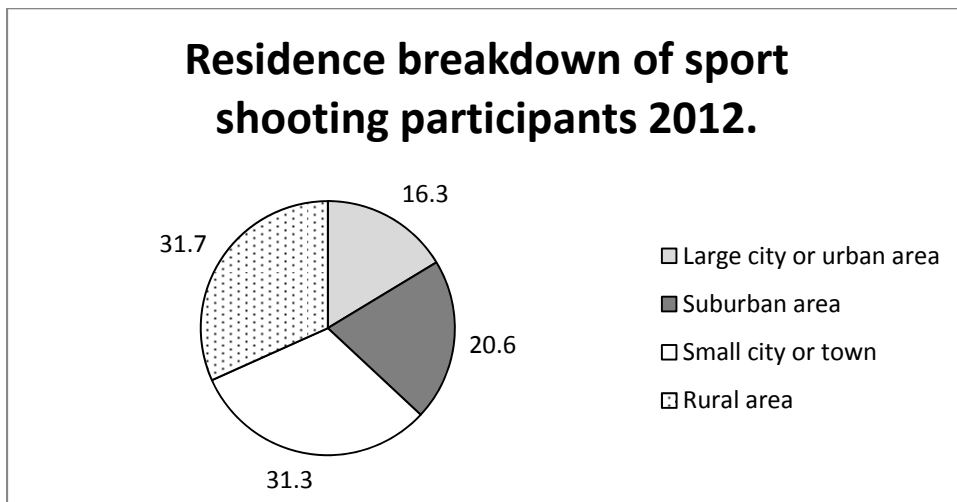
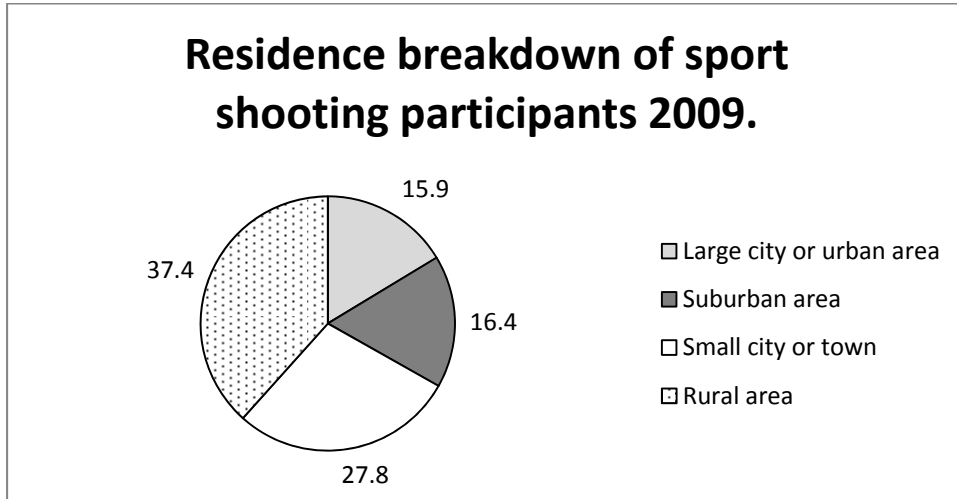
### Age breakdown of sport shooting participants 2012.



### Age breakdown of sport shooting participants 2014.

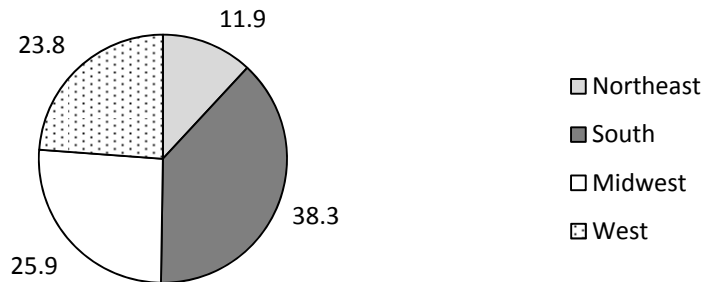


In 2014, the large city/urban areas and the suburban areas make up a greater proportion of target/sport shooters than they did in 2009.

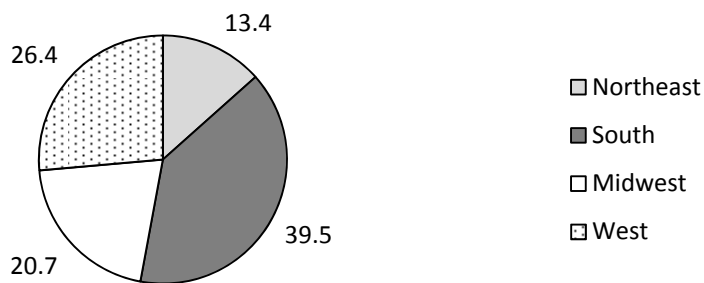


Between 2009 and 2012, the Midwest lost some share of the pie to the other regions; however, in 2014, the Midwest had gained back some of the share so that the regional proportions are not markedly different between 2009 and 2014.

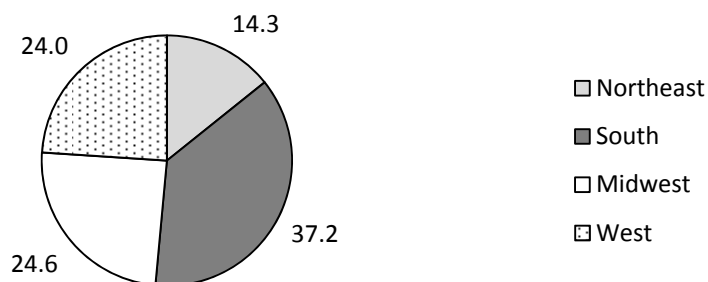
### Regional breakdown of sport shooting participants 2009.



### Regional breakdown of sport shooting participants 2012.



### Regional breakdown of sport shooting participants 2014.



### DEMOGRAPHIC CHARACTERISTICS OF NEW SHOOTERS

For this analysis, new shooters were defined as those who started shooting within the past 5 years. The analysis first shows that 15% of those who participated in target or sport shooting in 2014 were first initiated into the shooting sports within the previous 5 years.

The analysis looked at the group of all target/sport shooters and then separated out new shooters. Among all target shooters, these new shooters are correlated with the following demographic factors, as shown in the graph below: being 18 to 34 years old, being female, not being a hunter, and living on the urban side of the urban-rural continuum. In this graph, 14.8% of all shooters are new shooters (the patterned bar). Those groups above the bar are positively correlated with being a new shooter. For instance, 25.9% of female target/sport shooters are new shooters (compared to 10.2% of male shooters being new shooters).

**Among all target/sport shooters, the percent of each of the following groups who are new shooters:**



**Examples Explaining How to Interpret Graph:**

26.9% of target shooters who are 18-34 years old are new to shooting (meaning that 73.1% of shooters in that age group are *not* new to shooting)

25.9% of female shooters are new to shooting (meaning that 74.1% of female shooters are not new to shooting)

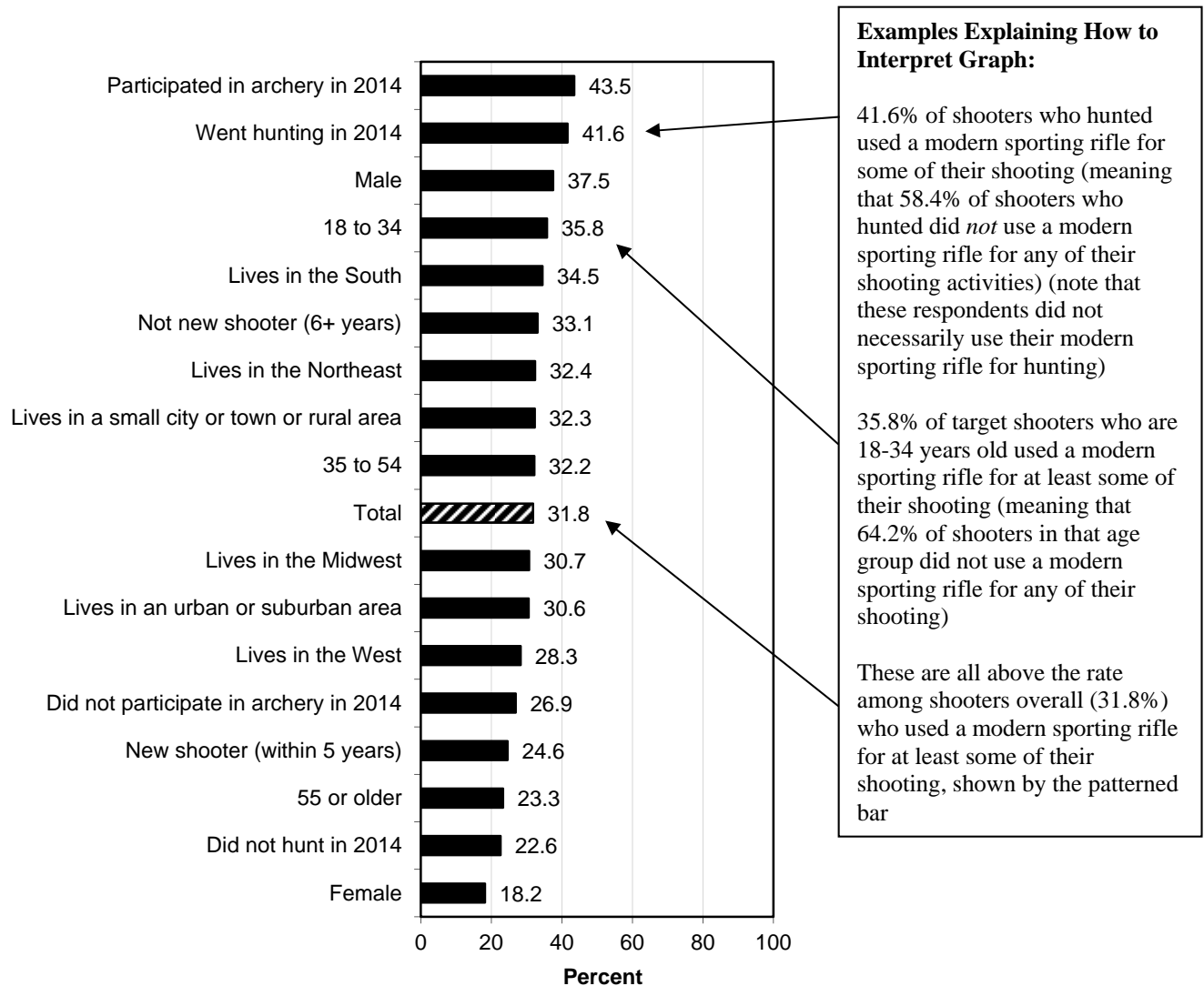
23.7% of shooters who do not hunt are new to shooting (meaning that 76.3% of shooters who do not hunt are not new to shooting)

These are all above the rate among shooters overall (14.8%) who are new to shooting, shown by the patterned bar

## DEMOGRAPHIC CHARACTERISTICS OF MODERN SPORTING RIFLE SHOOTERS

The analyses explored the demographic makeup of those who shoot with a modern sporting rifle. As shown below, the analysis looks at subgroups within all target/sport shooters. This analysis shows that target/sport shooters who also participated in archery are positively correlated with shooting a modern sporting rifle. In addition, positive correlations were found to target/sport shooters who hunt and to male target/sport shooters. The groups with participation rates in shooting a modern sporting rifle that are higher than the rate of such use overall are at the top of the graph, above the percentage of shooters overall who used a modern sporting rifle (31.8%, shown by the patterned bar).

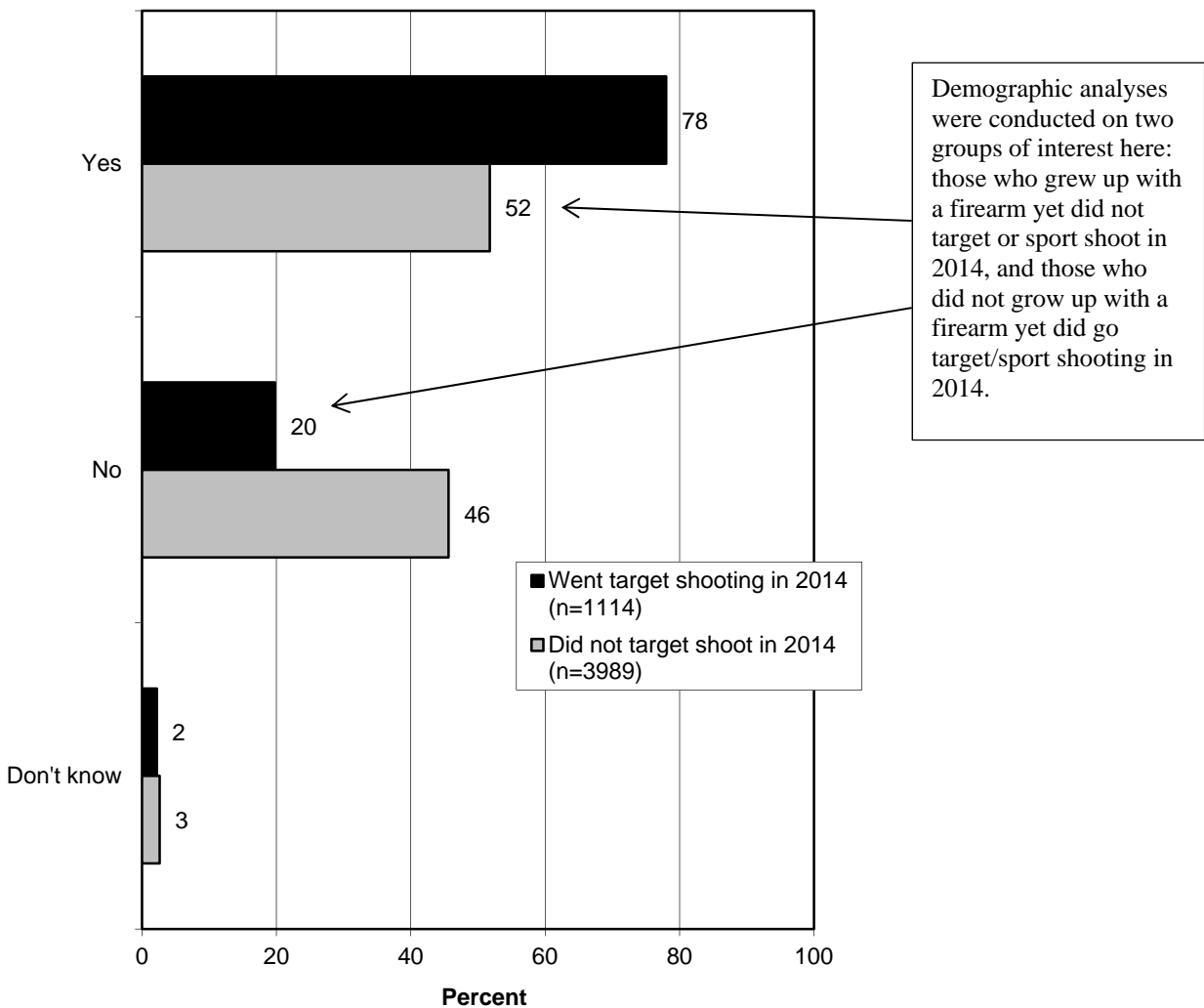
### Among target shooters, the percent of each of the following groups who shot with a modern sporting rifle in 2014:



### GROWING UP WITH FIREARMS AND ITS EFFECT ON SHOOTING PARTICIPATION

Another aspect of shooting that was analyzed was how growing up with a firearm in the house affects target/sport shooting participation. Shooters are much more likely to have grown up with a firearm, compared to non-shooters. The survey asked all respondents if they had grown up with a firearm in their household, and those who shot in 2014 were much more likely to say yes: 78% to 52%. While this is a fairly obvious finding, the question allows the identification of defined market groups, as discussed in the following pages.

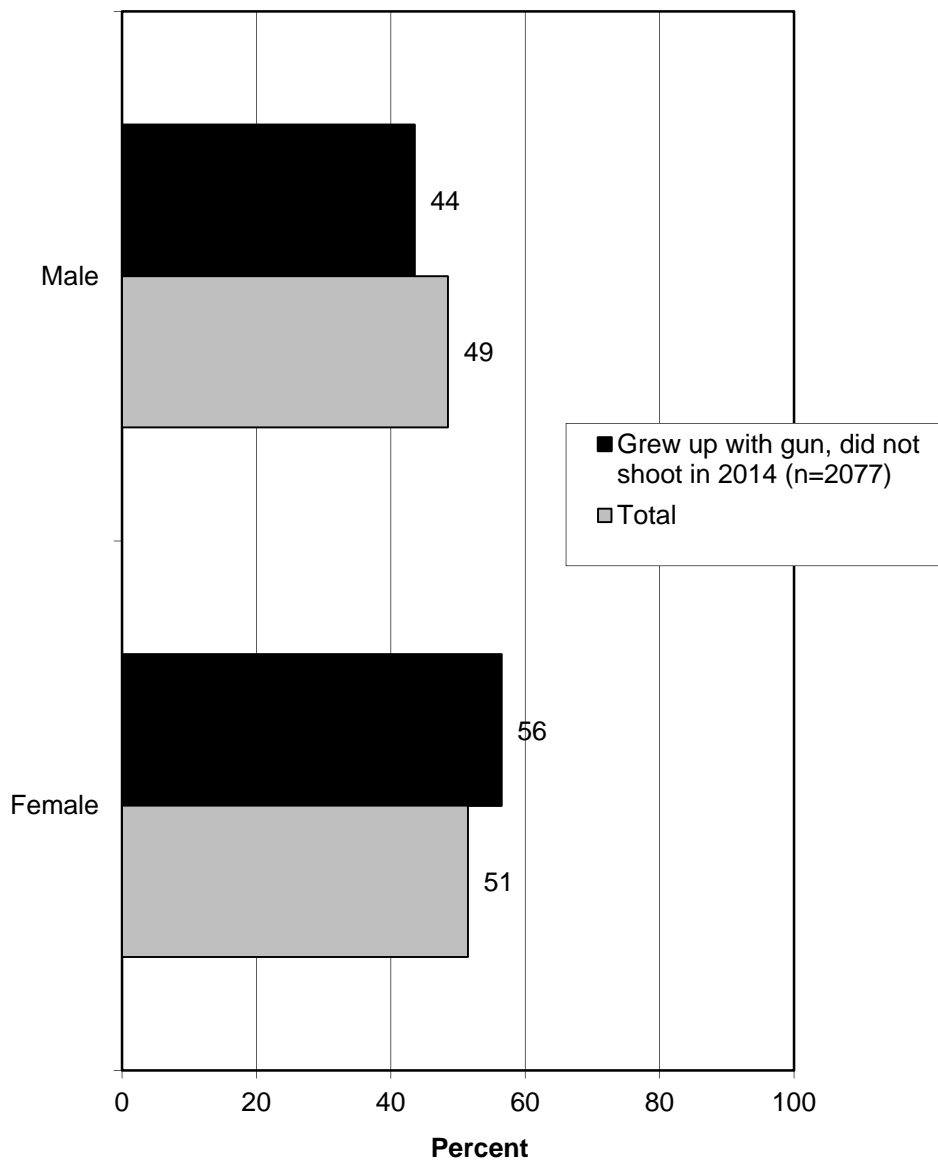
**When you were growing up, did your family own any firearms?**



There are two groups of interest in the previous graph. One group is of people who would seem predisposed to show interest in target/sport shooting—those who grew up with a firearm—but did not go target/sport shooting in 2014. They make up 52% of those who did not shoot in 2014. They are examined first, then the second group will be examined.

The graph below shows the gender of those non-shooters who grew up with a firearm compared to the entire sample (i.e., all Americans). This group has slightly more women than the population as a whole.

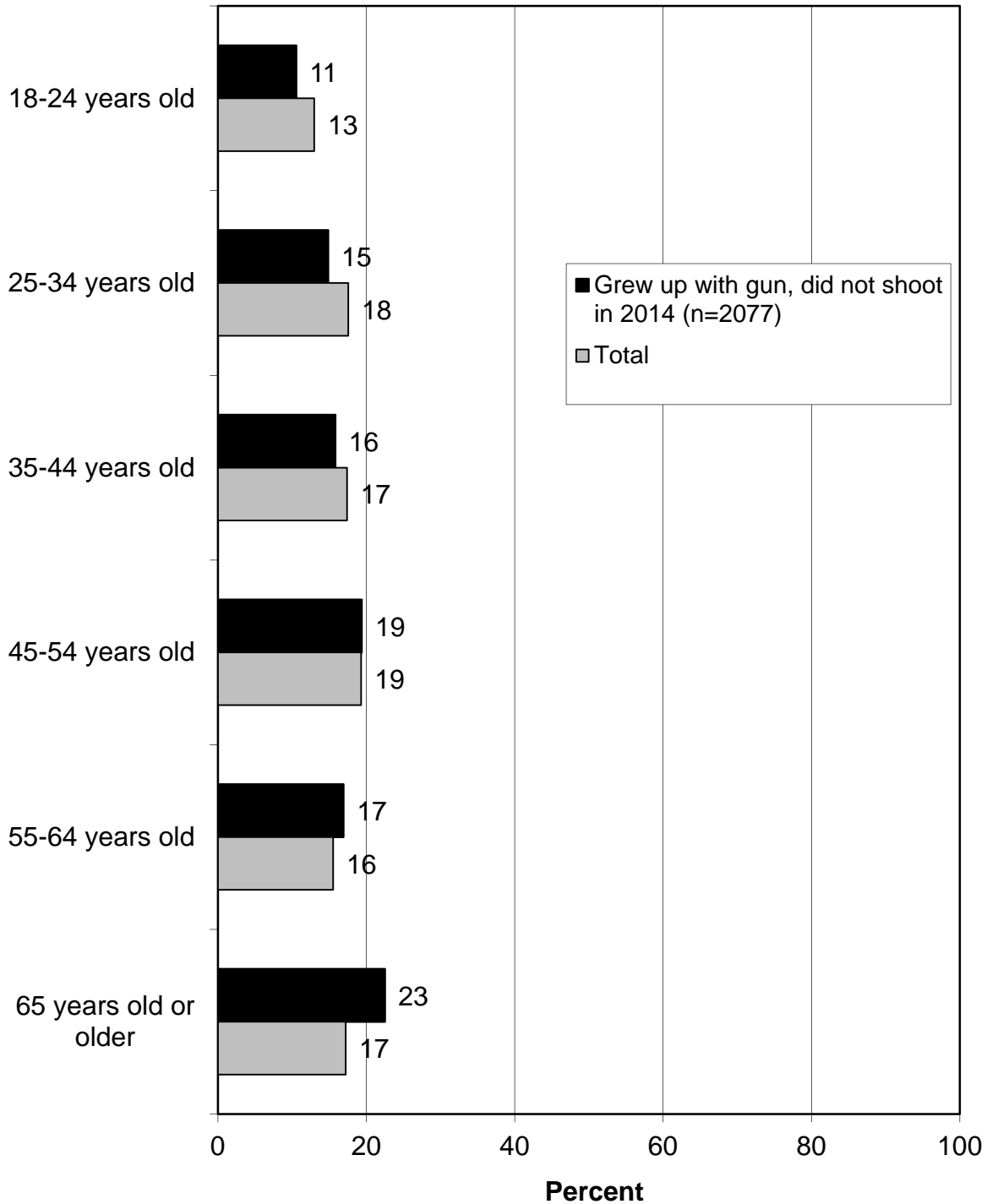
### Respondent's gender (observed by interviewer; not asked).



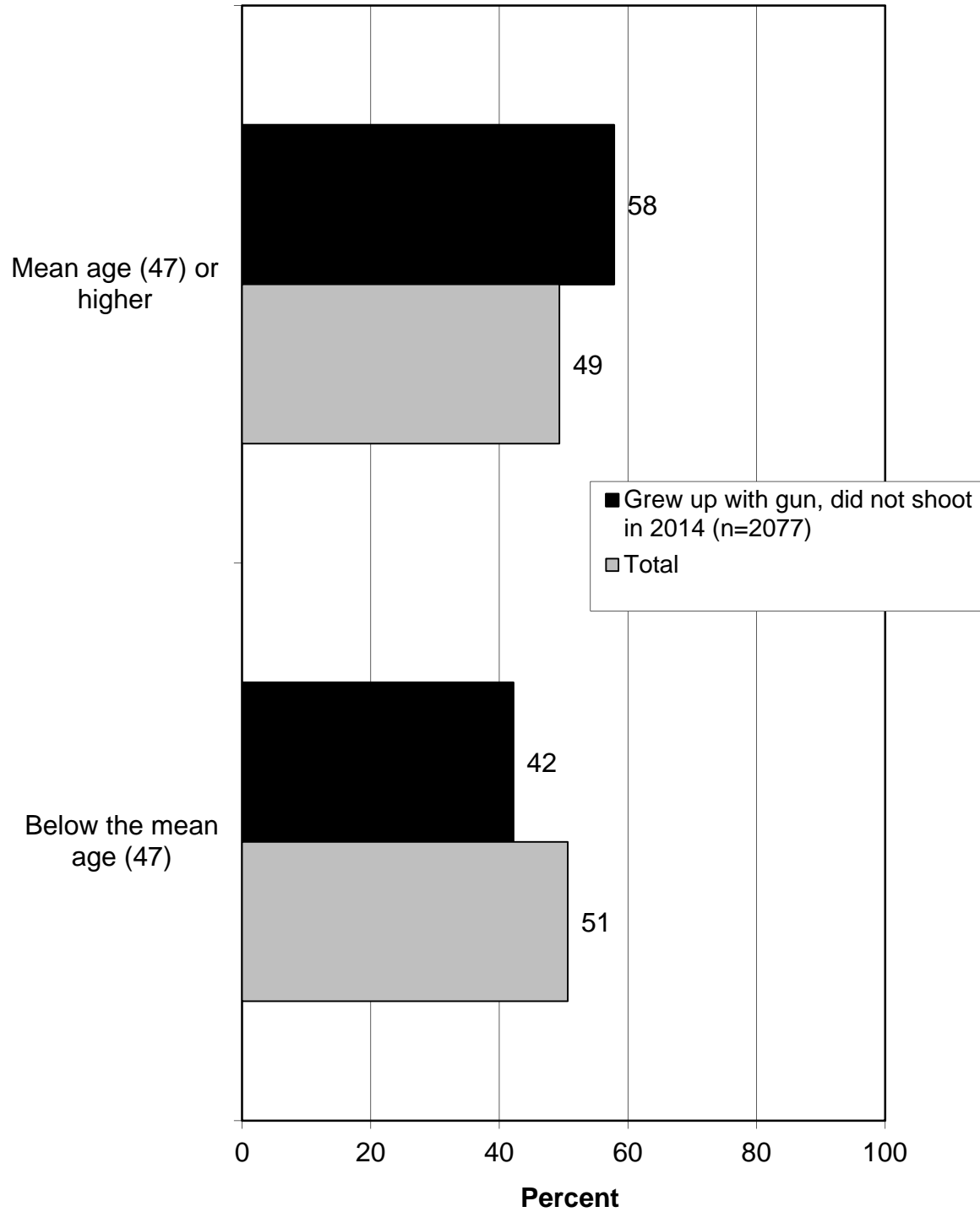


Non-shooters who grew up with a firearm are a bit older, compared to the population as a whole, as demonstrated by the two age crosstabulations.

### May I ask your age?

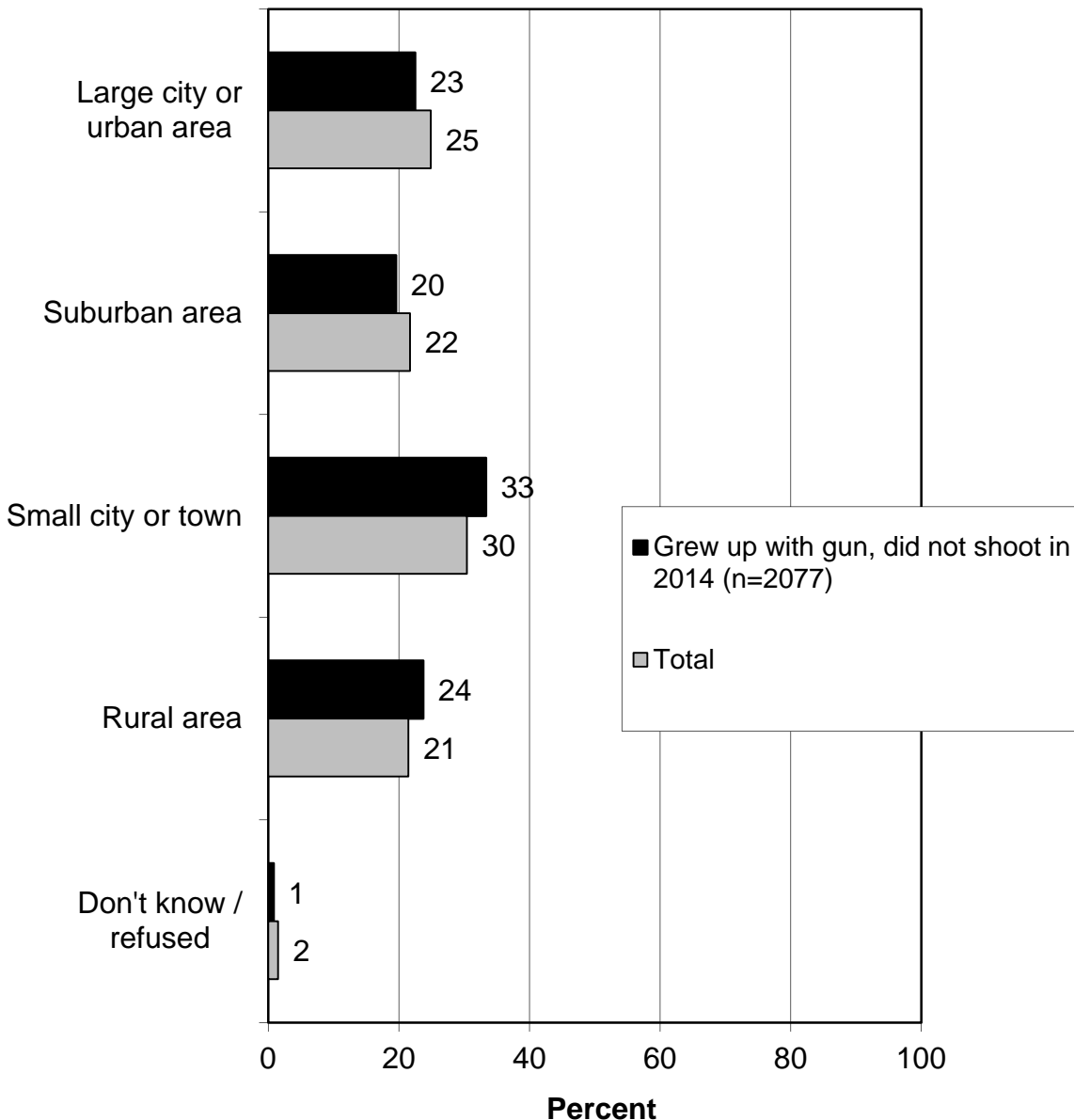


### Mean split of age.



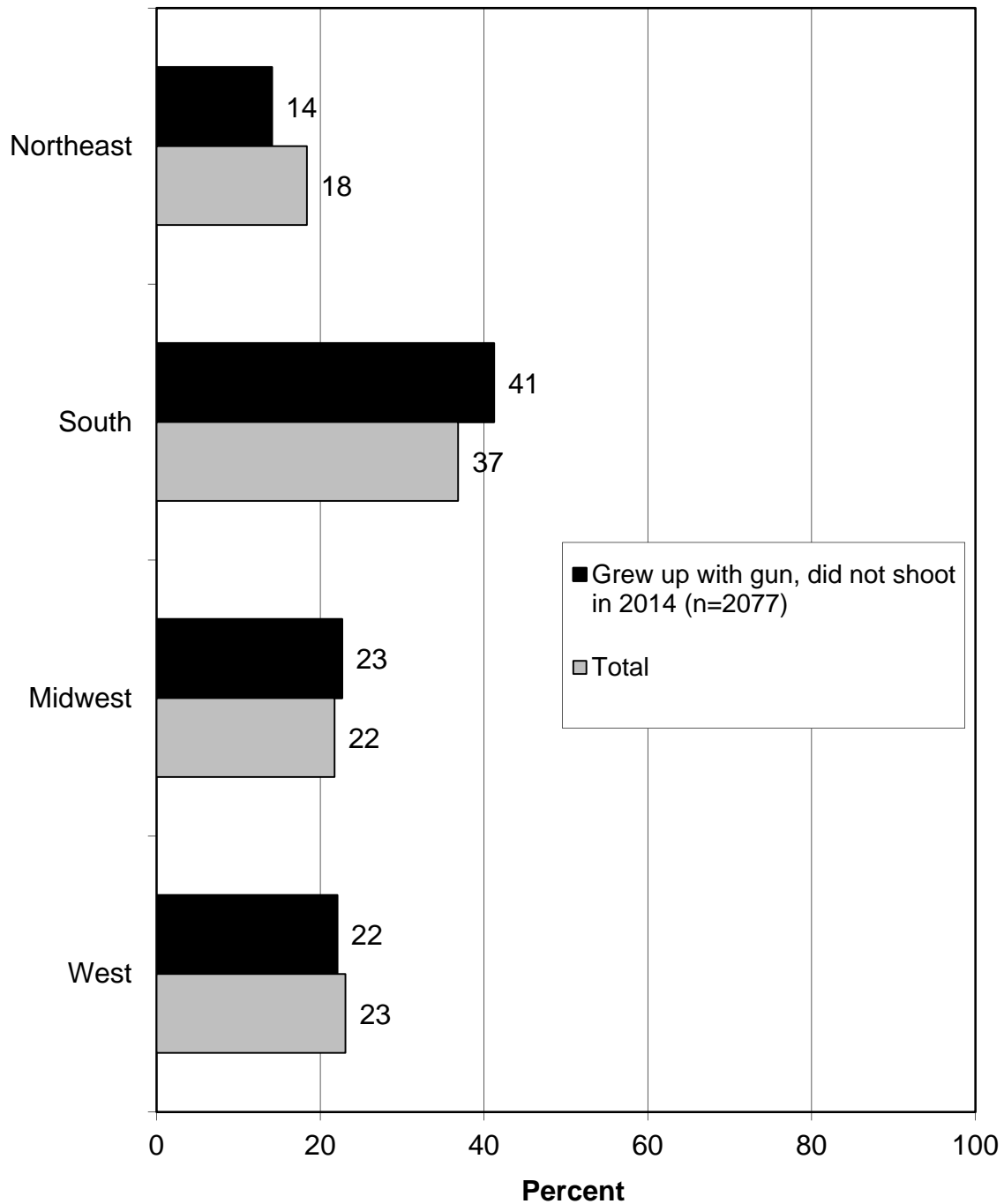
There are no marked differences in where they reside (on the rural to urban scale) among those non-shooters in 2014 who grew up with a firearm, compared to the population as a whole.

**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?**



The regional differences, although slight, suggest that those from the South are more likely than the population as a whole to have grown up with a firearm yet not gone target or sport shooting in 2014.

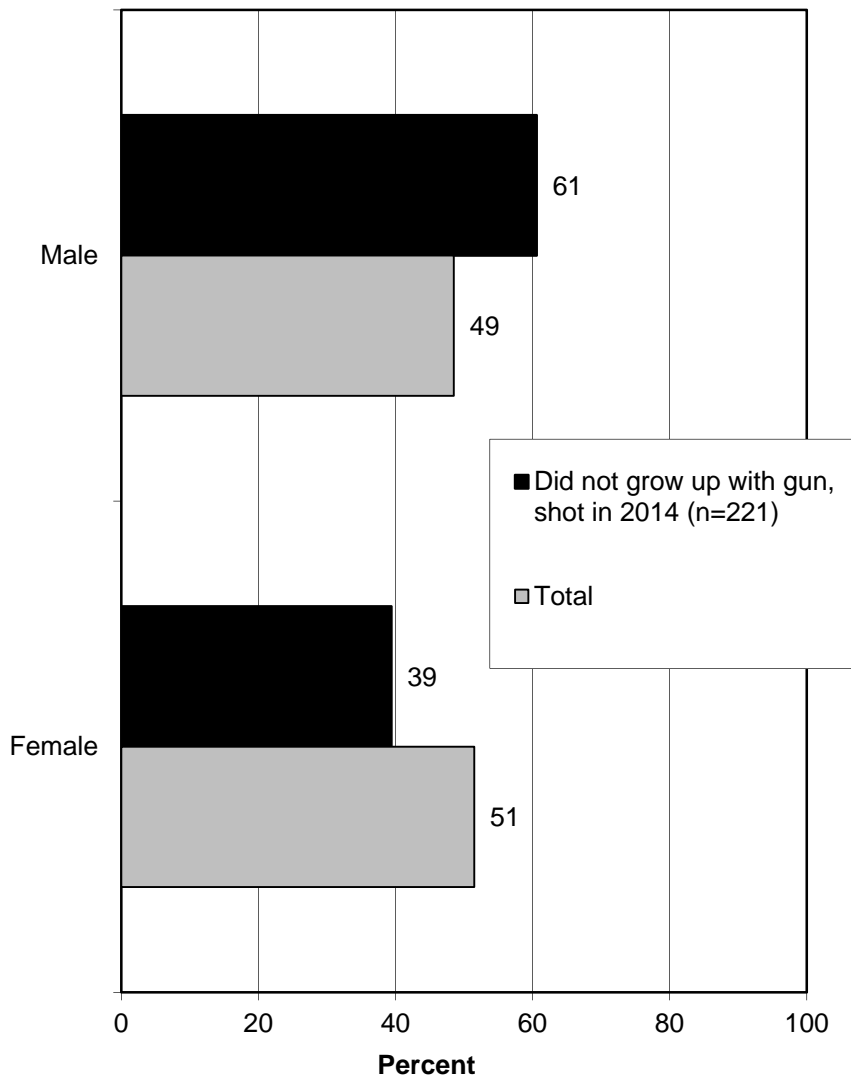
### U.S. Census Region.



The second group of interest consisted of those who went shooting in 2014 but did *not* grow up with a firearm. These would be people who appear to have entered the sport of shooting in a non-traditional path (the “traditional” path is being initiated into shooting as a child by a family member). The following shows some of the demographic characteristics of this group.

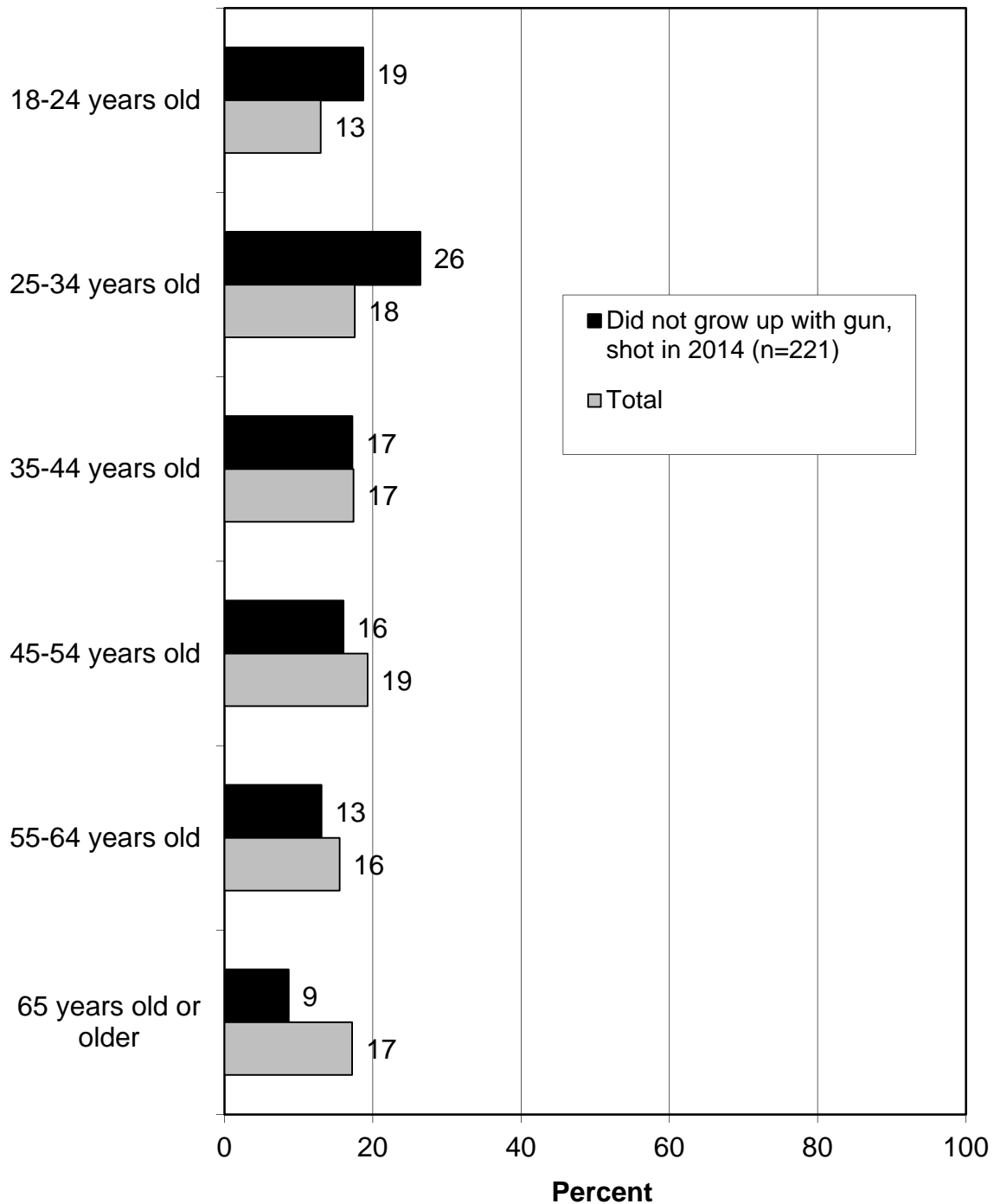
Although there has been a noted influx of women into the shooting sports in recent years, it is still males who make up the majority of those who did not grow up with a firearm but nonetheless went target or sport shooting in 2014 (61% are men, while 39% are women), and males are more *likely* than females to not grow up with a firearm yet have gone shooting in 2014 (compare the 61% in the group as opposed to 49% overall).

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

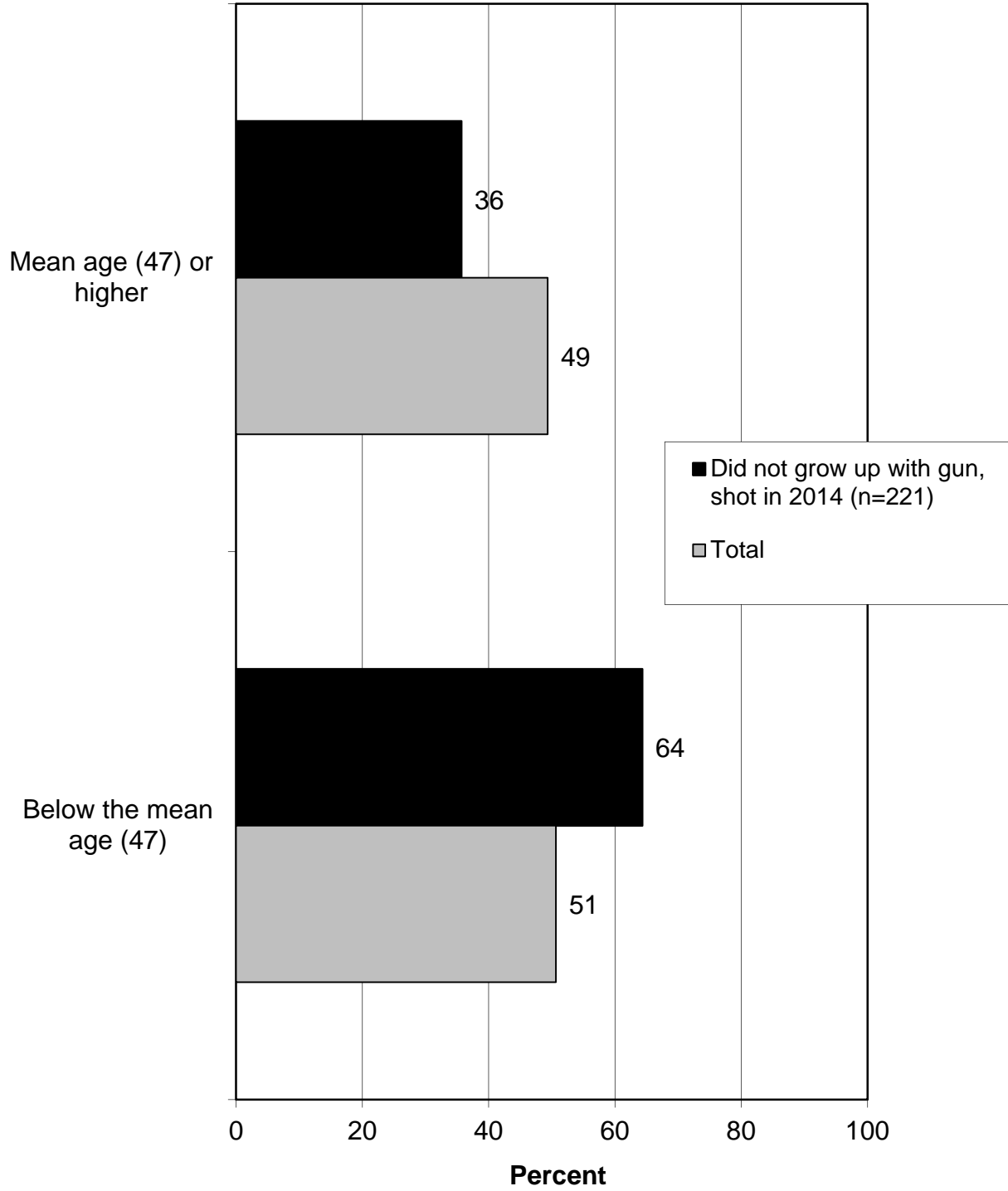


Those shooters in 2014 who came into shooting in a non-traditional way tend to be younger than the population as a whole: the two youngest age categories below show this. A split by mean age is also shown.

### May I ask your age?

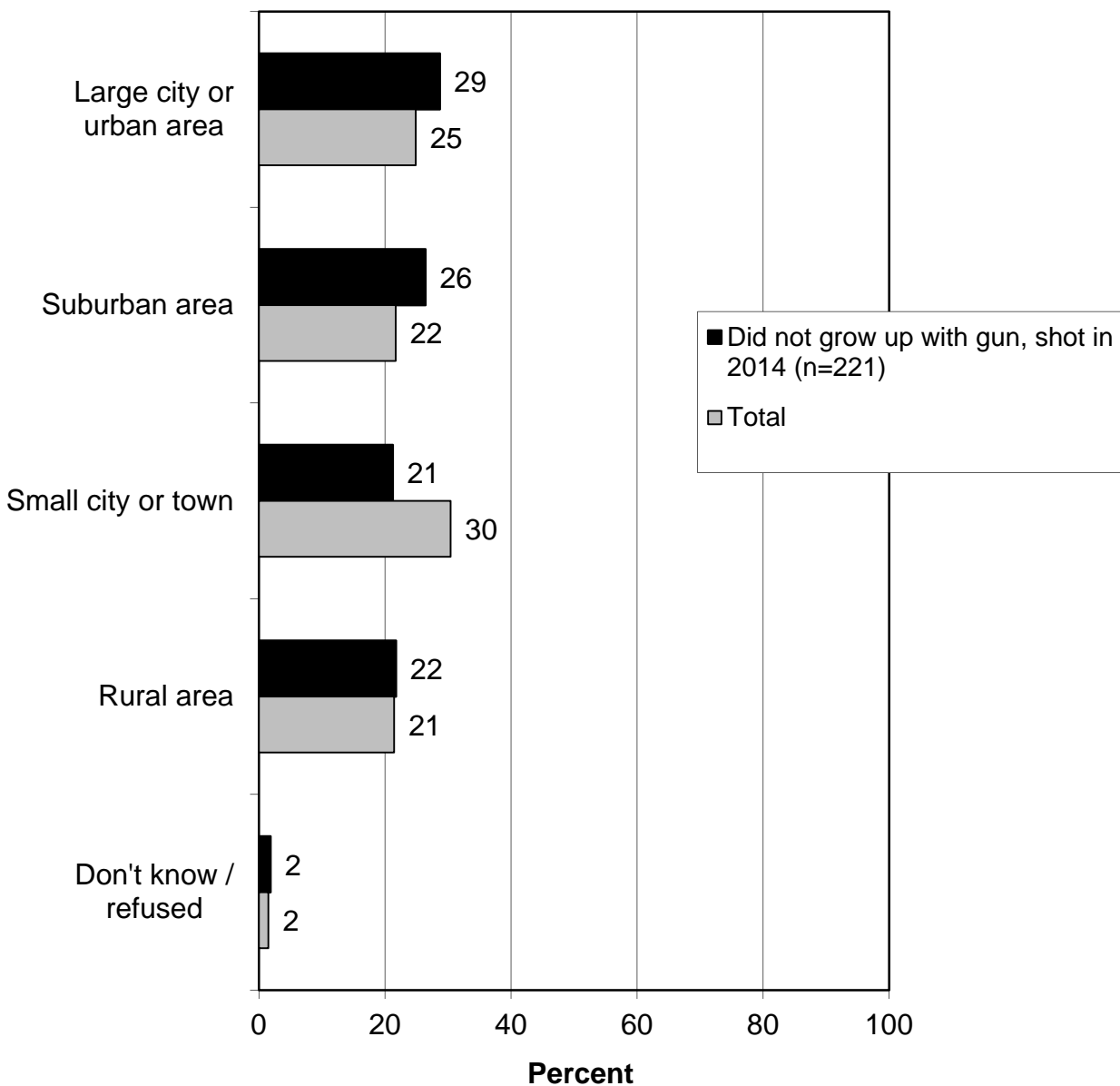


### Mean split of age.



These 2014 shooters from a non-firearm background tend to be more urban than the population as a whole.

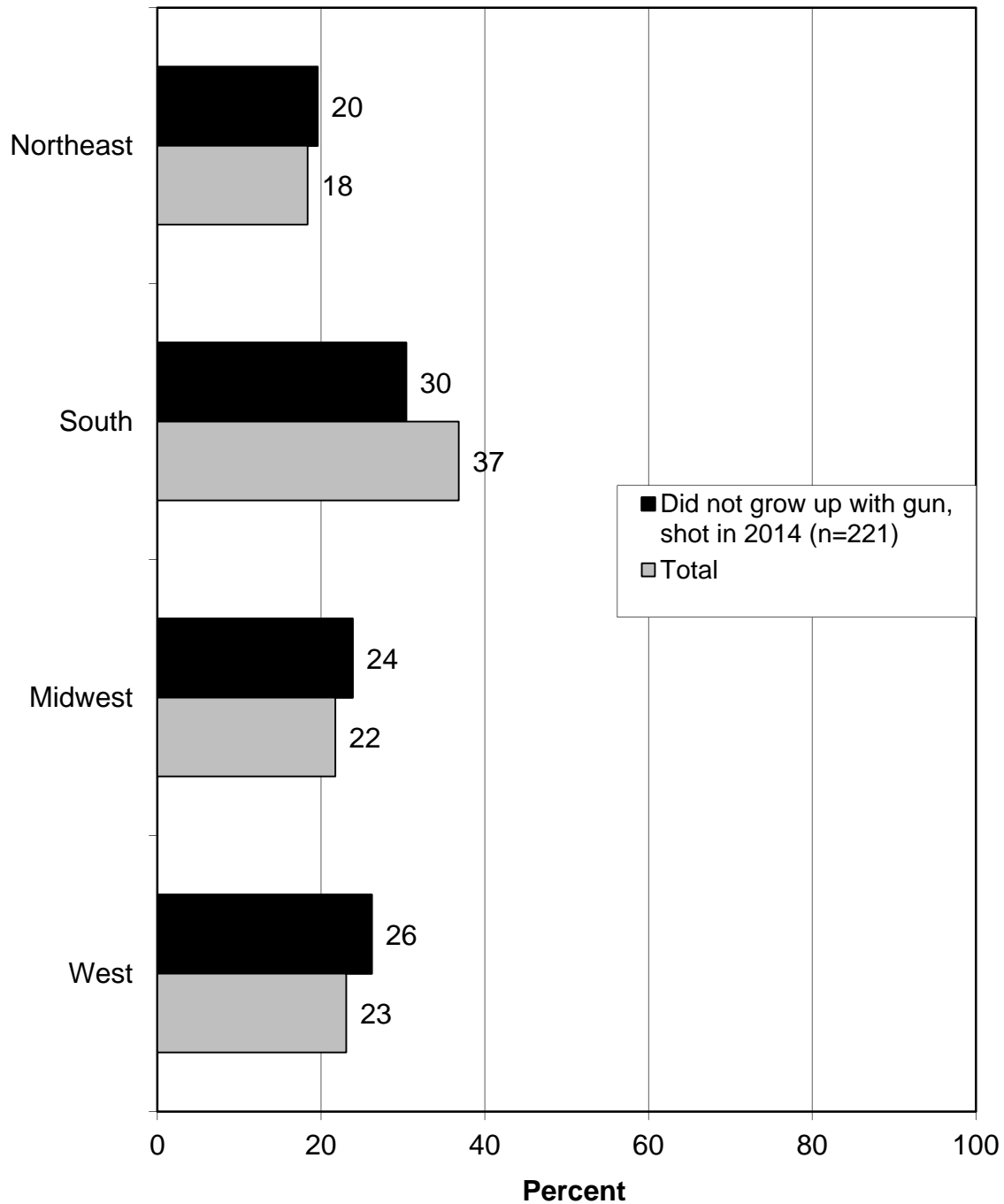
**Do you consider your place of residence to be a large city or urban area, a suburban area, a small city or town, a rural area on a farm or ranch, or a rural area not on a farm or ranch?**





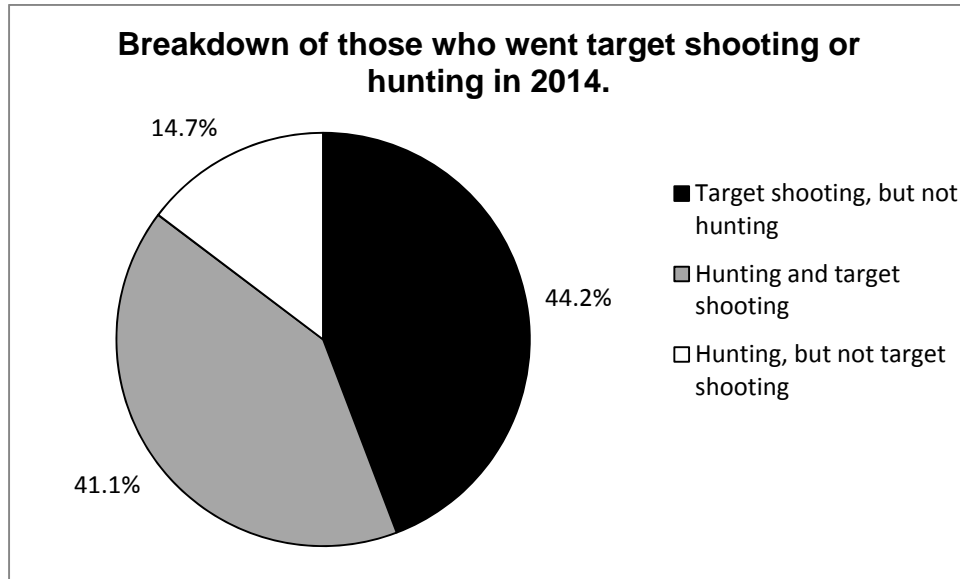
The final crosstabulation in this section shows the regions; the South is underrepresented in the group who shot in 2014 yet did not grow up with a firearm, compared to the population as a whole.

### U.S. Census Region.



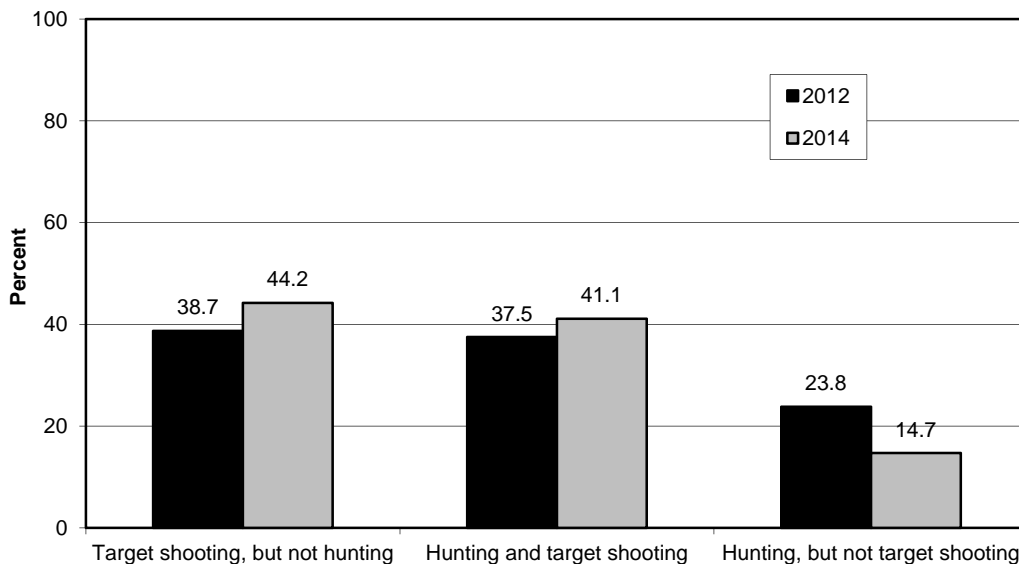
### OVERLAP OF PARTICIPATION IN TARGET SHOOTING AND HUNTING

The survey also obtained information on participation in hunting, and the pie graph below shows the proportions of target shooters, hunters, and those who do both. The entire pie consists of those who *either* hunted (with firearms or archery) or went target/sport shooting. About 2 in 5 of those who either hunted or went target/sport shooting did both activities.



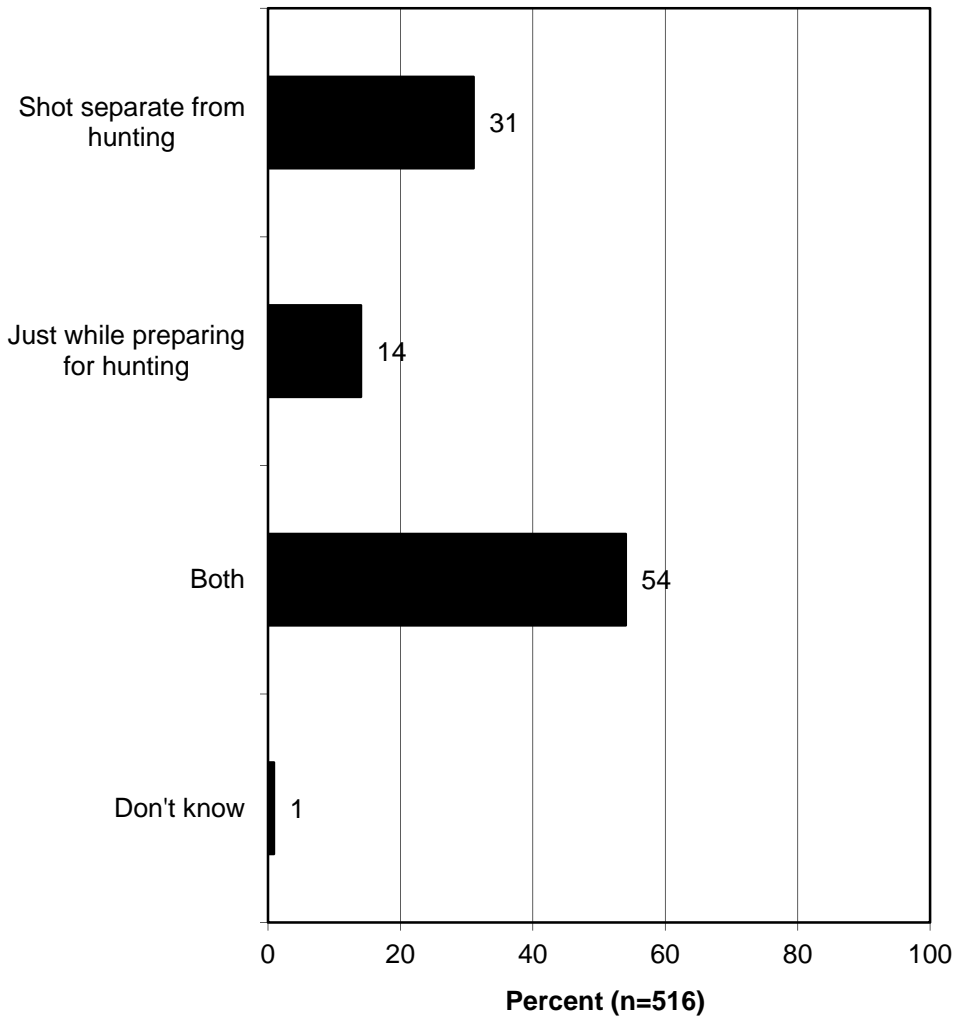
A trend graph shows that hunting exclusive of target/sport shooting has declined from 2012 to 2014.

**Breakdown of those who went target shooting or hunting in [2012 / 2014].**



Another interesting finding is that very few who indicated participating in both hunting with a firearm and target/sport shooting indicate that their target/sport shooting was done “just while preparing for hunting.” In other words, most of those who do both firearm hunting and target/sport shooting generally spend some of their time simply shooting separate from their hunting. (Note that in the graph below, those hunters who used only archery equipment were not asked the question.)

**Would you say you went target shooting separate from hunting, or just while preparing for hunting, or both?  
(Asked of those who went sport shooting and hunting in 2014.)**

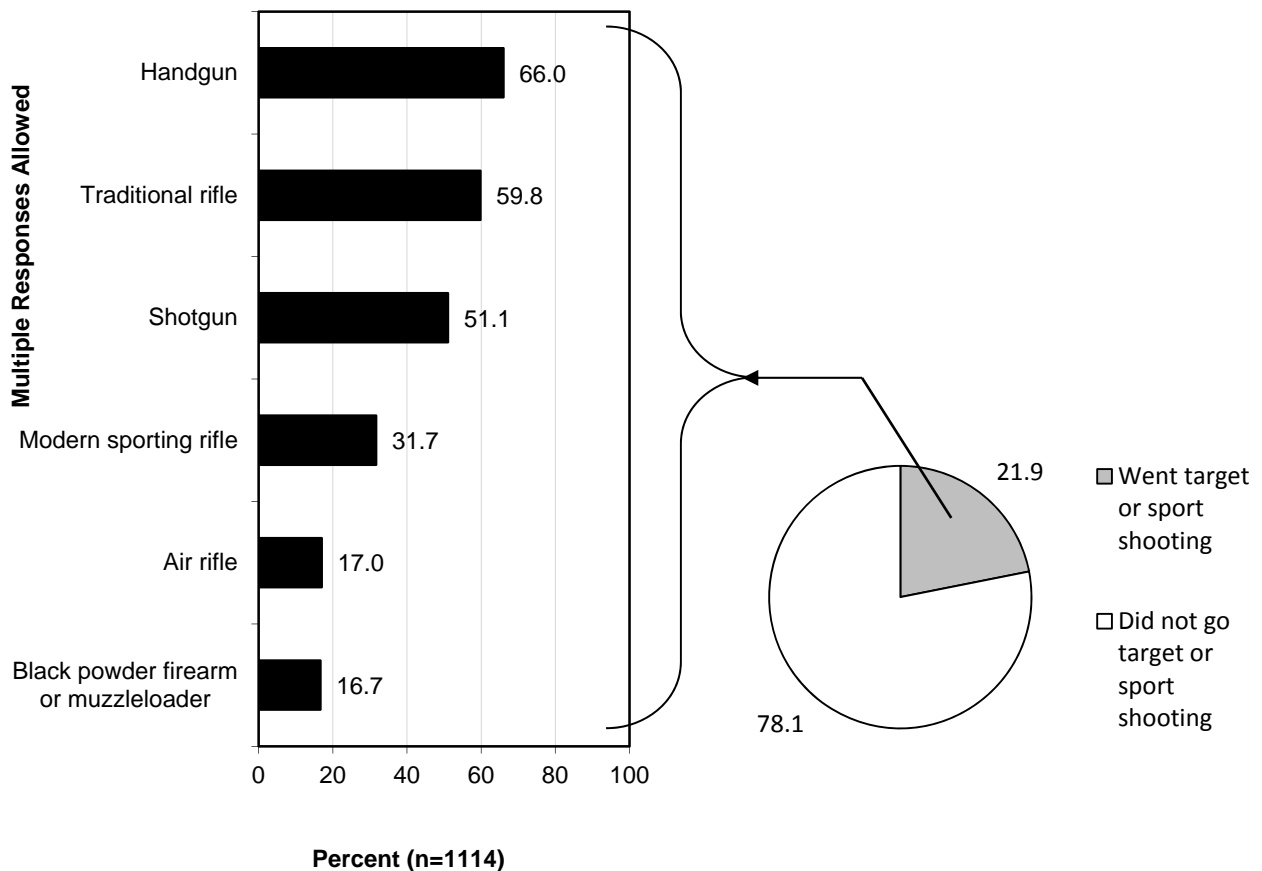


## TYPES OF FIREARMS USED IN TARGET/SPORT SHOOTING AND HUNTING

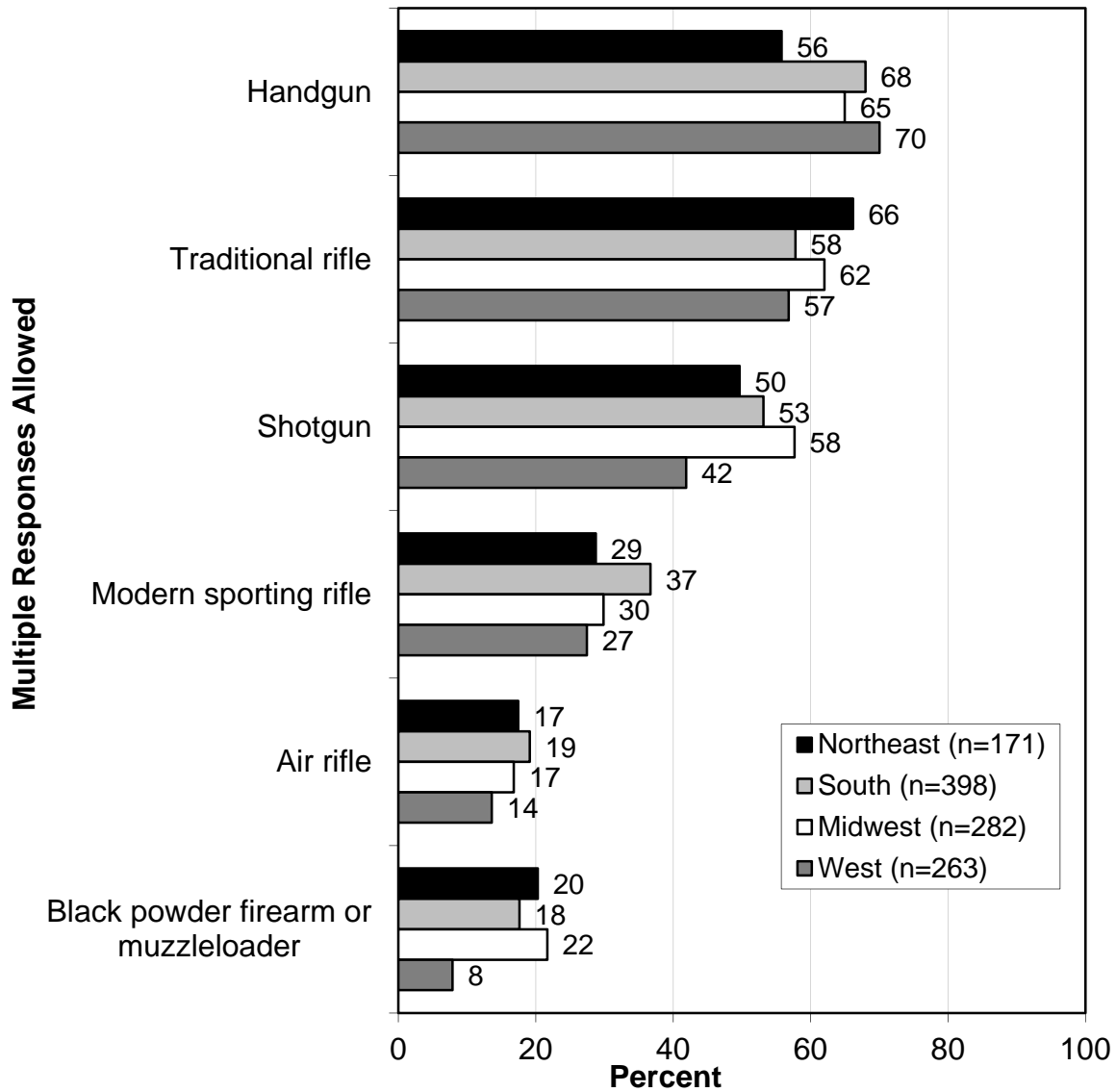
The graph below shows the percentages of target or sport shooters using various types of firearms (in total, 21.9% of all U.S. residents went target or sport shooting). Handguns and traditional rifles top the list, closely followed by shotguns. For each of these three types, a majority of those who go target or sport shooting use it. Graphs of regional results and trends follow.

Note that two questions in the survey asked about equipment, such as handguns or modern sporting rifles. In the first, respondents were asked if they had participated in various activities, such as “target shooting with a handgun” or “target shooting with a modern sporting rifle.” A later question simply asked all target or sport shooters to name all the types of firearms that they had used in 2014 for any activities. Typically, these percentages are slightly more than those who reported that they “went target shooting” with the type of firearm. This discrepancy is accounted for by those who may have done other activities with these firearms (e.g., plinking, hunting) but not “target shooting” with them.

**Which of the following firearms or equipment did you use when target shooting in 2014?  
(Asked of those who went target or sport shooting in 2014.)**

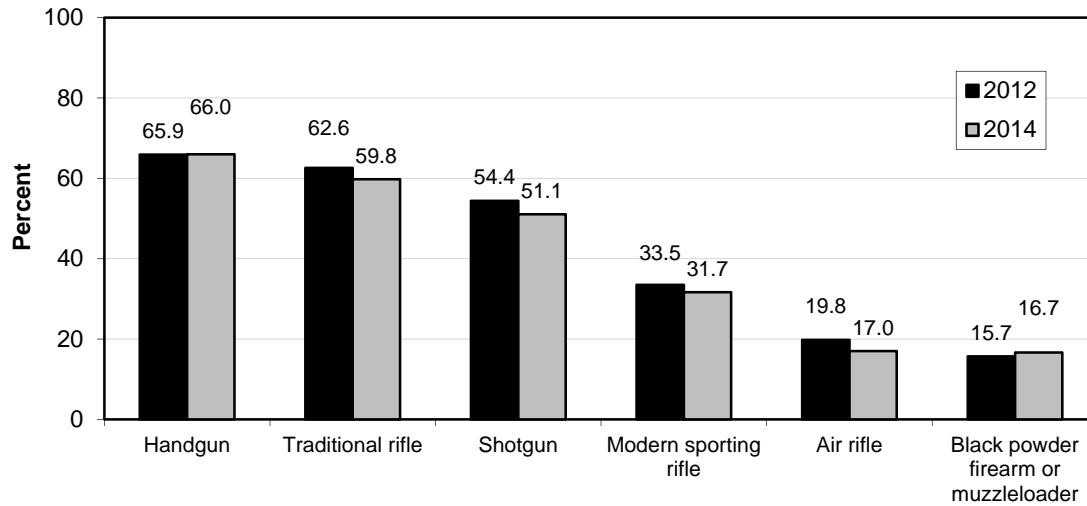


**Which of the following firearms or equipment did you use when target shooting in 2014?  
(Asked of those who went target or sport shooting in 2014.)**



The trends suggest much consistency in the choice of firearms from 2012 to 2014.

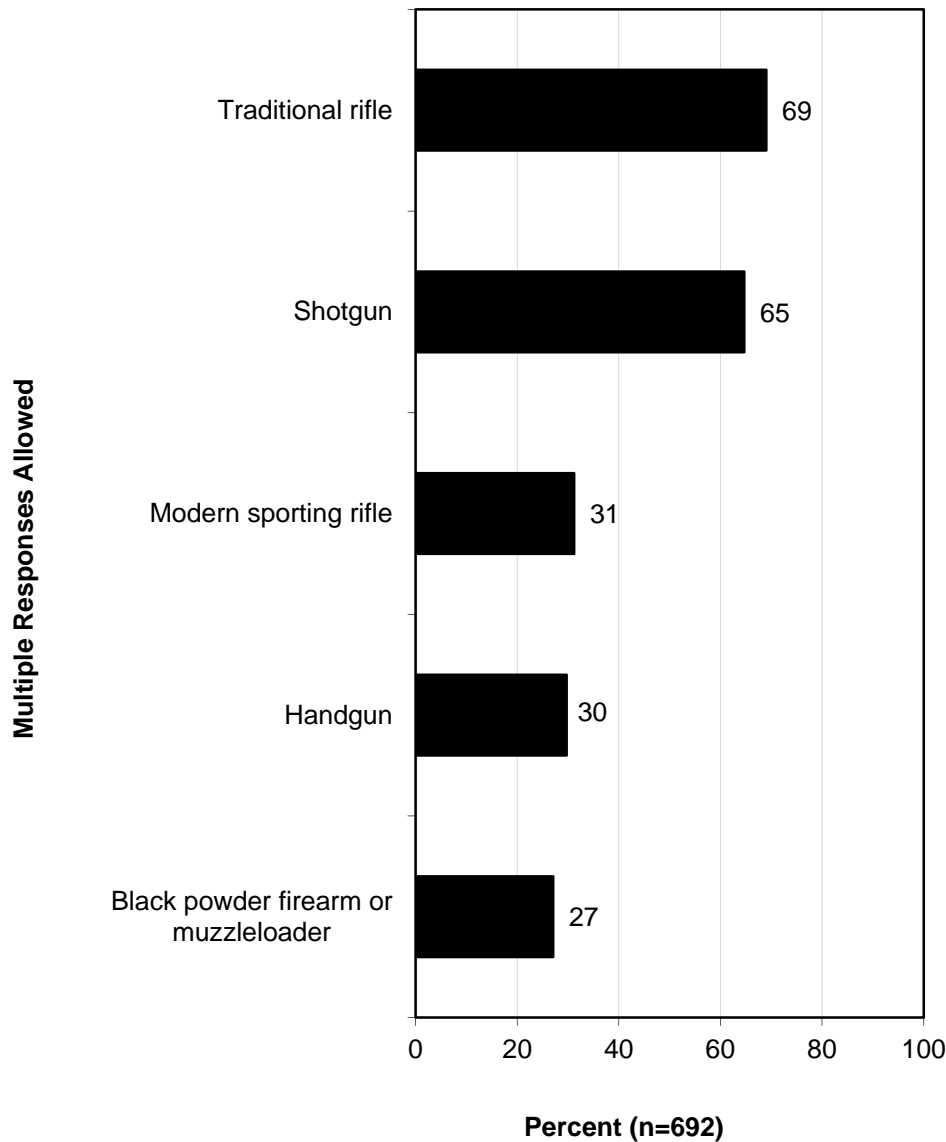
**Which of the following firearms or equipment did you use when target shooting in [2012 / 2014]?  
(Asked of those who went target shooting in [2012 / 2014].)**



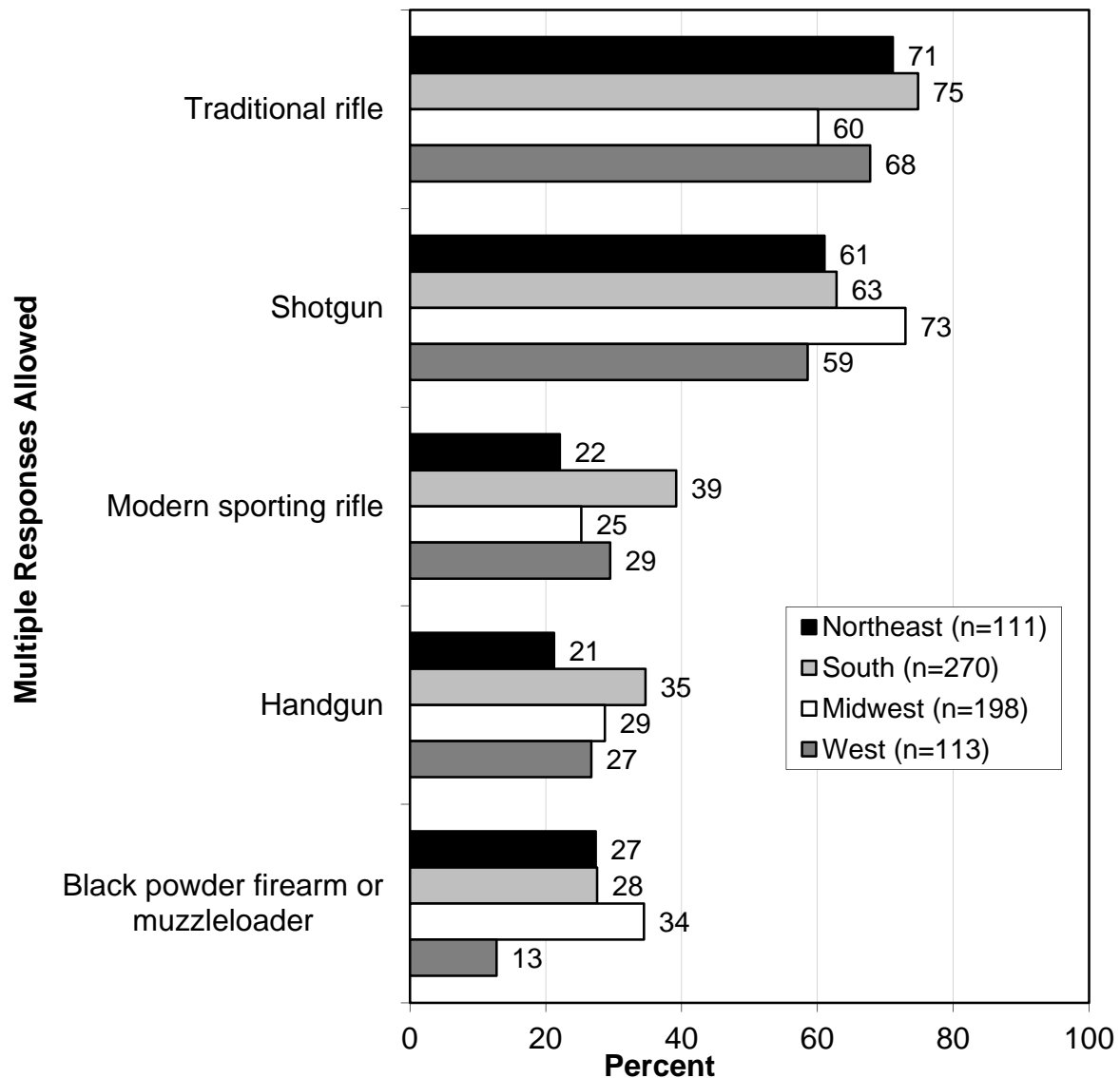
**Multiple Responses Allowed**

The survey also asked those who hunted to indicate the various firearms they used while hunting in 2014. While traditional rifles and shotguns top the list (69% and 65%, respectively), about a third use modern sporting rifles and handguns as part of their hunting (31% and 30%, respectively). A regional graph is included.

**Please indicate which of the following firearms you used for hunting in 2014. What about...? (Asked of those who went hunting with firearms in 2014.)**



**Please indicate which of the following firearms you used for hunting in 2014. What about...?  
(Asked of those who went hunting with firearms in 2014.)**

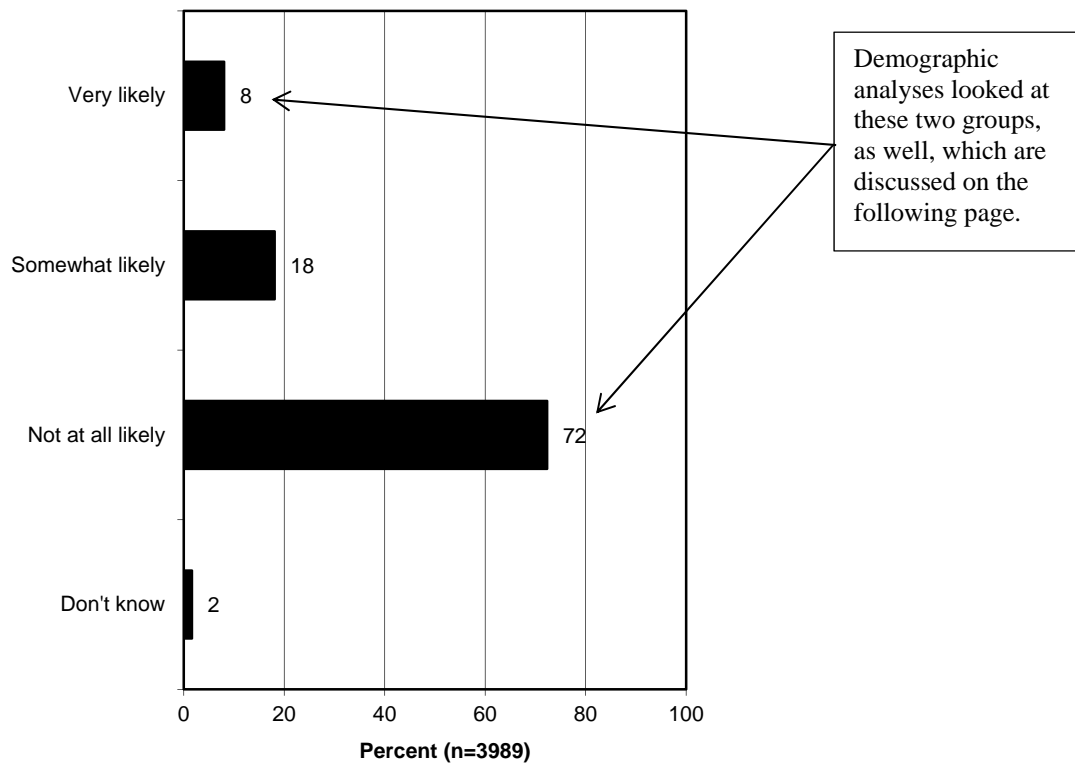




**LIKELIHOOD TO GO TARGET OR SPORT SHOOTING IN THE FUTURE**

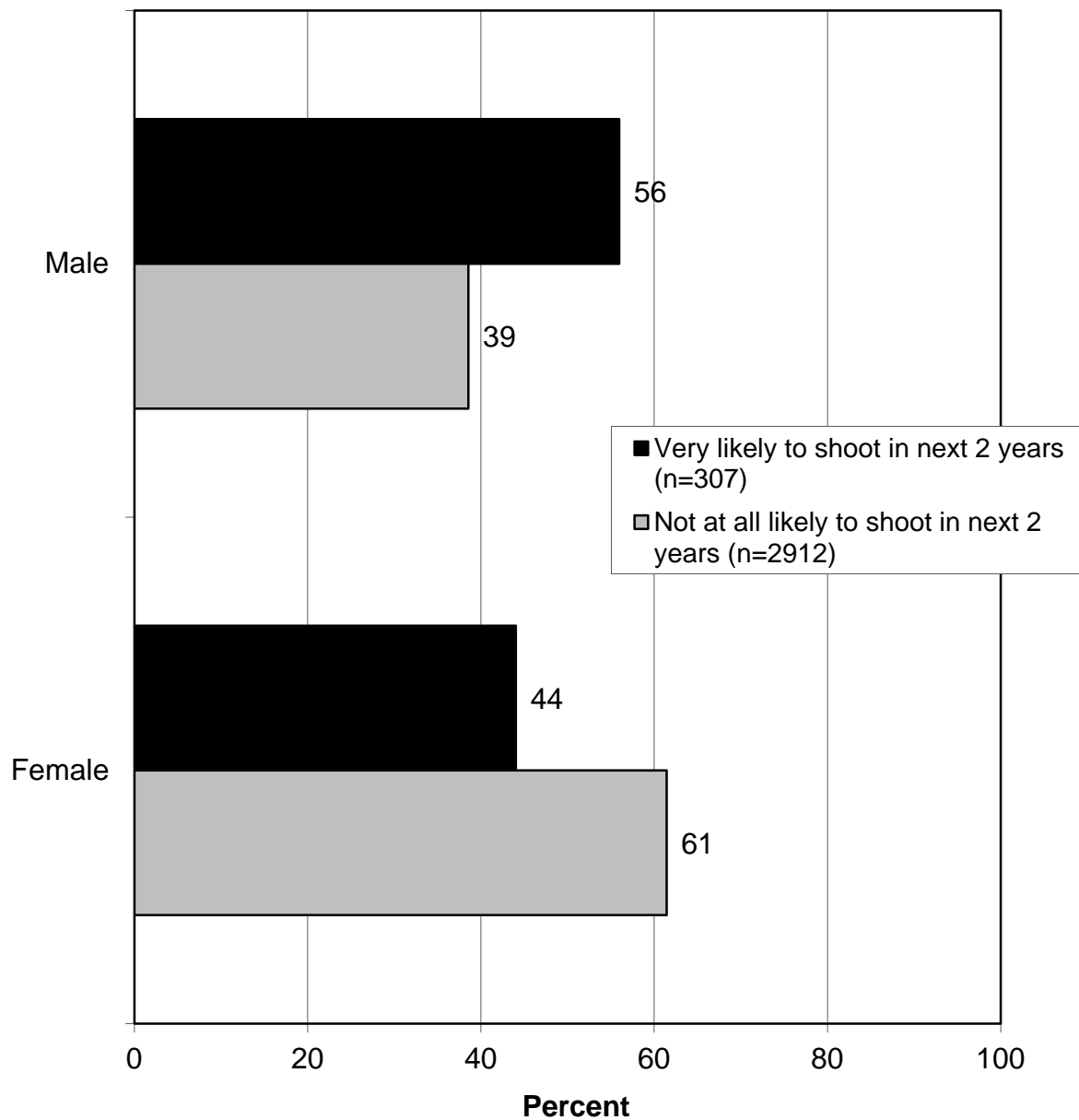
There appears to be some interest in target or sport shooting among those who did not go target or sport shooting in 2014: 8% of those who did *not* participate in target or sport shooting in 2014 said that they would be *very* likely to participate in target or sport shooting in the following 2 years (see graph below). Demographic analyses compare those who say that they are *very* likely to those who are *not at all* likely, thereby giving a little insight into who these people are.

**What is the likelihood that you will participate in any type of sport shooting in the next 2 years? Would you say it is very likely, somewhat likely, or not at all likely? (Asked of those who did not participate in target or sport shooting in 2014.)**



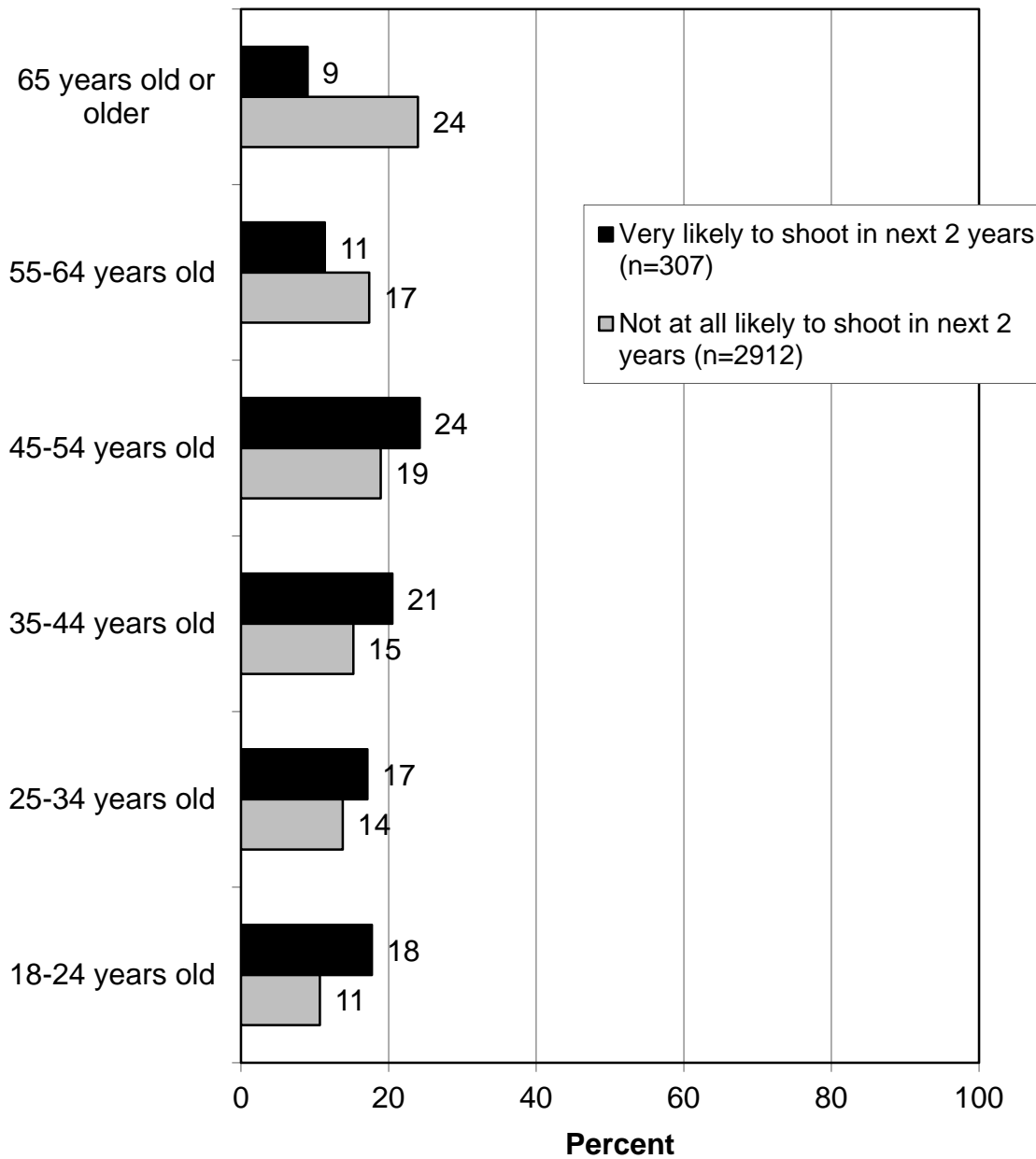
Men show a bit more interest in target/sport shooting, among people who did not shoot in 2014: they make up 56% of those *very* likely to shoot but only 39% of those *not at all* likely to shoot in the next 2 years (note that this is among non-shooters in 2014).

**Respondent's gender (observed by interviewer; not asked).  
(Of those who did not participate in target or sport shooting in 2014.)**

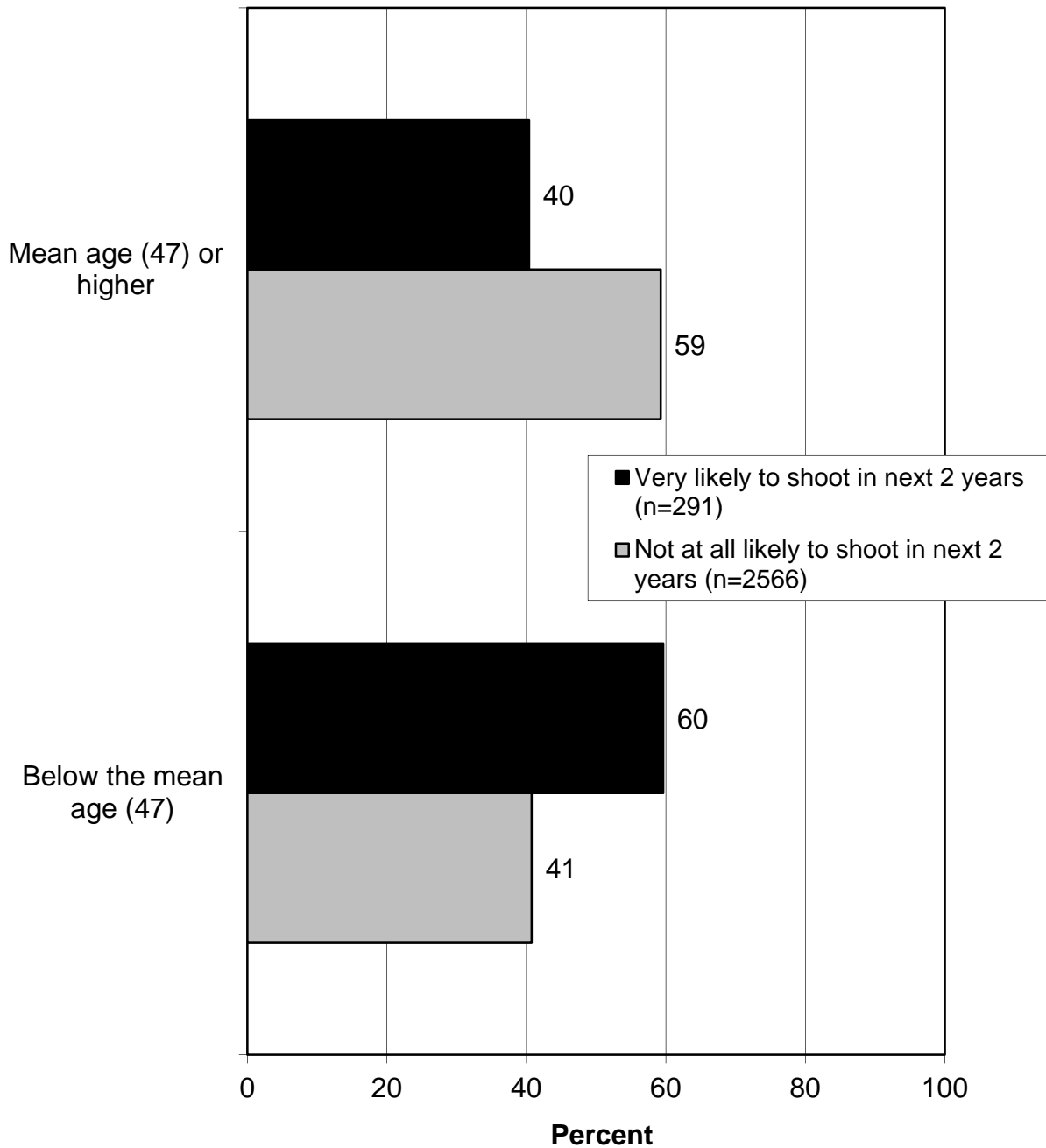


The age crosstabulations suggest that younger people have a greater propensity to be likely to go target/sport shooting in the next 2 years: note the difference in the two oldest categories and the remaining four younger categories.

**May I ask your age?  
(Of those who did not participate in target or  
sport shooting in 2014.)**

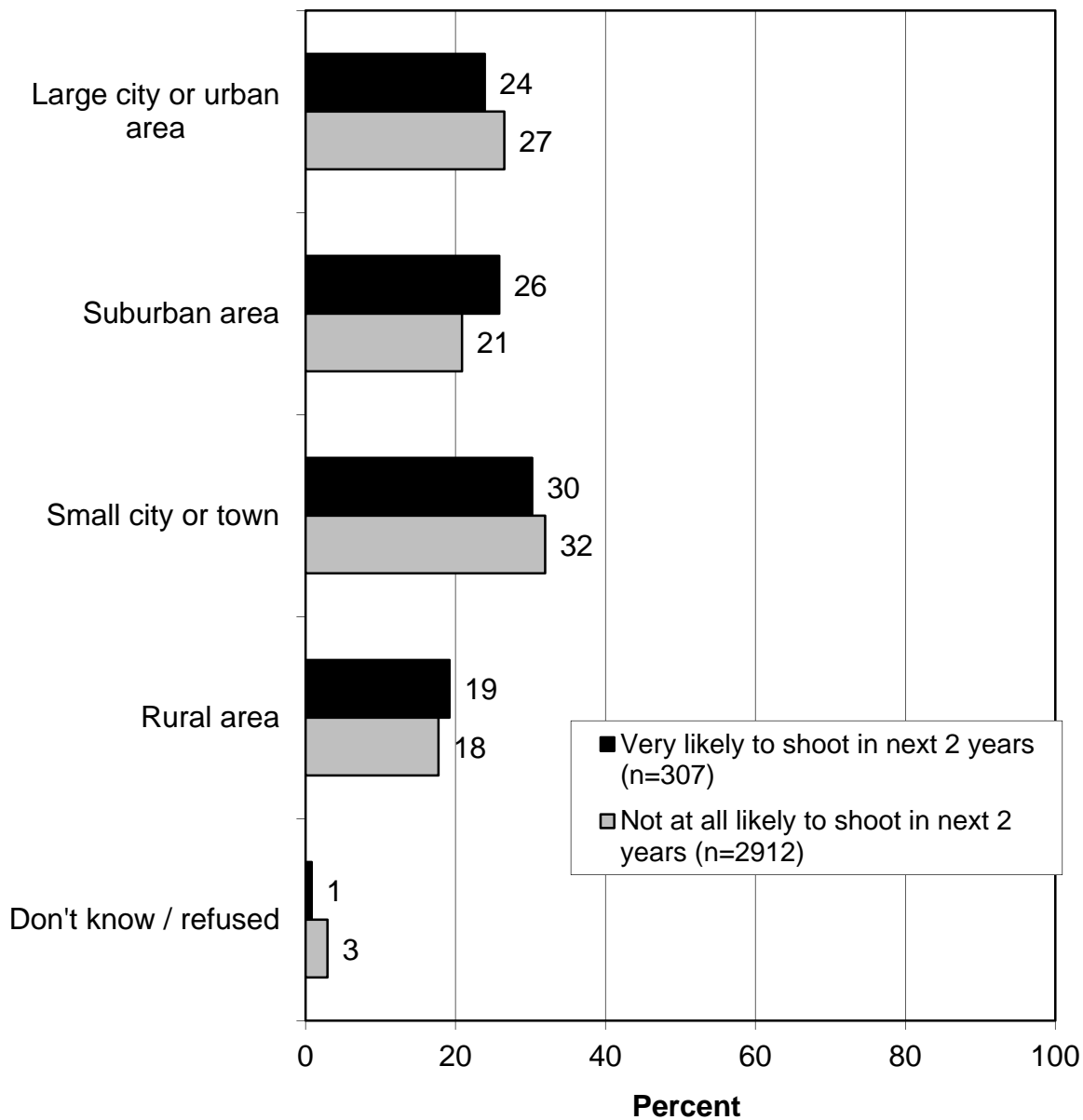


**Mean split of age.  
(Of those who did not participate in target or  
sport shooting in 2014.)**



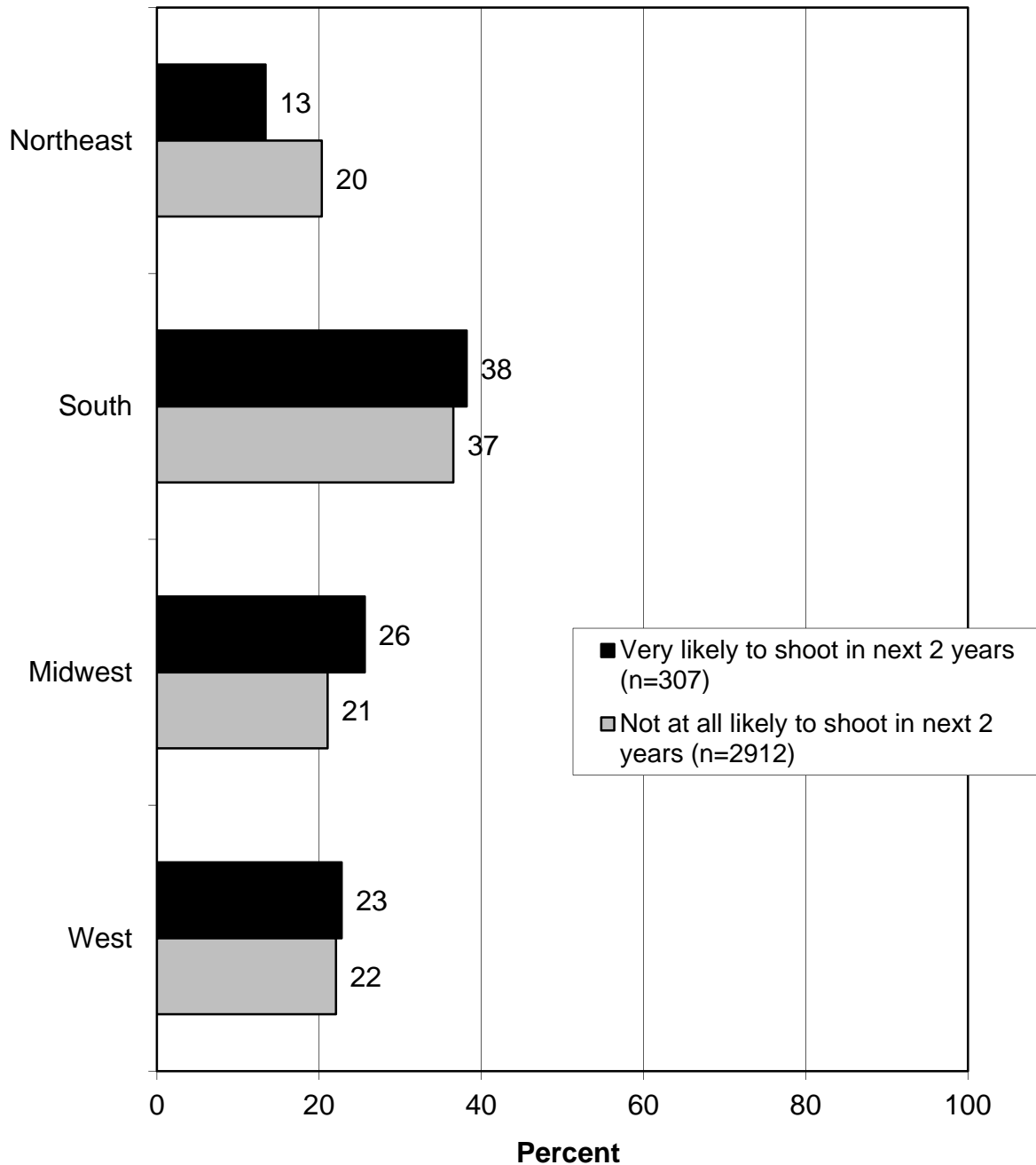
Although all differences are slight on this graph, there appears to be slightly more propensity to indicate being likely to target/sport shoot among suburban residents.

**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?  
(Of those who did not participate in target or sport shooting in 2014.)**



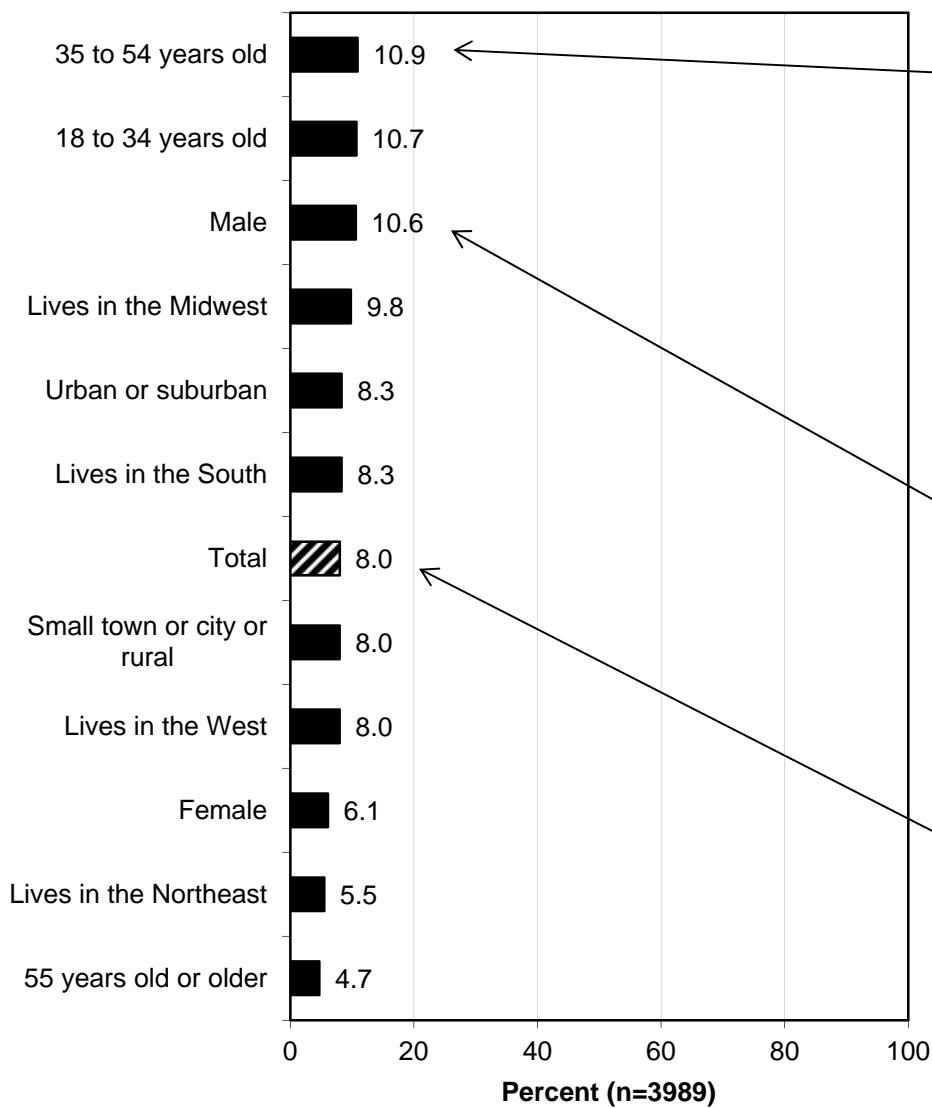
Non-shooters in the Northeast are markedly less interested in shooting, compared to the other regions, particularly the Midwest Region.

**U.S. Census region.  
(Of those who did not participate in target or  
sport shooting in 2014.)**



The graph below looks at those who did not shoot in 2014 but who said that they are very likely to go target or sport shooting in the next 2 years. The findings presented on one graph reinforce the results reported immediately above: young people, males, and those from the Midwest are all correlated with being very likely to go target or sport shooting.

**Those who are very likely to target shoot in the next 2 years, among those who did not target shoot in 2014.**



**Examples Explaining How to Interpret Graph:**

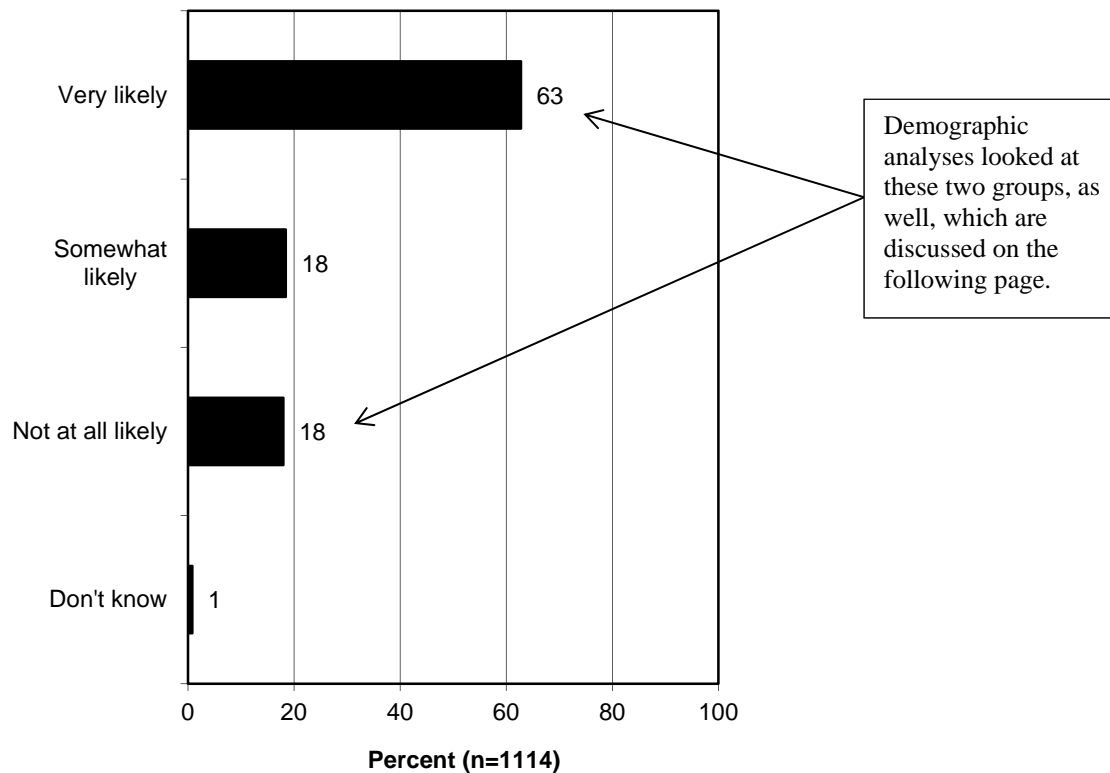
10.9% of non-participants who are 35 to 54 years old say that they are very likely to go target or sport shooting in the next 2 years (meaning that 89.1% of non-participants in this age group are *not* very likely to go target or sport shooting in the next 2 years—they are somewhat likely or not at all likely)

10.6% of male non-participants in 2014 say that they are very likely to go target or sport shooting in the next 2 years (meaning that 89.4% of male non-participants are *not* very likely to go target or sport shooting in the next 2 years)

These are above the national rate of non-participants saying that they are very likely to go (8.0%), shown with the patterned bar

The above looked at those who had *not* participated in target or sport shooting; however, the same question was also asked of those who *had* participated. Of 2014 sport shooting participants, 63% are very likely to go sport shooting in the following 2 years, and 18% are somewhat likely (a sum of 81% who plan to continue in the sport). The same demographic analyses were run comparing those who are *very* likely to those who are *not at all* likely.

**What is the likelihood that you will participate in any type of sport shooting in the next 2 years?  
(Asked of those who participated in target or sport shooting in 2014.)**

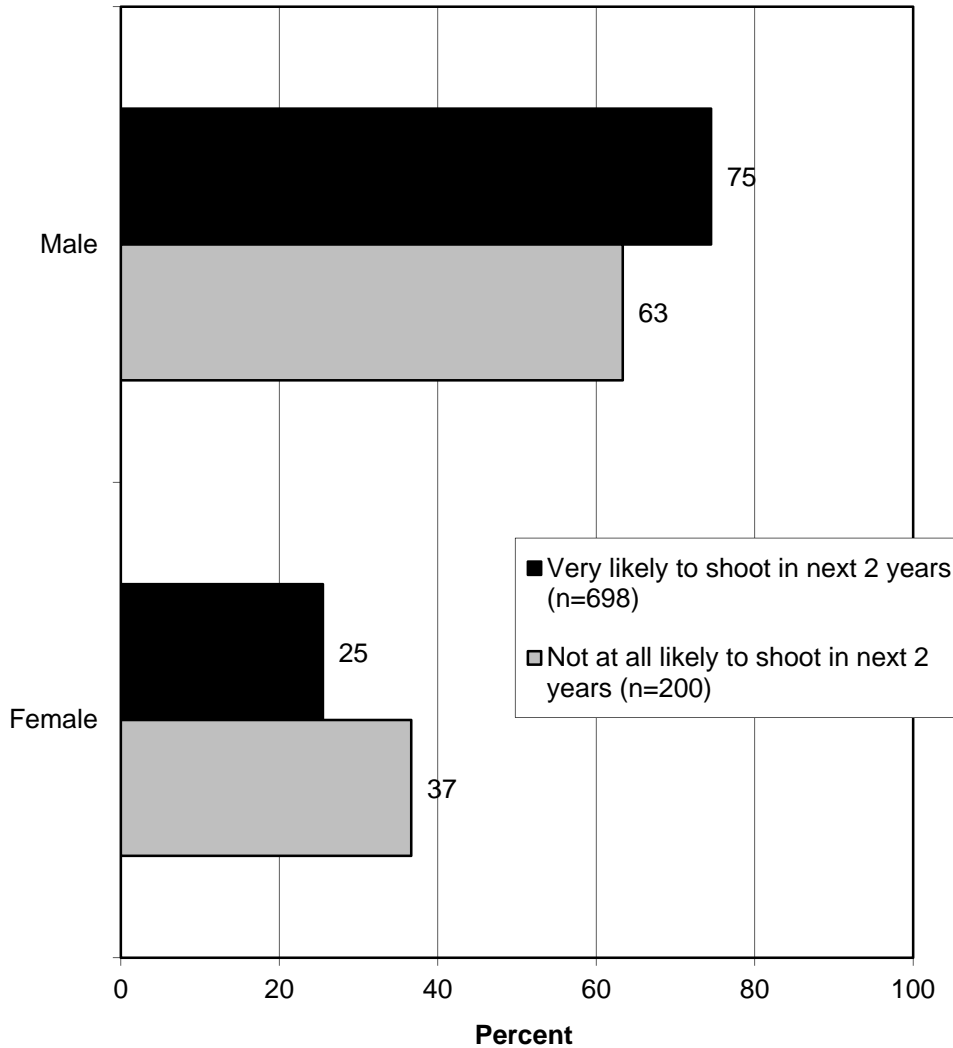




There were 63% of 2014 sport shooters who indicated being *very* likely to shoot in the upcoming 2 years, and 18% who indicated being *not at all* likely. Each of these groups makes up a distinct target market, so demographic analyses were conducted to look at each of the groups.

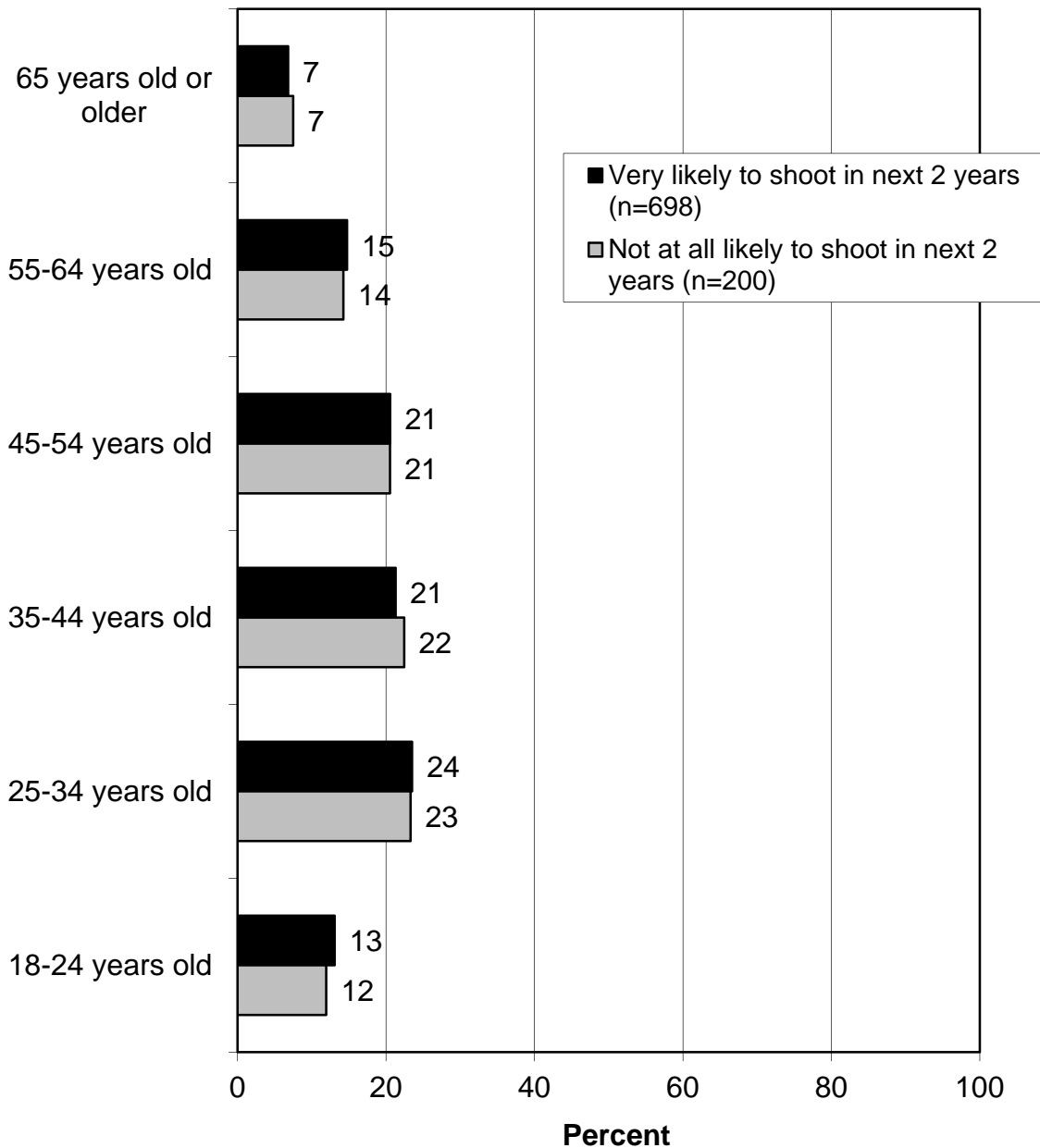
The gender crosstabulations found that women appear to be more likely to drop out of target/sport shooting: females make up only 25% of those who had shot in 2014 and are *very* likely to shoot in the next 2 years, while they make up 37% of those who had shot in 2014 but are unlikely to shoot in the next 2 years.

**Respondent's gender (observed by interviewer; not asked).  
(Of those who participated in target or sport shooting in 2014.)**

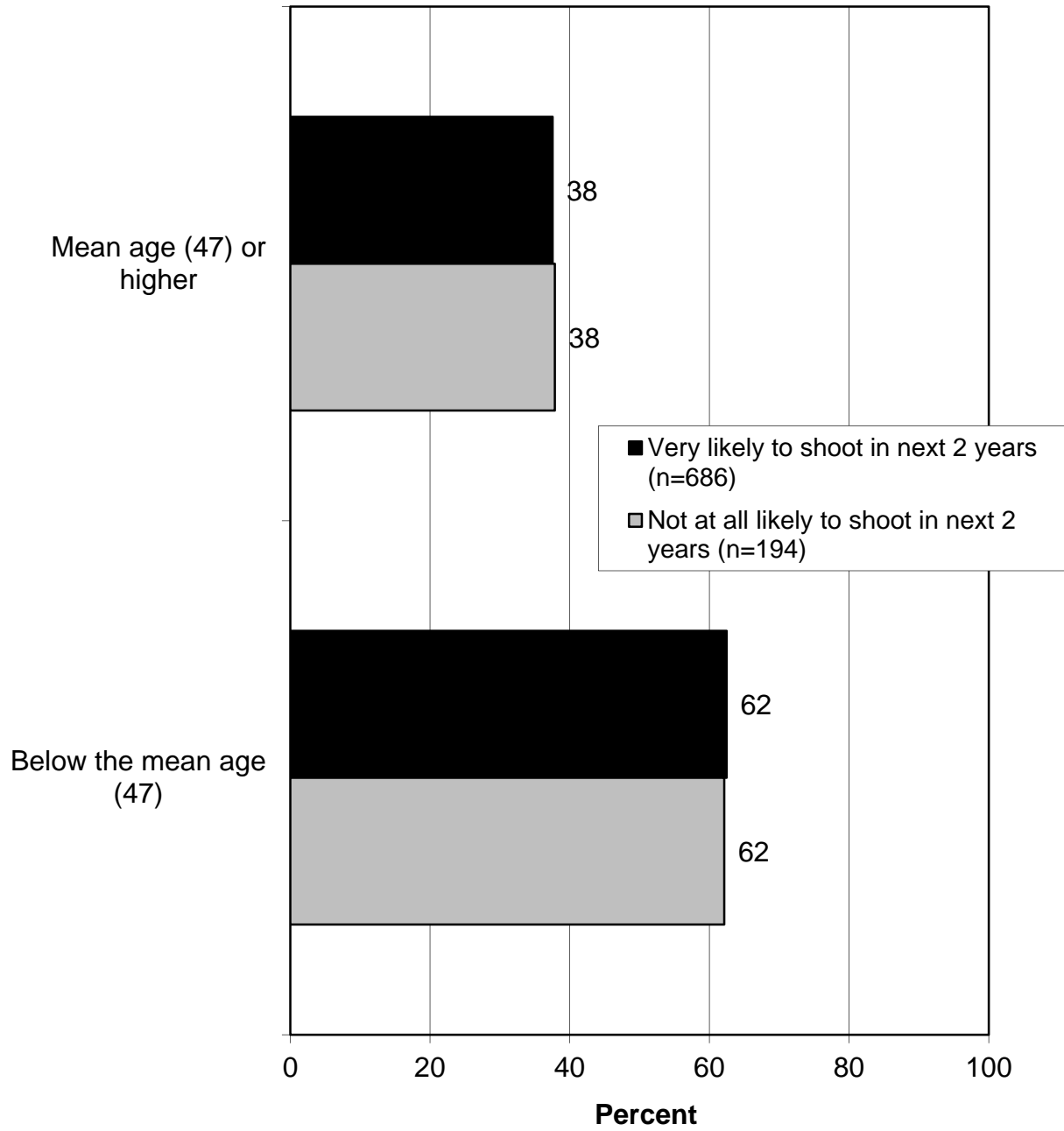


The finding from the age graphs on this page and the next is simply that those 2014 shooters who plan to continue shooting are about the same ages as those 2014 shooters who plan to discontinue shooting.

**May I ask your age?  
(Of those who participated in target or sport  
shooting in 2014.)**

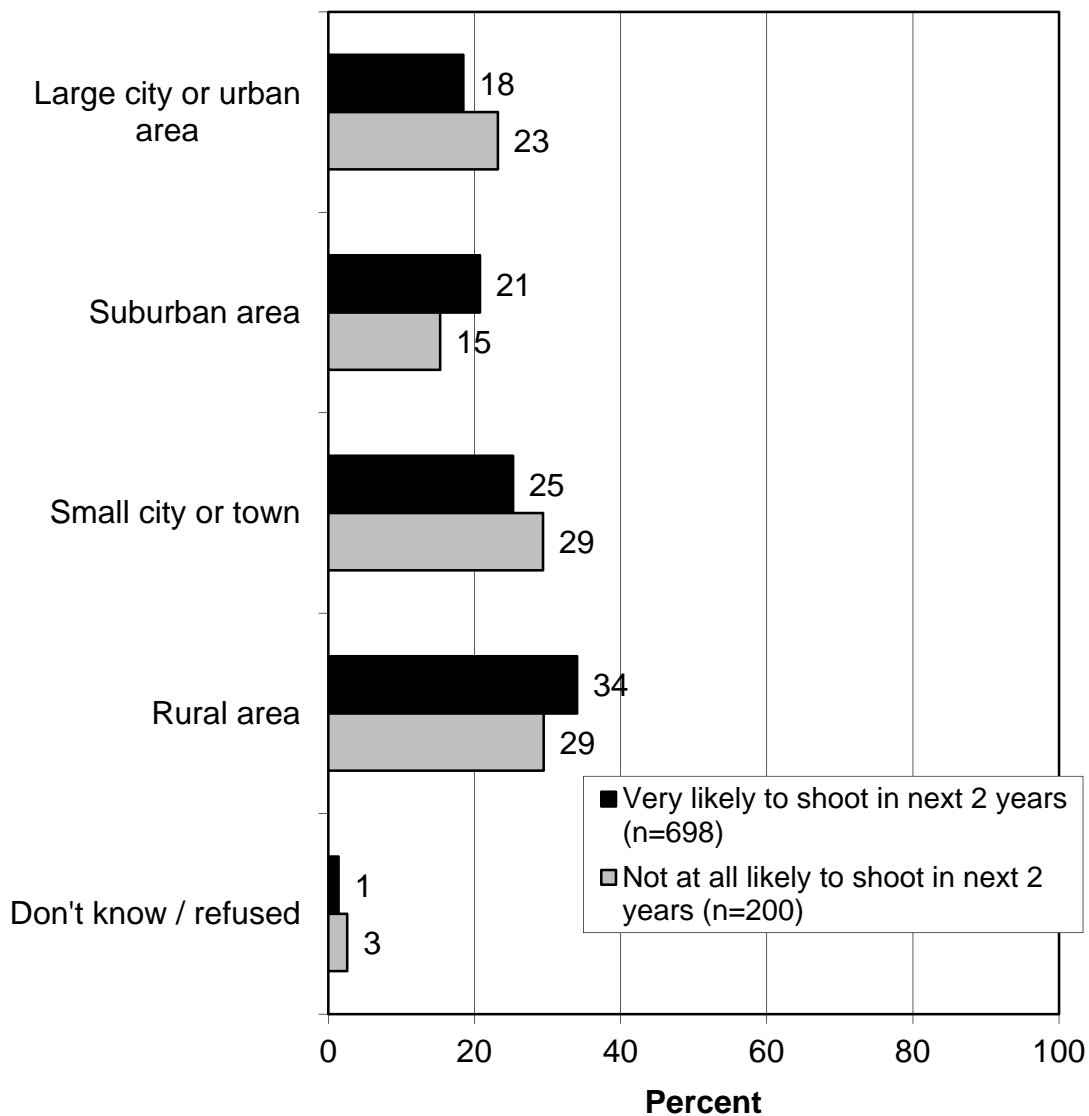


**Mean split of age.  
(Of those who participated in target or sport shooting in 2014.)**



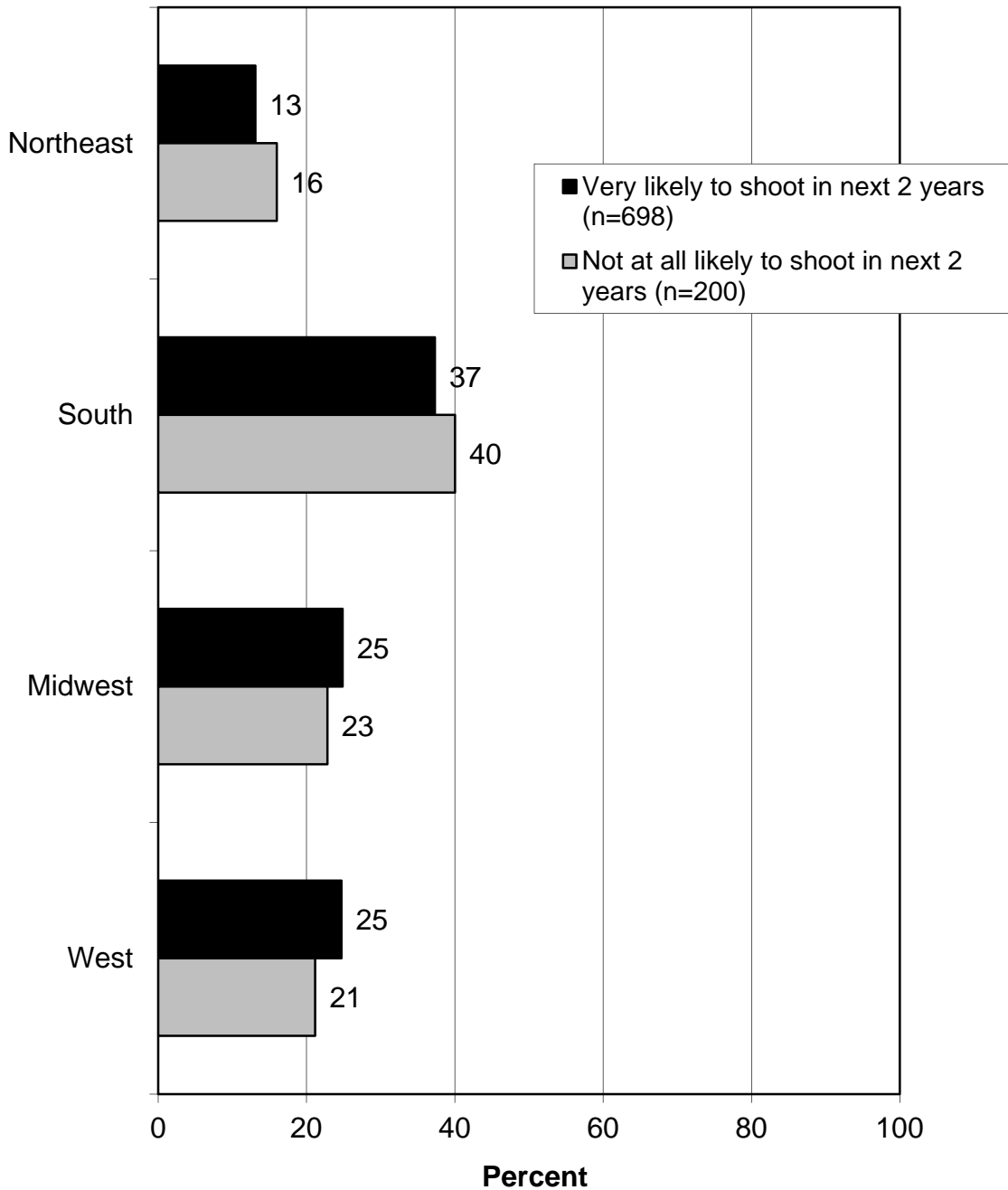
The place of residence crosstabulation finds only small differences, but it suggests that those from the large urban areas and small cities/towns may be dropping out of shooting at a slightly greater rate than those from suburban areas or rural areas.

**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?  
(Of those who participated in target or sport shooting in 2014.)**



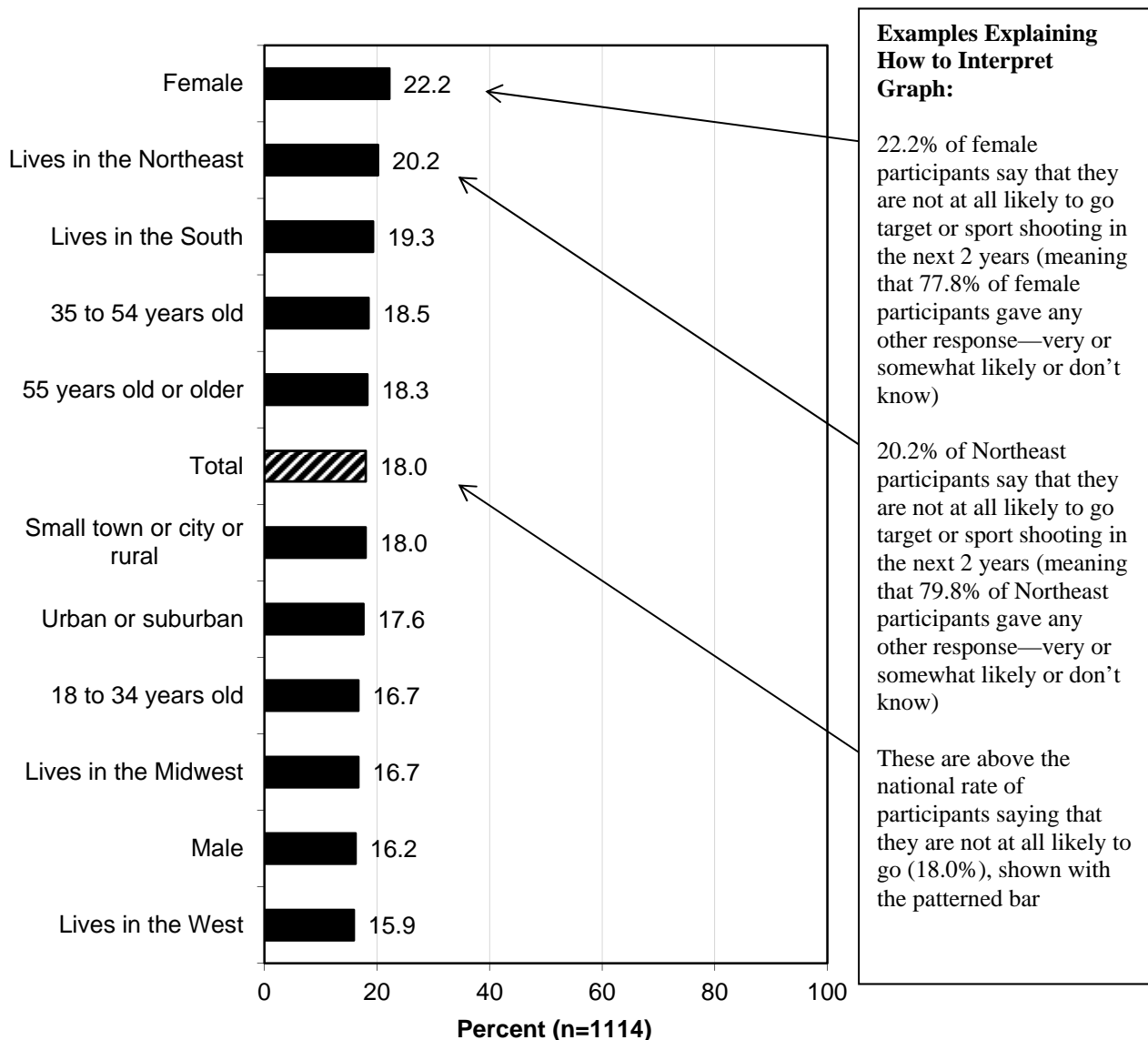
Finally, the regional crosstabulation finds no marked differences between those likely to shoot and those not likely to shoot in the next 2 years.

**U.S. Census Region.  
(Of those who participated in target or sport shooting in 2014.)**



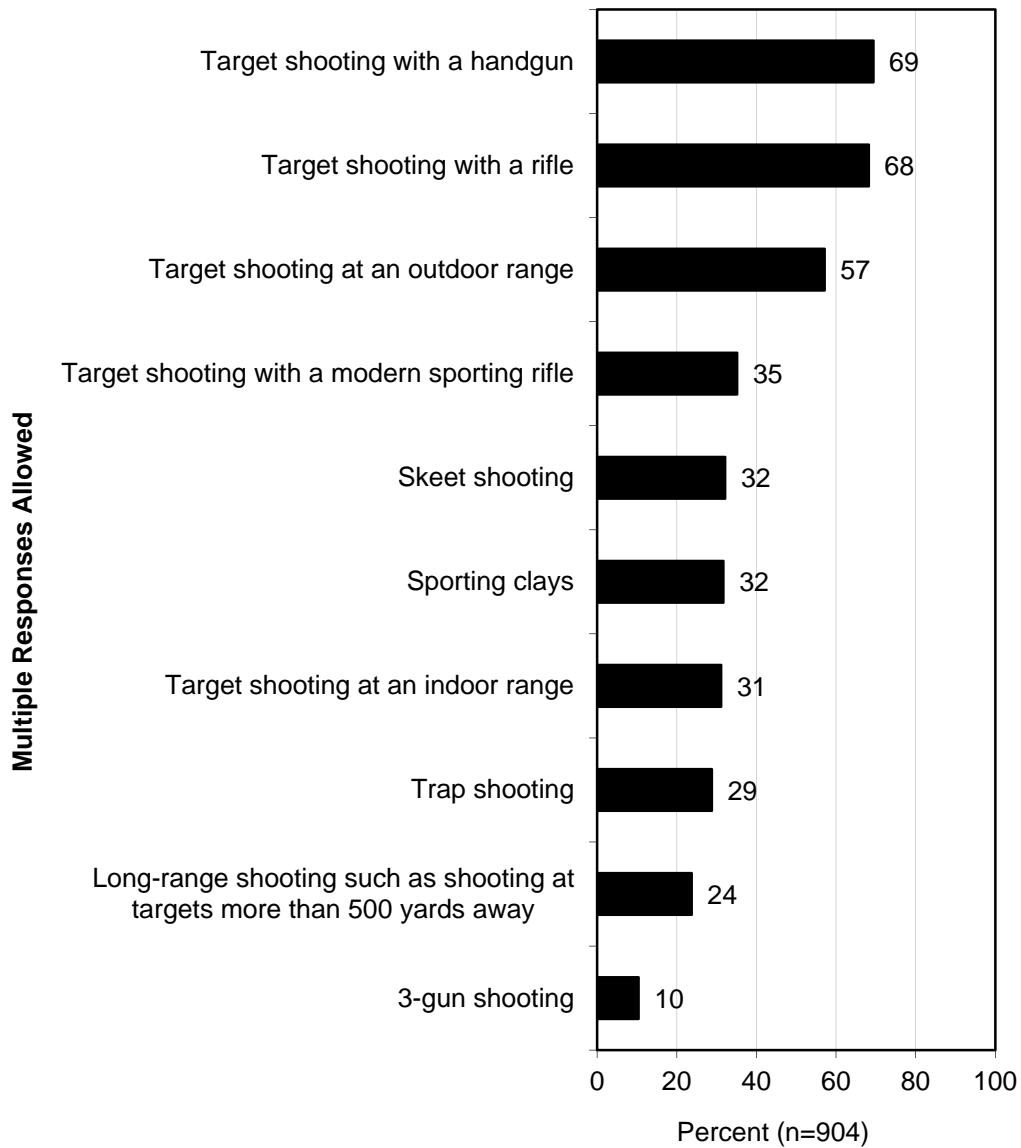
The graph below looks at those who shot in 2014 but who said that they are *not at all* likely to go target or sport shooting in the next 2 years—those who are dropping out. The findings presented on one graph reinforce the results reported previously: females, living in the Northeast or South, and being in the older age brackets are all correlated with being *not at all* likely to go target or sport shooting.

### Those who are not at all likely to target shoot in the next 2 years, among those who target shot in 2014.

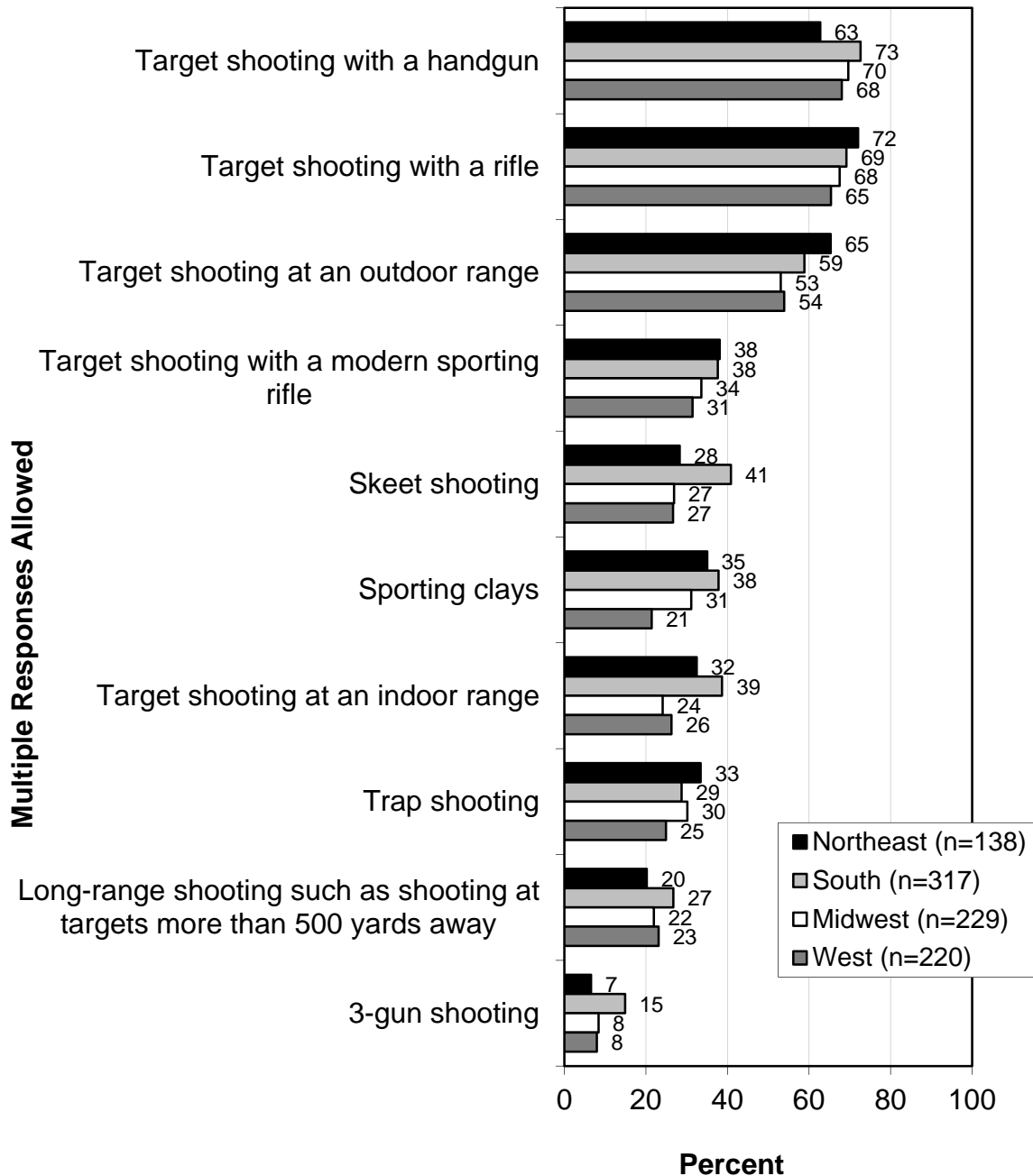


Those who had shot and who indicated being likely to target or sport shoot in the next 2 years were asked to indicate which shooting activities that they plan to do. They most commonly say that they plan to participate in target shooting with a handgun, target shooting with a rifle, and target shooting at an outdoor range. A regional graph is included, as well (following page).

**Which of those activities do you plan to do in the coming year?  
(Asked of those who are very or somewhat likely to go shooting in the coming year.)**



**Which of those activities do you plan to do in the coming year?  
(Asked of those who had shot in 2014 and are very or somewhat likely to go shooting in the coming year.)**

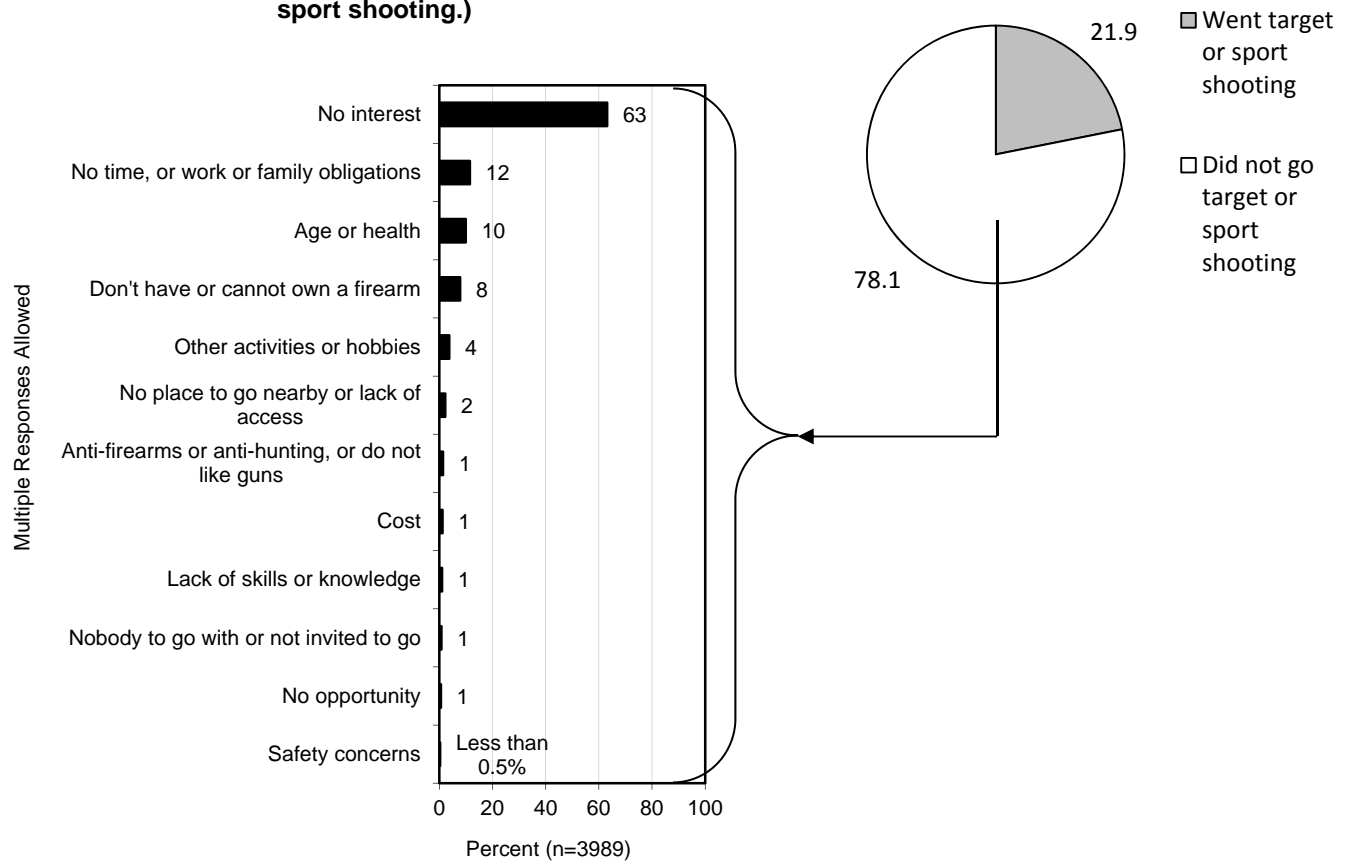




### REASONS FOR NOT PARTICIPATING IN TARGET OR SPORT SHOOTING

The survey asked those who did not participate in target/sport shooting for their reasons for not doing so (78.1% of U.S. residents did not go target or sport shooting in 2014). While simple lack of interest is, by far, the top reason (63% of those who did not target or sport shoot), other important reasons include lack of time because of family or work obligations (12%), age/health (10%), and lacking a firearm (8%). Other than lack of interest, the most typical reasons are social constraints over which agencies and the shooting industry may have little influence.

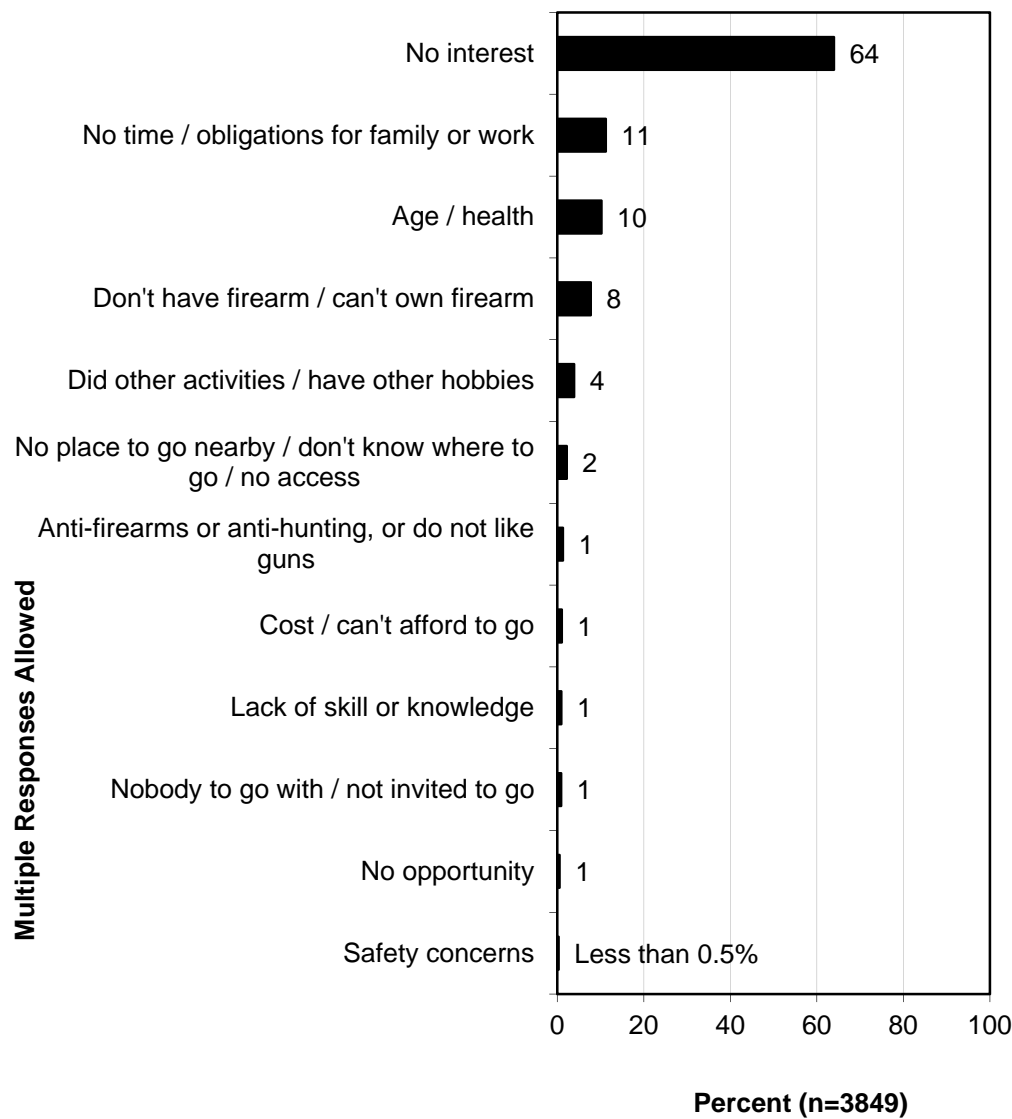
**Both questions combined: In just a few words, tell me why you did not go target shooting in 2014. (Asked of those who did not go target or sport shooting.)**



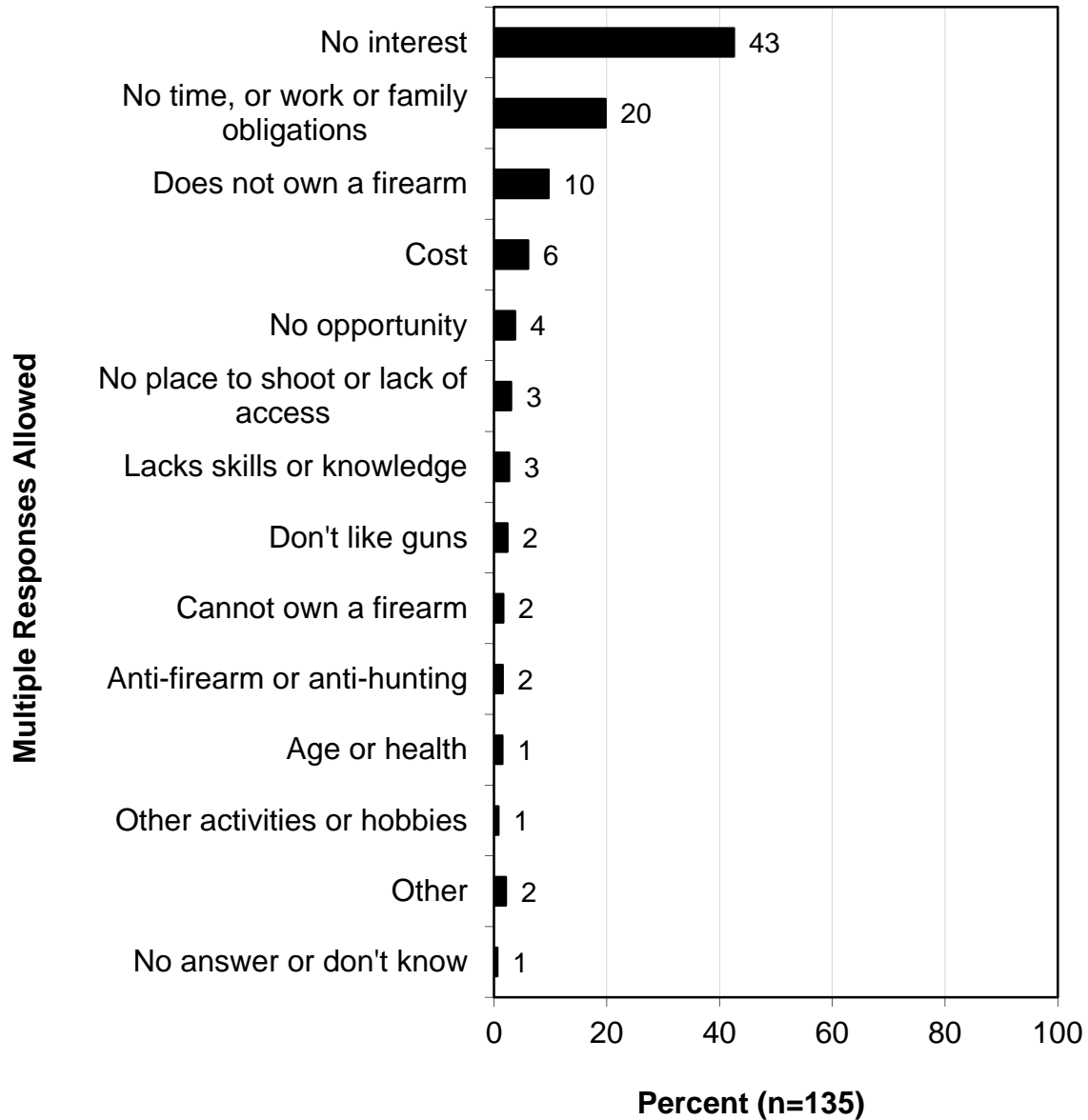
Note that this question was actually asked of two separate groups, with the results being combined for the graph above. Nonetheless, the results are of interest separately. One group that did not target/sport shoot also did not participate in archery, while another group that did not target/sport shoot had participated in archery. Their reasons for not target/sport shooting are a little different from each other, in the graphs that follow.

Among those who did not participate in either target/sport shooting or archery, 64% indicated having no interest whatsoever in target shooting (graph on this page), while those who had participated in archery but not target/sport shooting had a lower rate of saying that they had no interest (following page). This suggests that archery shooters who have not target/sport shot would be more likely to go, if other constraints were lessened.

**In just a few words, tell me why you did not go target shooting in 2014. (Asked of those who did not go target / sport shooting or participate in archery in 2014.)**



**In just a few words, tell me why you did not participate in target shooting or sport shooting with a firearm in 2014. (Asked of those who did not target / sport shoot with firearms but participated in archery shooting.)**

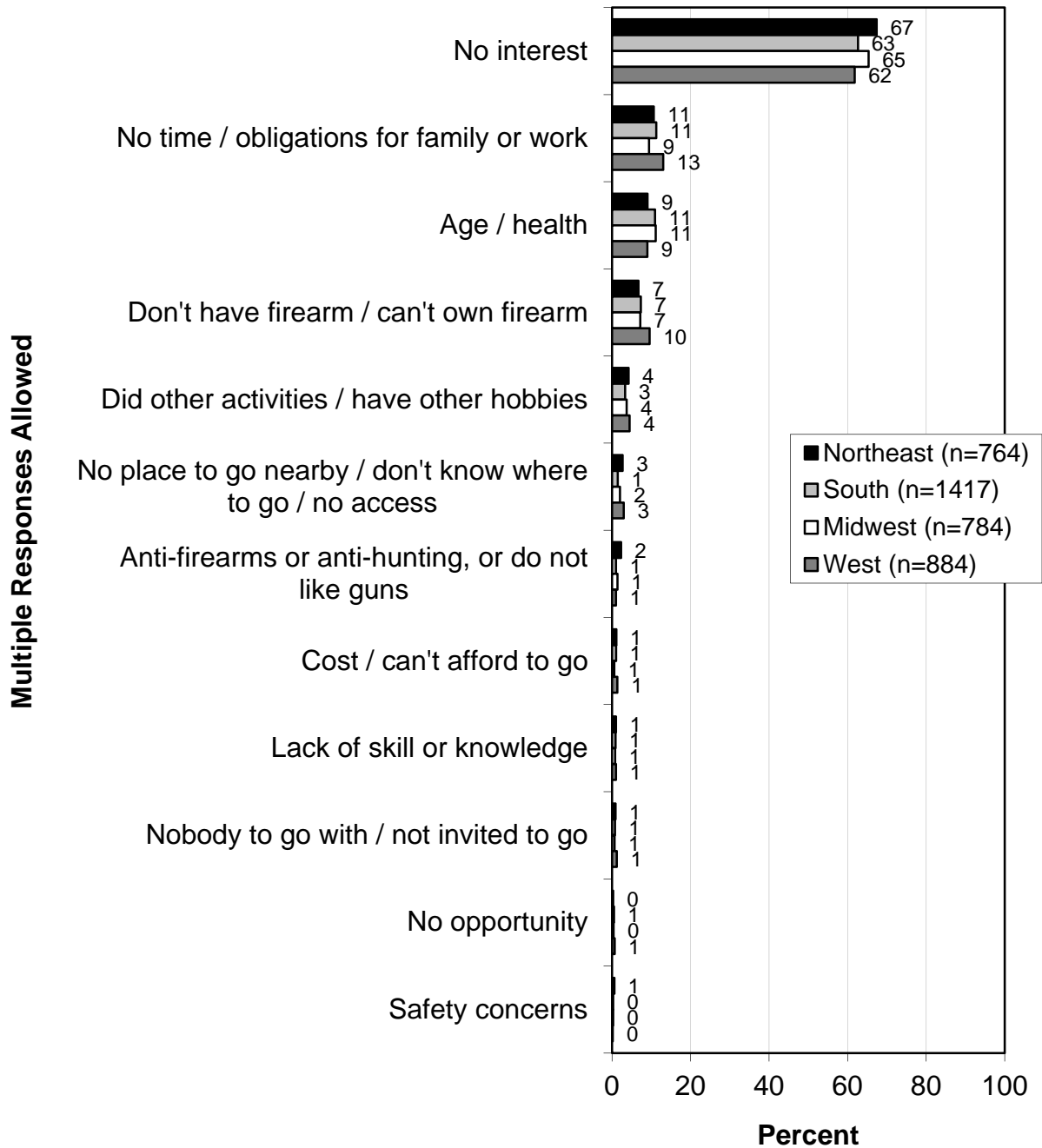


These questions on reasons for not participating are also shown regionally.

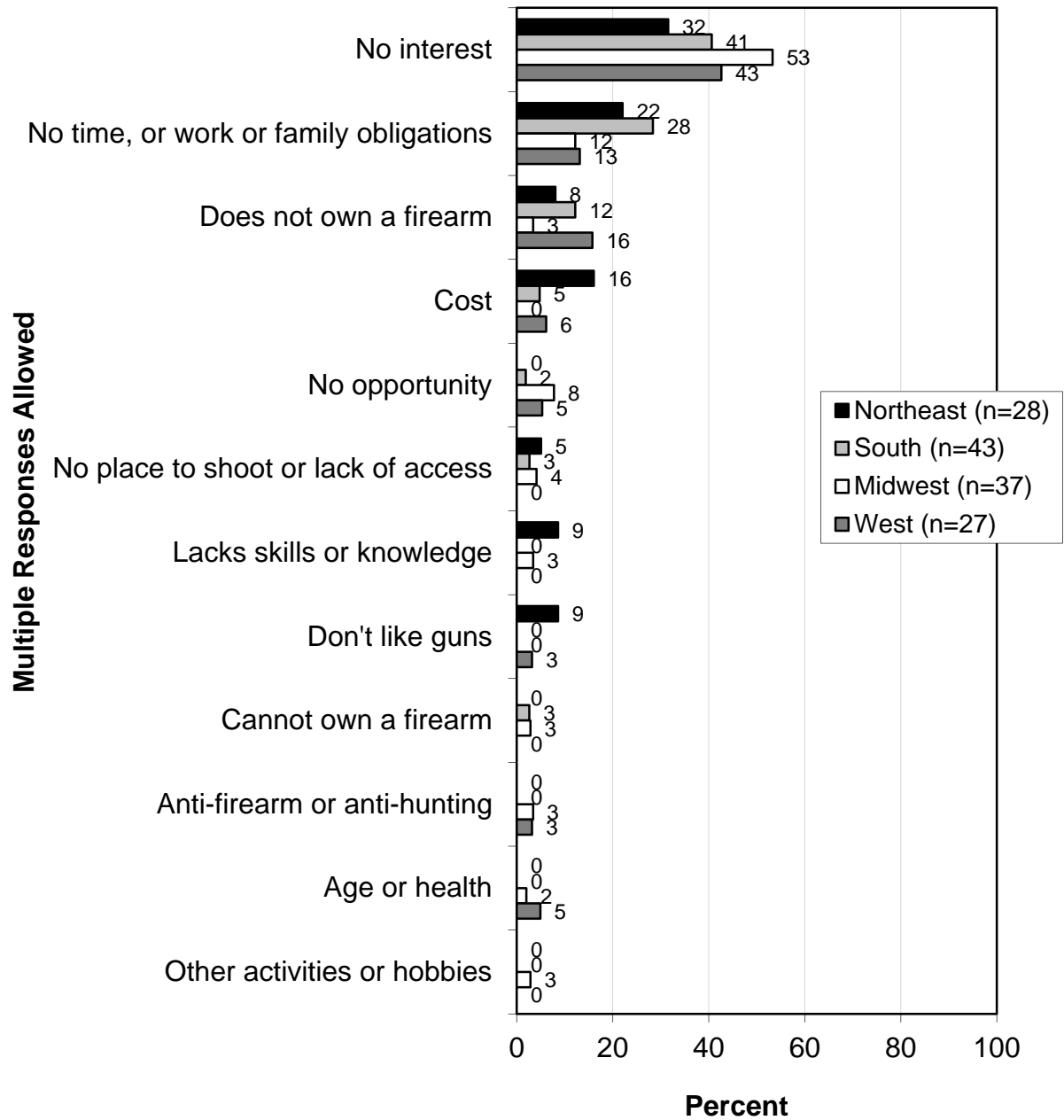
**Both questions combined: In just a few words, tell me why you did not go target shooting in 2014. (Asked of those who did not go target or sport shooting.)**



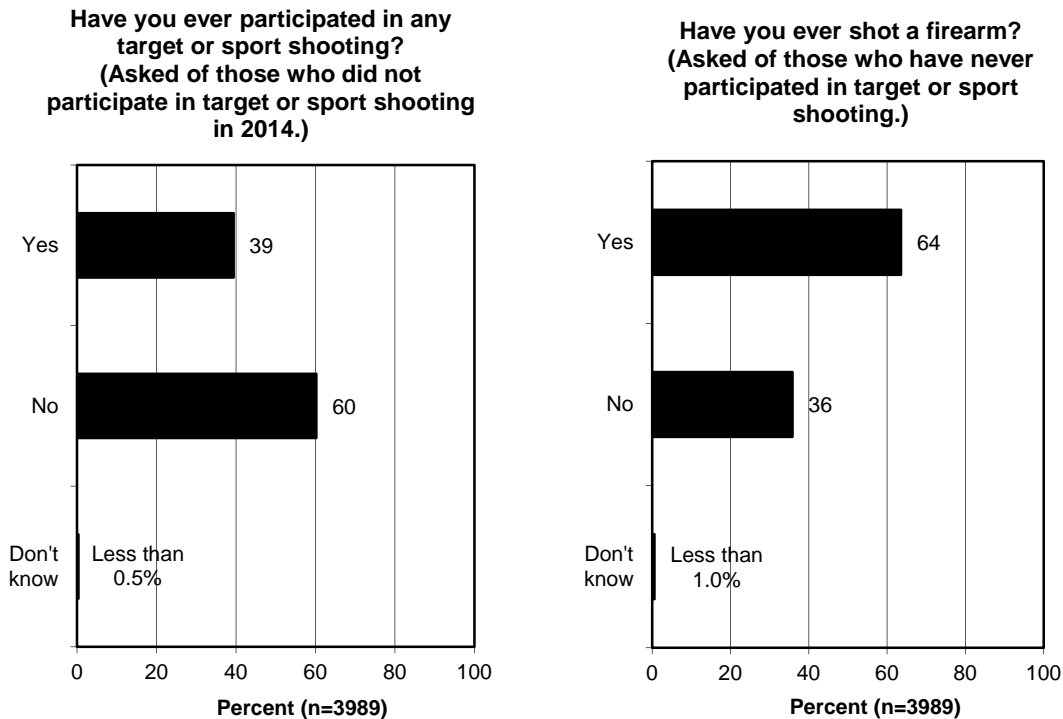
**In just a few words, tell me why you did not go target shooting in 2014. (Asked of those who did not go target or sport shooting or participate in archery in 2014.)**



**In just a few words, tell me why you did not participate in target shooting or sport shooting with a firearm in 2014. (Asked of those who did not go target or sport shooting with firearms but participated in archery shooting.)**



It is noteworthy that 39% of those who had not target or sport shot in 2014 had at one time in their lives gone target or sport shooting (see graph below), and 64% of them had shot a firearm at some time while not reaching the level that they feel that they participated in target or sport shooting. As the 39% who had shot at some time in the past are of interest in recruitment efforts—they would seem predisposed to like sport shooting—some demographic analyses were run of these people.



Note: These questions were asked only of those who did *not* shoot in 2014.

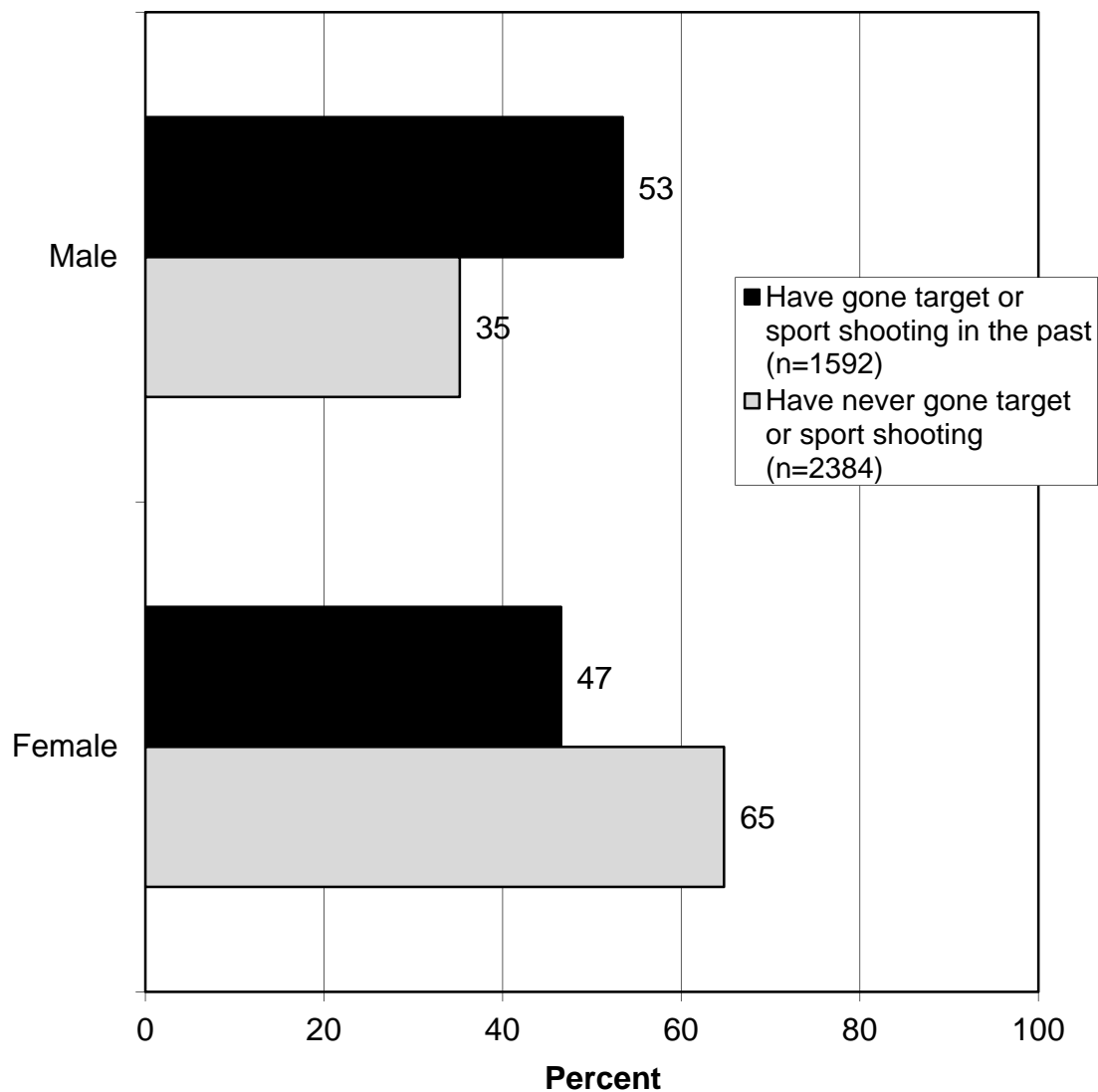
The graphs that start on the following page show the demographic characteristics of those 39% (in the graph on the left) who did not target or sport shoot in 2014 but did so at some time in the past. The gender crosstabulation shows a fairly even split in males to females among those who shot in the past but not in 2014 (53% of this group are males; 47% are females); it also points out the not surprising fact that men are more likely than women to have gone target or sport shooting in the past.

The age crosstabulation does not show any marked differences between those non-shooters in 2014 who had or had not target/sport shot in the past, when looking at the full range of age categories. However, when looking only at the mean age split, those who shot in the past but not in 2014 tend to be a little older than the mean age (the mean age among adults, which is not the mean age overall when children are included).

The final graphs show the rural-urban crosstabulation—which appears inconclusive—and the regional crosstabulation—with the West positively correlated to having shot in the past but not in 2014.

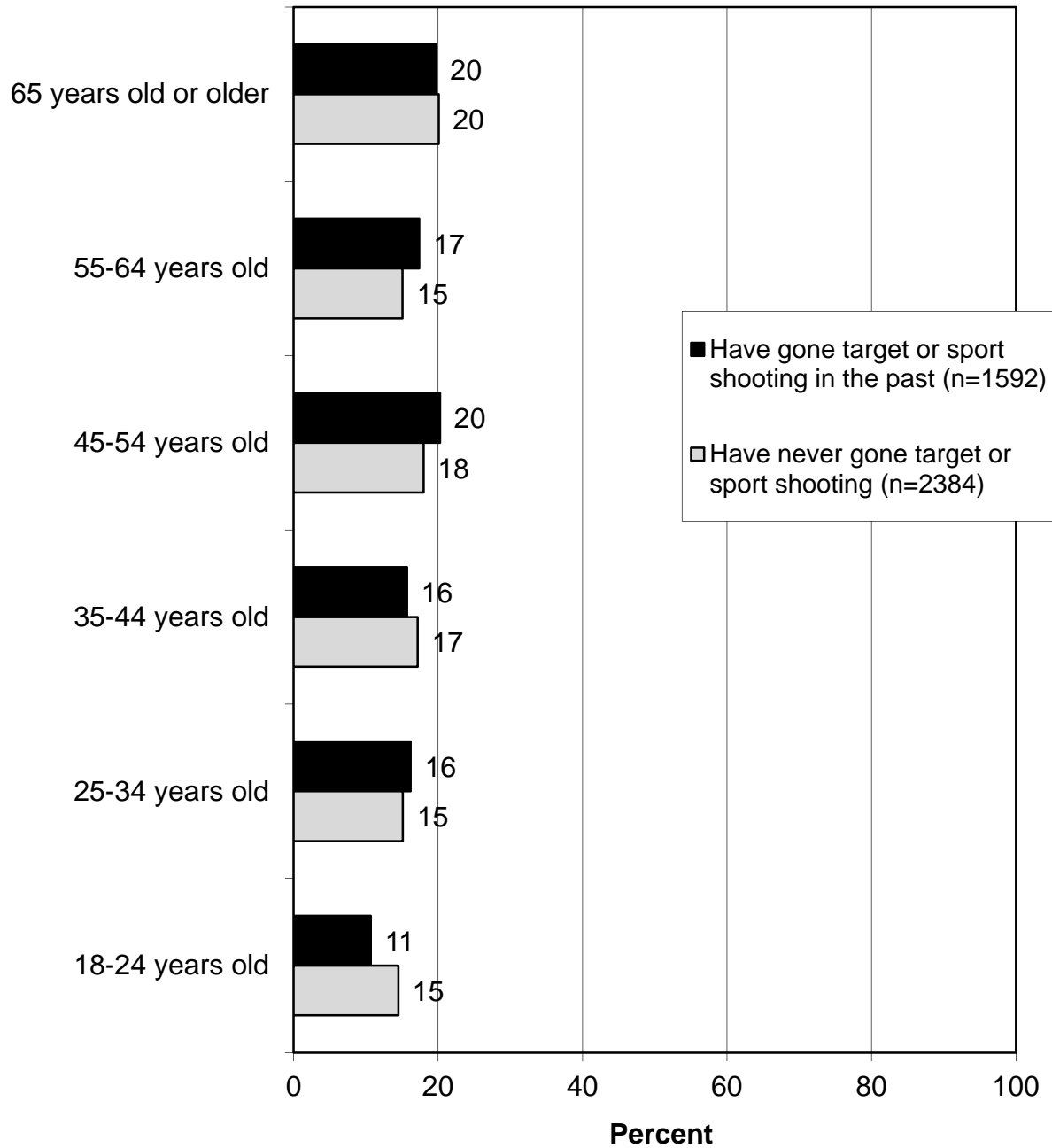
Note that all of these crosstabulations are among only those who did *not* shoot in 2014, consisting of those who went target/sport shooting at some time in the past and those who never did.

**Respondent's gender (observed by interviewer; not asked).  
(Of those who did not go target or sport shooting in 2014.)**

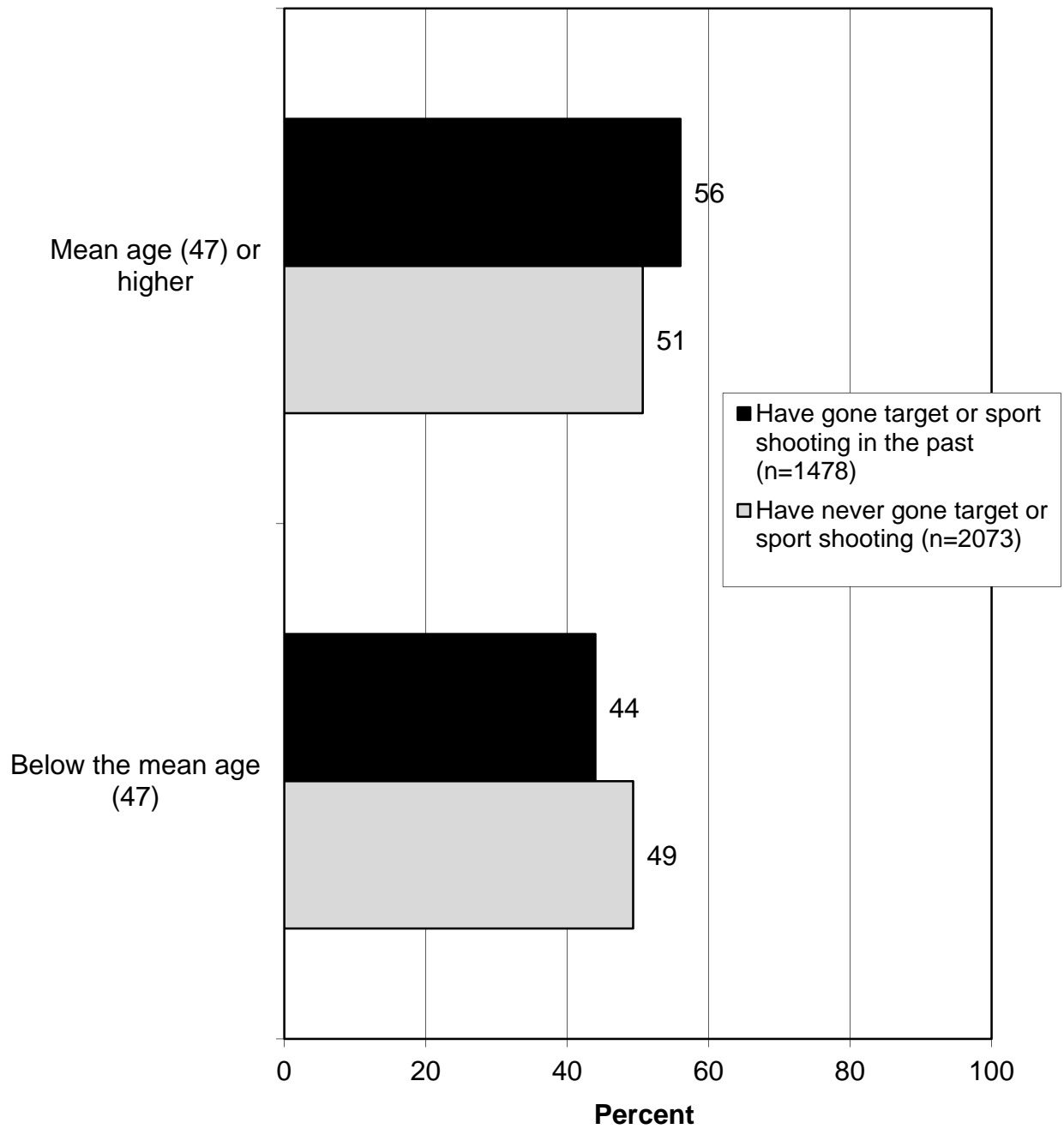




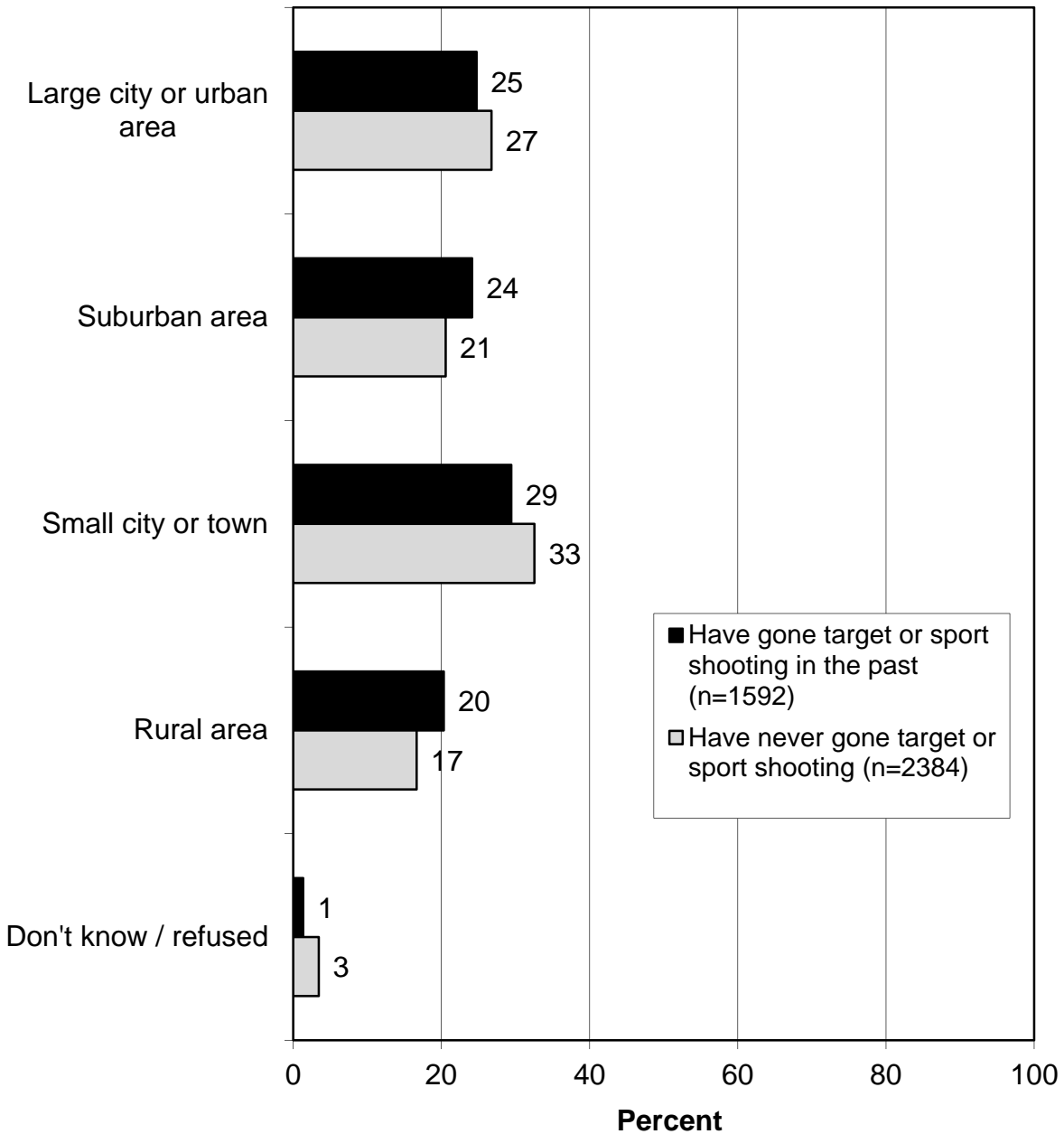
**May I ask your age?  
(Of those who did not go target or sport shooting in 2014.)**



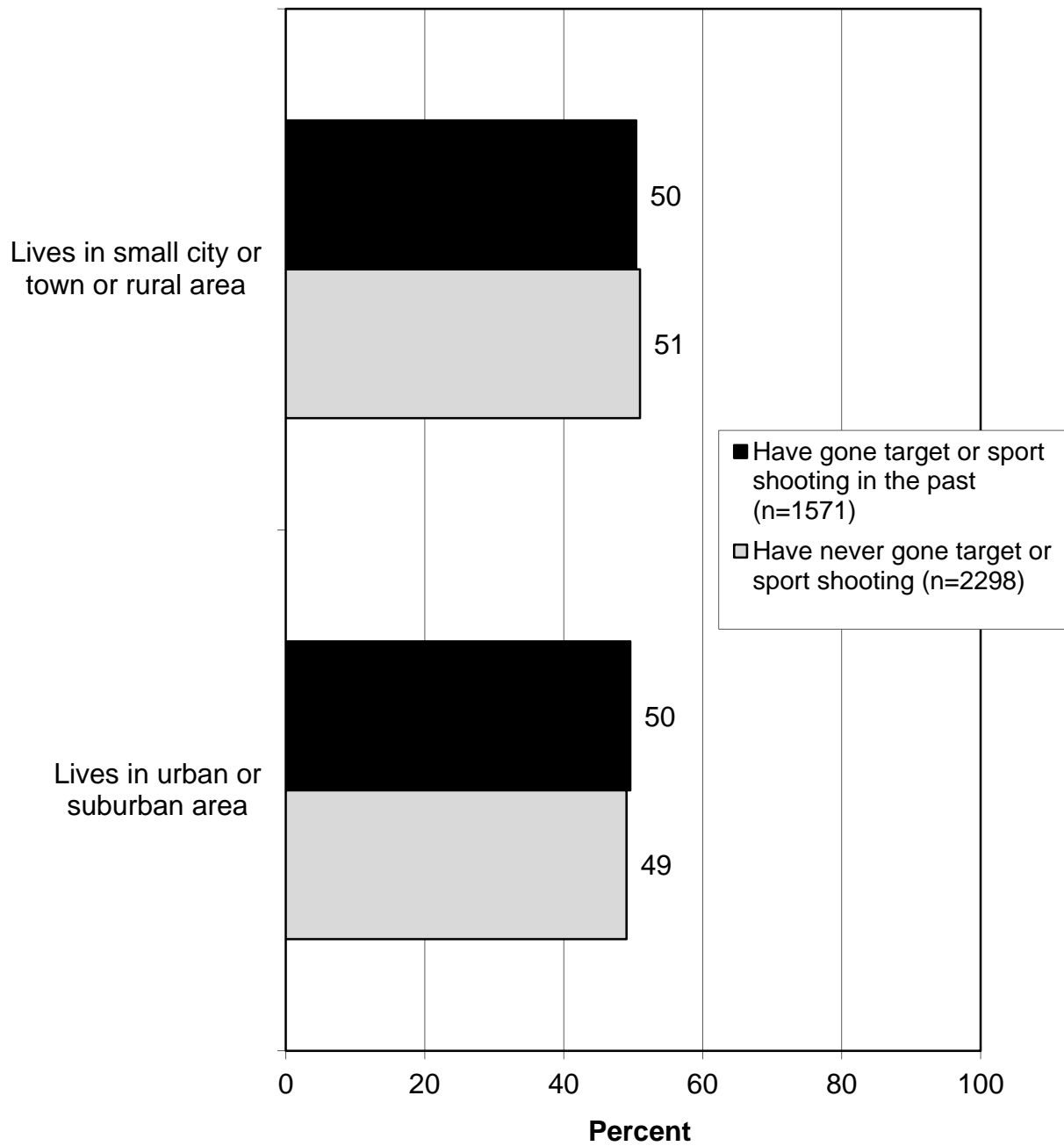
**Mean split of age.  
(Of those who did not go target or sport  
shooting in 2014.)**



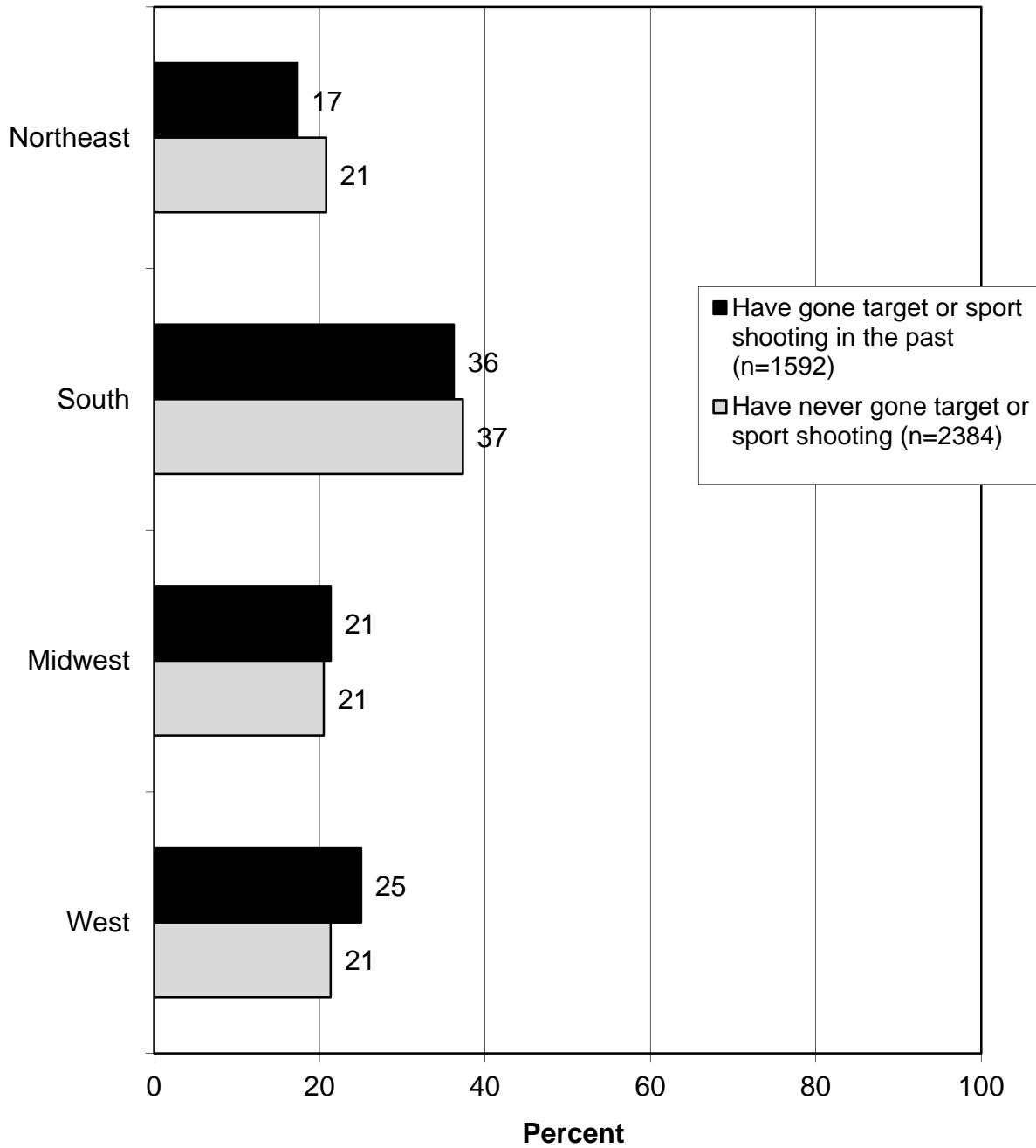
**Do you consider your place of residence to be a large city or urban area, a suburban area, a small city or town, a rural area on a farm or ranch, or a rural area not on a farm or ranch?  
(Of those who did not go target or sport shooting in 2014.)**



**Urban / rural split.  
(Of those who did not go target or sport shooting in 2014.)**



**U.S. Census Region.  
(Of those who did not go target or sport shooting in 2014.)**



## **PUTTING RESPONSIVE MANAGEMENT'S PARTICIPATION DATA INTO CONTEXT**

This section of the report discusses the quality of Responsive Management's data collection efforts and its resulting participation data, and the section also compares Responsive Management's survey findings with other research on participation.

### **REVIEW OF SURVEYING METHODS**

As in the previous years, the 2015 study entailed a survey of U.S. residents ages 18 years old and older. Each survey was conducted via telephone using random digit dialing, a scientific and highly reliable data collection methodology that is routinely used to predict the outcomes of presidential elections down to the electoral vote.<sup>1</sup>

Telephones were selected as the sampling medium for each participation survey because of the high reliability and validity of telephone surveys using scientifically chosen random samples and because of the almost universal ownership of telephones among the general population. The methodology for the 2015 survey used a dual-frame sample consisting of a random sample of landline telephones and a random sample of cell phone numbers. These numbers were then called in their proper proportions, which ensured that all people in the pool of telephone users had an approximately equal chance of being called. A target number of interviews was obtained in each state from both landlines and cell phones in their proper proportions, so that the number of respondents in each state in the sample was exactly proportional to the state's population and, by extension, within the United States population as a whole.

The survey questionnaire was developed cooperatively by Responsive Management and the National Shooting Sports Foundation (NSSF), based on previous similar surveys conducted for the NSSF. As in the previous studies on sport shooting participation, a "ruse" line of questioning was used at the beginning of the survey. This was done because the main objective of the survey was to determine national and regional participation rates in the shooting sports, and the survey was worded to avoid bias that would arise from the tendency for those who do *not* shoot to refuse to participate in a survey about shooting. Therefore, the survey started by asking about some general activities, mixing shooting and hunting participation in with participation in other non-shooting activities such as watching television and dining at a restaurant.

### **OVERALL SPORT SHOOTING PARTICIPATION RATE**

Responsive Management's 2015 survey found that 21.9% of the U.S. adult population, or an estimated 51 million adults, participated in any type of target or sport shooting in 2014. This participation rate marks an increase over the 15.1% rate among Americans in 2009 and 17.4% in 2012.

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<sup>1</sup> Silver, Nate. "Which Polls Fared Best (and Worst) in the 2012 Presidential Race," *The New York Times*, 10 November 2012: [http://www.nytimes.com/2010/07/28/health/policy/28obesity.html?\\_r=1](http://www.nytimes.com/2010/07/28/health/policy/28obesity.html?_r=1).

## QUALITY OF RESPONSIVE MANAGEMENT'S SURVEY DATA

One of the most important indicators of the quality and reliability of a survey's findings is how closely the raw survey data reflect the population under study. Researchers collect samples from populations in order to make inferences about the overall population. In doing so, researchers strive to ensure that the demographic characteristics of the sample accurately reflect the demographic characteristics of the broader population; in other words, the gender, age, and ethnic proportions of the sample should roughly match those of the overall population.

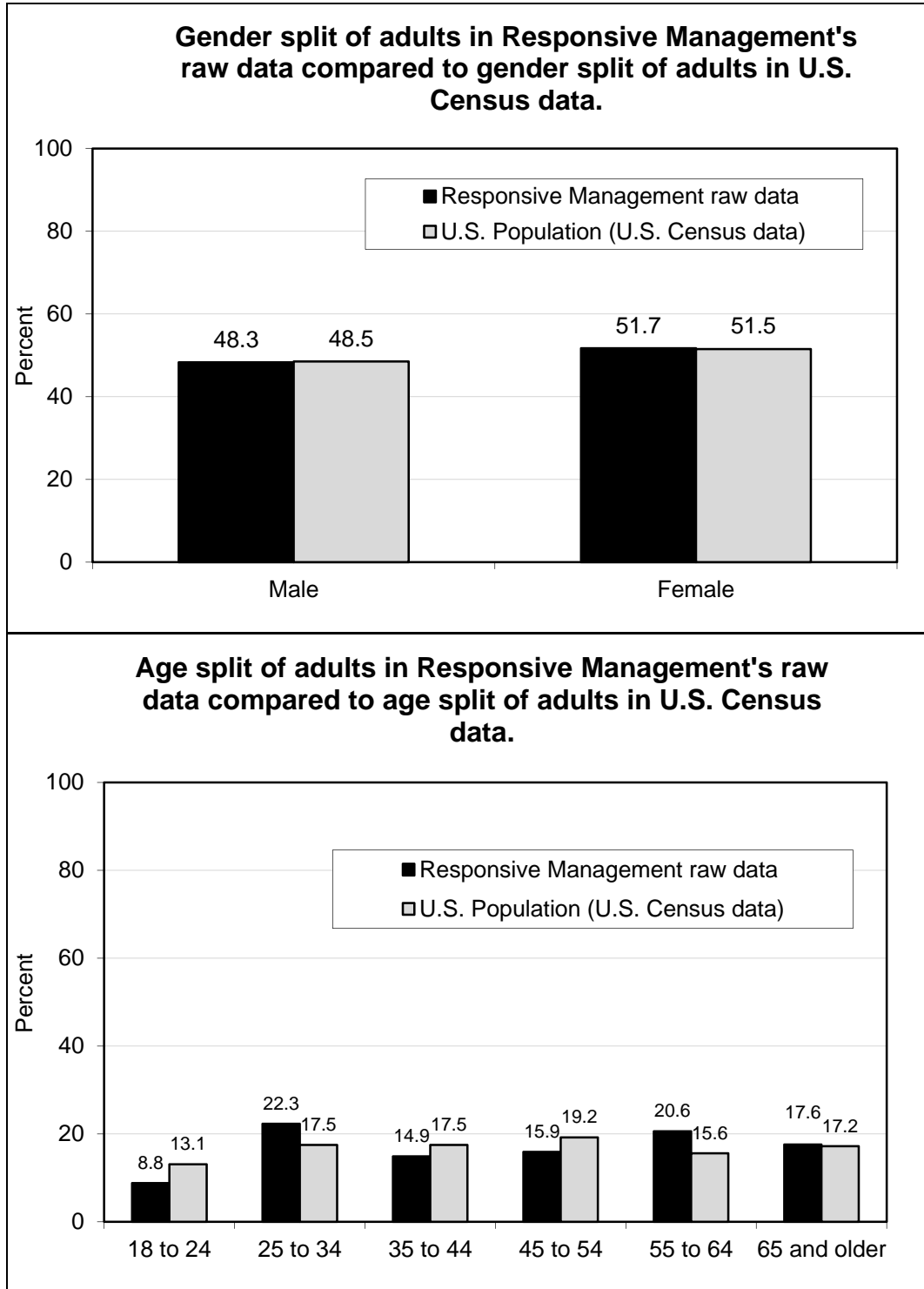
The process of using known population characteristics to systematically adjust raw survey data to match the population is known as weighting. If it is known, for example, that the gender split of the U.S. population is approximately 50% male and 50% female, a survey sample whose gender split is 40% male and 60% female can be weighted to correct for the imbalance: the impact of the responses from females is reduced in order to boost the impact of the responses from males—as a result, the weighted data more accurately reflect the overall U.S. population.

While research firms routinely weight survey data to some degree to correct for certain demographic imbalances in their samples, excessive weighting carries certain risks. A survey sample of 90 females and 10 males, for instance, could be weighted to ensure that the responses from males would equal the cumulative responses of females. However, this now means that fewer males are being used to represent males' opinions in general, and each single male's opinions have greater sway over the total male opinion in the sample. Concurrently, there is greater likelihood that the males in the sample, because there are so few of them, do not accurately represent the actual opinion in the population.

Because of this, the decision to weight a sample is a delicate balance between increasing the sample's accuracy in reflecting the population while not excessively increasing the influence of individual respondents. Of course, the closer the raw data reflects the actual proportions of demographic characteristics in the population, the less need there is to weight the data. In an ideal scenario, there would be no need for weighting, as the survey sample would simply be collected in such a way as to exactly mirror the demographic proportions of the overall population.

Notably, Responsive Management's 2015 participation study was based on a substantial sample size (5,103 completed interviews) that also accurately reflected the demographic characteristics of the U.S. population *prior to any weighting of the data*. In fact, the 5,103 survey interviews Responsive Management collected so closely matched the U.S. population that post-survey weighting made little difference in the overall results. While Responsive Management did apply weighting to ensure that the results accurately matched population demographic characteristics on a regional basis, the weighting variables applied were minimal, an indication of the high quality of the raw data.

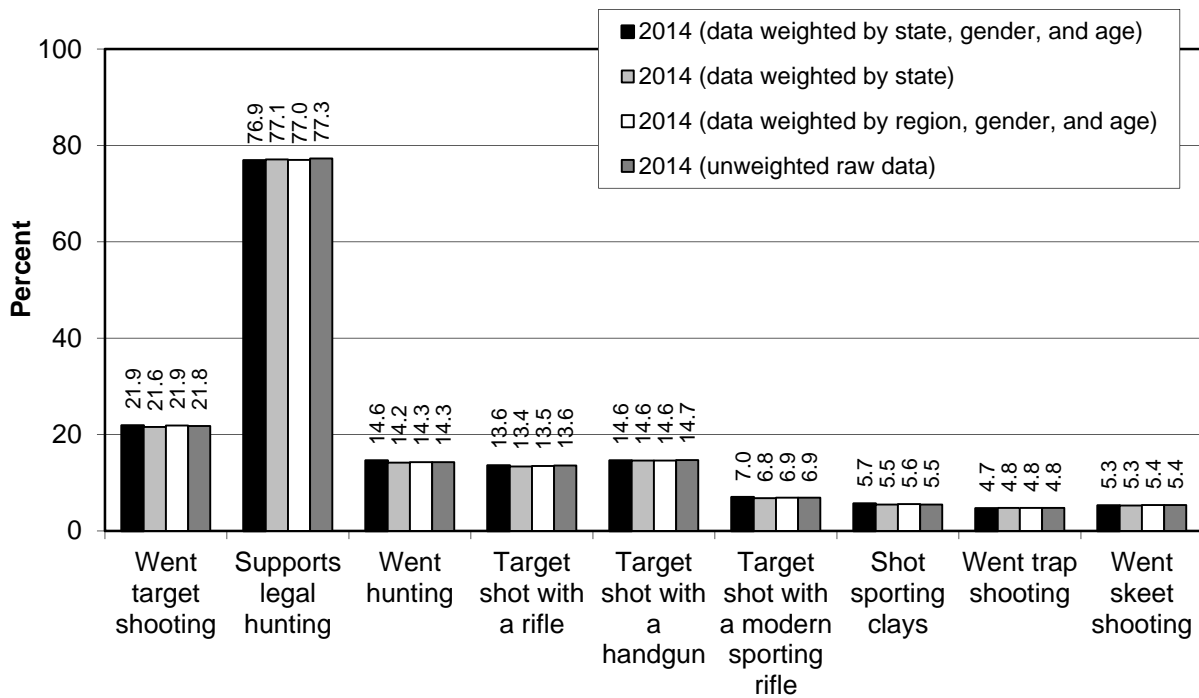
The graphs that follow provide a comparison of Responsive Management's raw survey data (i.e., the survey results as collected, before any weighting was applied) to the demographic data from the most recent U.S. Census in 2010. As is evident in the comparisons, the gender and age of the raw survey sample were highly reflective of the U.S. general adult population.





When survey data are weighted following the initial data collection, the eventual results run the risk of portraying the population inaccurately, particularly if large differences exist between the data as originally collected and the data as eventually presented. However, weighting did not markedly alter Responsive Management’s 2015 data. An analysis was conducted in which Responsive Management’s data were weighted in several ways to see if marked changes in the final data occurred. In the case of Responsive Management’s 2015 participation study, the data, after being weighted in several different ways, essentially continued to show the same results (this is illustrated in the graph below, which compares the raw survey data to the data weighted by various factors). This graph shows the reliability of Responsive Management’s findings due to the fact that only slight differences were observed between the data collected and the data reported after weighting. (Note that Responsive Management’s data were weighted in the report by region, gender, and age to match the methods used in the previous surveys.)

**Comparison of unweighted raw survey data and survey data weighted by key demographic characteristics.**



## DATA FROM OTHER SOURCES THAT PROVIDE INSIGHT REGARDING THE ACCURACY OF RESPONSIVE MANAGEMENT'S DATA

The following is an overview of key external data and other information supporting the findings from Responsive Management's three participation surveys that sport shooting participation in the United States is on the rise.

### Number of Americans With Access To a Firearm

It is instructive to view Responsive Management's target shooting participation findings in light of the 98,516,910 individuals in just over 51 million U.S. households who have access to a firearm. The overall number of American adults with access to a firearm is estimated using current U.S. Census data on the size of the U.S. adult population (234,564,071 individuals) and the average number of adults per household (1.93 individuals). These data are then applied to the percentage of Americans who report having a firearm in their home (42%, according to a 2014 Gallup telephone survey).<sup>2</sup>

Based on the number of U.S. adults with access to a firearm and the estimation from Responsive Management's participation survey that 21.9% of the U.S. adult population (an estimated 51,228,793 people) went target shooting in 2014, it can be inferred that approximately 52% of those with access to a firearm went target shooting at least once in 2014. From this perspective, the overall sport shooting participation rate determined by the survey is certainly in line with expectations.

It should be noted that the estimation provided here regarding the number of individuals with access to a firearm is limited to only those with a firearm *in their household*; it does *not* include those who may have had access to a firearm outside of their household. Given the social nature of target shooting, it might reasonably be assumed that at least a portion of target shooters in 2014 did not personally own a firearm.

### Firearms and Ammunition Sales

While information on the amounts of firearms and ammunition sold is difficult to determine with certainty, reliable indicators such as federal background checks conducted for transactions involving firearms and excise tax receipts for sales of firearms and ammunition help to clarify broad trends. These indicators suggest that firearms activity has increased recently.

**Reports of Firearms Sales.** Production numbers, used here as a proxy for sales, indicate that 28 million firearms were manufactured for the personal use market during the entire 8 years of the Bush administration, while 26 million were manufactured during the first 4 years alone of the Obama administration (2009-2012). In short, it appears that more firearms are being sold in the personal use market now than in the recent past.<sup>3</sup>

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<sup>2</sup> McCarthy, Justin. "More Than Six in 10 Americans Say Guns Make Homes Safer," Gallup, 7 November 2014: <http://www.gallup.com/poll/179213/six-americans-say-guns-homes-safer.aspx>.

<sup>3</sup> Wilber, Del Quentin. "Record U.S. Gun Production as Obama 'Demonized' on Issue," Bloomberg.com, 20 February 2014: <http://www.bloomberg.com/news/articles/2014-02-20/record-u-s-gun-production-as-obama-demonized-on-issue>.

As an example from within the industry, one of the largest publicly traded firearms manufacturers, Sturm Ruger & Company, saw a 44% jump in sales in just nine months in 2013 over the previous year's sales (sales climbed from approximately \$350 million in all of 2012 to approximately \$500 million during the aforementioned time period in 2013).<sup>4</sup>

**National Instant Criminal Background Checks.** Another indicator of firearms sales is the number of National Instant Criminal Background checks, which are performed by the Federal Bureau of Investigation to determine the eligibility of a person attempting to purchase a firearm in a store. According to current data, these checks increased from 19.59 million in 2012 to 21.09 million in 2013, which is an increase of 7.7%. While the number of background checks and participation in sport shooting are not one and the same, they would logically be positively correlated. Certainly, some of that increase is made up of new sport shooters, who would add to the total numbers of sport shooters (particularly if the net addition of new shooters offsets the attrition rate).

**Excise Tax Receipts on Firearms and Ammunition.** Another measure suggesting increased participation in the shooting sports is the trend in gross receipts from the Federal Aid in Wildlife Restoration Act (also called the Pittman-Robertson Act) excise tax. The Pittman-Robertson Act provides funding for the restoration of wildlife and birds and their habitat through an 11% excise tax on sporting arms, ammunition, and archery equipment, and a 10% excise tax on handguns. Excise tax gross receipts from the past 9 years are tabulated below:

Wildlife Restoration Gross Receipts (thousands of dollars)									
	FY 06	FY 07	FY08	FY09	FY10	FY11	FY12	FY13	FY14
Pistols - Revolvers	57,697	73,571	76,903	124,928	106,351	102,323	160,050	223,160	219,148
Firearms	107,619	115,960	120,446	162,005	112,791	110,626	178,856	286,218	250,717
Ammunition	84,261	98,235	114,904	166,058	141,484	131,213	172,479	252,271	298,903
Bows and Arrows	28,667	33,797	36,574	32,147	36,115	44,054	44,384	50,896	55,132
<b>Total Gross Receipts</b>	<b>278,244</b>	<b>321,563</b>	<b>348,827</b>	<b>485,138</b>	<b>396,741</b>	<b>388,216</b>	<b>555,769</b>	<b>812,545</b>	<b>823,900</b>

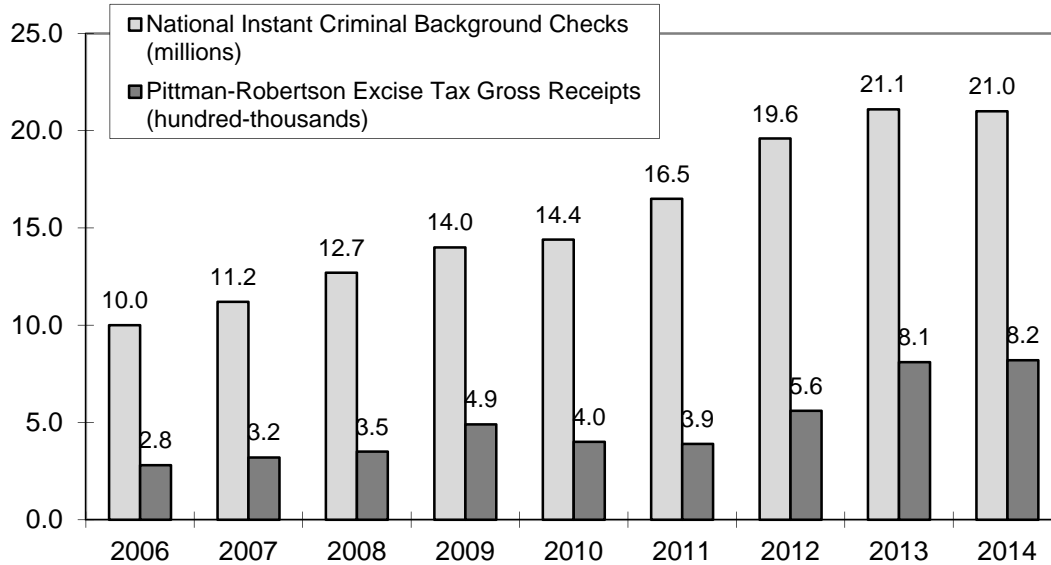
Source: <http://wsfrprograms.fws.gov/Subpages/GrantPrograms/WR/WR-ReceiptsForecast.pdf>

Again, this is only an indication of participation, not a perfect match, but it seems reasonable that some of the increase in excise taxes from Fiscal Year 2012 to Fiscal Year 2014 is from a general increase in participation in sport shooting.

National Instant Criminal Background checks and Pittman-Robertson excise tax gross receipts over the past decade are graphed together on the following page, showing a clear upward trend in both.

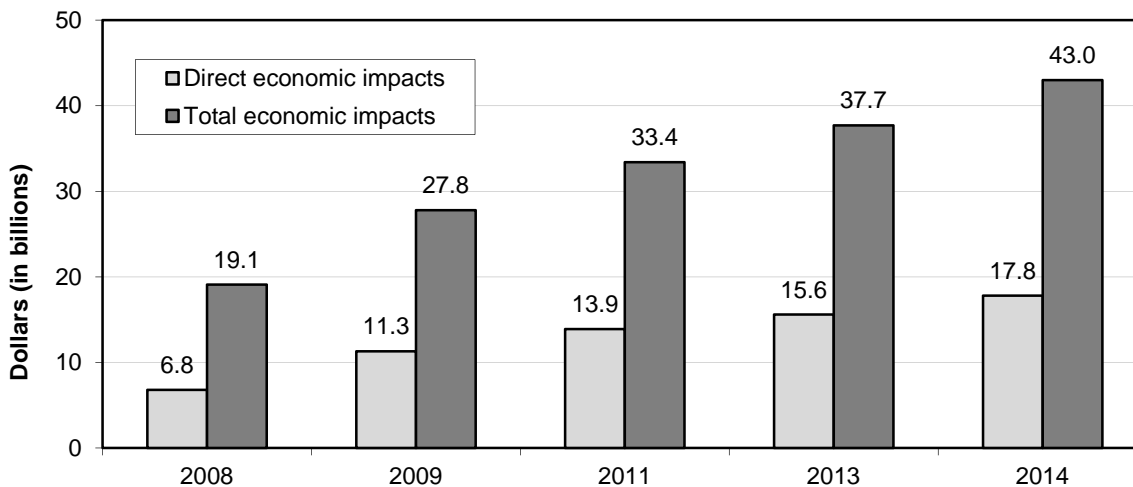
<sup>4</sup> Carter, Zach. "Gun Sales Exploded In The Year After Newtown Shooting." Huffington Post, 6 December 2013: [http://www.huffingtonpost.com/2013/12/06/gun-sales-newtown\\_n\\_4394185.html](http://www.huffingtonpost.com/2013/12/06/gun-sales-newtown_n_4394185.html).

### Trends in National Instant Criminal Background checks and Pittman-Robertson excise tax gross receipts.



**Economic Impact of Firearms and Ammunition Industry.** A report made available by the NSSF regarding the economic impacts of sport shooting activities also establishes a clear upward trend, consistent with previous indications of robust participation and continued growth. This report, which calculates both the direct and total economic impacts of the firearms and ammunition industry, showed a 162% increase in direct impacts and a 125% increase in total impacts between 2008 and 2014 (see graph that follows).

### Direct and total economic impacts of the firearms and ammunition industry.



Source: NSSF / John Dunham and Associates, Inc. "Firearms and Ammunition Industry Economic Impact Report 2014": <http://www.nssf.org/impact/EconomicImpactofIndustry.pdf>

## Verification of Responsive Management's Findings Using Other Research

The accuracy of Responsive Management's study is further demonstrated through verification of its participation findings by way of comparisons with other high-quality studies. One such comparison involves the hunting participation rate. Responsive Management found a hunting rate of 14% among Americans in 2014. While this is higher than the hunting rate found in the U.S. Fish and Wildlife Service/U.S. Census Bureau's *National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* in 2011 (6%), it is commensurate with the rate of self-identification as an active hunter found in the 2013 Cornell National Social Survey (17%).<sup>5</sup>

## METHODOLOGICAL IMPLICATIONS OF PARTICIPATION STUDIES

The survey research landscape is in a state of flux, with Internet and panel surveys now being considered alongside traditional methods such as telephone, mail, and intercept surveys as a viable means of assessing participation in recreational activities. Unfortunately, findings purporting to measure participation for the same activity during the same time period often vary considerably, leaving questions about the methodological implications and reliability of the data.

Whereas Responsive Management conducted each of its participation studies using scientific telephone surveying methodology, the National Sporting Goods Association (NSGA) beginning in 2010 assessed participation in outdoor activities by interviewing members of an online panel maintained by TNS (a marketing company). In its survey methodology, the NSGA notes that survey data collected from the panel are weighted accordingly to adjust for demographic characteristics (note that some of the same potential hazards on weighting covered previously in this document applies to the NSGA data).

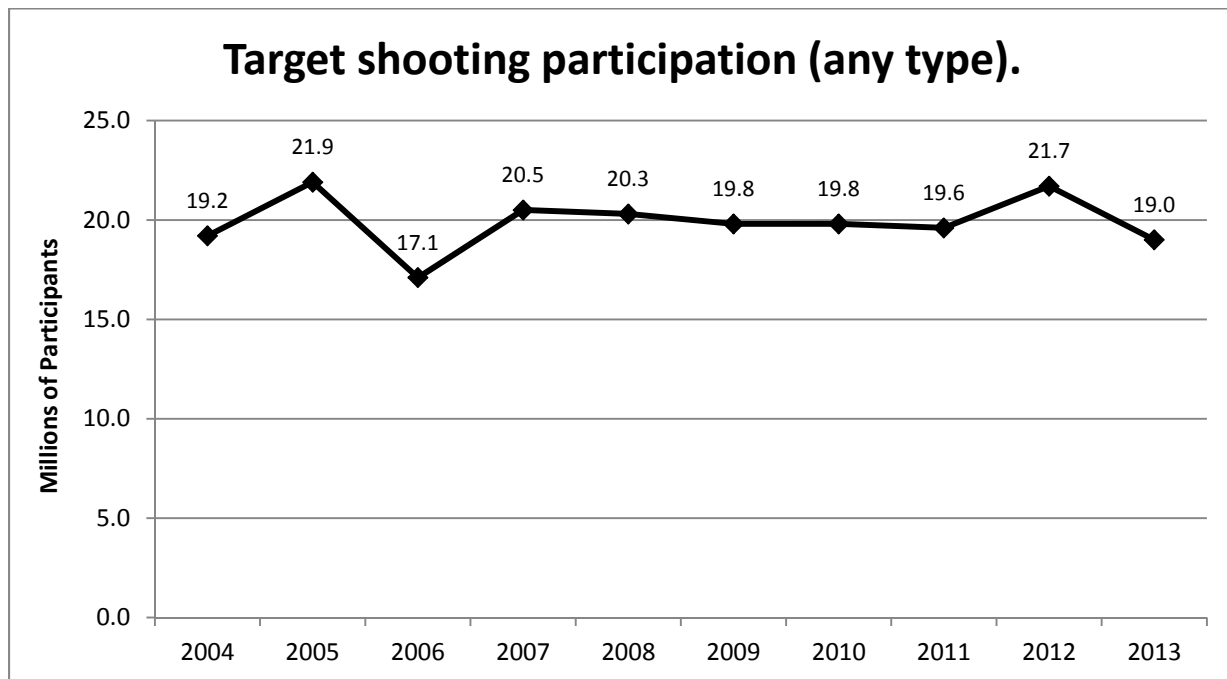
While each mode of data collection offers unique advantages and disadvantages, the guiding principle in selecting an appropriate data collection methodology for any participation study should be the obligation to obtain statistically valid data that accurately represent the study population. Although sample records for telephone surveys sometimes must be obtained through third-party vendors, the benefits of telephone surveys are considerable: they typically provide much higher response rates, allow for markedly better quality control over the data collection and the overall quality of the data, and have a much faster turnaround time.

Appropriately designed Internet-based surveys are most successful when the survey sample consists of *known* respondents guaranteed to have web access (such as in an internal survey of an agency or organization in which all potential respondents have Internet access through their workplace). Internet surveys are also effective in augmenting response rates when respondents contacted through another medium desire an alternative method of responding. At the same time, an Internet-based questionnaire may prove unreliable when attempting to survey members of the general population, and this shortcoming must be kept in mind when considering the results of online surveys measuring participation in outdoor recreation, particularly those that employ a panel data collection methodology.

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<sup>5</sup> Decker, Stedman, Larson, and Seimer. "Hunting for Wildlife Management in America." *Wildlife Professional*, v. 9, no. 1, 2015.

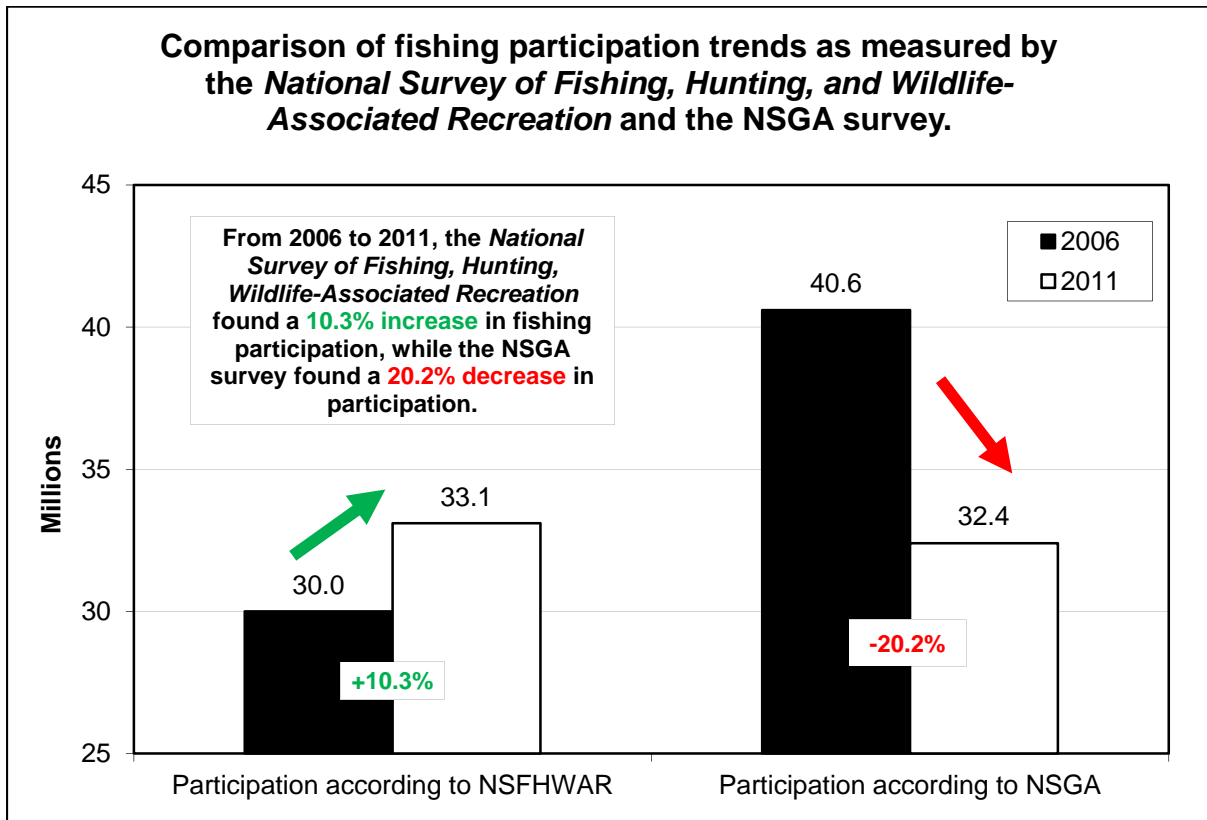
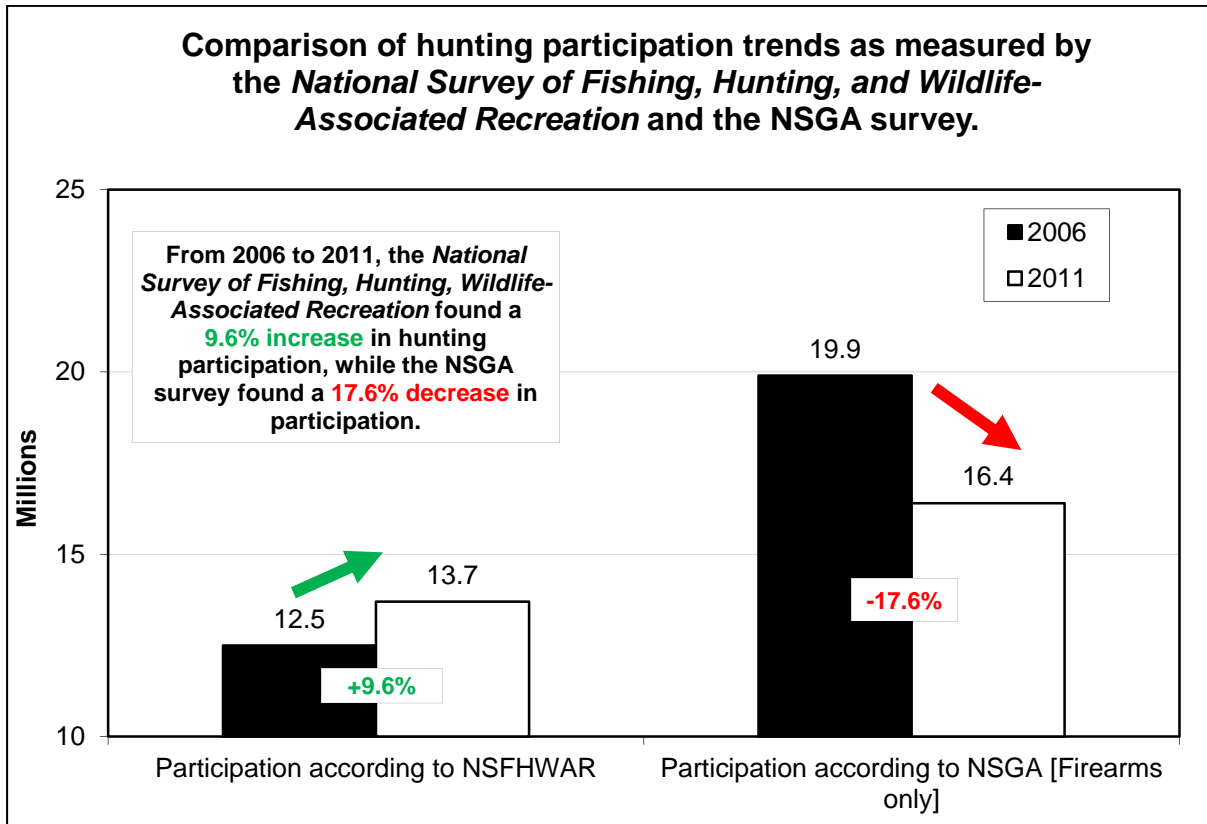
One indicator of trends in target shooting participation comes from the NSGA, which published data indicating that 19.0 million Americans aged 7 or older in 2013 went target shooting, a drop from the 21.7 million estimated by the NSGA in 2012. However, the number in 2013 is within the range of values of the previous 9 years (from 17.1 million to 21.9 million)—see the graph that follows. It seems unlikely that the 2013 number determined by the NSGA represents the start of a long-term decrease; rather, it seems more likely that it is simply reflective of the typical year-to-year variation in the NSGA data.

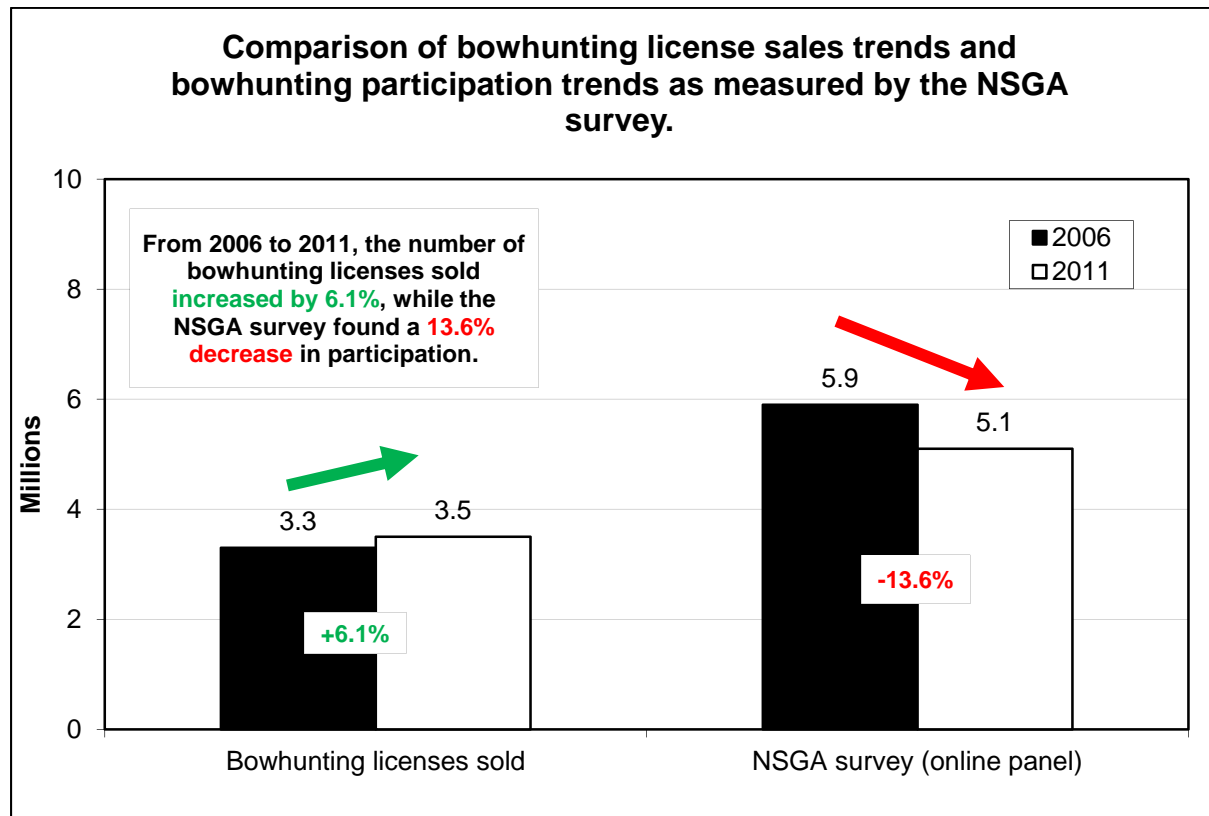


Source: National Sporting Goods Association

It is worth commenting on the fact that the NSGA data for 2013 shows a lower number than in 2012, which is at odds with Responsive Management's rates determined in 2012 and 2014 that suggest an increase. In short, an increase seems logical based on other measures or proxy measures of participation, as discussed previously.

Participation trends documented by the NSGA also tend to differ rather substantially from other established participation studies. For example, as shown in the graphs that follow, trends in hunting and fishing participation as documented by the *National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* and by the NSGA survey paint starkly different pictures. Additionally, bowhunting license sales data and the NSGA data again appear to be in conflict.



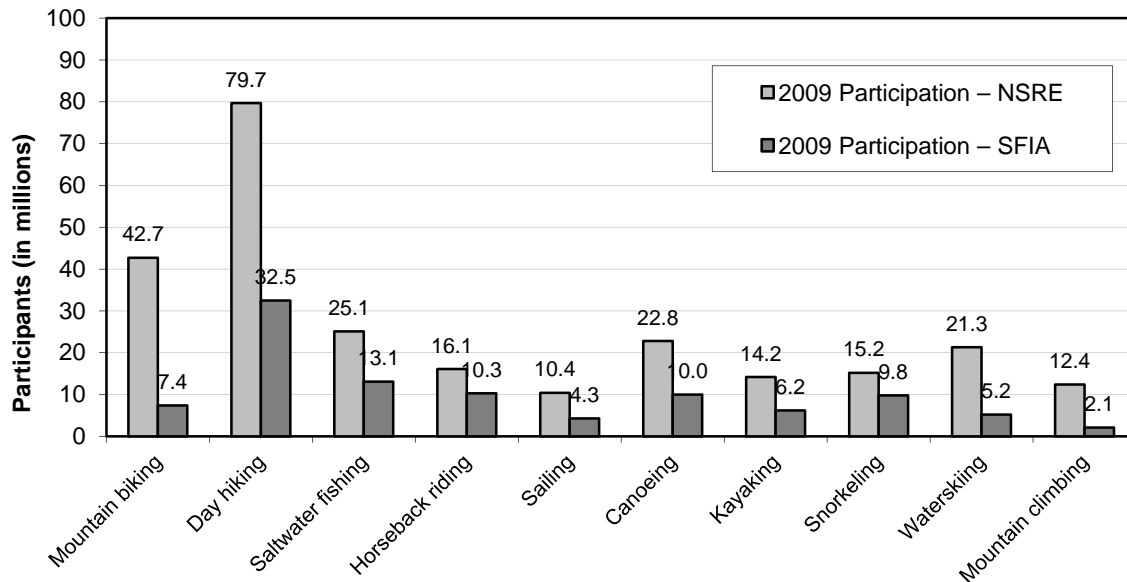


### USE OF INTERNET PANEL SURVEYS TO ASSESS PARTICIPATION RATES

One Internet panel survey found drastically lower participation numbers when compared to a telephone survey of randomly selected respondents. Responsive Management conducted a review of participation studies in 2012 for the Archery Trade Association that revealed widely divergent numbers of participants in a range of outdoor activities, as measured by a scientific telephone survey (conducted for the U.S. Forest Service's *National Survey on Recreation and the Environment* by the University of Georgia) and by interviews with members of an online panel (conducted for the Sports and Fitness Industry Association's [SFIA] Sports, Fitness and Leisure Activities Study). As depicted in the graph that follows, the numbers of participants measured through the online panel survey are consistently and dramatically lower than the numbers of participants measured through the telephone survey.



**Comparison of activity participation numbers as measured by the NSRE telephone survey and the SFIA online panel.**



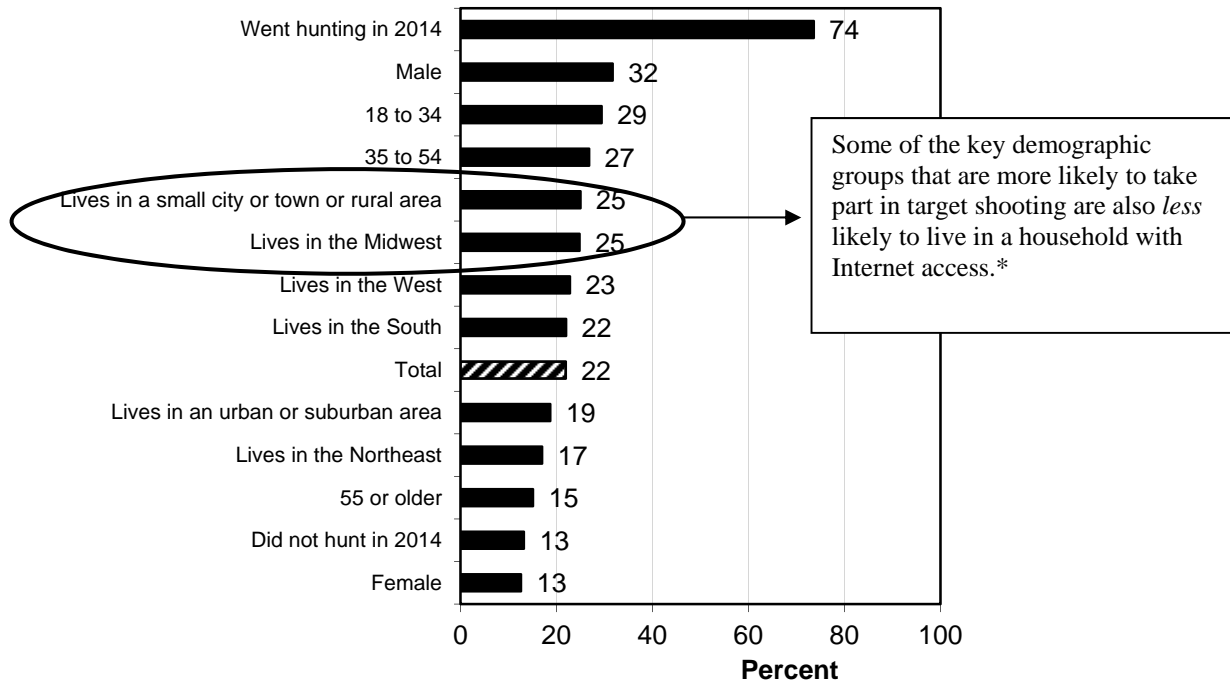
Note that the NSRE participation numbers are among U.S. residents 16 years old and older, while the SFIA numbers are among U.S. residents 6 years old and older. One would expect that, because the SFIA measures participation across a broader range of individuals, the numbers would generally be higher since more potential participants are included.

A further consideration of Internet panel surveys is the potential for the very demographic groups that are most likely to engage in the activity(s) in question to be underrepresented or even excluded from the sample. This is particularly relevant when contrasting the demographic groups most likely to participate in target shooting and the demographic groups most likely to live in a household with Internet access.

In looking at the potential pool for Internet panel samples, a substantial number of people are excluded from the outset—those without Internet access. Some of those most likely to participate in sport shooting activities are individuals who live in small cities or towns or rural areas (i.e., nonmetropolitan areas) and people from the Midwest Region of the United States—demographic characteristics that coincide with low Internet access (see graph and tabulation on the following page). It is also worth pointing out that hunting participation is strongly correlated with target shooting participation, and the typical demographic characteristics of hunters are consistent with those previously described for shooters. These participatory characteristics have been documented both in Responsive Management’s survey as well as the wider body of literature concerning shooting participation and firearm ownership.<sup>6</sup>

<sup>6</sup> Morin, Rich. “The Demographics and Politics of Gun Owning Households.” Pew Research Center, 15 July 2014: <http://www.pewresearch.org/fact-tank/2014/07/15/the-demographics-and-politics-of-gun-owning-households/>

### Percent of each of the following groups that target shot in 2014:



Internet Use for Households: 2013	
Household Characteristic	Percent of Households That Had No Reported Internet Access*
<b>Metropolitan Status</b>	
Metropolitan area	23.9
Nonmetropolitan area	35.2
<b>Region</b>	
Northeast	23.2
Midwest	26.6
South	28.3
West	21.9

\*Access as defined by having a subscription to an Internet service

Source: U.S. Census Bureau's 2013 American Community Survey; [www.census.gov/history/pdf/2013computeruse.pdf](http://www.census.gov/history/pdf/2013computeruse.pdf)

There is a potential, because of the exclusion of potential respondents from the sample (those without feasible Internet access), that participation studies that employ online panels to assess participation rates are systematically minimizing involvement from the very individuals who are most likely to participate in certain activities, particularly target shooting and hunting.

## CONCLUSION

Responsive Management's data collection methods were compared to a variety of other data collection methods, and its data were compared to other data. The evidence also helps to validate the accuracy of Responsive Management's research on these sports.

## **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 facilities 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 attitude and opinion 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 25 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:  
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