

# Responsive Management



## **NATIONAL ARCHERY IN THE SCHOOLS PROGRAM STUDENT SURVEY REPORT**

**Conducted for the Archery Trade Association**

**by Responsive Management**

**2005**

# **NATIONAL ARCHERY IN THE SCHOOLS PROGRAM STUDENT SURVEY REPORT**

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## **Acknowledgements**

First and foremost, Responsive Management would like to thank all of the teachers and students who took the time to participate in the survey. Also, Responsive Management would like to thank Michelle Doerr, Jay McAninch, and Denise Parker of the Archery Trade Association/ ArrowSport/Bowhunting Preservation Alliance for their input, support, and guidance on this project. Finally, Responsive Management would also like to thank Roy Grimes of the Kentucky Department of Fish and Wildlife for his input and guidance.



## **EXECUTIVE SUMMARY**

This study was conducted for the Archery Trade Association to help assess the National Archery in the Schools Program (hereinafter referred to as the archery program or archery course) and the effect the program has on students' attitudes toward archery and bowhunting and their participation in archery and bowhunting.

Printed questionnaires were mailed to physical education teachers certified to teach the archery program in Kentucky schools. The teachers distributed the questionnaires to students who had participated in the archery program, collected them after the students had completed the questionnaires, and returned them to Responsive Management for data entry and analysis. The survey was administered in November 2004. Responsive Management obtained 1,494 completed questionnaires. The analysis of data was performed using Statistical Package for the Social Sciences software as well as proprietary software developed by Responsive Management.

Students like the course and consider the course to be exciting. They often said the course made physical education class and school better. The course had a positive effect on students' self-esteem—a majority said that they felt very good about themselves while taking the course, and a majority said that they felt better about themselves upon finishing the course. The course also gave students a sense of accomplishment, as a majority reported that they got a lot better at shooting a bow and arrow while taking the course.

The students most liked the kinesthetic, or experiential, aspects of the course—the physical act of shooting the bow and arrow and seeing the results (i.e., hitting the target). In a motor-learning context, they like the process and outcome aspects. The students were less interested in the academic aspects of archery: they did not like as much learning about the history of archery, learning archery safety, and learning about the equipment.

The archery program appears to be quite successful in encouraging participation in archery and bowhunting. Subsequent to taking the course, students are more likely to show interest in and participate in archery and bowhunting. Comparisons of rates of participation and interest prior to and after taking the archery course show large gains for archery and substantial gains for

bowhunting (for instance, regarding participation at the more than once level, prior to the course, 50% of students participated in archery more than once; after the course, 61% participated more than once).

After the course, there was an increase in archery and bowhunting participation, while there was a decline in participation in other sports (baseball, basketball, volleyball, soccer, tennis, and golf all had decreased participation subsequent to the students' attendance in the archery course), as well as a decline in the purely shooting of the shooting sports (target shooting with a gun; shooting BB, pellet, or air guns). Participation in paintball or hunting with firearms remained about the same. Note that the decline in participation in some of the sports may be a function of the timing of the survey rather than because children are choosing archery over the other sports. Nonetheless, of those who had taken the course 1 year or more previously, there were declines in participation in baseball, basketball, volleyball, soccer, and golf subsequent to the archery course (of those participating more than once in the sport).

The archery course appears to have an effect on constraints to archery and bowhunting participation. While the course increased slightly the percentage saying that they did not want to go (and, for bowhunting, those saying that the activity is boring), this increase is to be expected and is a consequence of having more people try archery and bowhunting. Simply put, as more people try an activity, more people will discover that the activity is not for them (although conversely, more people also will discover that they like the activity). This increase in those saying that they do not want to go is most likely among those who were previously *unsure* whether they liked archery or bowhunting but subsequently discovered that they do not like it.

The archery course appears to facilitate students' participation in archery and bowhunting by helping them find companions who also want to participate; by providing information in general about archery and specifically about where to participate; and by alleviating concerns about safety among the students and their parents. Subsequent to the course, lower percentages said that they did not participate because they did not have a companion with which to go, they did not know where to go, and they did not have information about archery and bowhunting. Also,

for bowhunting, after the course fewer students said that they did not participate because they think bowhunting is too dangerous and because their parents won't let them go.

The archery course also appears to increase students' desire to participate, based on the fact that subsequent to the course a lower percentage said that they did not have time to participate.

Because it is unlikely that students have fewer demands on their time and, therefore, more time available to them, it is likely that the course increased the priority they place on archery, which results in their finding the time to participate.

One constraint to participation is the lack of after-school archery clubs or teams. While 37% of students said that their school has an archery club or team, a larger percentage (48%) indicated that their school does not have an archery club or team (the remaining 15% did not know). About half of the students who said that their school does not have an archery club or team expressed interest in joining a club or team if their school had one.

Inability to find information about archery is not a pressing problem. A majority of students who looked for information (59%) found all or most of the information that they sought; only 7% could not obtain the information that they sought. The survey results indicate that the Internet is the most important information source. However, the [archerysearch.com](http://archerysearch.com) Website could be better publicized, as 13% had heard of the site, leaving plenty of room for greater exposure. Nonetheless, 13% having heard of the site is fairly good considering the limited publicity about the Website that has been disseminated. Other important sources of information include sporting goods stores and magazines.

Regarding purchases of archery equipment, it does not appear that difficulty finding a store selling archery equipment is a particular problem, as 83% of students who looked for a store selling archery equipment found one. About a fifth of students had actually purchased archery equipment since taking the course, and this proportion goes up to a fourth of those who took the archery course 1 year or more previously. Also, while 30% of students overall had looked for a store selling archery equipment, 37% of students who had taken the course 1 year or more previously looked for a store selling equipment. This finding suggests that the stimulation in

interest and participation remains for some time after the course and does not quickly drop off after the student has taken the course.

Finally, the survey discussed initiation and family members' participation in archery and bowhunting. Students who had been exposed to archery prior to their exposure through the course most commonly were taught by their father (29%) or uncle (10%); only 3% had been taught by their mother. Indeed, the results of this question show a gender split, with answers that are exclusively male (father, uncle, brother, grandfather, and stepfather) being given more than answers that are exclusively female (mother, aunt, sister, grandmother, and stepmother). This finding concurs with the family members who participate in archery and bowhunting, which is, again, split along gender lines, with the top participating family members being male and the bottom members being female.

Additional analyses performed by Responsive Management are included in supplemental reports (*National Archery in the Schools Program Student Survey Report with Additional Analyses* and *National Archery in the Schools Program Student Survey: Crosstabulations by Schools and Constraints*). These supplemental analyses are more in-depth regarding factors affecting participation.

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## **INTRODUCTION AND METHODOLOGY**

This study was conducted for the Archery Trade Association to help assess the National Archery in the Schools Program (hereinafter referred to as the archery program or archery course) and the effect the program has on students' attitudes toward archery and bowhunting and their participation in archery and bowhunting. The study entailed a mail survey of students who had taken the archery course in school. Specific aspects of the research methodology are discussed below.

Printed questionnaires were mailed to physical education teachers certified to teach the archery program in Kentucky schools. The teachers distributed the questionnaires to students who had participated in the archery program, collected them after the students had completed the questionnaires, and returned them to Responsive Management for data entry and analysis. The questionnaire was developed cooperatively by Responsive Management and the Archery Trade Association. The survey was administered in November 2004. Responsive Management obtained 1,494 completed questionnaires.

Responsive Management staff entered the data into Questionnaire Programming Language 4.1 (QPL), which is software designed for administering surveys and collecting survey data.

Responsive Management senior staff supervised the data entry to maintain rigorous quality control over the data entry process. Responsive Management's facilities are staffed by data entry personnel with extensive experience in administering surveys on the subjects of natural resources and outdoor recreation. The analysis of data was performed using Statistical Package for the Social Sciences software as well as proprietary software developed by Responsive Management.

Note that some results may not sum to exactly 100% because of rounding.

Each chapter and subchapter begins with a text box of the most pertinent findings of that section.

## ATTITUDES TOWARD AND OPINIONS ON THE ARCHERY PROGRAM, AND INFORMATION ON ARCHERY PROGRAMS IN SCHOOLS

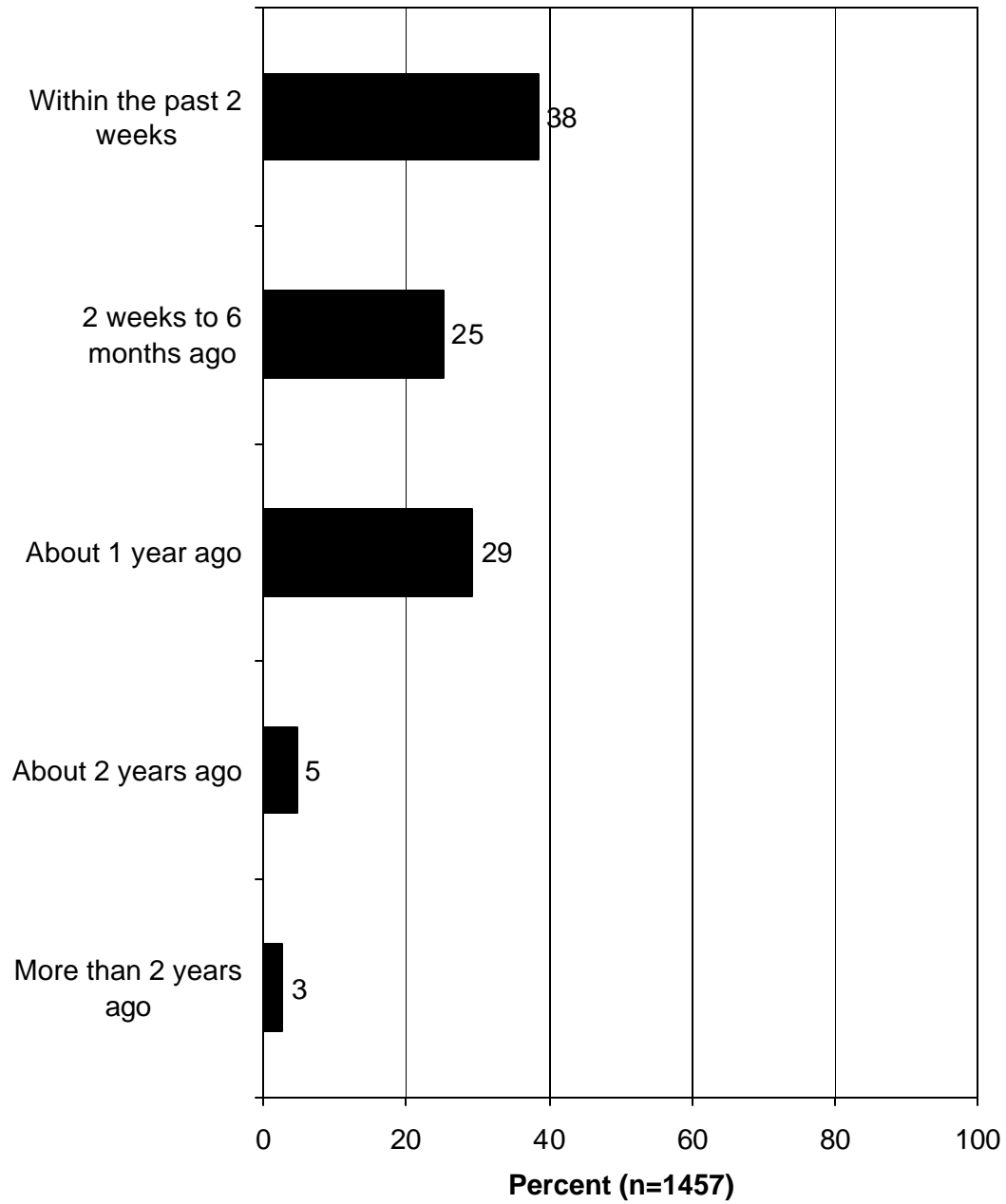
- The archery course was well-liked and was considered exciting, and many students indicated that the course made physical education class and school in general better.
- The course had a positive effect on students' self-esteem: a majority said that they felt very good about themselves while taking the course, and a majority said that they felt better about themselves upon finishing the course.
- Students most liked the kinesthetic aspects of the archery course (i.e., the experiential aspects of the course—the physical act of shooting the bow and arrow). Students were less interested in academic aspects, such as the history of archery.

- A majority (63%) of students surveyed had taken the archery course within the previous 6 months; 29% had taken the course about a year previous to the survey.
- A majority (62%) of students surveyed had taken the archery course in the autumn. This finding may simply be a function of the timing of the survey; the survey did not determine when schools typically teach the program.
- A majority (68%) of students surveyed liked the archery course a lot, and another 26% liked it a little; only 7% did not like the archery course at all. Similar results were found when students were asked how exciting was the archery course: 59% found it very exciting, 33% found it a little exciting, and only 8% found it not at all exciting.
- Students were asked about how much they liked specific aspects of the archery program, and they were asked to indicate if they liked it a little or a lot, or if they did not like it at all. Regarding those who liked it a little or a lot, the top ranked aspect was hitting the target (an overwhelming majority, 91%, liked hitting the target a little or a lot). Other aspects of the course that they liked were shooting the arrow (90%), doing something new in physical education class (86%), learning new shooting techniques (84%), learning or improving archery skills (84%), and learning how to focus on the target (80%).

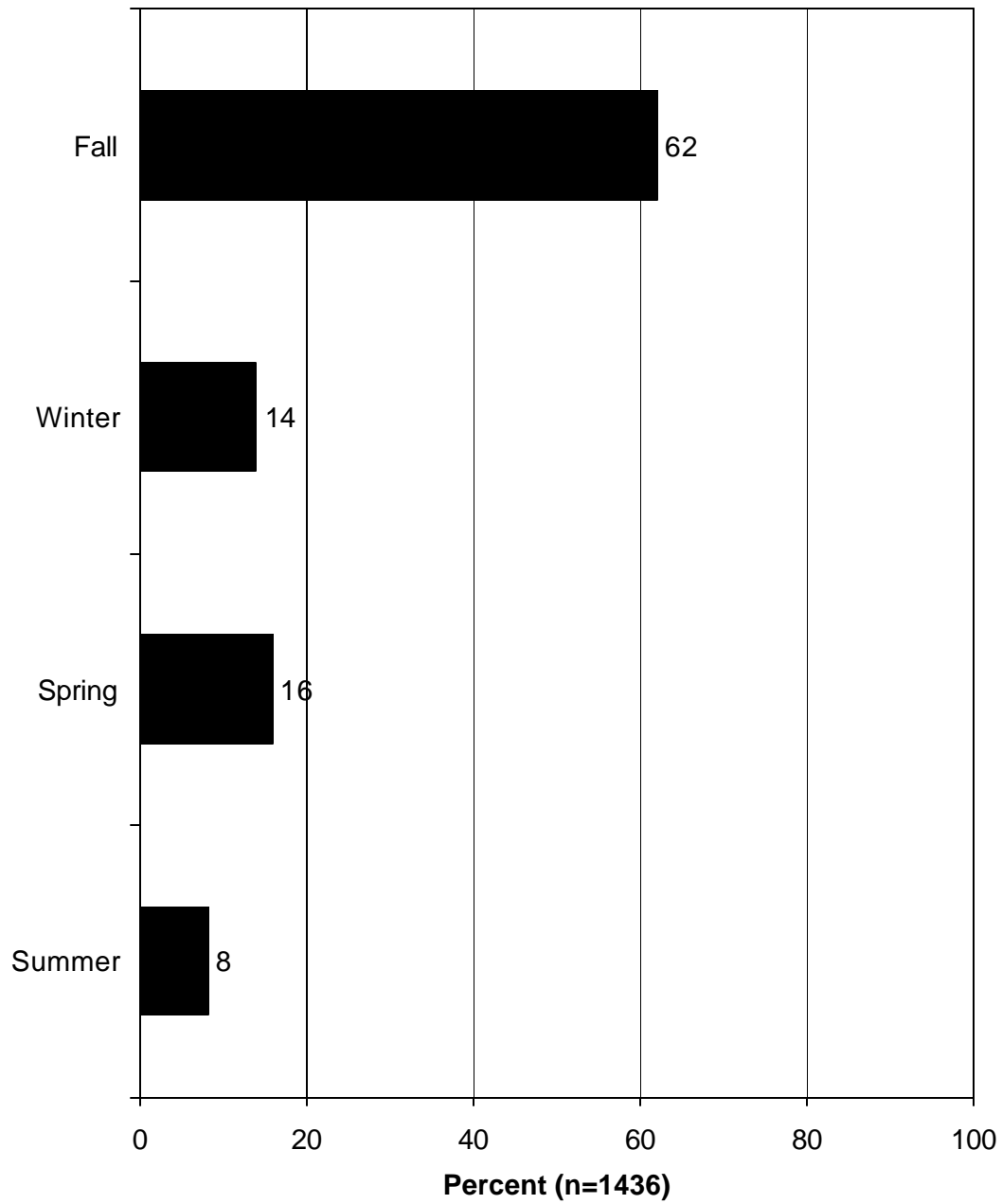
- Learning about archery history was, by far, the least liked aspect. Other aspects that were not well liked include being responsible for the equipment, learning about archery safety, and learning about the equipment itself.
- Regarding those who liked the aspect a lot, the ranking is nearly the same as the ranking of those liking the aspect a little or a lot. The top ranked aspects that students liked a lot are hitting the target (74% liked it a lot), shooting the arrow (72%), doing something new in physical education class (62%), learning or improving archery skills (55%), learning new shooting techniques (52%), and learning how to focus on the target (45%).
- A majority (54%) of students rated the archery course as easy; nonetheless, a large percentage (41%) rated it a little hard, and 5% rated it very hard.
- Students were about evenly divided regarding whether the archery course made school better or whether school was the same: 49% said the course made school better, but 47% said school remained the same. However, regarding physical education class, nearly two-thirds (66%) of students said the archery course made physical education class better, and 29% said physical education class was the same.
- A majority (61%) of students said that they felt very good about themselves while taking the archery course, and another 35% said they felt okay about themselves while taking the course, for a total of 96% who had positive feelings about themselves while taking the course. A majority (53%) of students indicated that they felt better about themselves upon finishing the archery course; 4% said they felt worse about themselves.
- The majority (59%) of students indicated that they got a lot better at shooting with a bow and arrow while taking the course, and another 33% said that they got a little better; only 8% reported that they had not gotten better while taking the course.
- More than a third of students surveyed (37%) said that their school had an after-school archery team or club.

- Of those whose school has an after-school archery team or club, 29% indicated that they belong to the after-school team or club. Of those whose school does not have an after-school archery team or club, nearly a majority (47%) said that they would be very interested in joining, and another 30% said that they would be a little interested in joining.
  - Of those who took the archery course 1 or more years previously (and whose school has an after-school archery club or team), 33% indicated that they belong to the after-school team or club. Among those who took the archery course 1 or more years previously, interest in joining an after-school club or team is nearly the same.

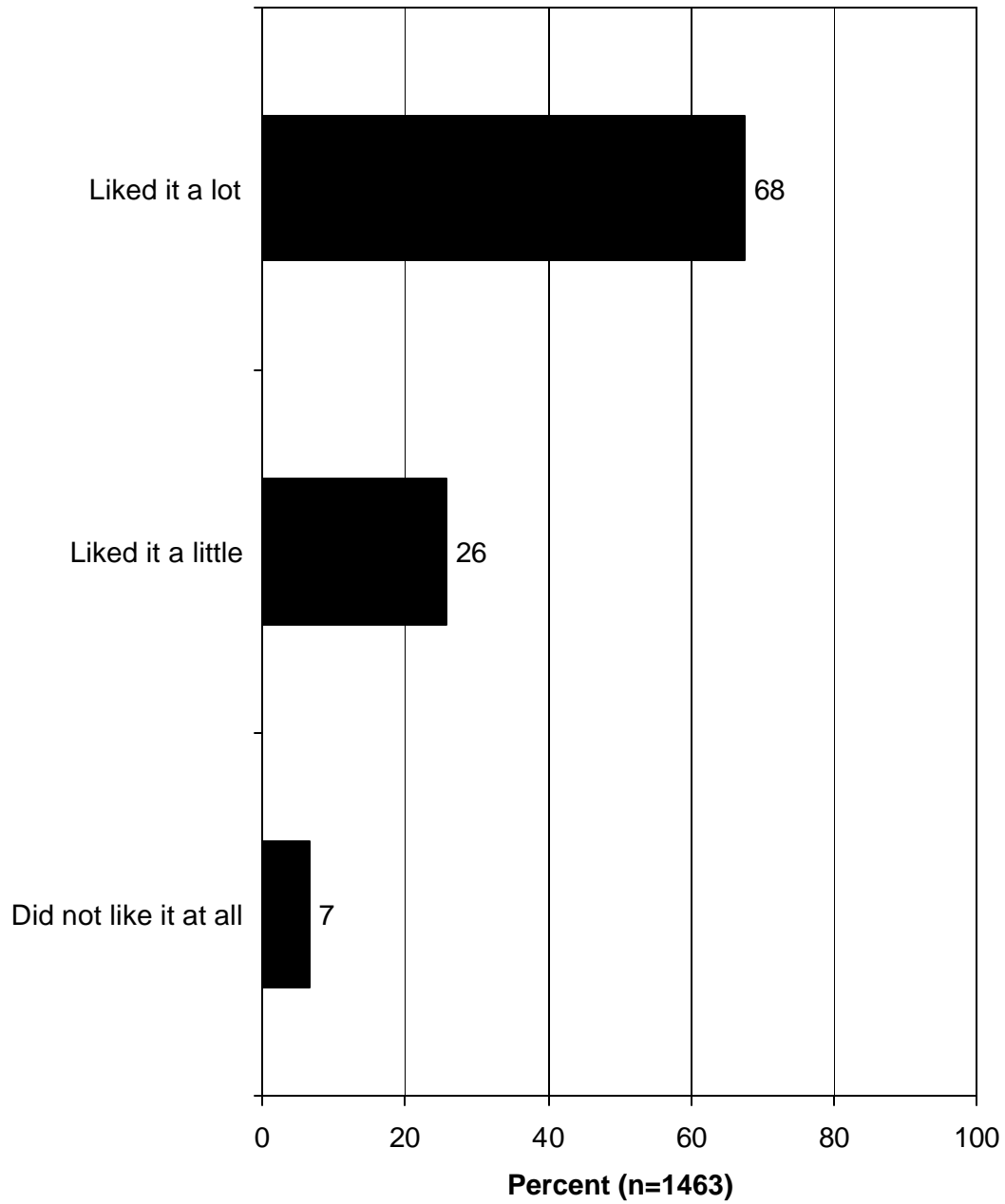
### How long ago did you take archery in school?



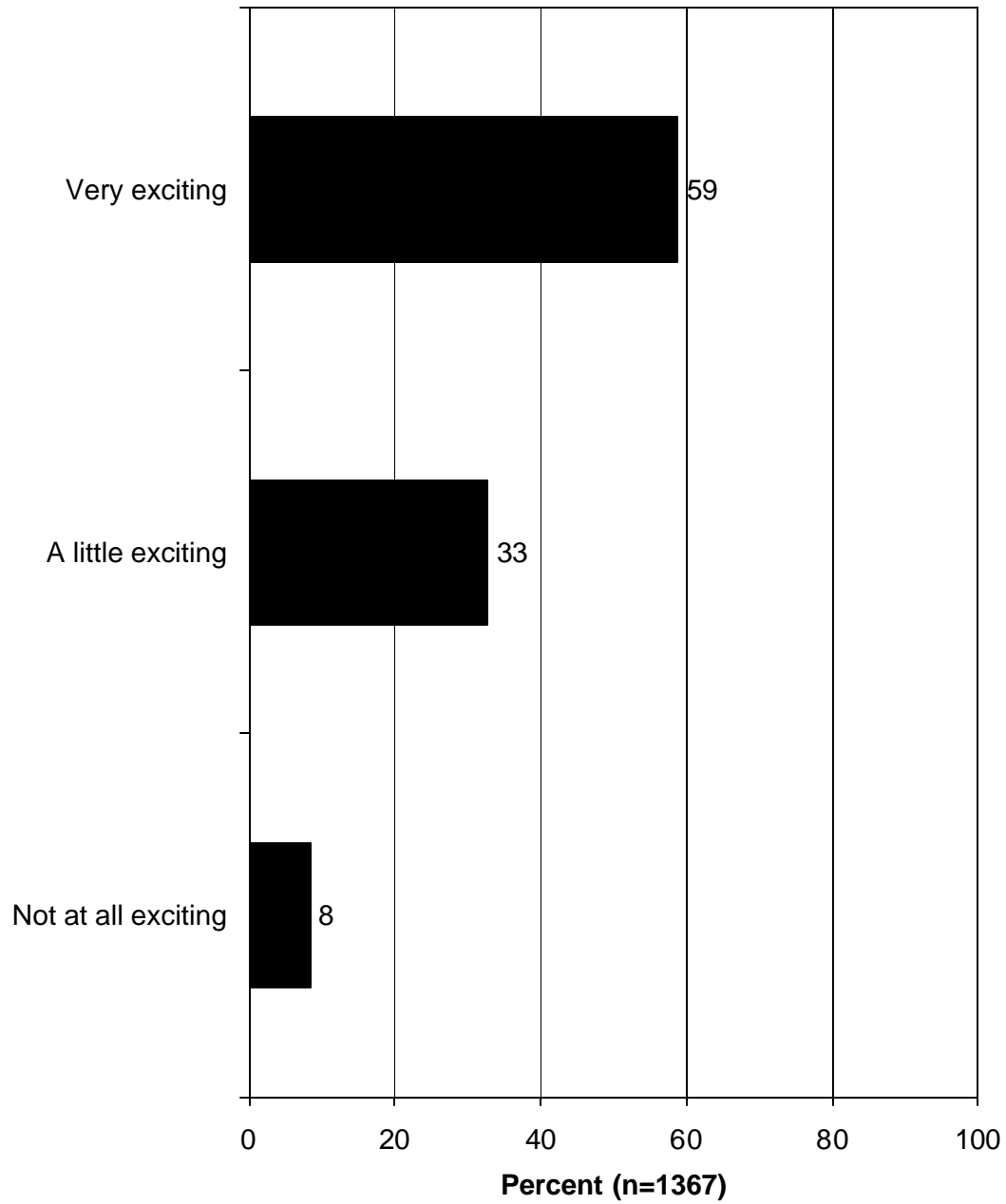
### During what season did you take archery in school?



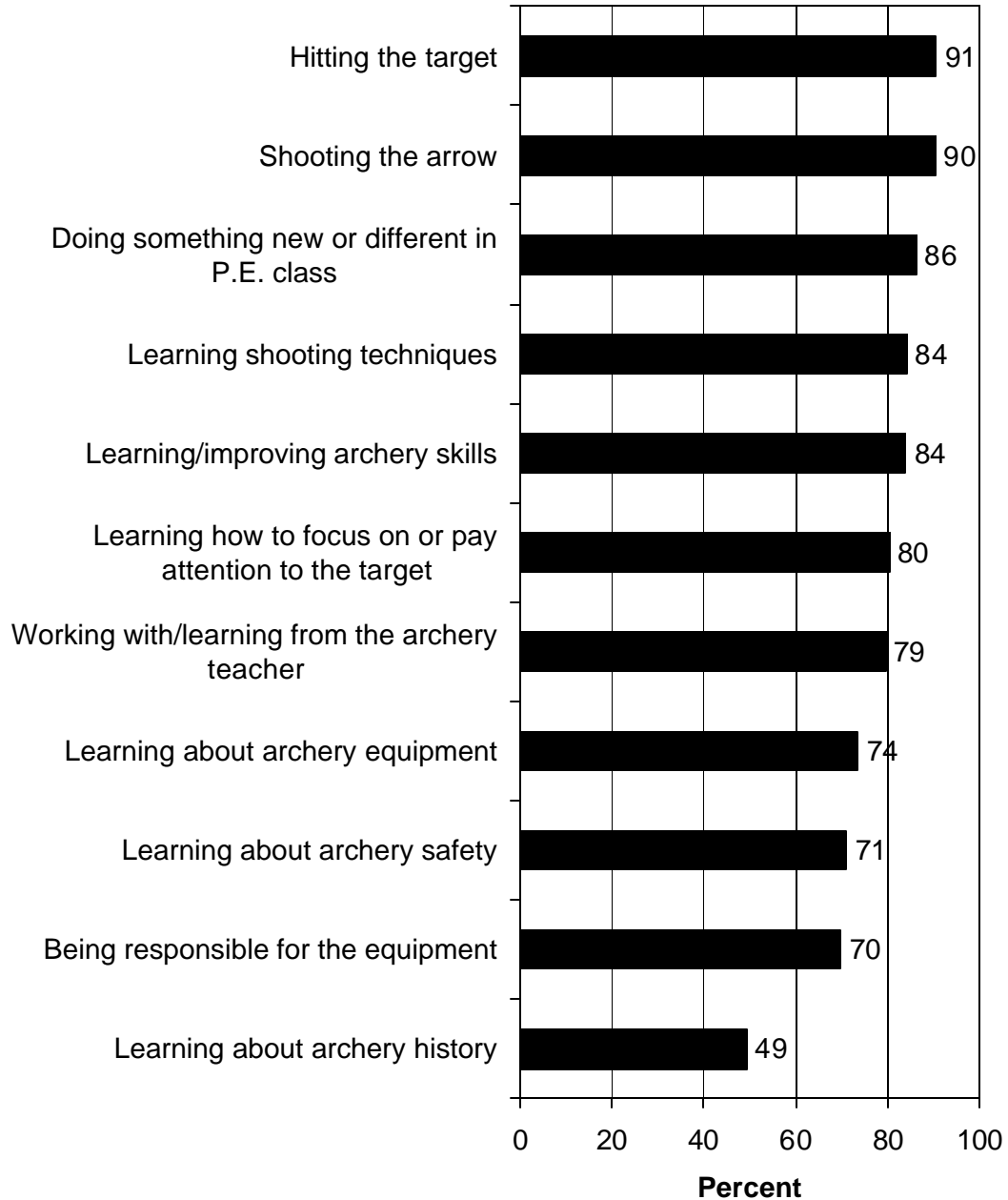
### Overall, how much did you like the archery program you took in school?



### How exciting was the archery program?

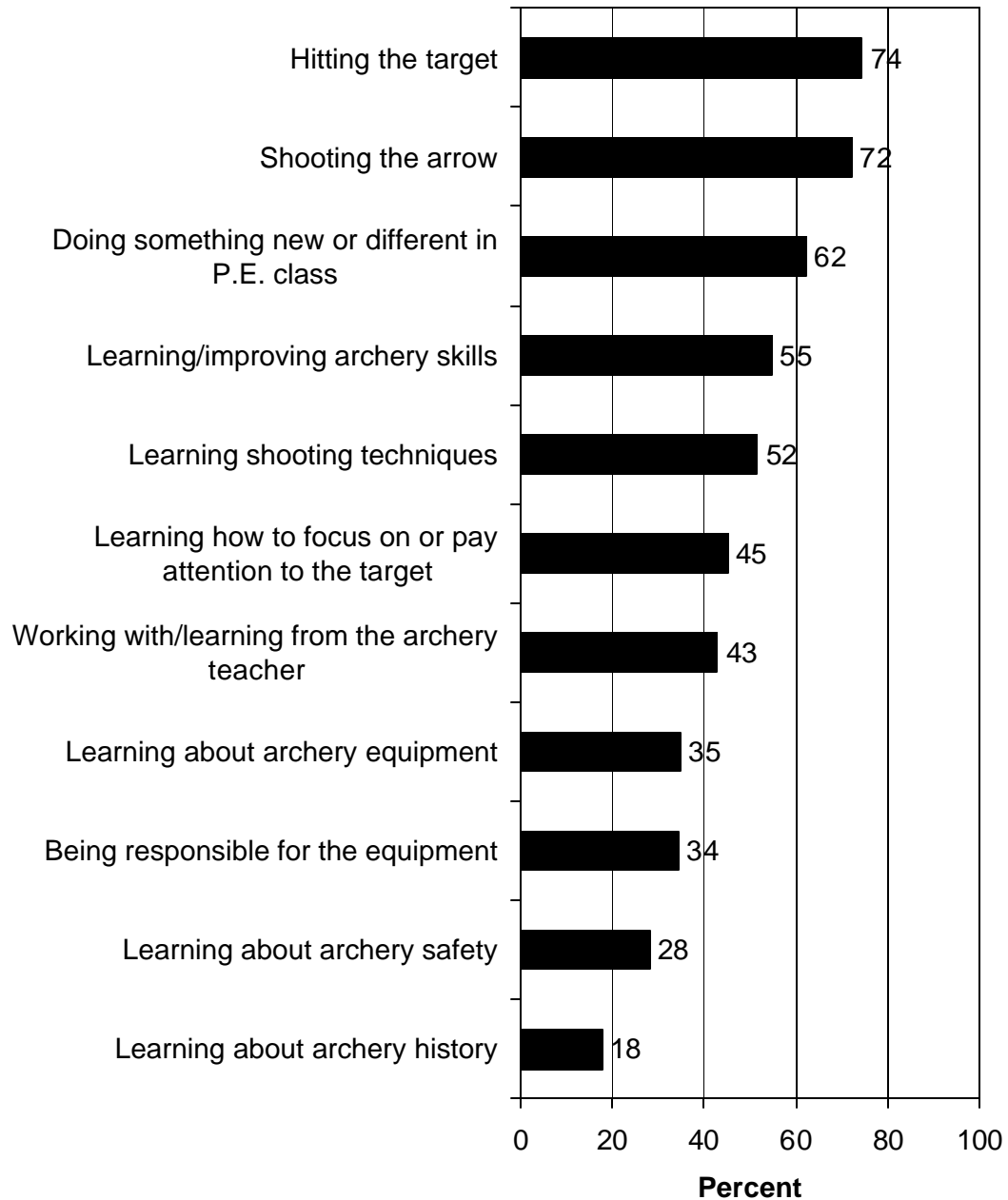


**Percent who liked a little or a lot the following aspects of taking archery in school.**



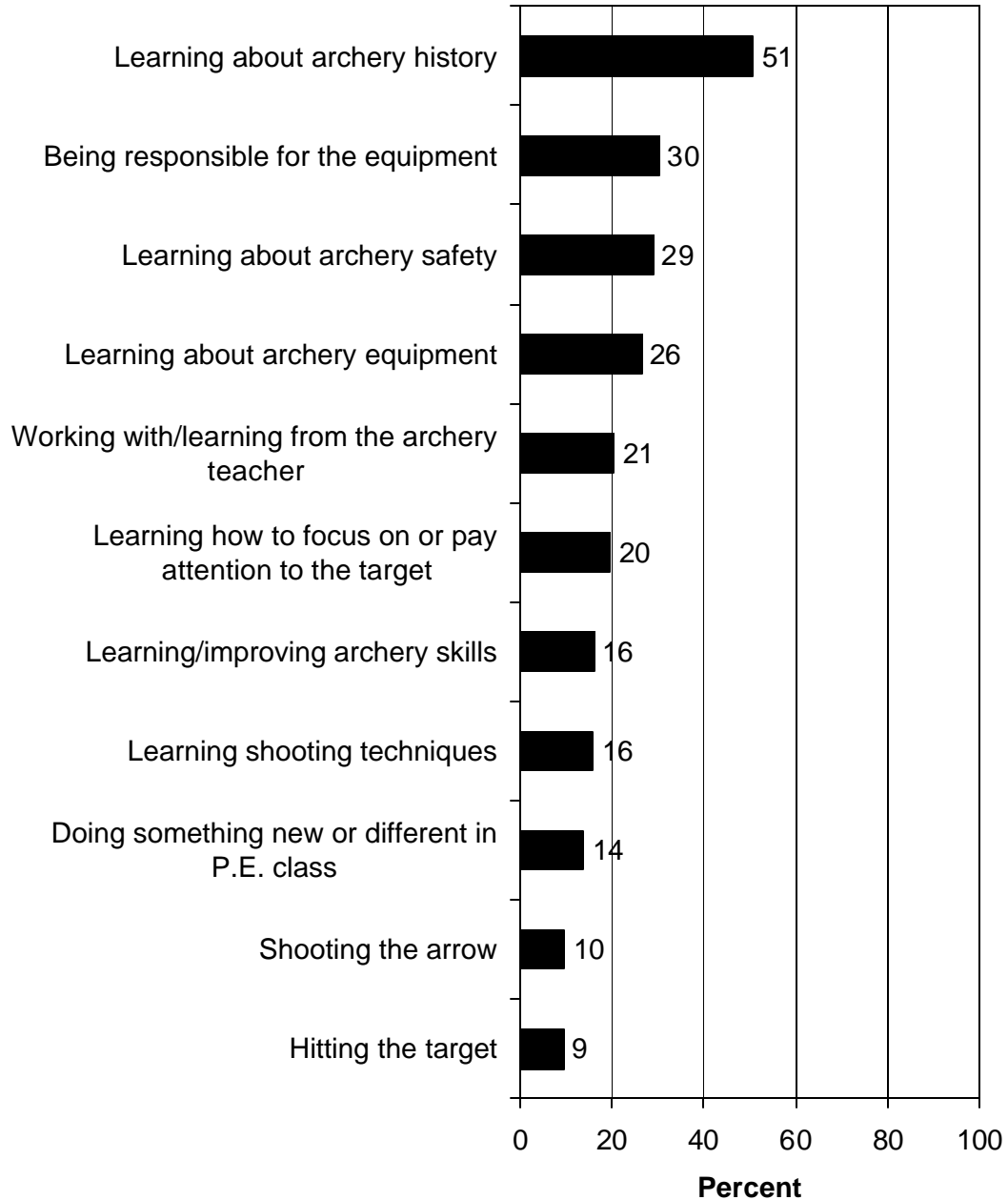
Sample size (n-value) ranges from 1,420 to 1,439.

### Percent who liked a lot the following aspects of taking archery in school.



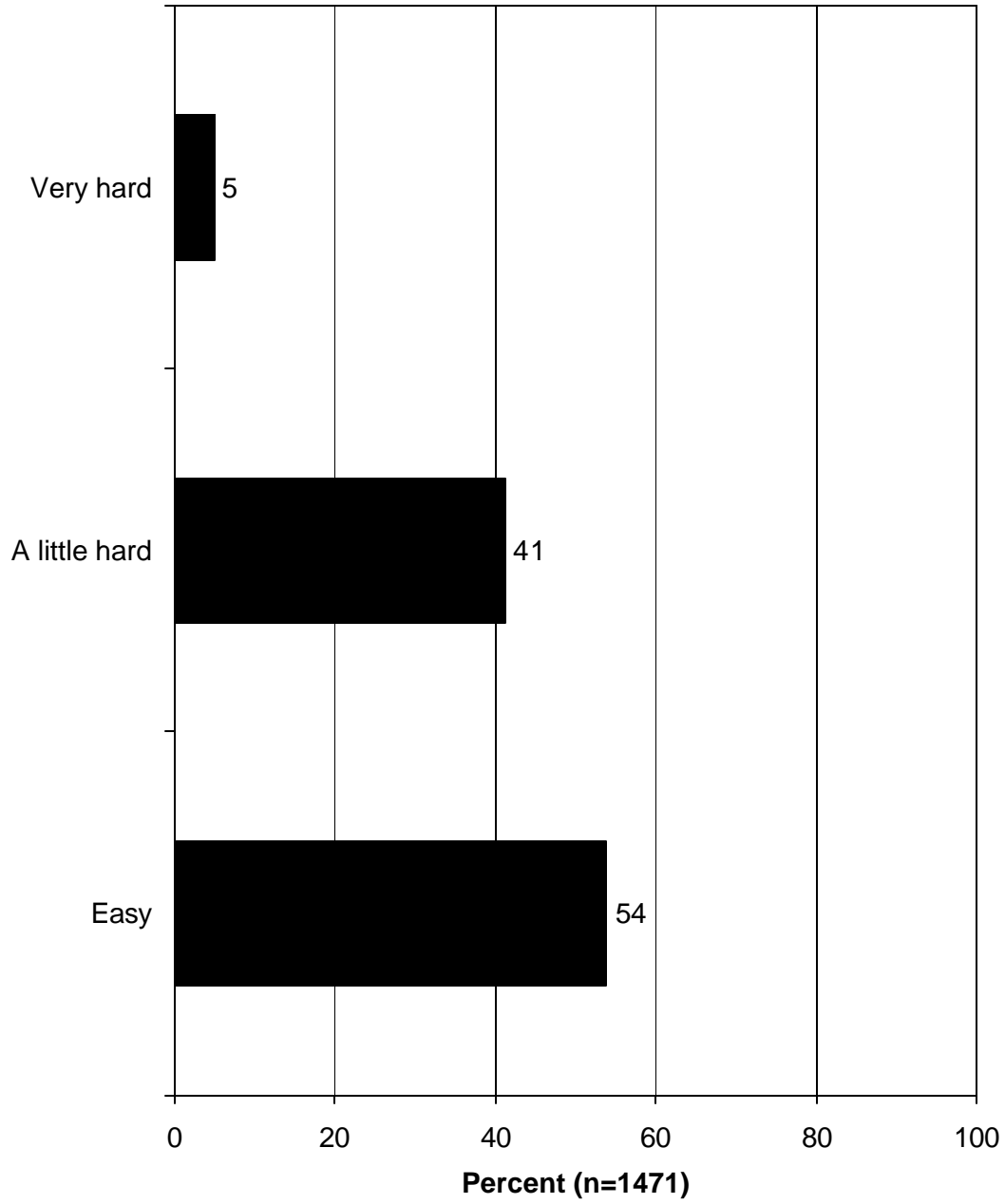
Sample size (n-value) ranges from 1,420 to 1,439.

**Percent who did not like at all the following aspects of taking archery in school.**

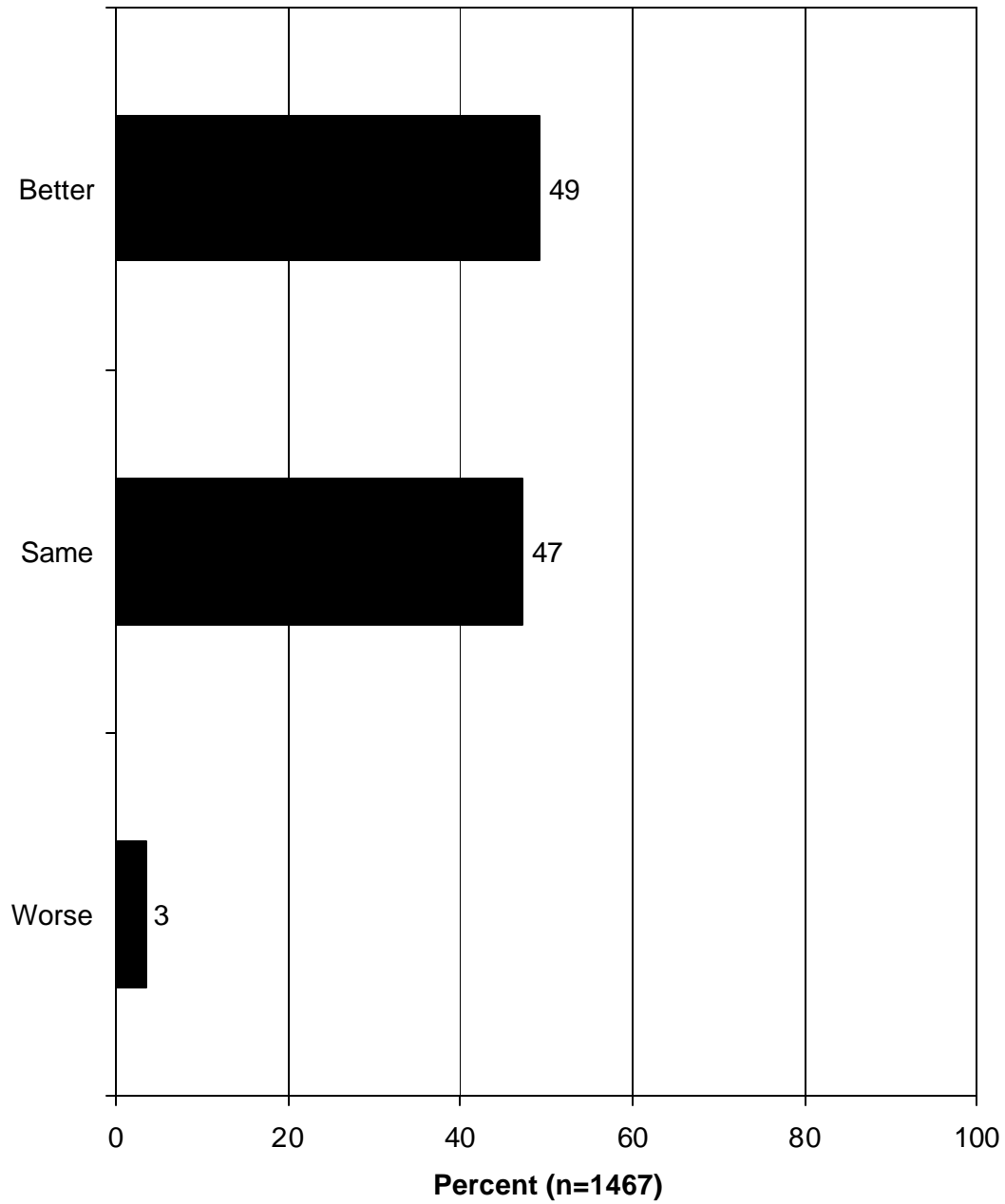


Sample size (n-value) ranges from 1,420 to 1,439.

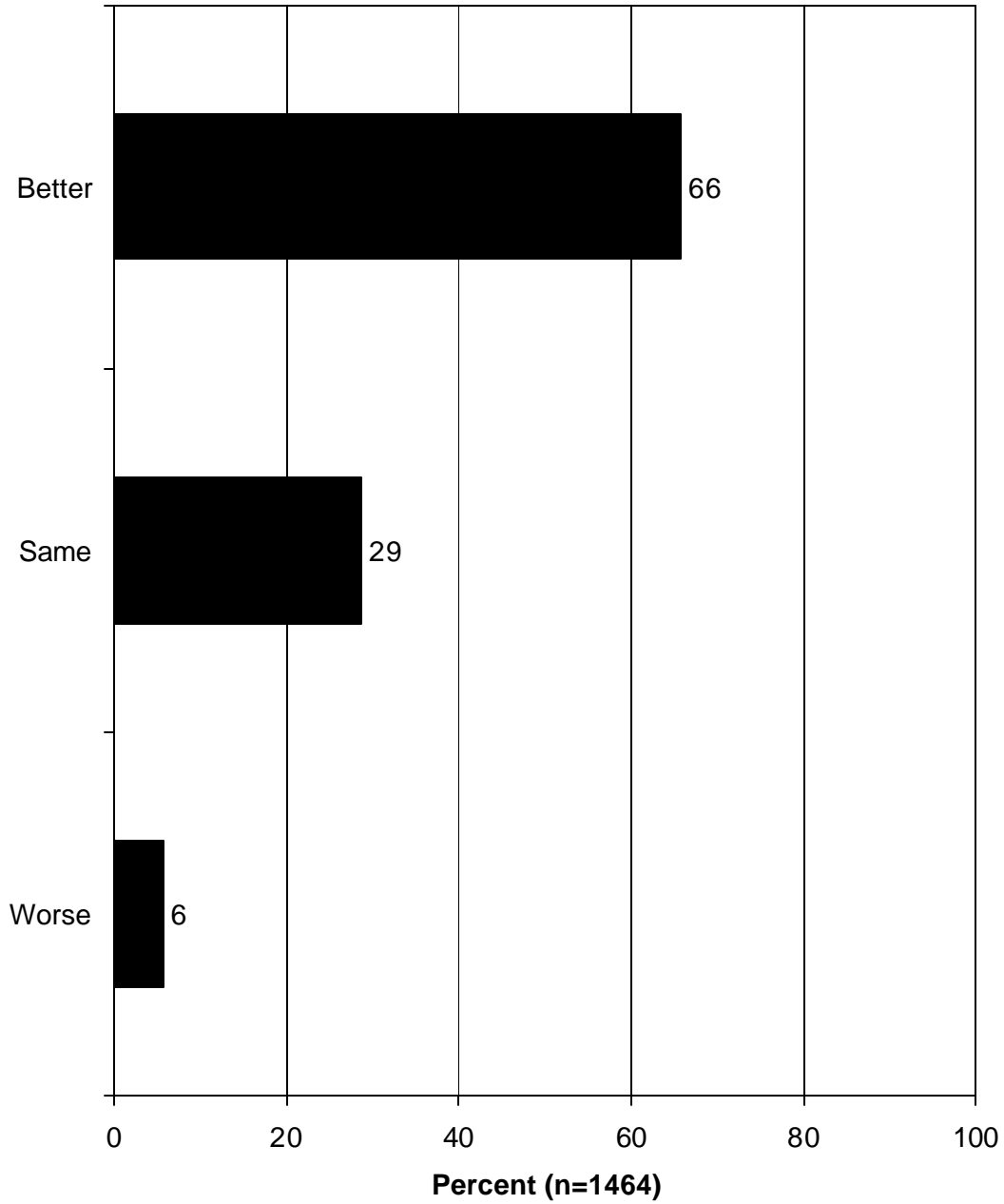
### How hard was the archery program?



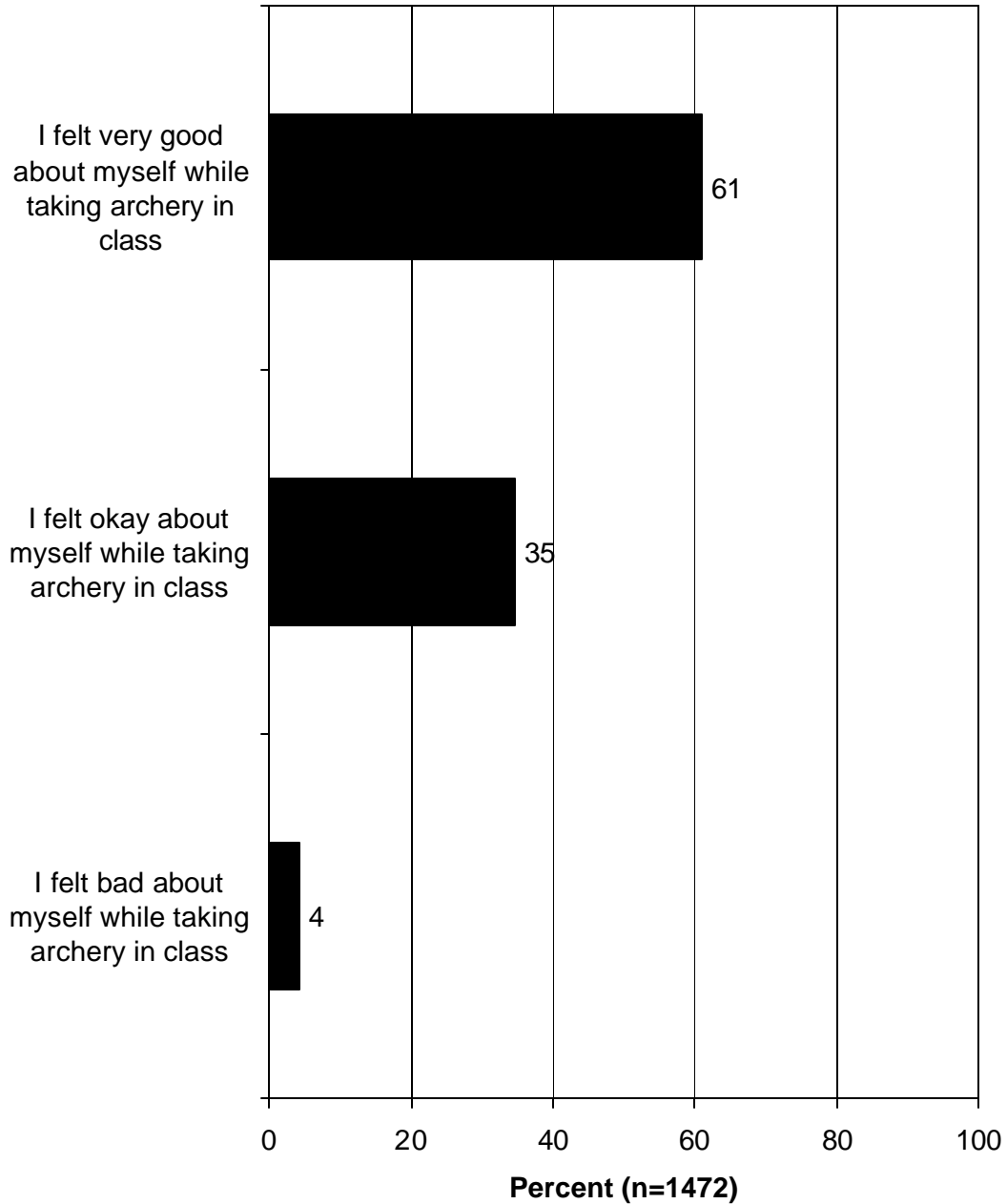
**Did the archery program make school better, about the same, or worse?**



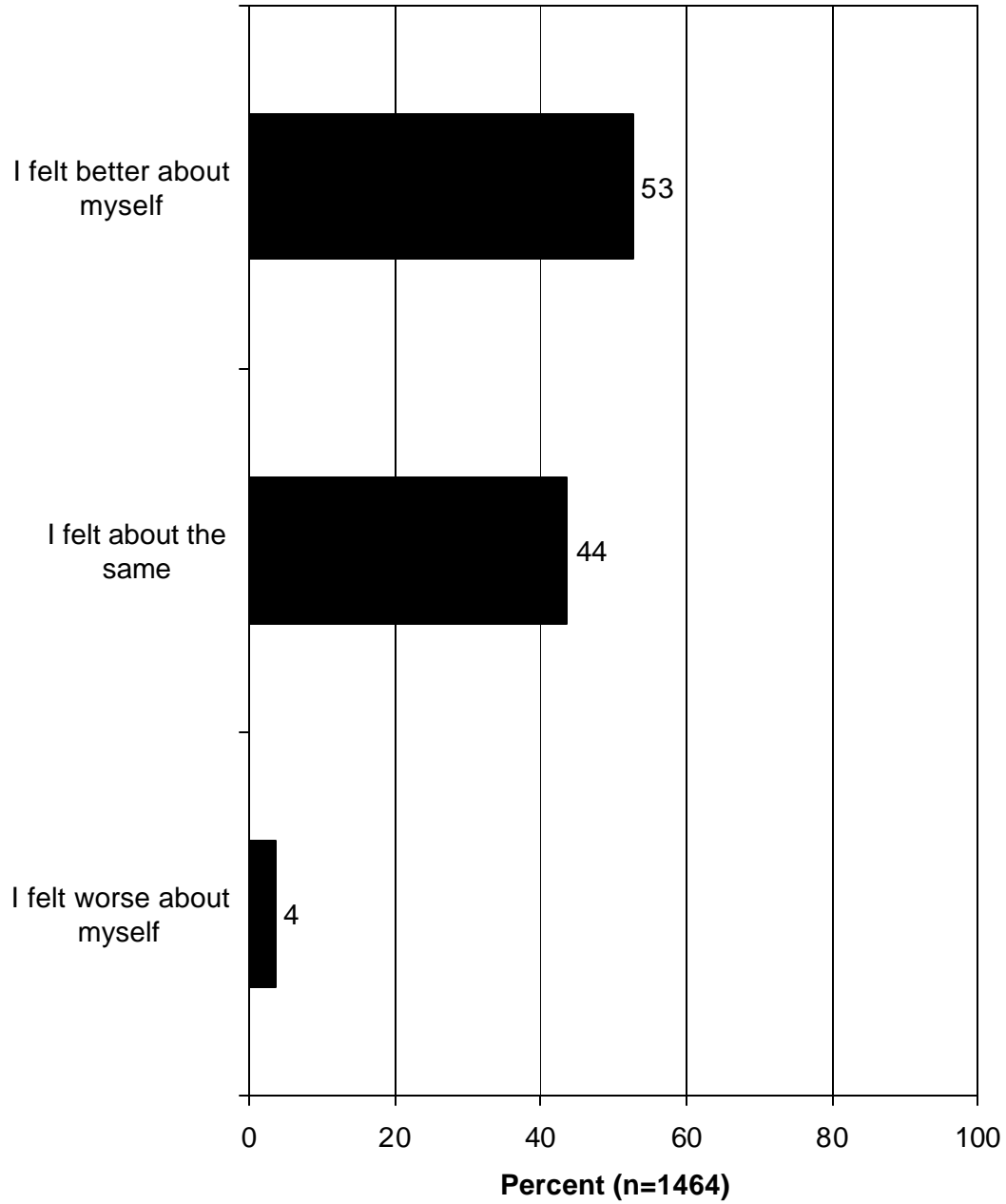
**Did the archery program make P.E. class better,  
about the same, or worse?**



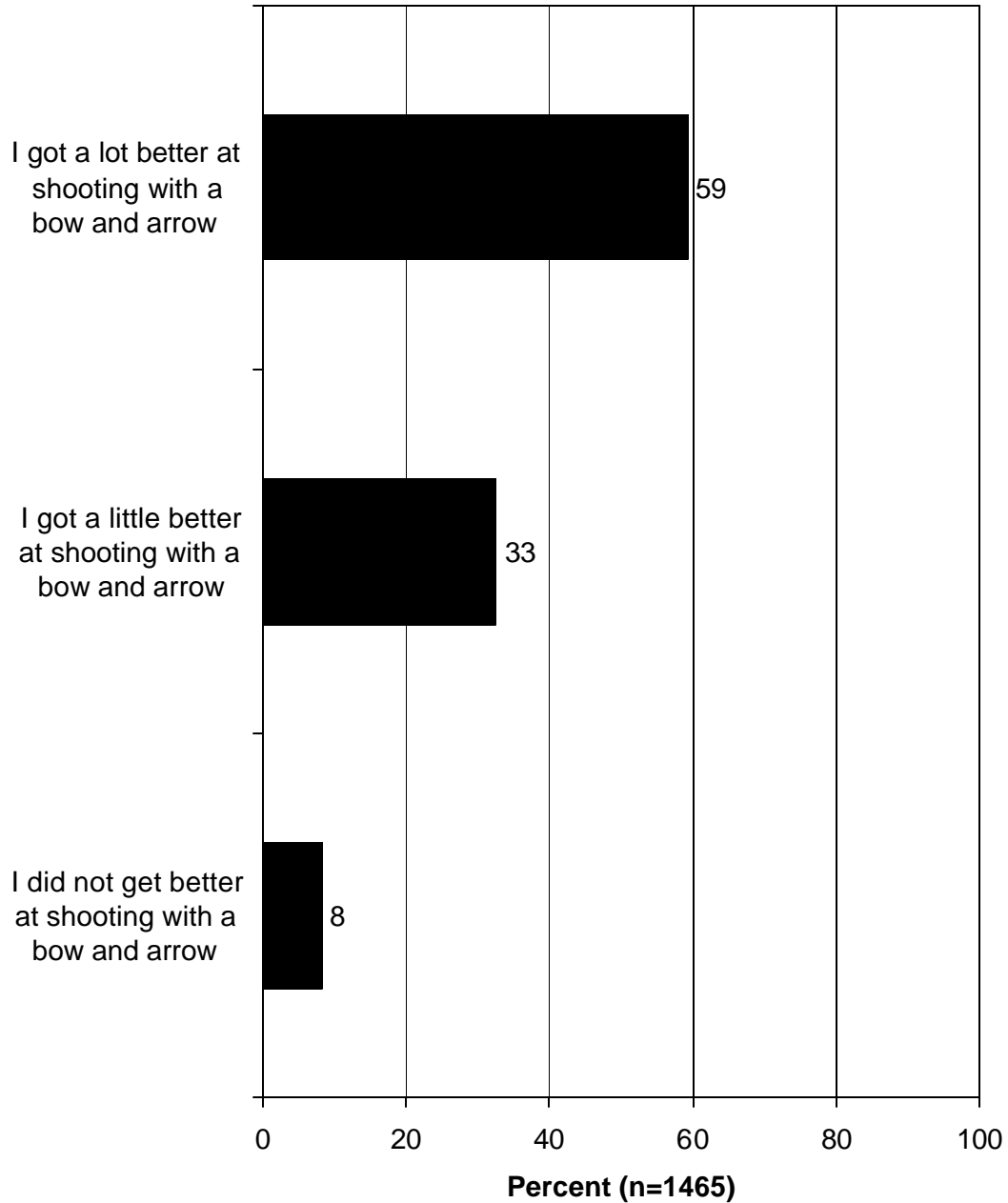
### How did you feel about yourself while taking archery?



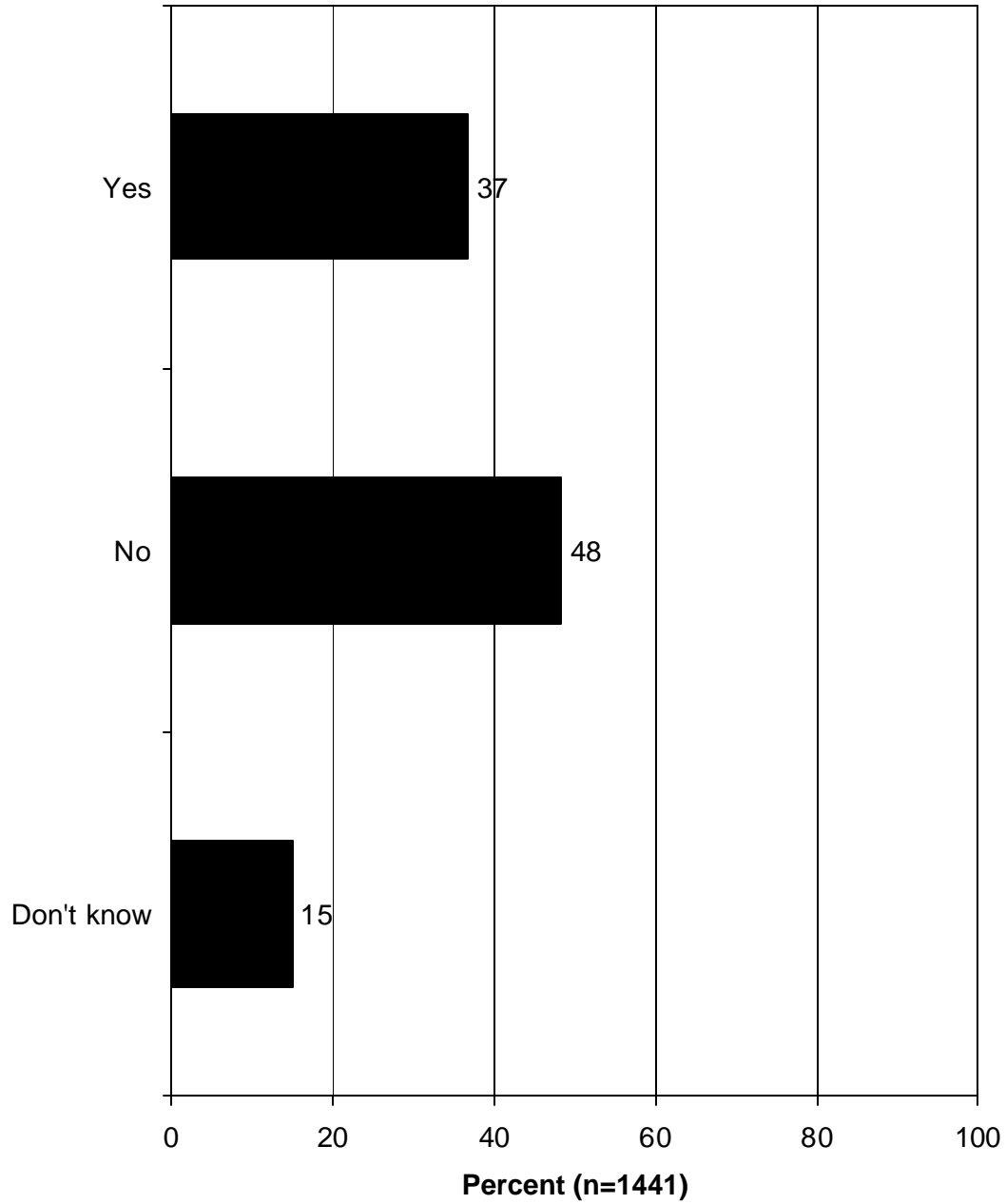
**Did you feel better or worse about yourself when you finished taking archery in school?**



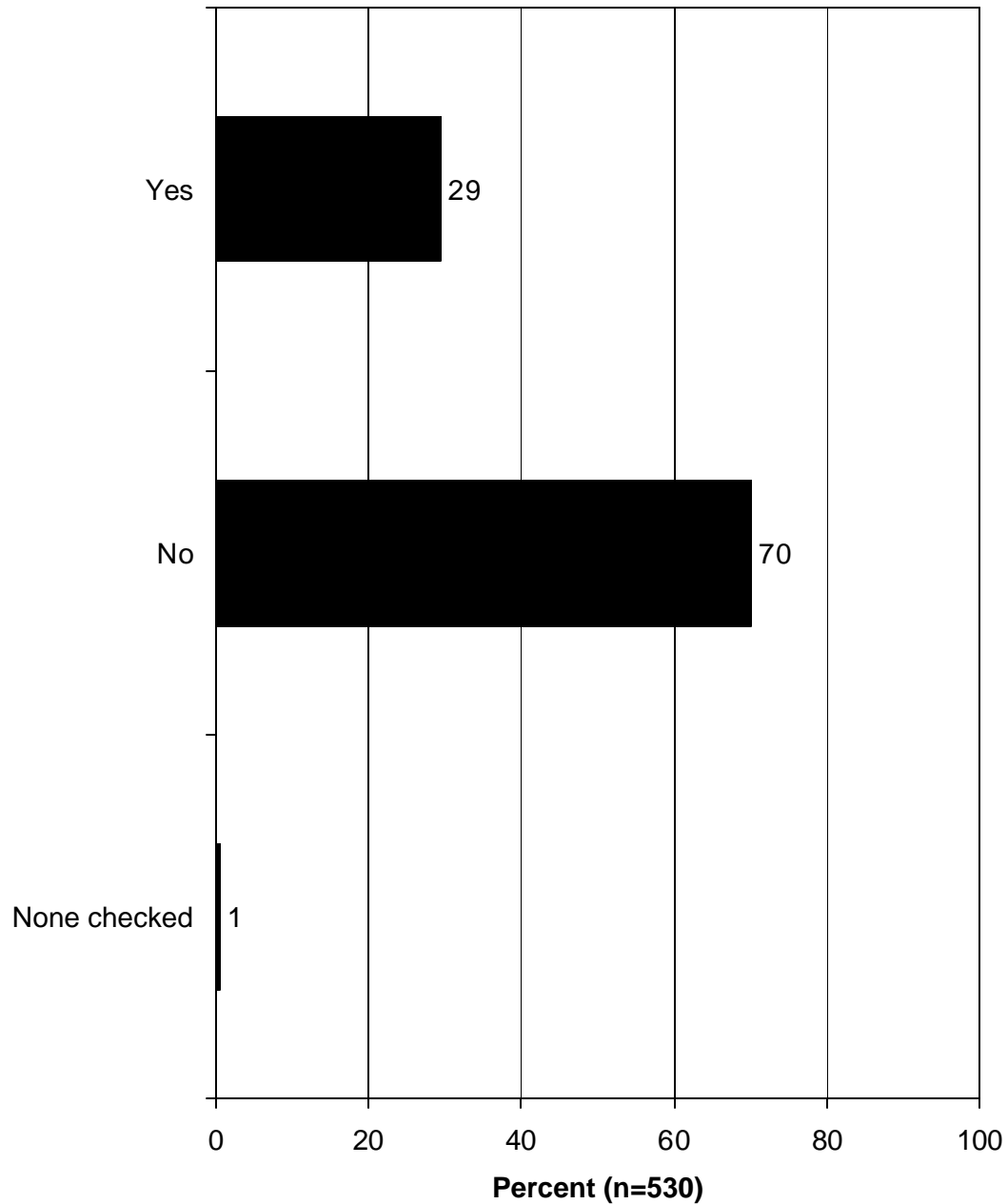
### Did you get better at shooting a bow and arrow while taking archery in school?



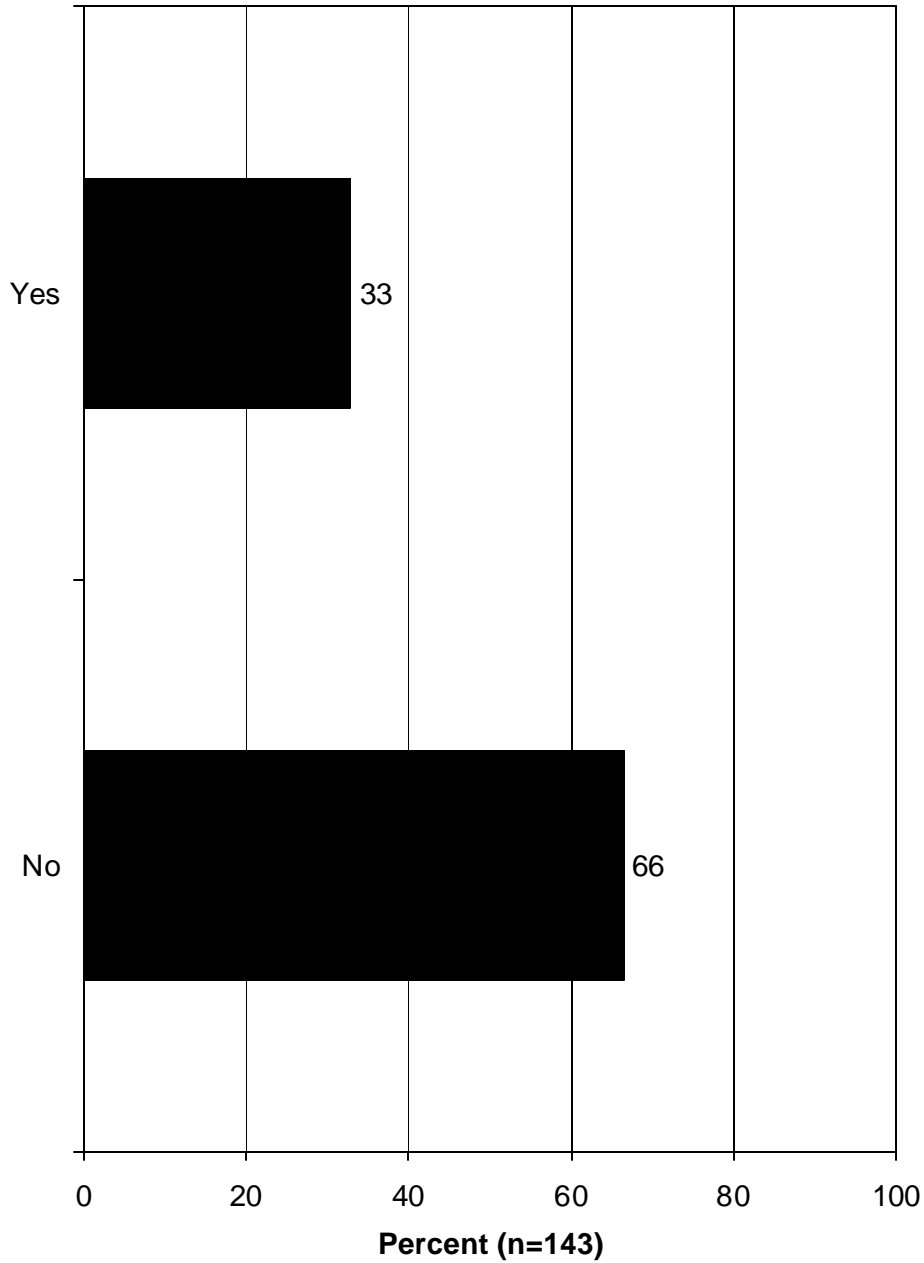
### Does your school have an afterschool archery team or club?



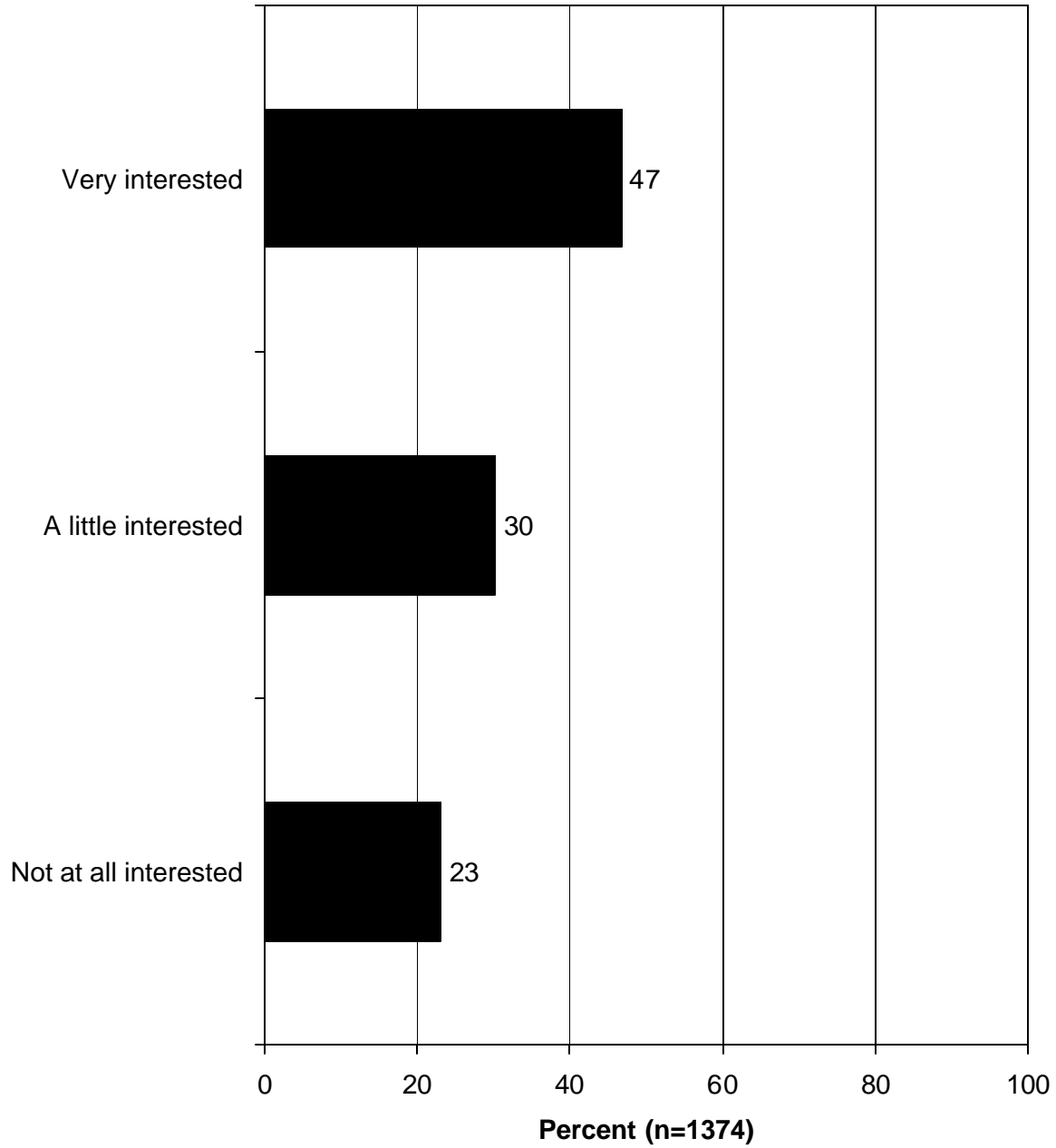
### Do you belong to your school's afterschool archery team or club?



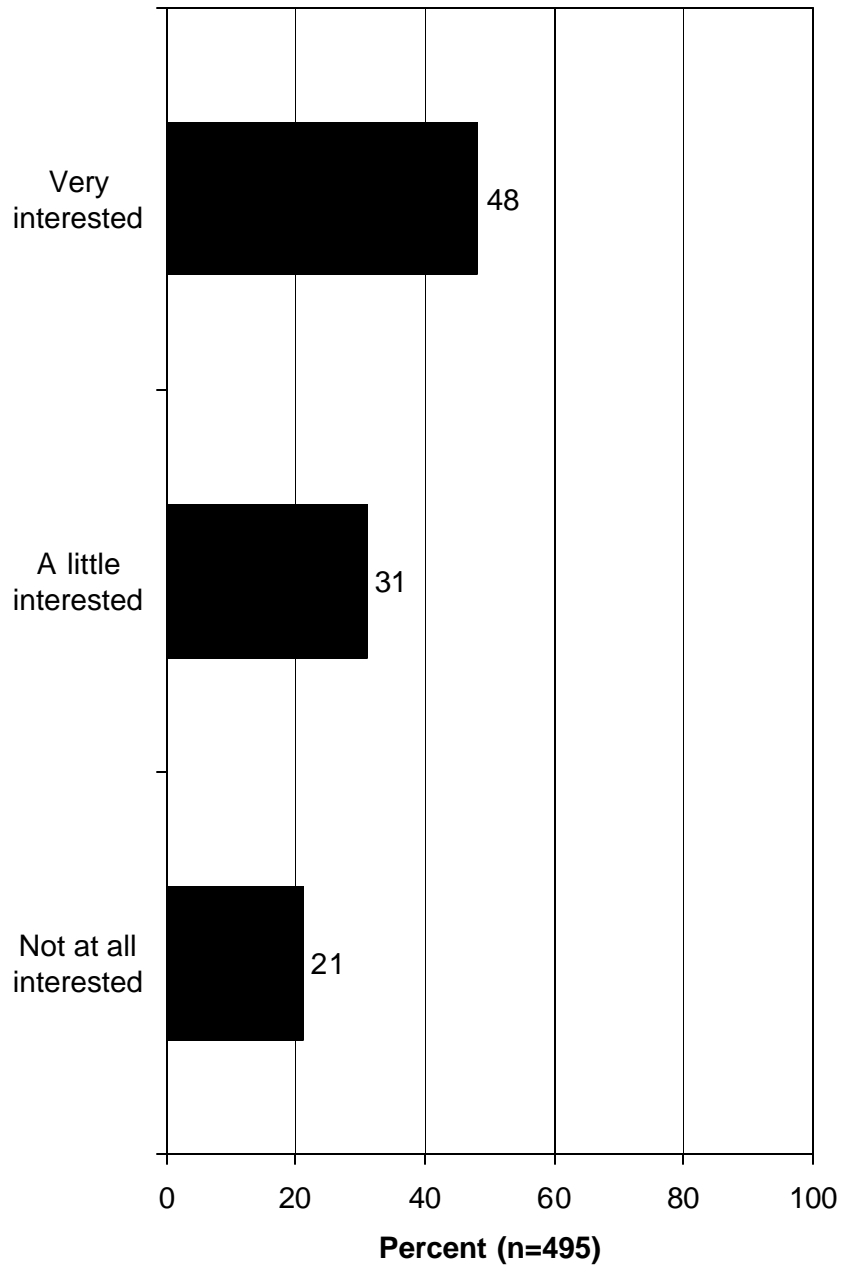
**Do you belong to your school's afterschool archery team or club (of those who took the archery course 1 or more years previously)?**



**If your school offered an afterschool archery team or club, how interested would you be in joining?**



**If your school offered an afterschool archery team or club, how interested would you be in joining (of those who took the archery course 1 or more years previously)?**



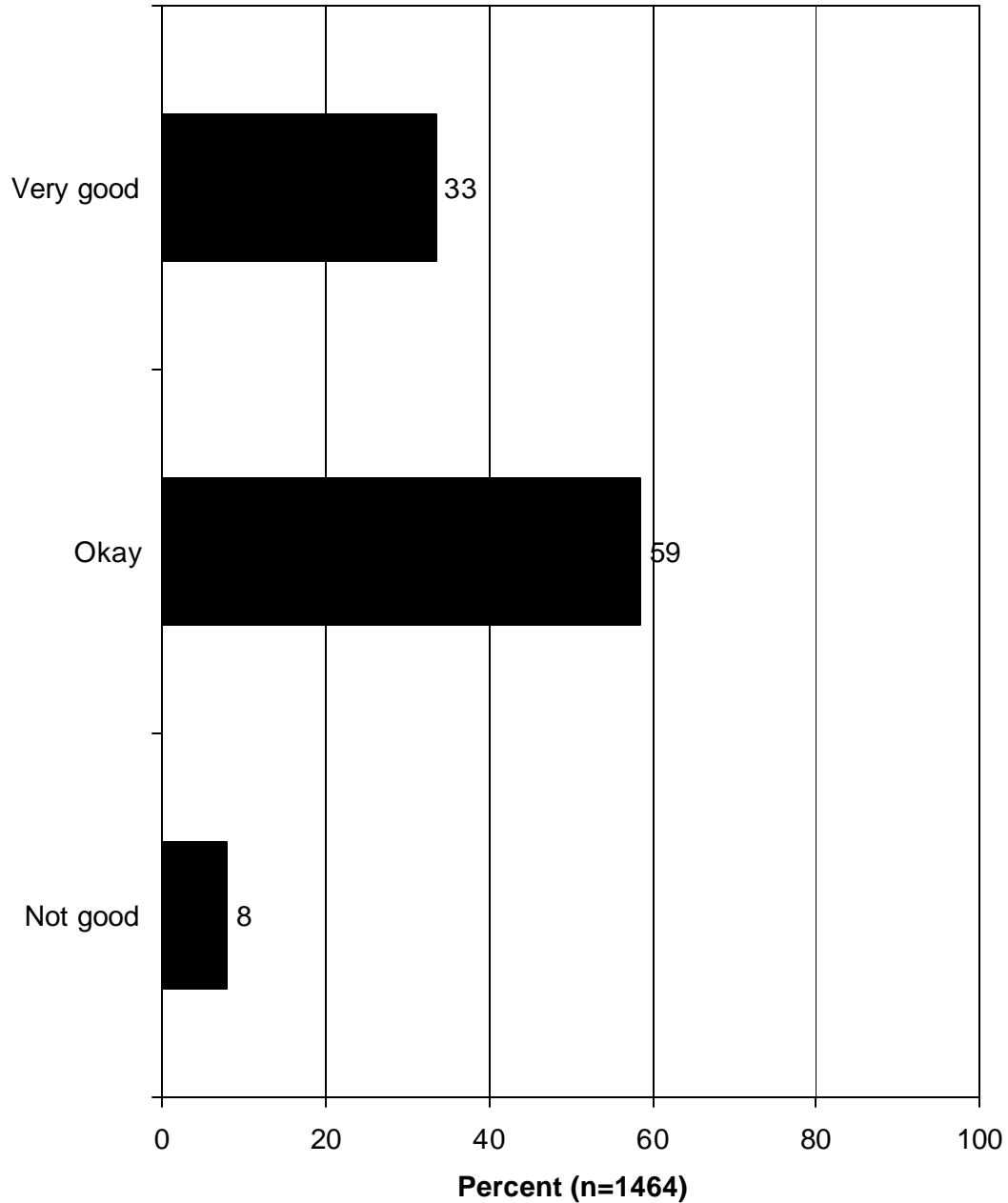
## CHARACTERISTICS OF ARCHERY PARTICIPANTS, AND ATTITUDES TOWARD AND OPINIONS ON ARCHERY AND BOWHUNTING

- Most students were positive about their skill level, with a strong majority rating themselves as okay or good, and very few rating themselves as not good.
- Most students rated their archery experiences as positive.
- Initiation into archery (among those who participated prior to the archery course) is typically through the father or uncle.
- Family participation in archery and bowhunting is largely male.

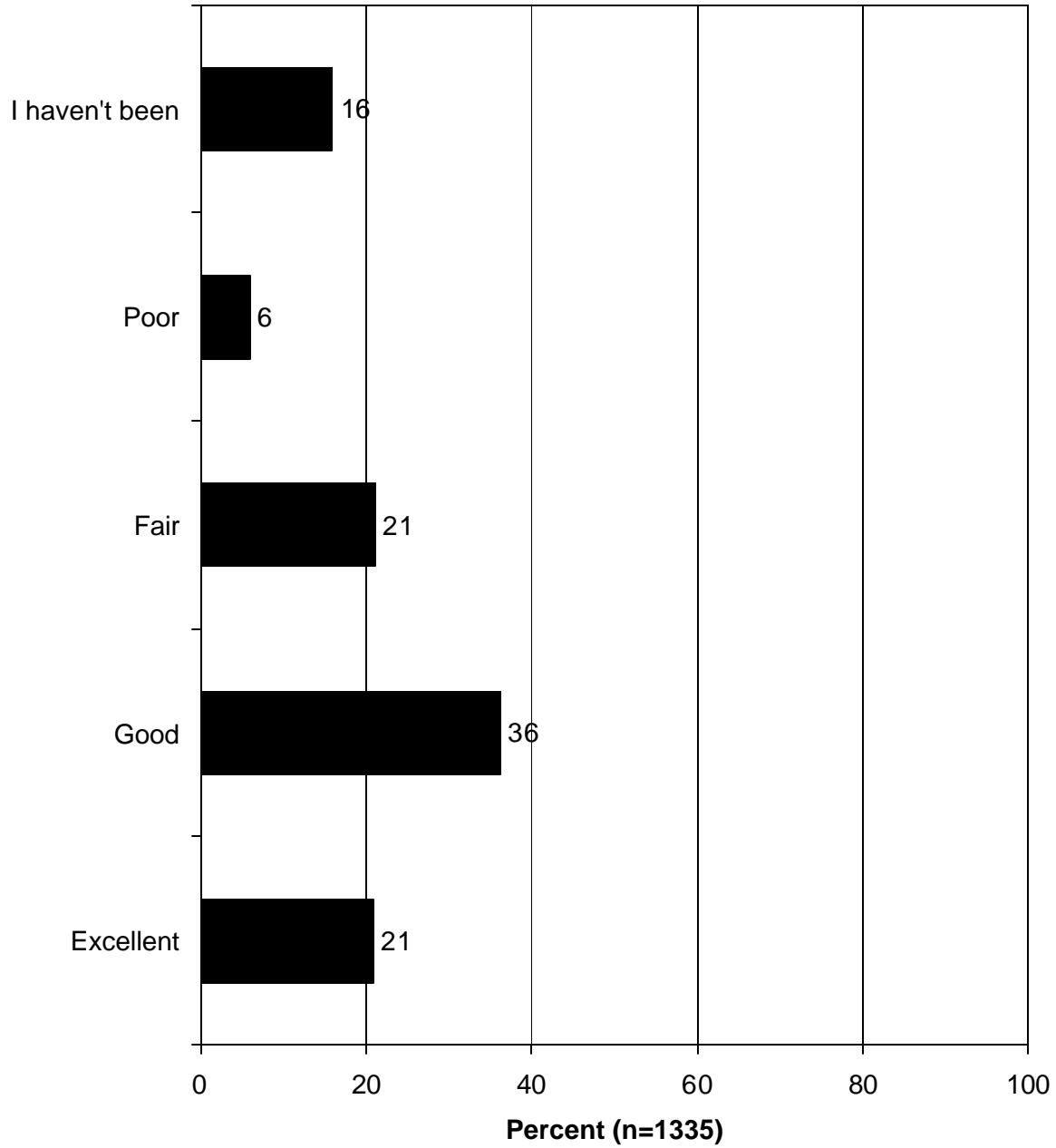
- Asked to self-rate their skills at archery, a majority (59%) of students indicated that they were okay at shooting with a bow and arrow; otherwise, the percentage saying that they were very good (33%) was four times as high as the percentage saying that they were not good (8%).
- Asked to rate their overall experiences with archery since taking the archery course in school, a strong majority (57%) rate it as good or excellent.
- Similar to hunting initiation, archery initiation is typically through a male family member, most commonly the father: 29% of students who were involved in archery before taking the archery program had been taught by their fathers, and 10% had been taught by uncles. By comparison, only 3% had been taught by their mothers.
- The students' family members who most commonly participate in archery at least once are male: uncle (41%), father (39%), brother (25%) and grandfather (25%).
  - Note that the graph shows three distinct groupings: uncle and father at the top; brother and grandfather next; followed by other family members, mostly female, in the last grouping.

- The students' family members who most commonly participate in archery "a few times" or "a lot" are uncle (33%), father (32%), brother (19%) and grandfather (19%).
  - Note that the graph now shows a complete segregation by gender, with the top six members being male and the bottom six members being female.
  - The graph showing only "a lot" of participation is nearly identical to the graph showing "a few times" and "a lot."
  
- The students' family members who most commonly participate in bowhunting at least once are male: uncle (45%), father (40%), grandfather (26%), and brother (21%).
  - Note that the graph shows a complete segregation by gender, with the top six members being male and the bottom six members being female.
  
- The students' family members who most commonly participate in bowhunting "a few times" or "a lot" are uncle (38%), father (32%), grandfather (20%), and brother (16%).
  - Note that the graph shows a complete segregation by gender, with the top six members being male and the bottom six members being female.
  - The graph showing only "a lot" of participation is nearly identical to the graph showing "a few times" and "a lot."

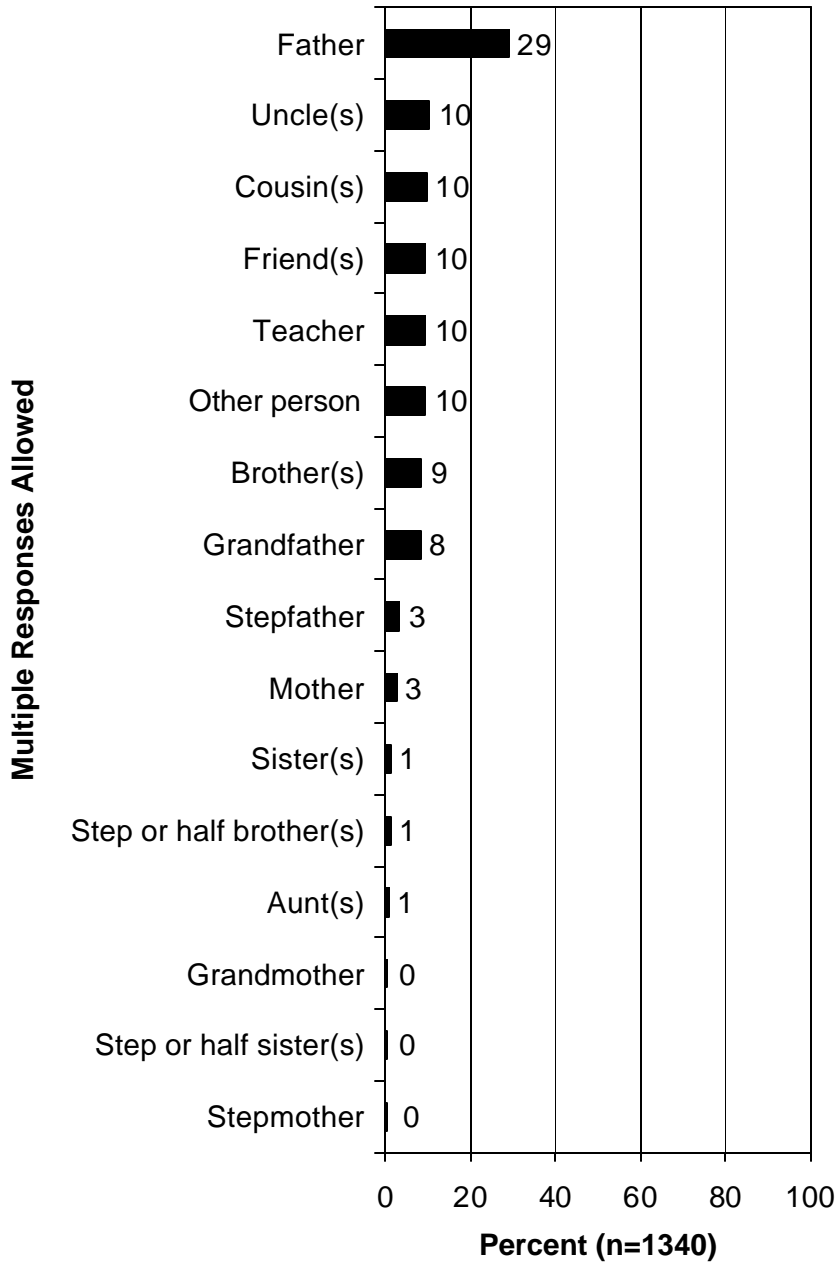
**Without thinking about your grade for archery or for P.E. class when you did archery, how good were you at shooting with a bow and arrow?**



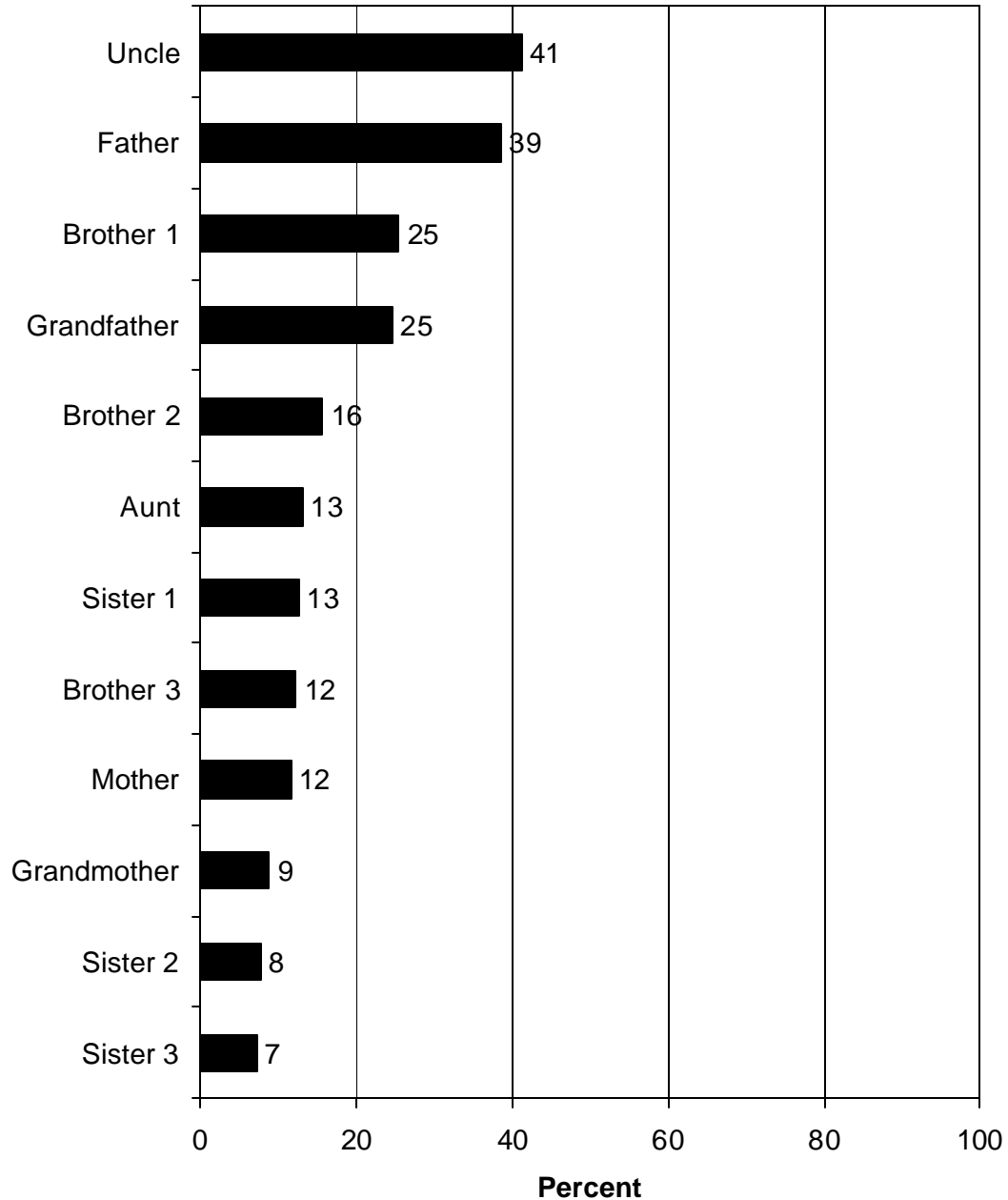
**Please rate your overall experiences with archery since taking archery in school?**



**If you were involved in archery before you took archery in school, who first taught you to shoot with a bow and arrow?**

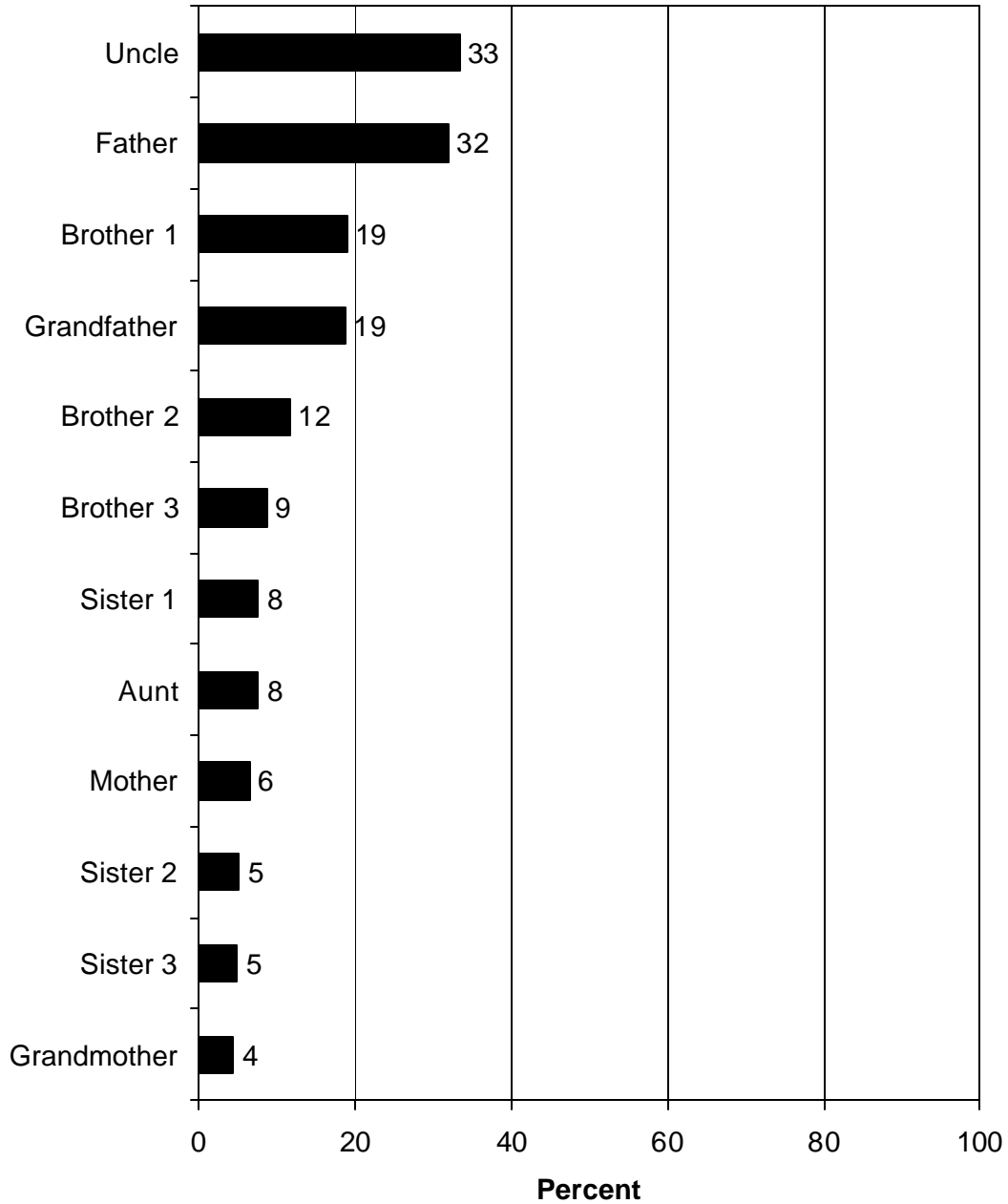


**Percent who said the following family members participate at all in archery.**



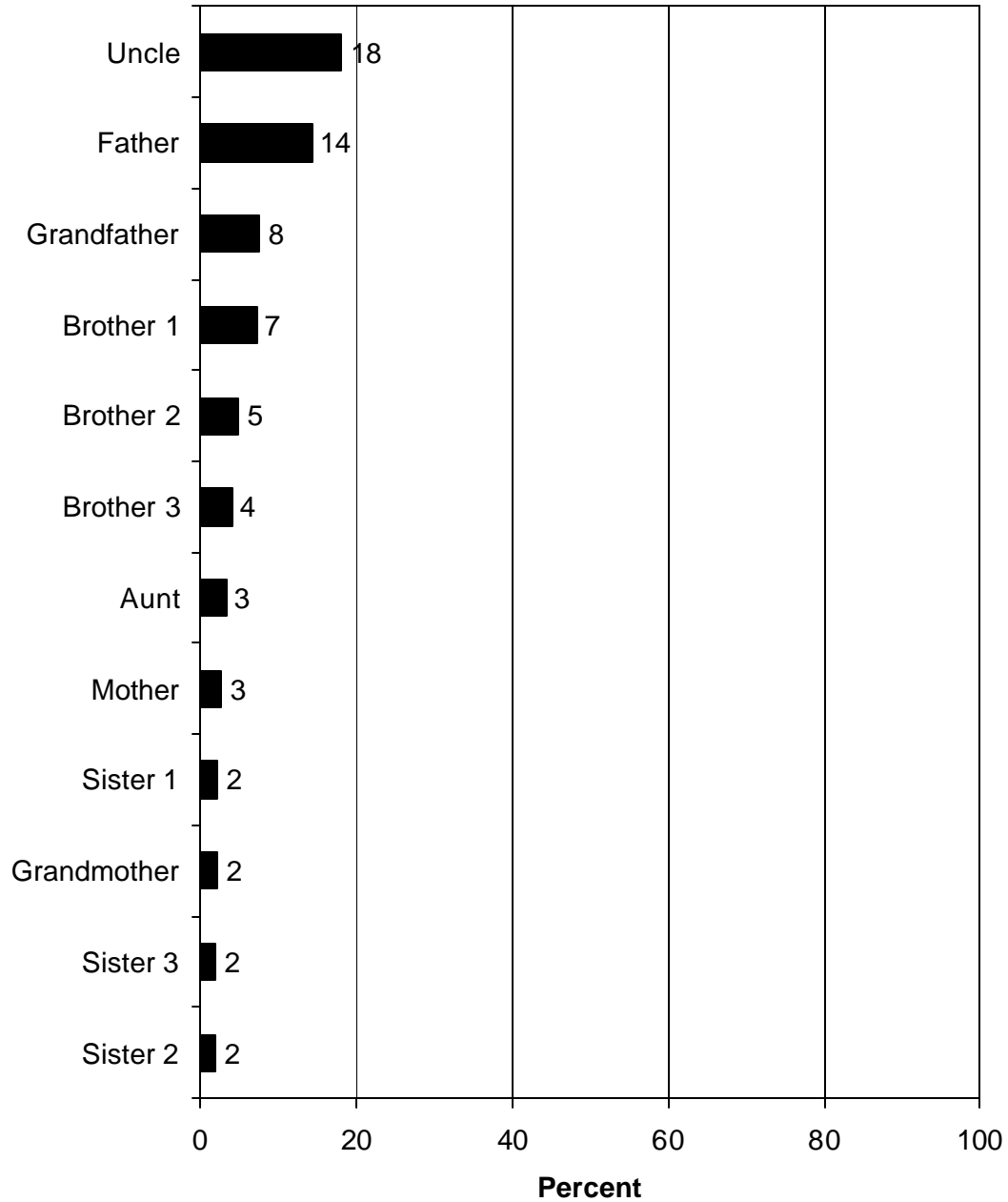
Sample size (n-value) ranges from 1,098 to 1,359.

**Percent who said the following family members participate a few times or a lot in archery.**



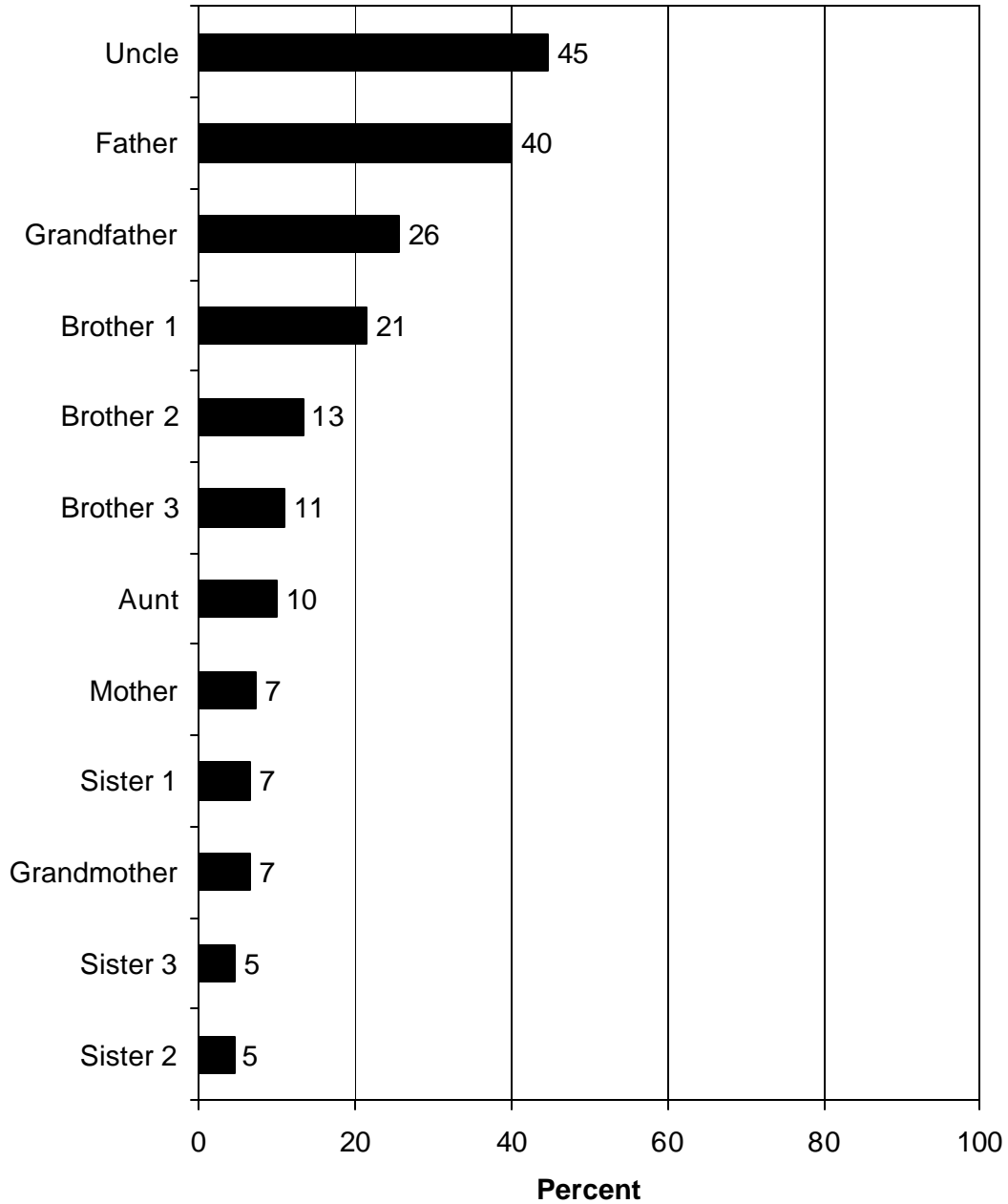
Sample size (n-value) ranges from 1,098 to 1,359.

**Percent who said the following family members participate a lot in archery.**



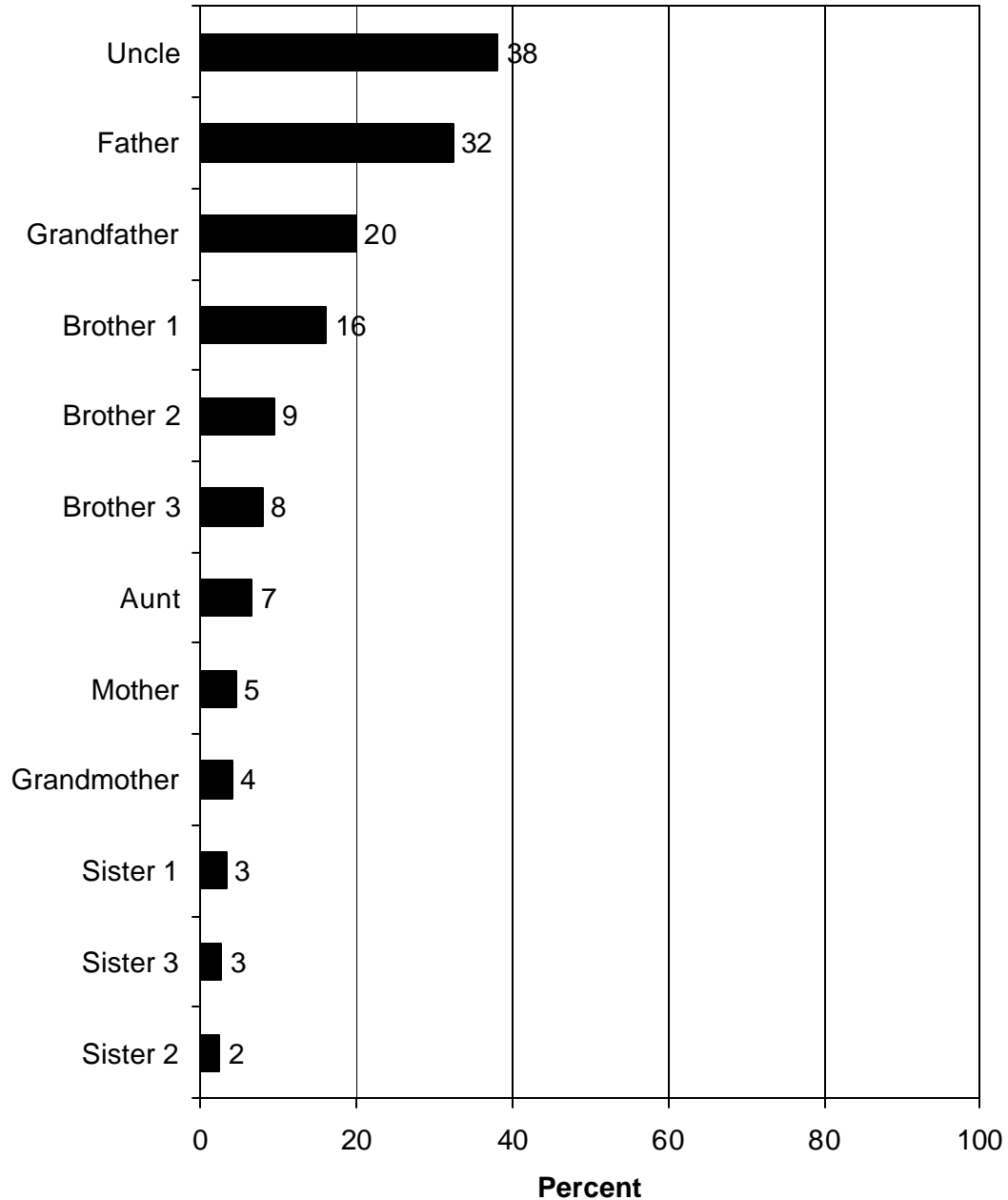
Sample size (n-value) ranges from 1,098 to 1,359.

**Percent who said the following family members participate at all in bowhunting.**



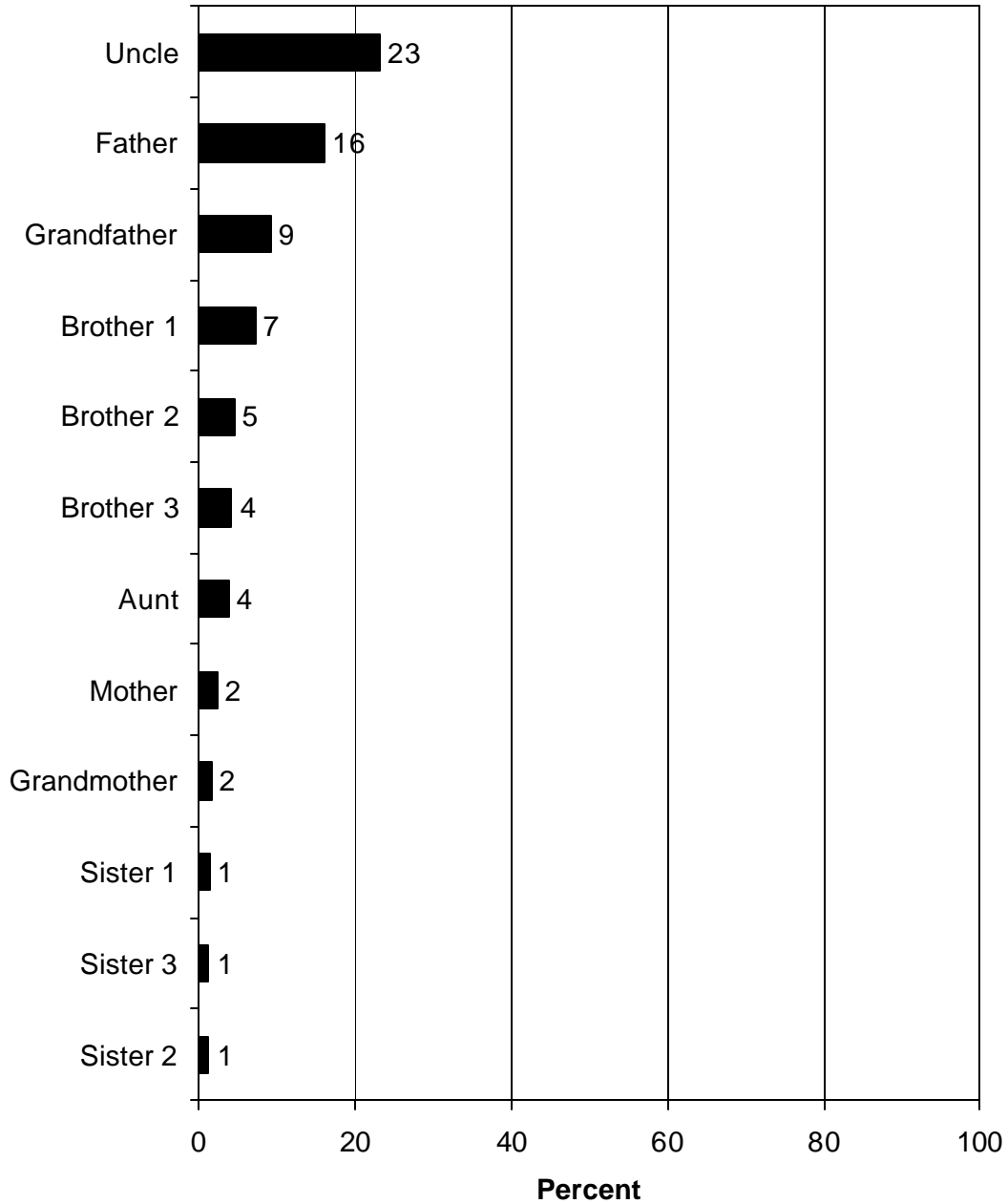
Sample size (n-value) ranges from 1,096 to 1,352.

**Percent who said the following family members participate a few times or a lot in bowhunting.**



Sample size (n-value) ranges from 1,096 to 1,352.

**Percent who said the following family members participate a lot in bowhunting.**



Sample size (n-value) ranges from 1,096 to 1,352.

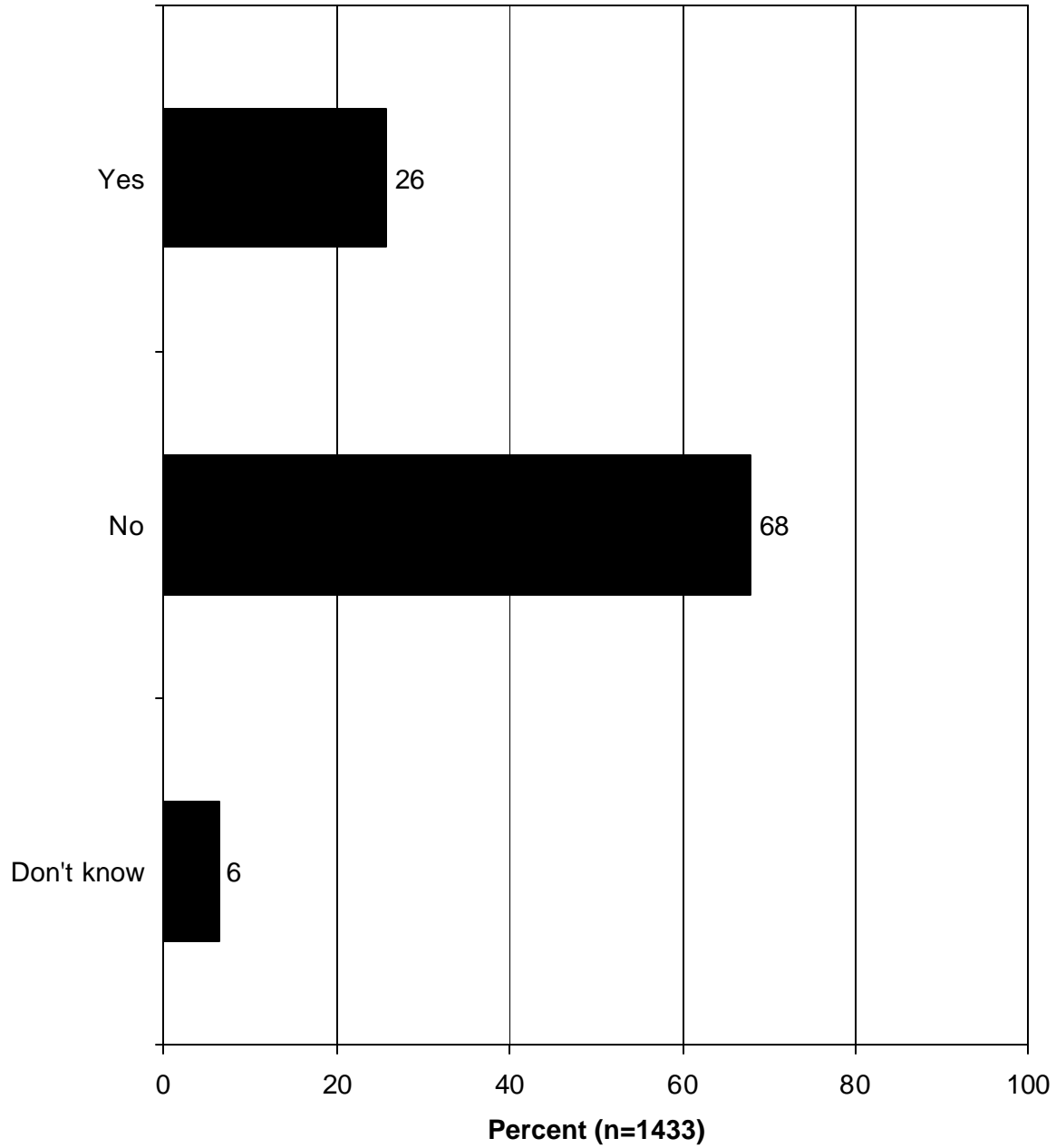
## INFORMATION ABOUT ARCHERY AND BOWHUNTING

- Inability to find information is not a pressing problem: a strong majority of those students who looked for information about archery found all or most of the information that they sought.
- The Internet is the most important information source, followed by sporting goods stores and magazines.
- While a few students had heard of the archerysearch.com Website (13%), there were many who had not heard of the site.

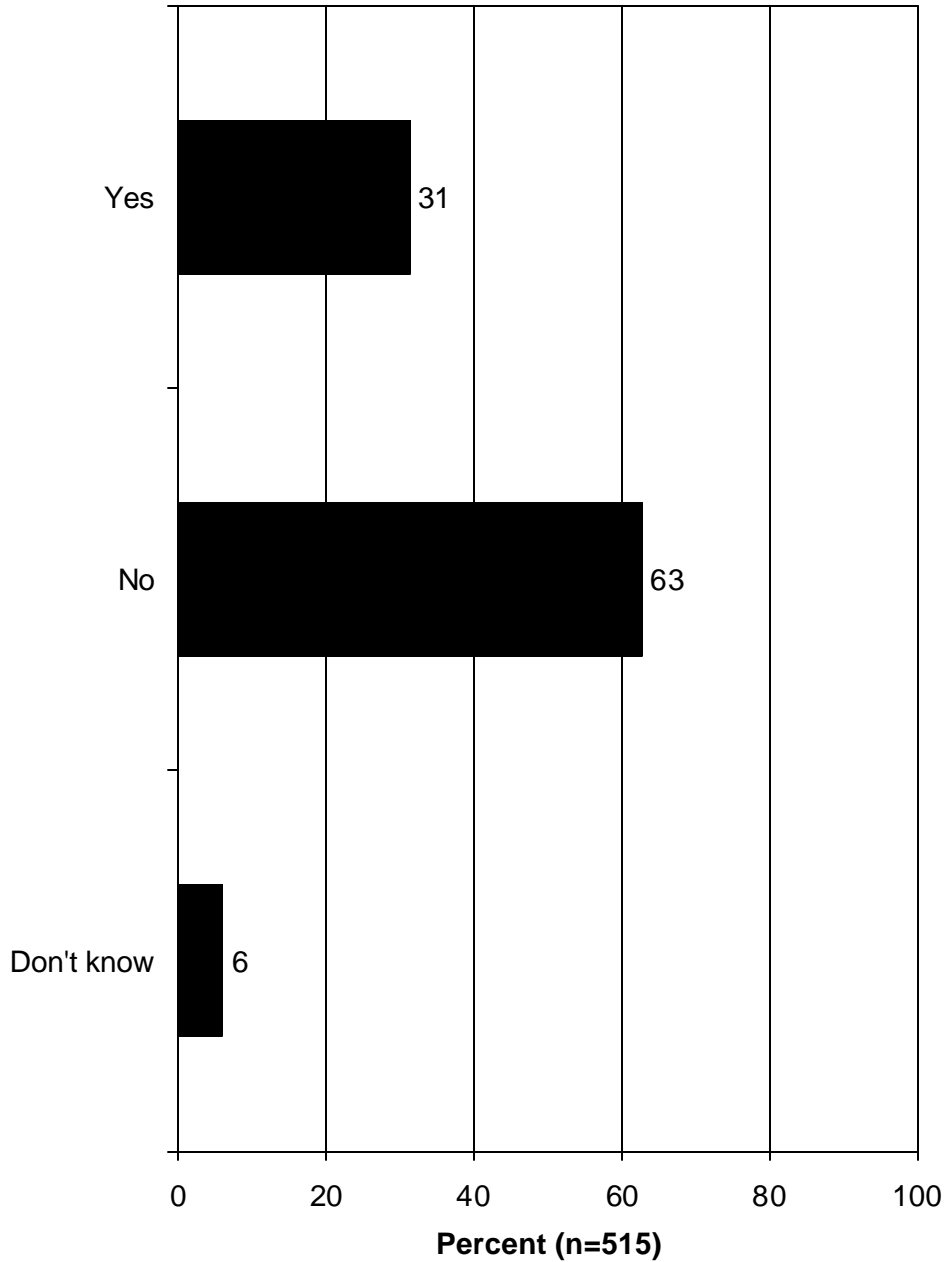
- About a quarter (26%) of students have tried to obtain information about archery since taking the archery course in school. Most typically, students sought information about how to be better at shooting a bow and arrow or where to purchase equipment/cost of equipment. Other types of information sought by substantial percentages were where to go to participate in archery and where to take lessons. A majority (54%) had sought information on the Internet. Other important sources of information include sporting goods stores, magazines, and friends/family.
  - Of those who took the archery course 1 or more years previously, 31% have tried to obtain information about archery since taking the archery course.
- Of those students who sought information about archery since taking the archery course in school, a majority (59%) obtained all or most of the information they sought.
  - 7% said that they did not obtain any information that they sought.
- A little more than a fifth (22%) of students have tried to obtain information about bowhunting since taking the archery course in school. Most typically, students sought information about where to hunt, where to obtain a license, how to be better at bowhunting, where to purchase equipment/cost of equipment, or where to take a class about bowhunting. A slight majority (51%) had sought information on the Internet. Other important sources of information include sporting goods stores, friends/family, and magazines.
  - Of those who took the archery course 1 or more years previously, 27% have tried to obtain information about bowhunting since taking the archery course.

- Of those students who sought information about bowhunting since taking the archery course in school, a majority (60%) obtained all or most of the information they sought.
  - 5% said that they did not obtain any information that they sought.
  
- The archerysearch.com was not well known: 13% of students had heard of the Website. Of those who had heard of it, half had visited the site.
  - Among those who took the archery course 1 or more years previously, 16% had heard of the Website. Again, about half had actually visited the site.

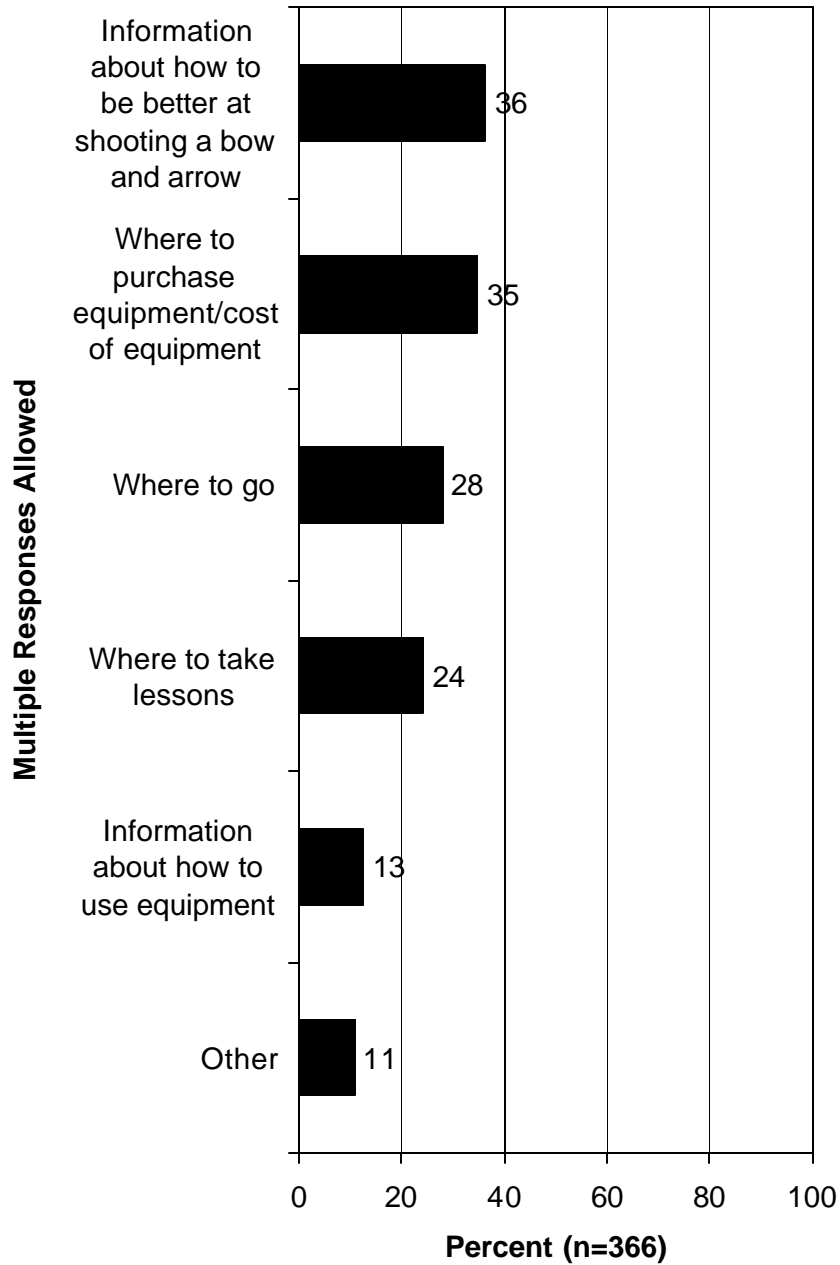
**Have you tried to get information about archery since taking archery in school?**



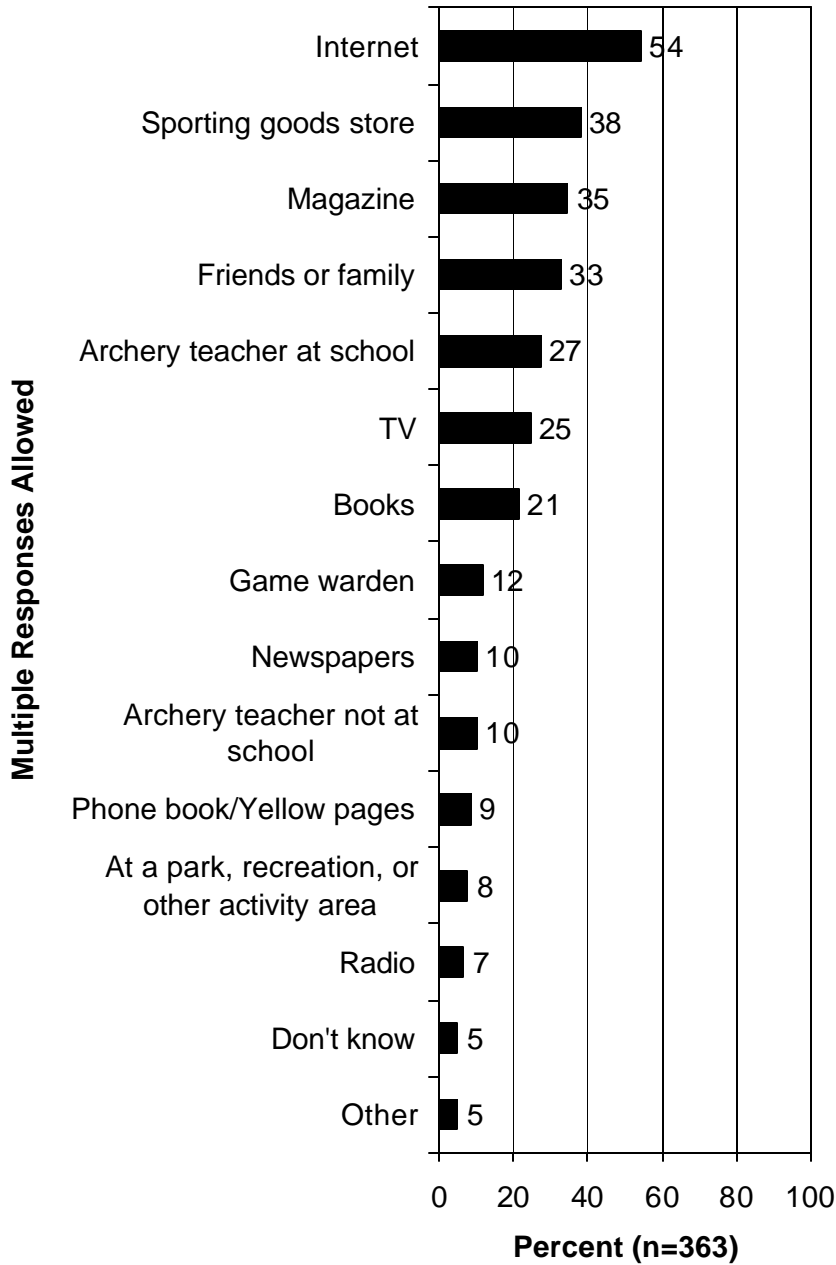
**Have you tried to get information about archery since taking archery in school (of those who took the archery course 1 or more years previously)?**



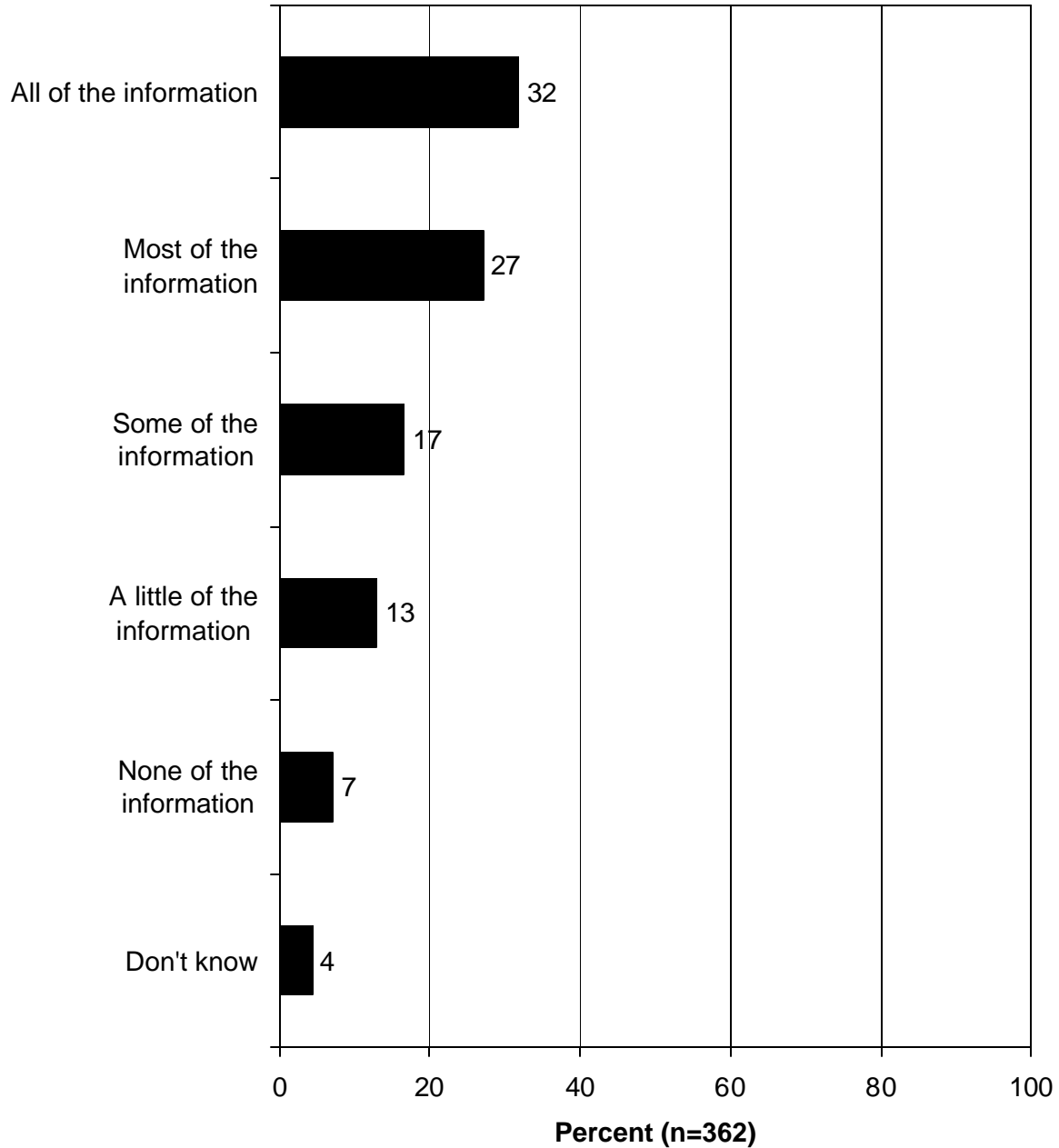
### If yes, what type of information about archery were you looking for?



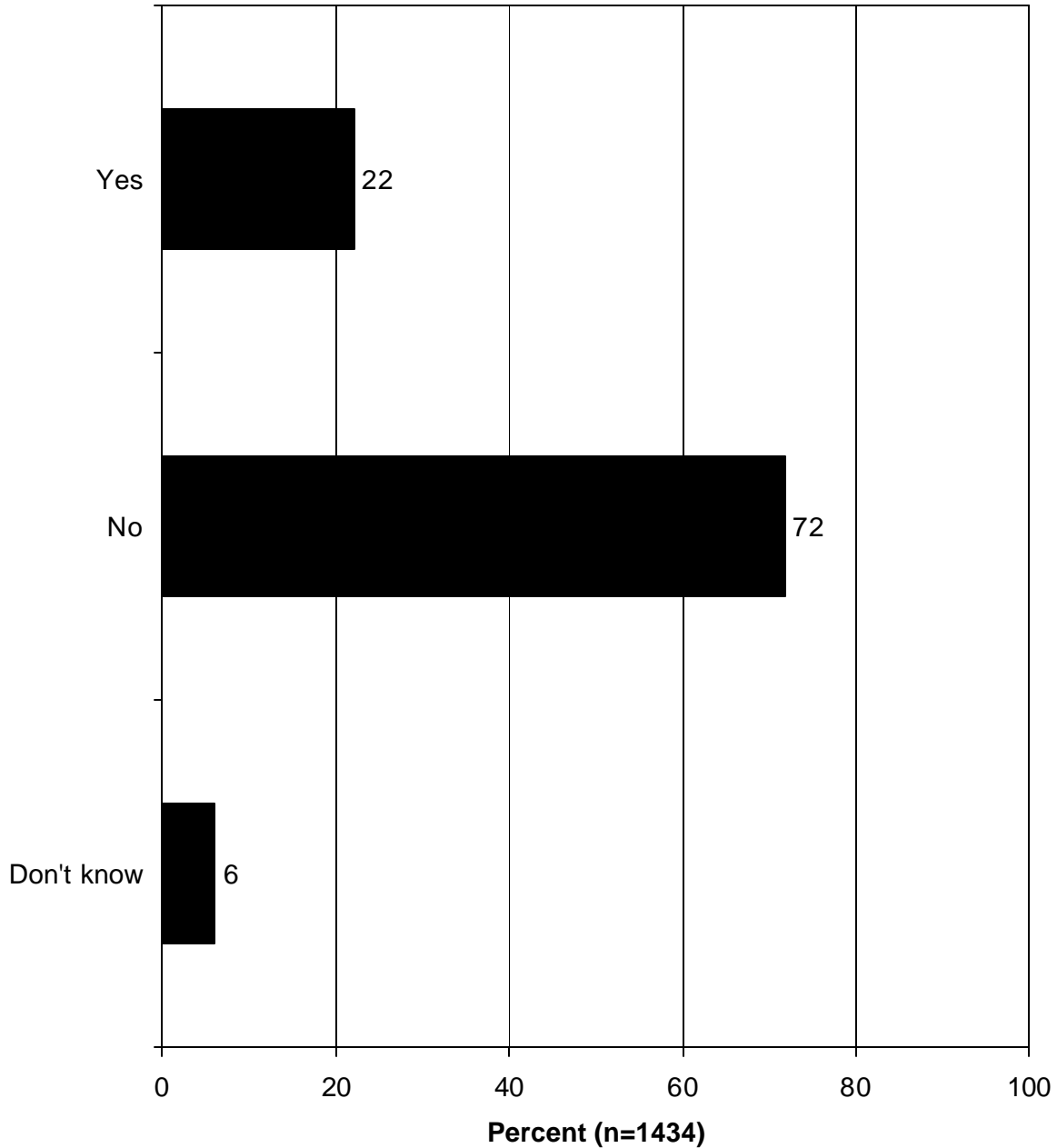
### Where have you looked for information on archery?



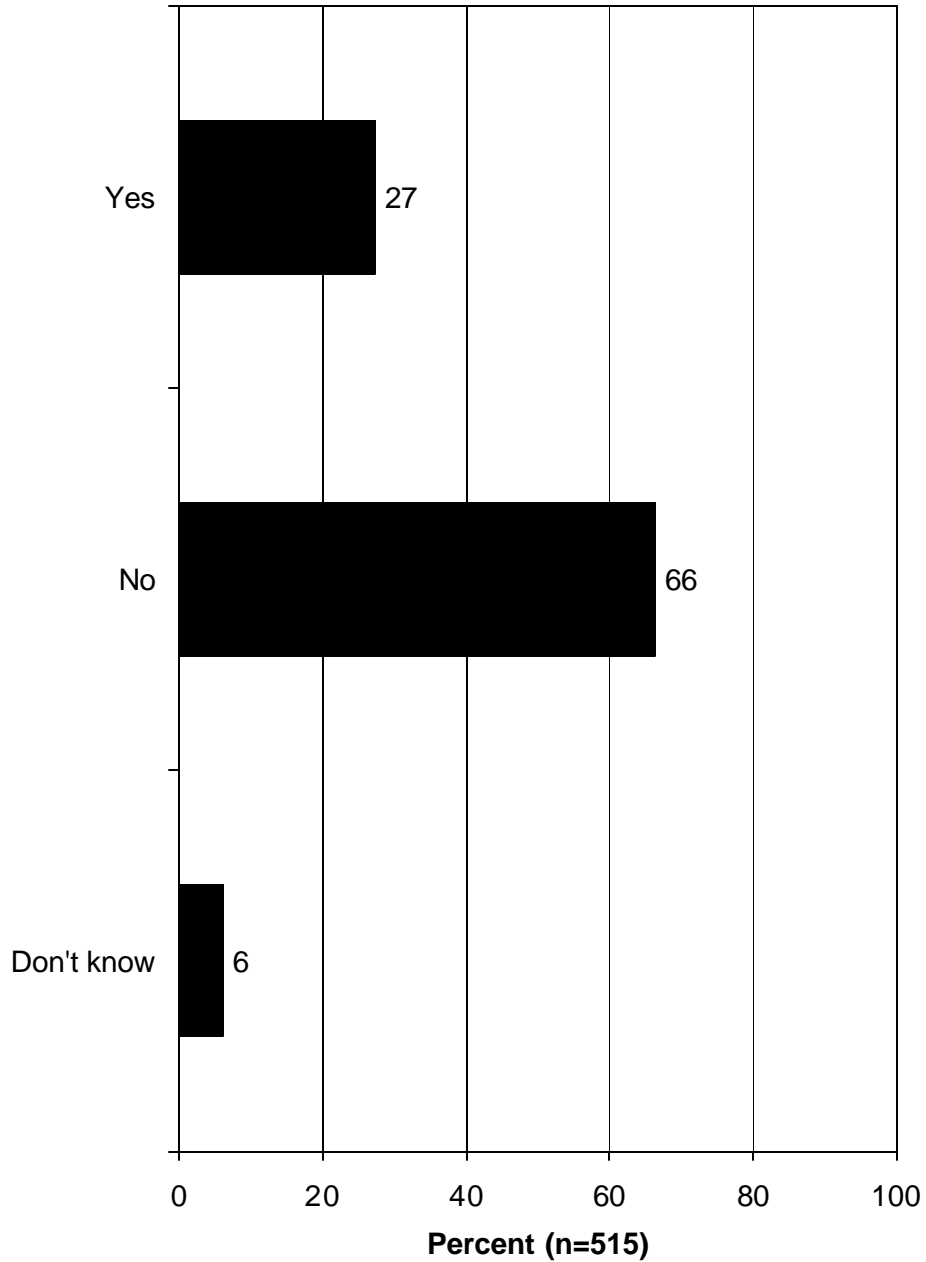
### Did you get all the information about archery that you were looking for?



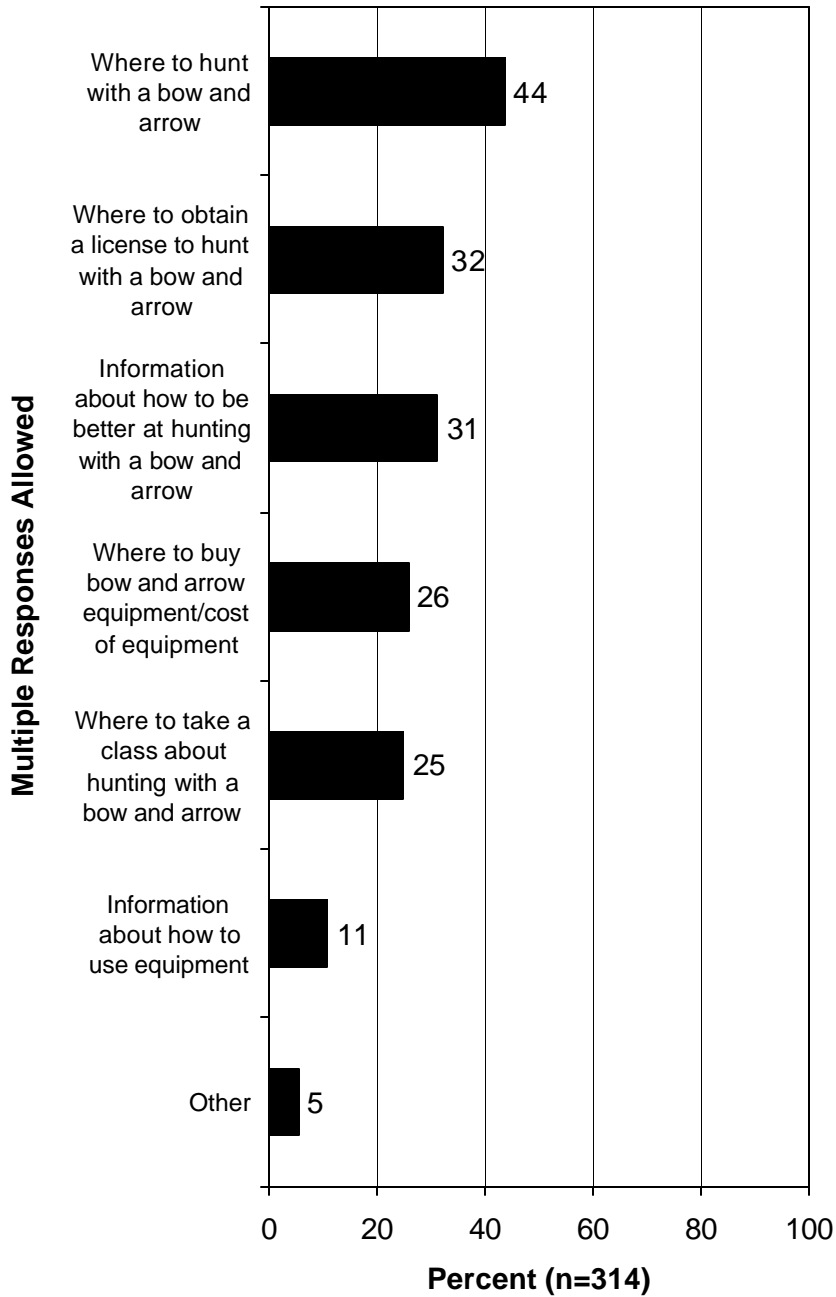
**Have you tried to get information about hunting with a bow and arrow since taking archery in school?**



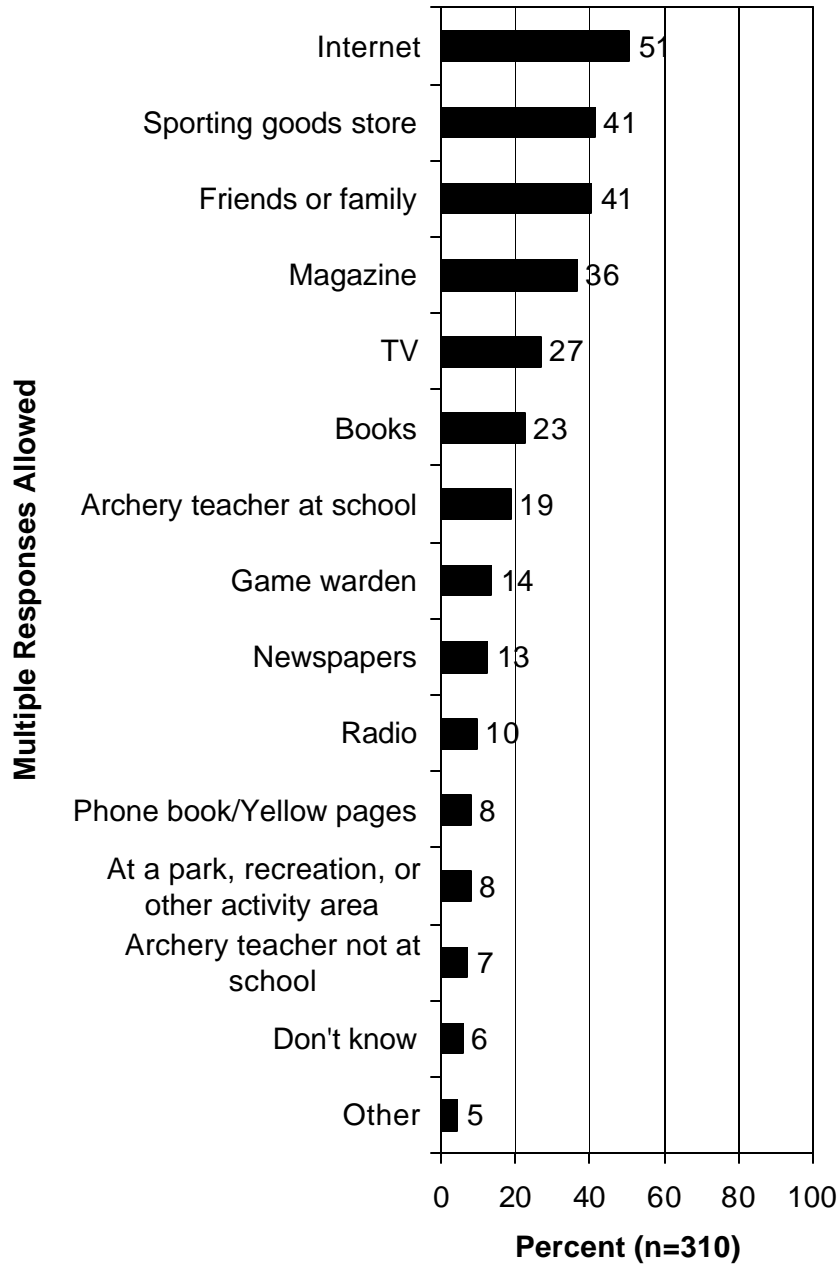
**Have you tried to get information about hunting with a bow and arrow since taking archery in school (of those who took the archery course 1 or more years previously)?**



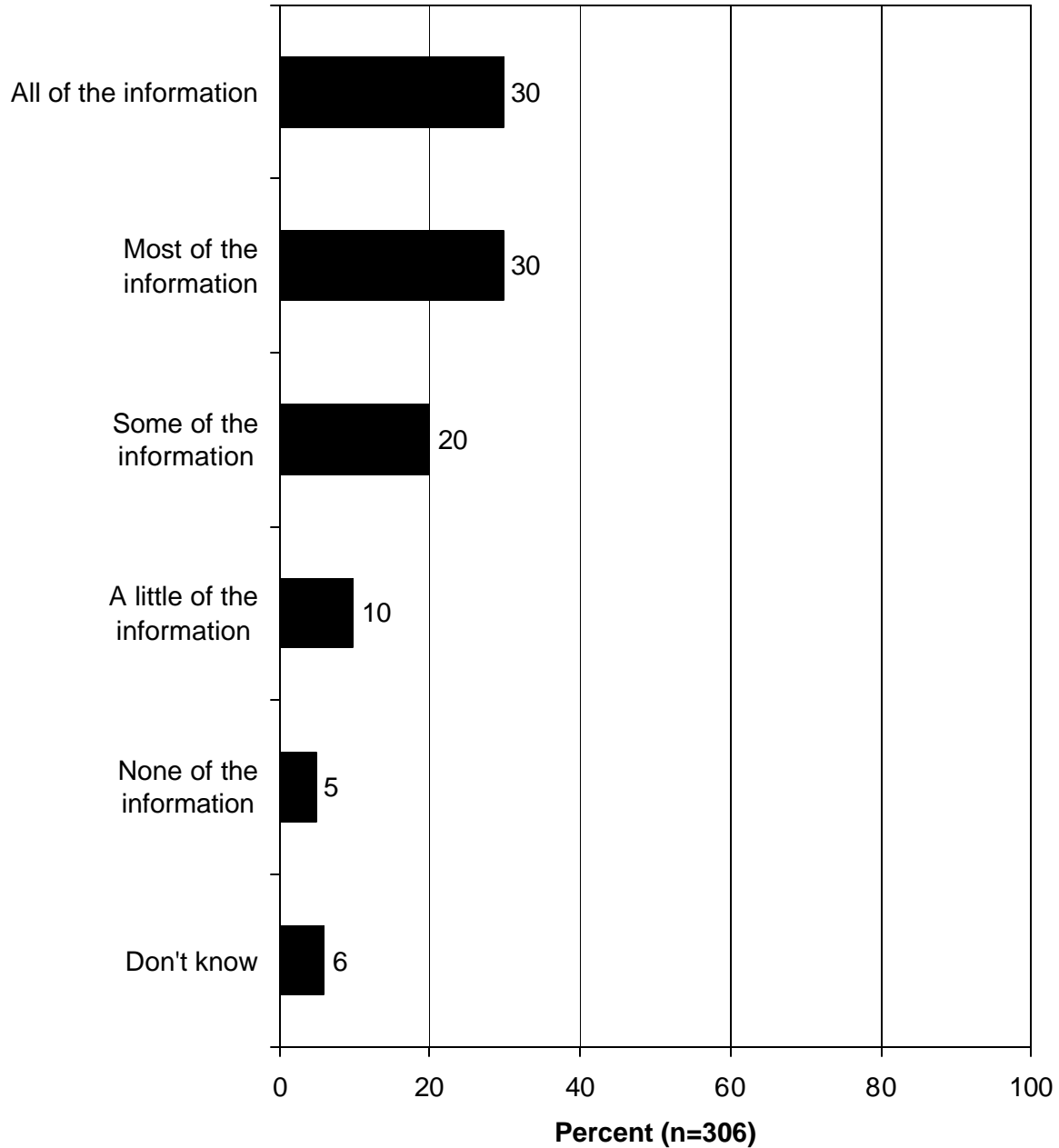
### If yes, what type of information about hunting with a bow and arrow were you looking for?



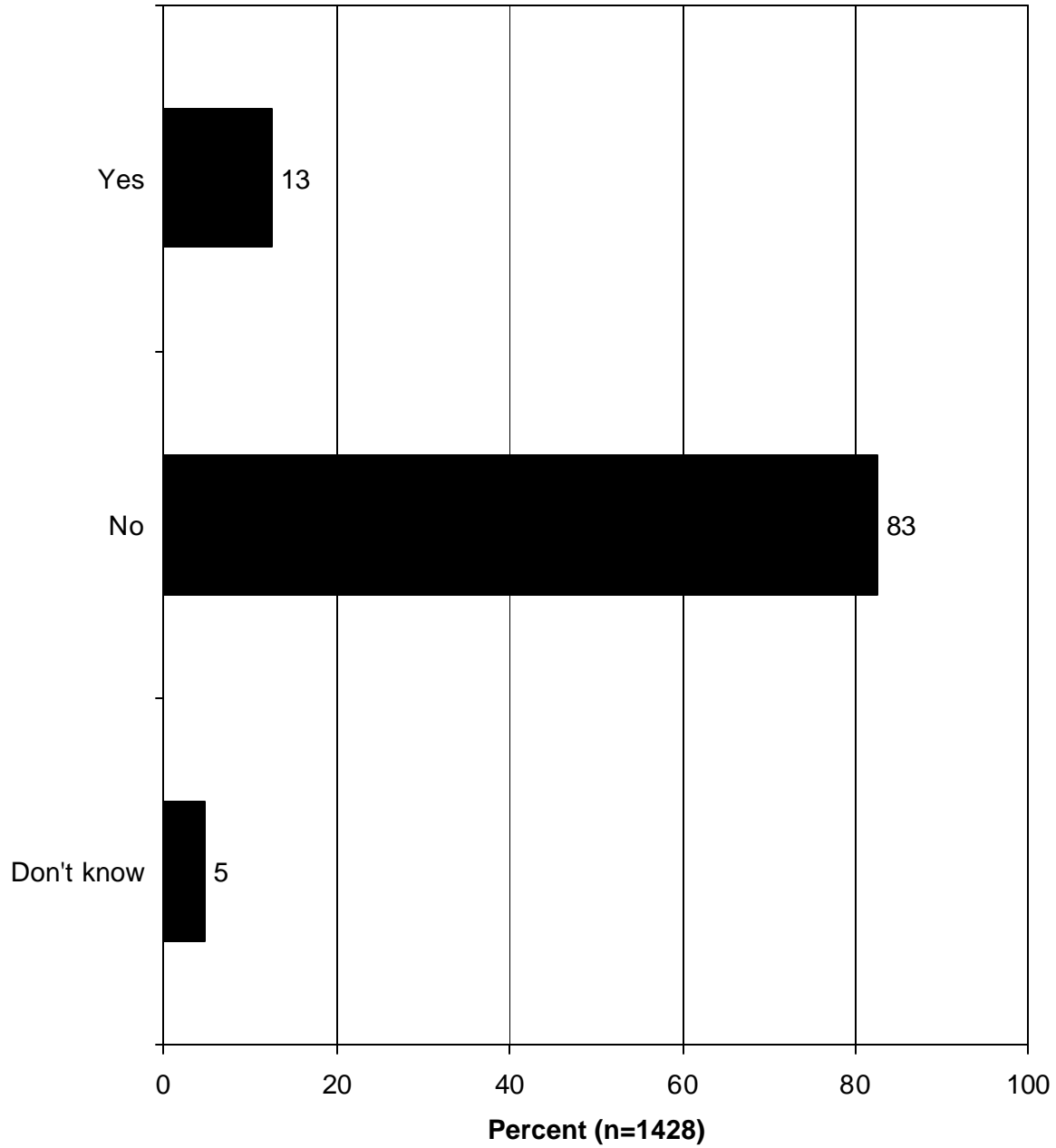
### Where have you looked for information on hunting with a bow and arrow?



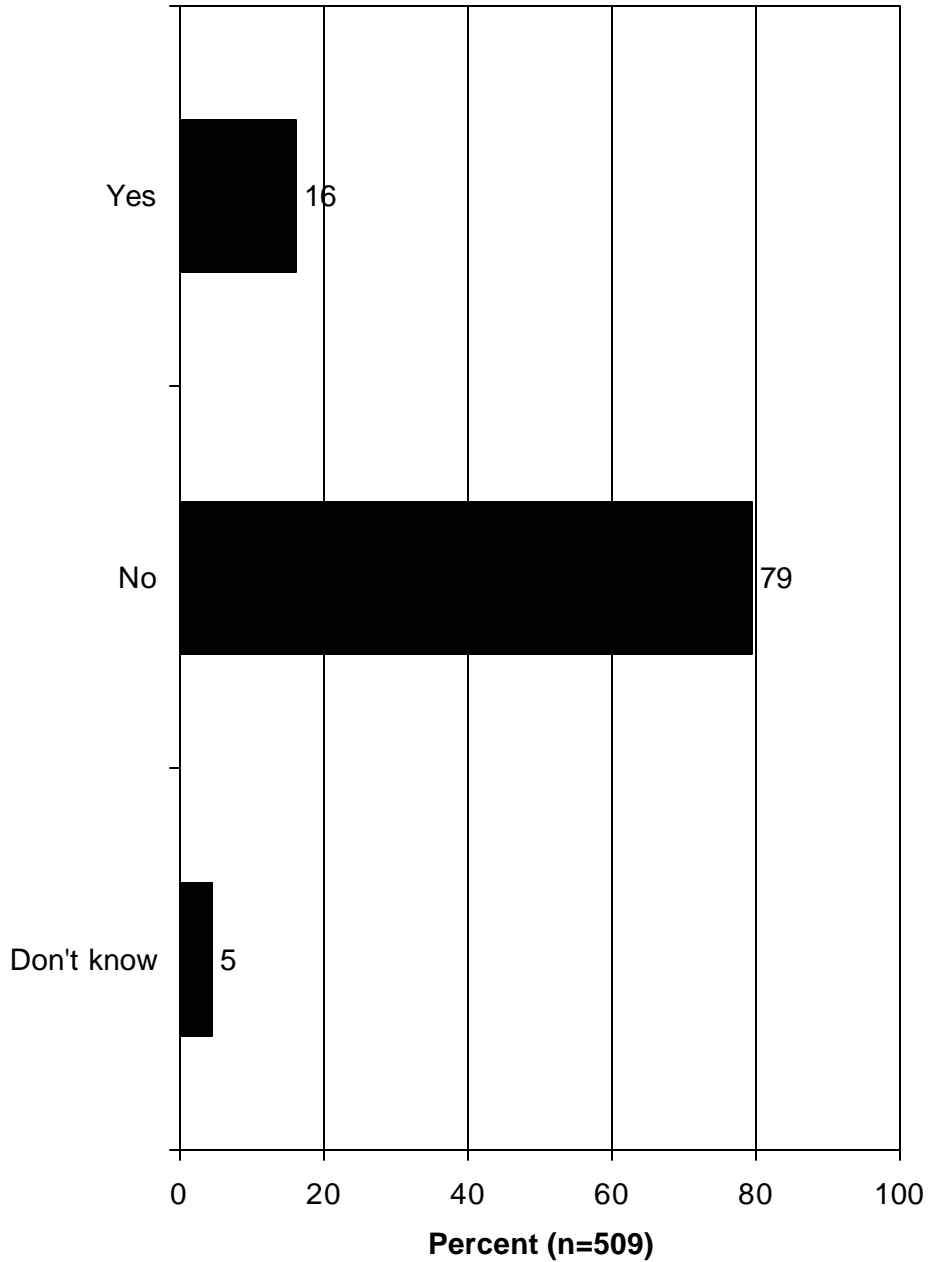
### Did you get all the information about hunting with a bow and arrow that you were looking for?



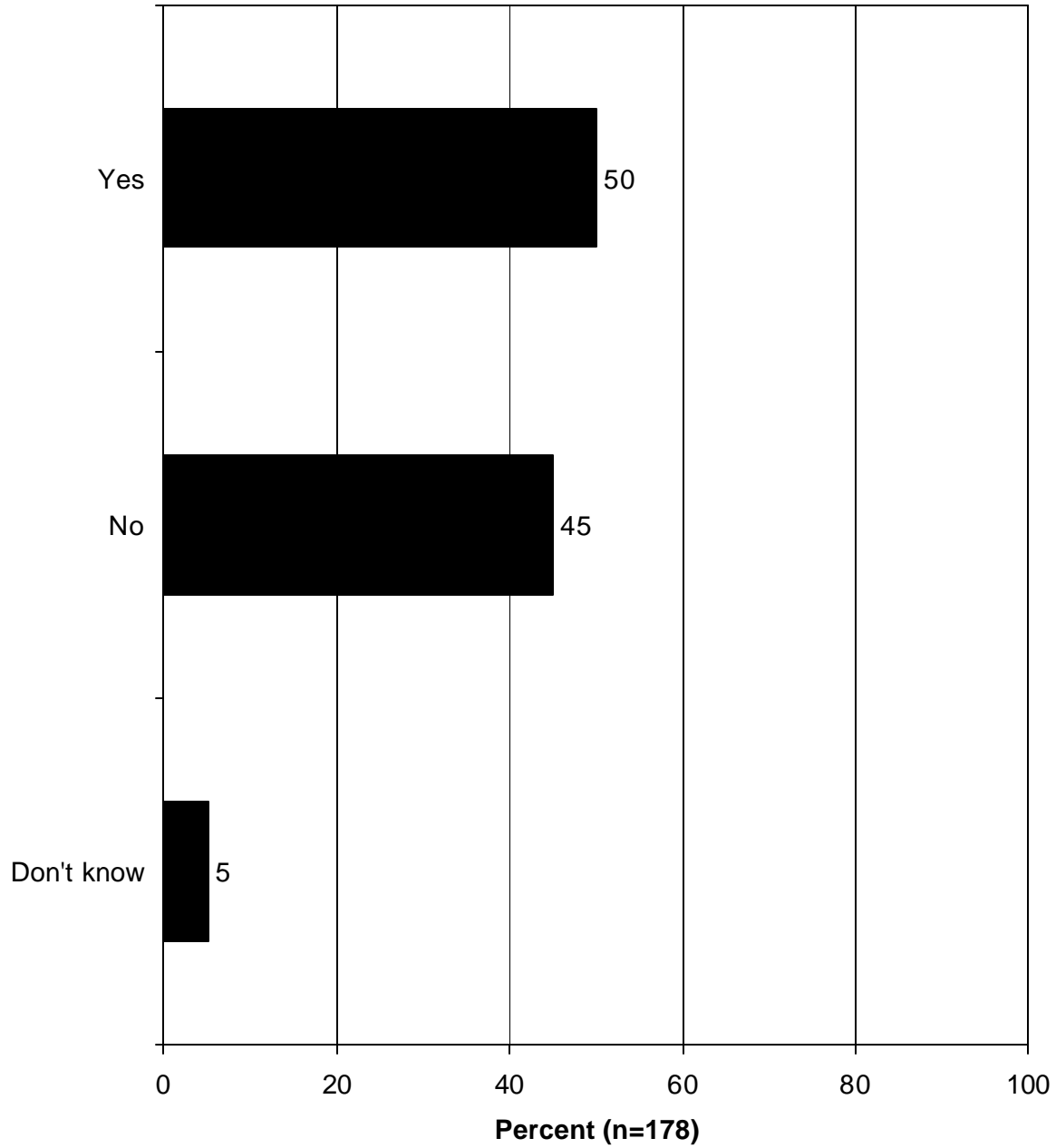
### Have you heard of the archerysearch.com Internet Web site?



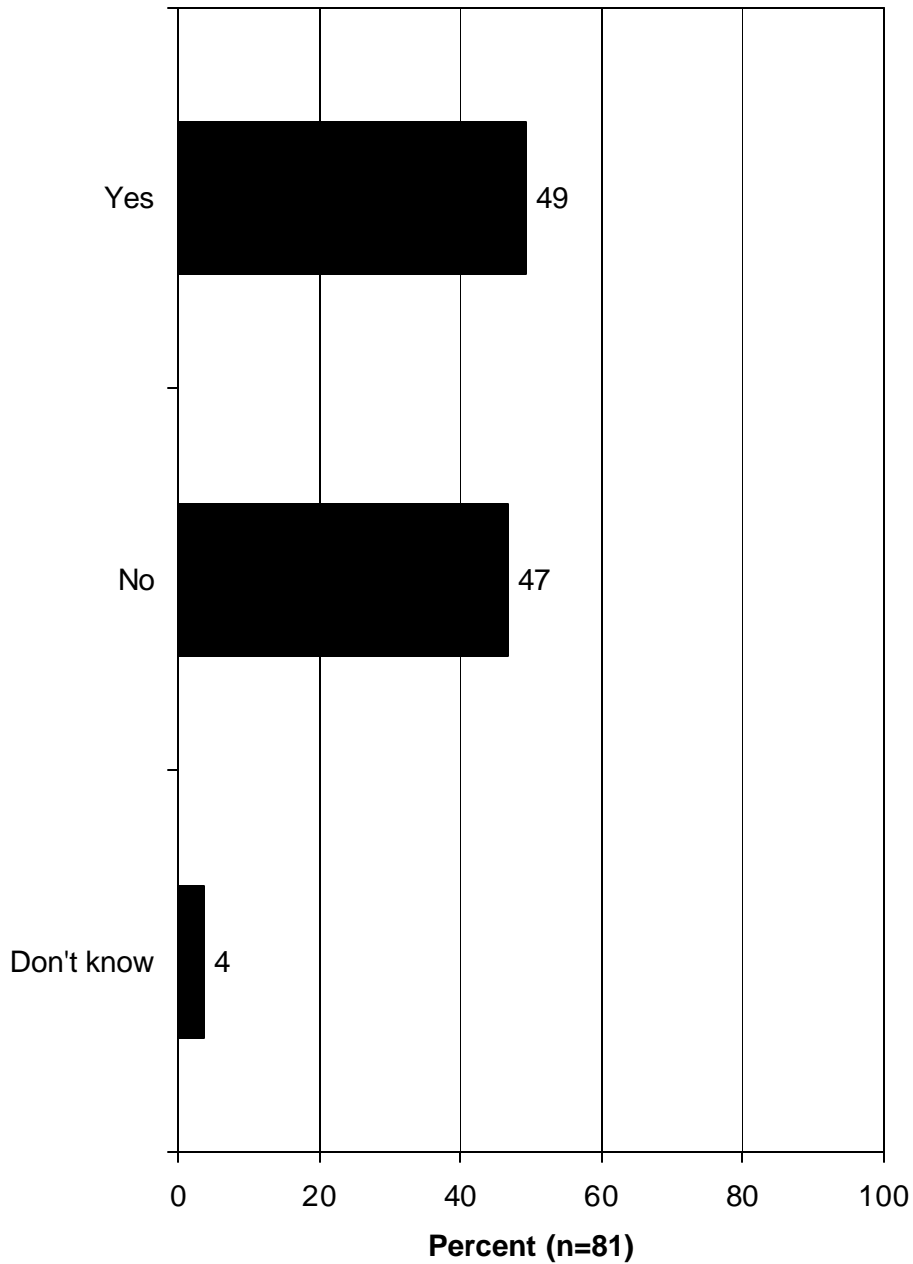
**Have you heard of the archerysearch.com Internet Web site (of those who took the archery course 1 or more years previously)?**



**If yes, have you visited the archerysearch.com Web site?**



**If yes, have you visited the archerysearch.com Web site (of those who took the archery course 1 or more years previously)?**



## **CONSTRAINTS TO PARTICIPATION IN ARCHERY AND BOWHUNTING**

- The archery program appears to reduce many constraints to archery and bowhunting participation. The program appears to facilitate students' participation in archery and bowhunting by helping them find companions with which to participate; providing information about archery and bowhunting, including where to participate; and by alleviating concerns about safety among the students themselves as well as their parents.
- The archery program appears to increase students' desires to participate in archery and bowhunting: subsequent to the course, fewer students said that they could not find the time to participate. This finding is likely a manifestation of increased desire to go rather than an increased amount of time available to students.

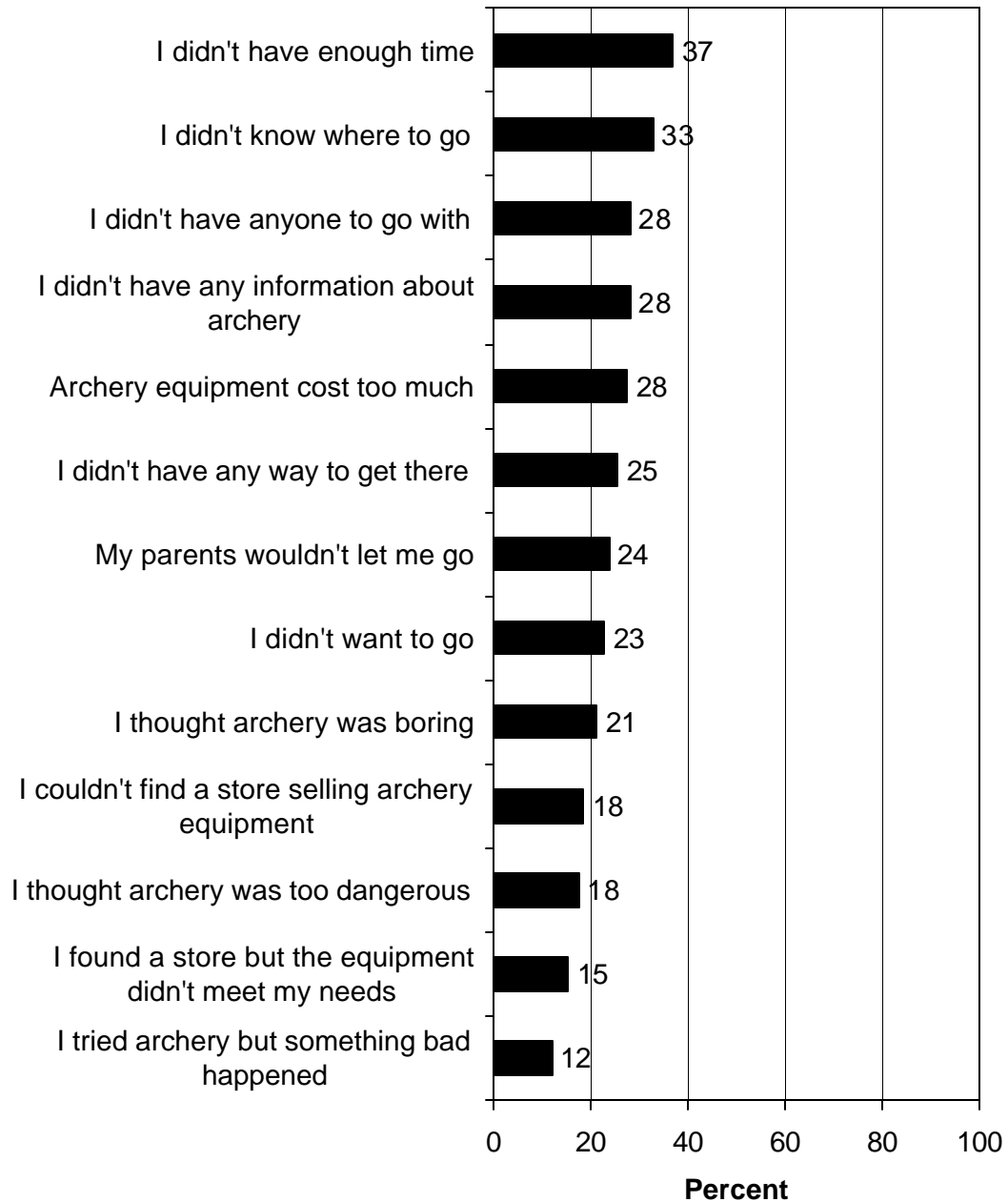
Respondents were asked if specific items were major or minor constraints or if they were not constraints to participation in archery and bowhunting. The analysis considered those who said the item was a minor or major constraint, those who said it was a major constraint, and those who said it was not a constraint. Additionally, questions were asked regarding constraints to participation in archery and in bowhunting before the students took the archery course and after they took it.

### **CONSTRAINTS TO PARTICIPATION IN ARCHERY BEFORE TAKING THE ARCHERY COURSE**

- The top constraints (major and minor considered together) to participation in archery prior to the course were lack of time (37%), not knowing where to go (33%), lack of a companion (28%), lack of information about archery (28%), and the cost of equipment (28%).
  - Note that danger or something bad happening were not important constraints, and neither was difficulty finding equipment to purchase an important constraint.
  - In the analysis of those who took the archery course 1 or more years previously, the results are essentially the same, with time being the largest constraint.

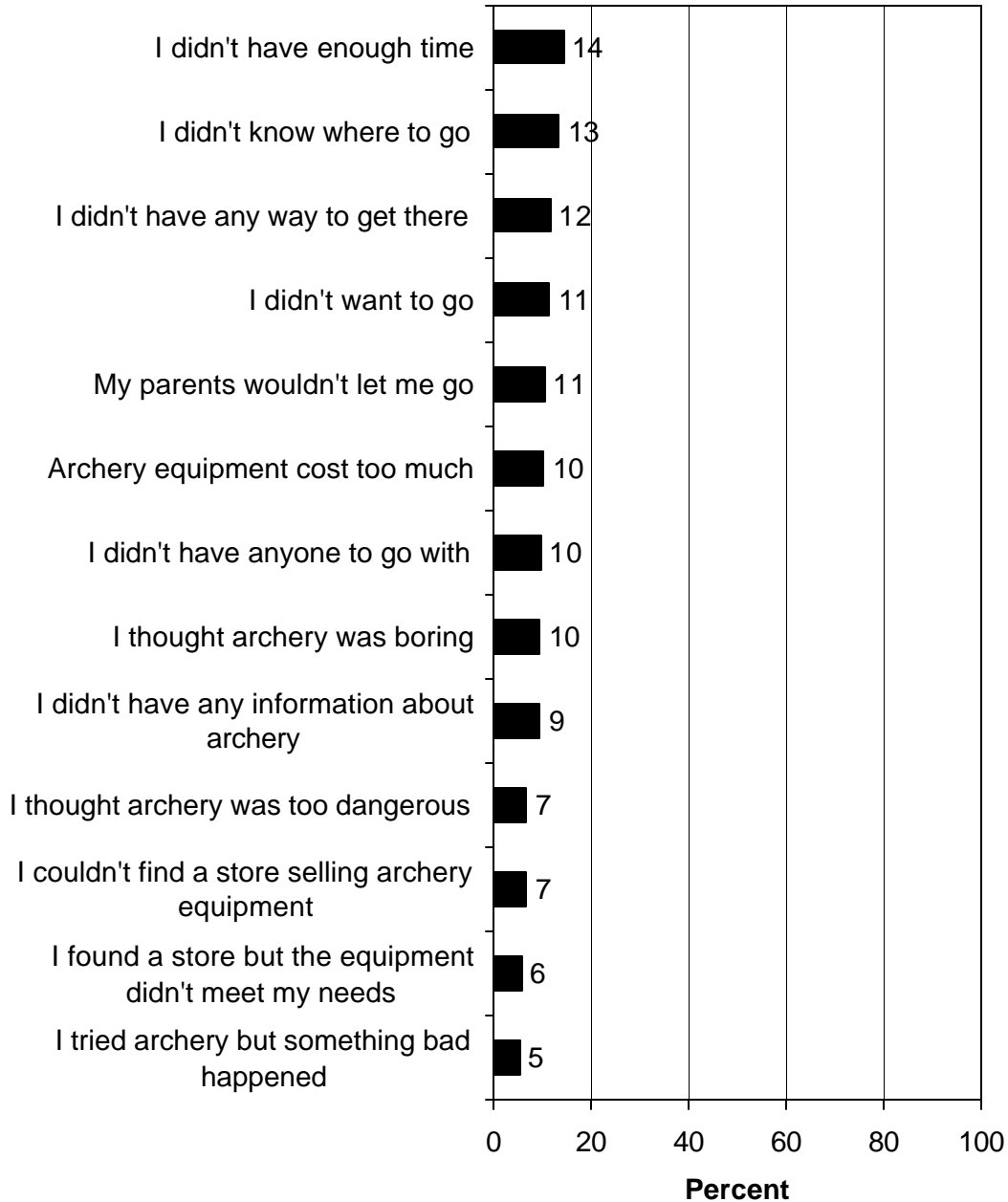
- The top major constraints to participation in archery prior to the archery course were lack of time (14%), not knowing where to go (13%), lack of a way to get to a place (12%), not wanting to participate (11%), and lack of permission to participate from parents (11%).
  - Of those who took the archery course 1 or more years previously, the biggest constraints were lack of time (14%), not wanting to go (11%), not knowing where to go (10%), not having a way to get to the location (10%), and thinking archery was boring (10%).

**Percent who said the following was a major or minor reason for not becoming involved in archery at all or as much as desired before taking archery in school.**



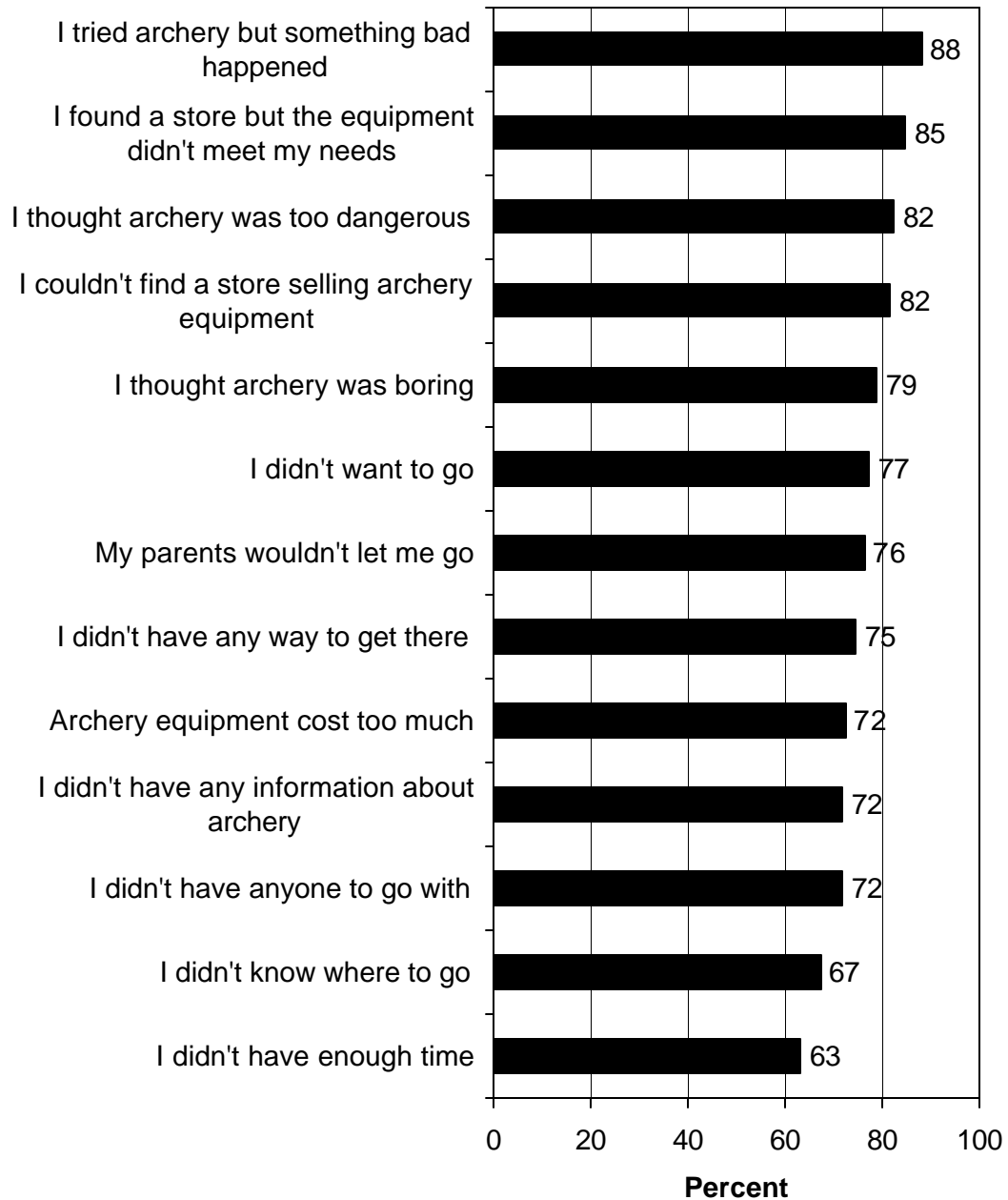
Sample size (n-value) ranges from 1,349 to 1,378.

**Percent who said the following was a major reason for not becoming involved in archery at all or as much as desired before taking archery in school.**



Sample size (n-value) ranges from 1,349 to 1,378.

**Percent who said the following was not a reason for not becoming involved in archery at all or as much as desired before taking archery in school.**

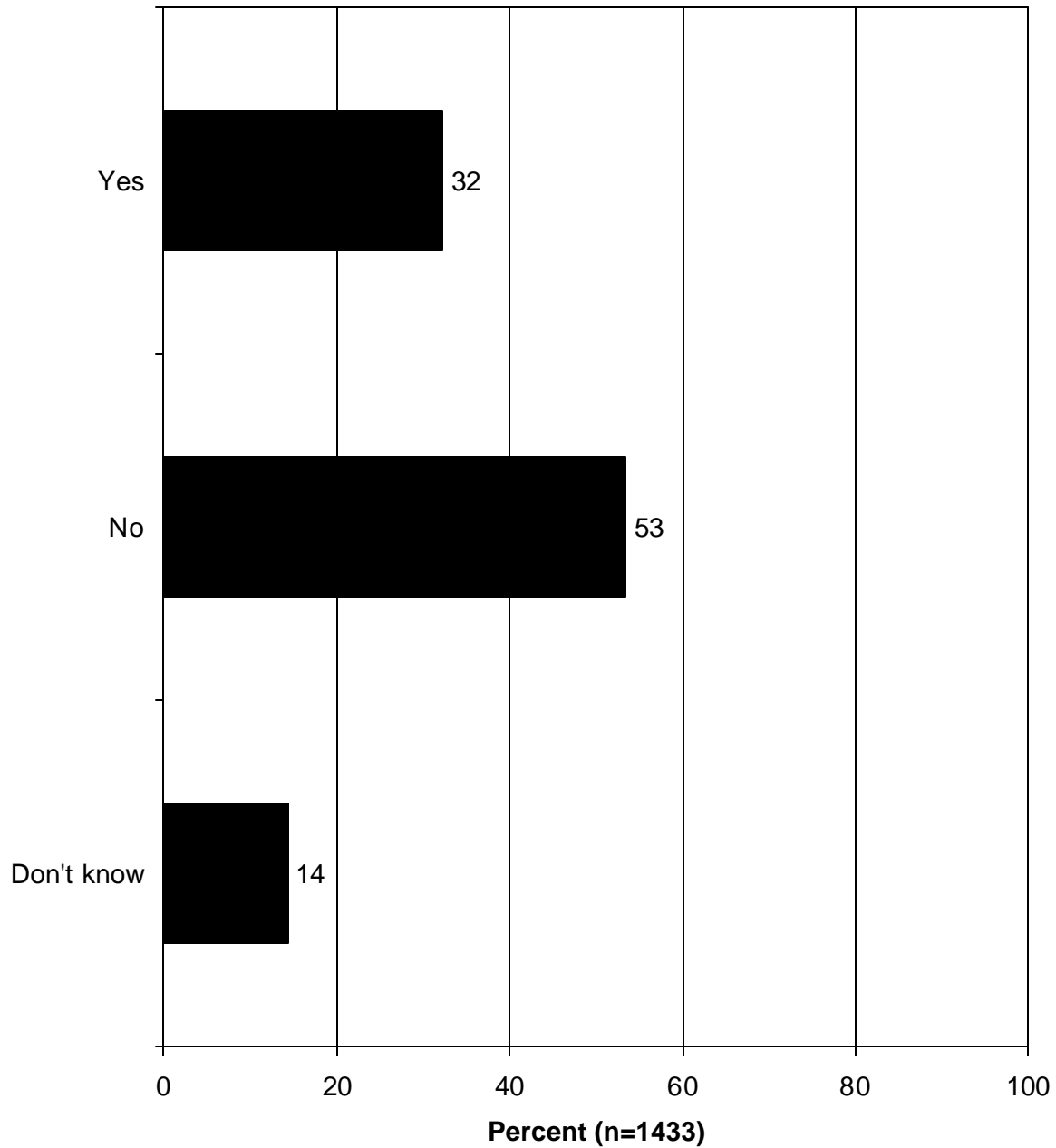


Sample size (n-value) ranges from 1,349 to 1,378.

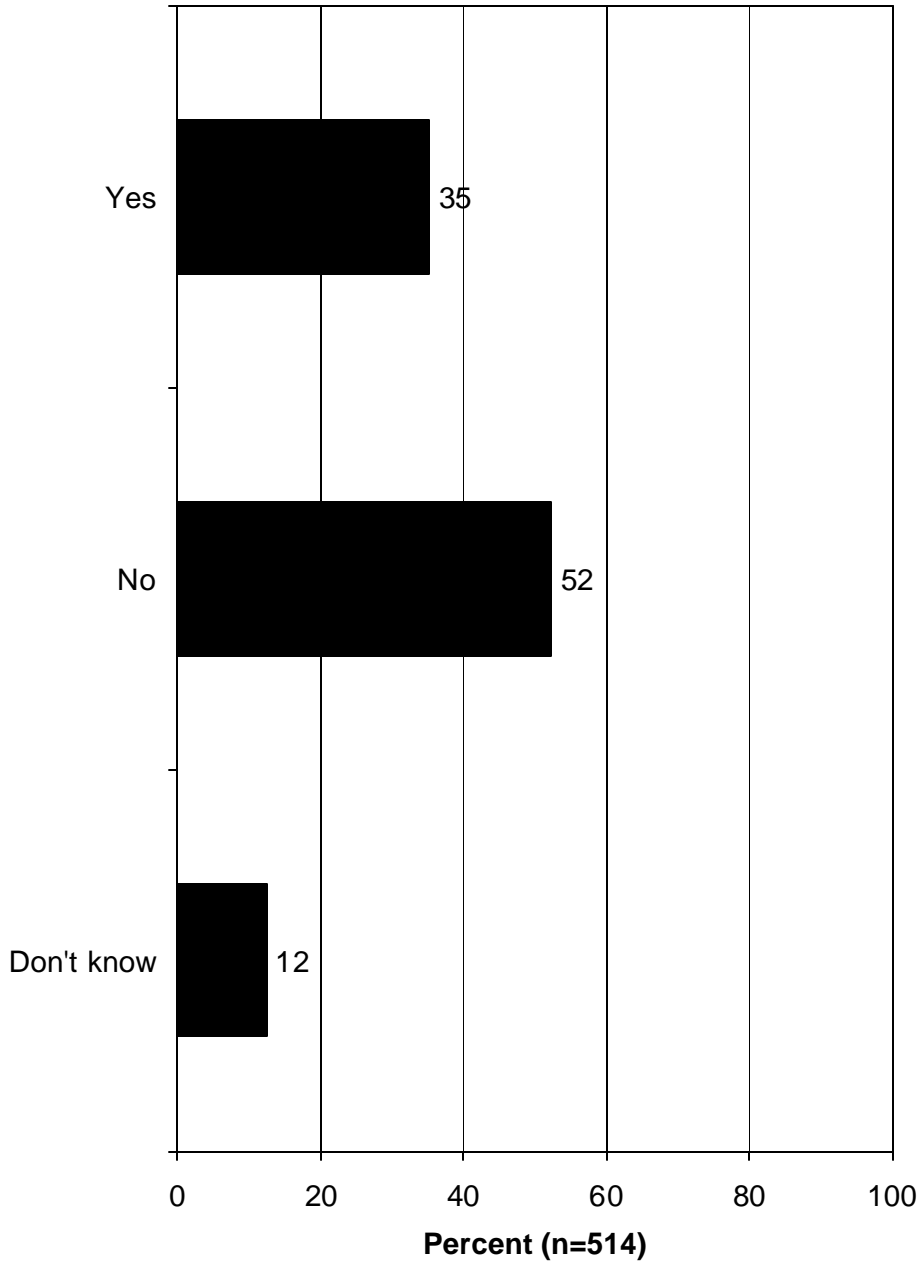
## **CONSTRAINTS TO PARTICIPATION IN ARCHERY AFTER TAKING THE ARCHERY COURSE**

- About a third of students surveyed (32%) said that they had tried to become involved in archery since taking archery in school but could not for some reason.
  - Of those who took the archery course 1 or more years previously, 35% said that they had tried to become involved in archery since taking archery in school but could not for some reason.
  
- The top constraints (major and minor considered together) to participation in archery after the course are lack of time (32%), the cost of equipment (28%), not wanting to go (27%), not knowing where to go (26%), lack of a companion (24%), and parents not giving permission to go (23%).
  - Note that danger or something bad happening are not important constraints, and neither is difficulty finding equipment to purchase an important constraint.
  - In the analysis of those who took the archery course 1 or more years previously, not enough time (32%), the cost of equipment (26%), not wanting to go (26%), and not knowing where to go (24%) were the biggest constraints.
  
- The top major constraints to participation in archery after the archery course are not wanting to go (17%), lack of time (15%), the cost of archery equipment (12%), parents not giving permission to go (11%), not knowing where to go (11%), and thinking archery is boring (10%).
  - Of those who took the archery course 1 or more years previously, the top major constraints were lack of time (15%), not wanting to go (14%), and cost of equipment (11%).

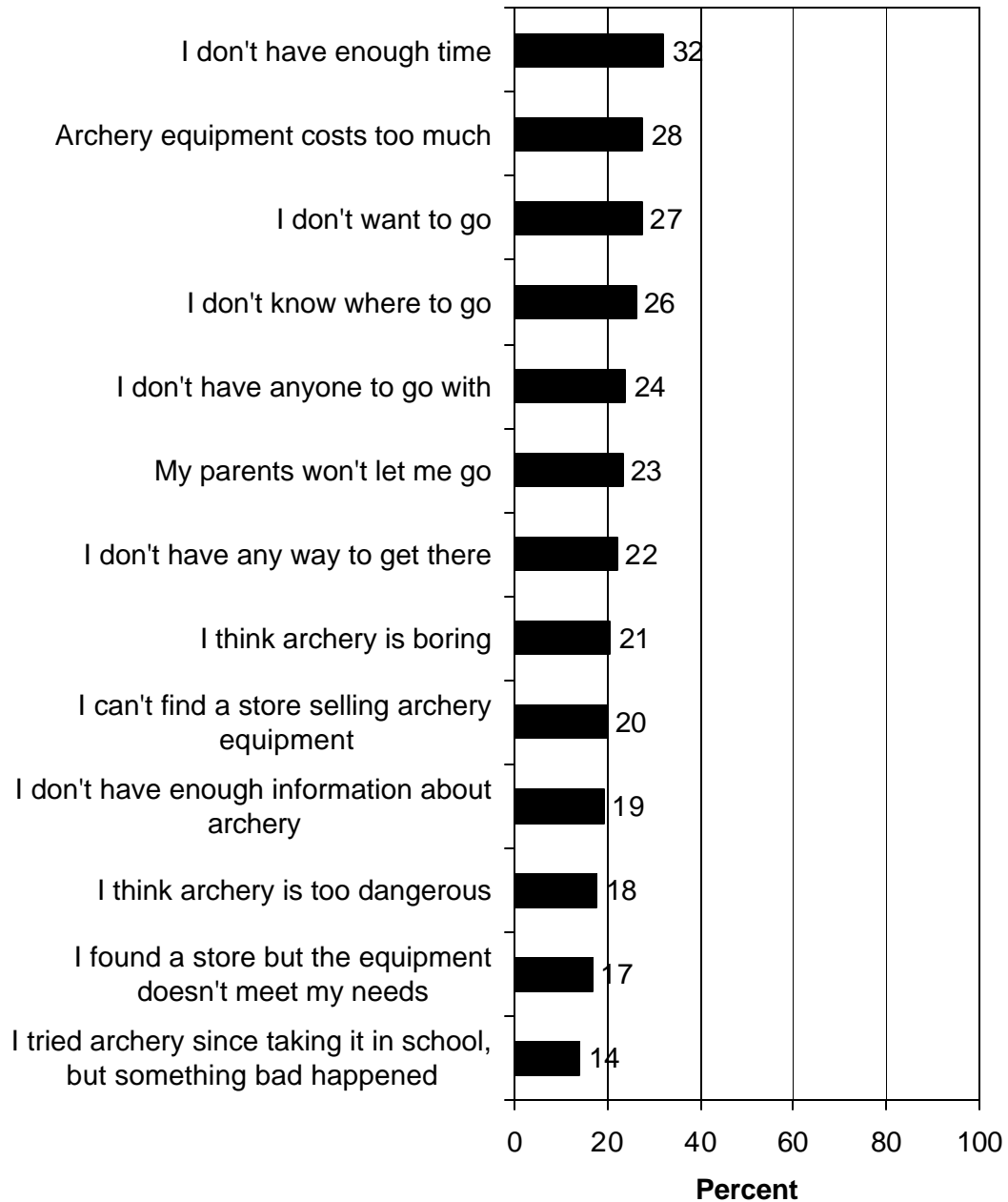
**Have you tried to become involved in archery since taking archery in school but could not for some reason?**



**Have you tried to become involved in archery since taking archery in school but could not for some reason (of those who took the archery course 1 or more years previously)?**

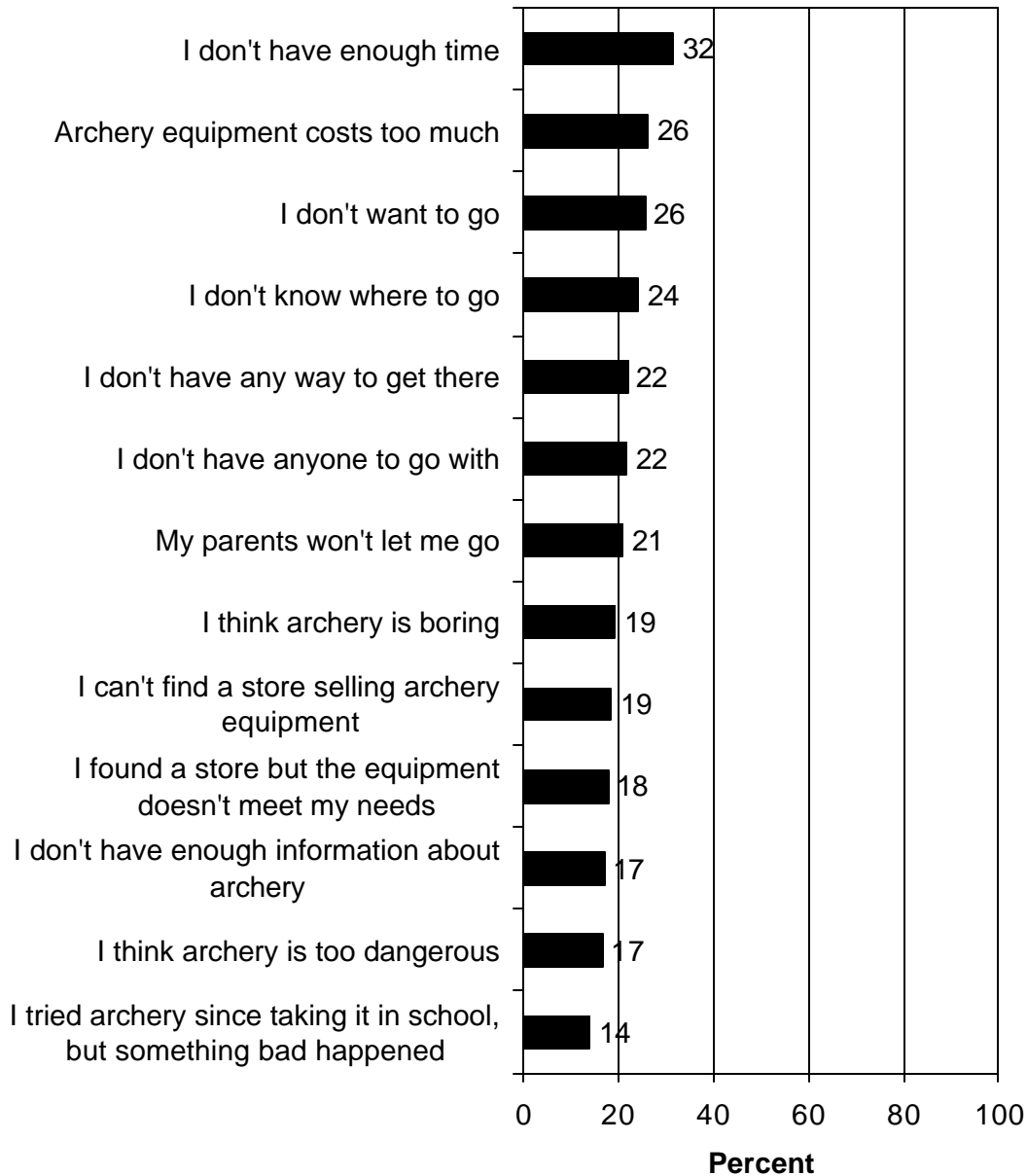


**Percent who said the following is a major or minor reason for not becoming involved in archery at all or as much as desired since taking archery in school.**



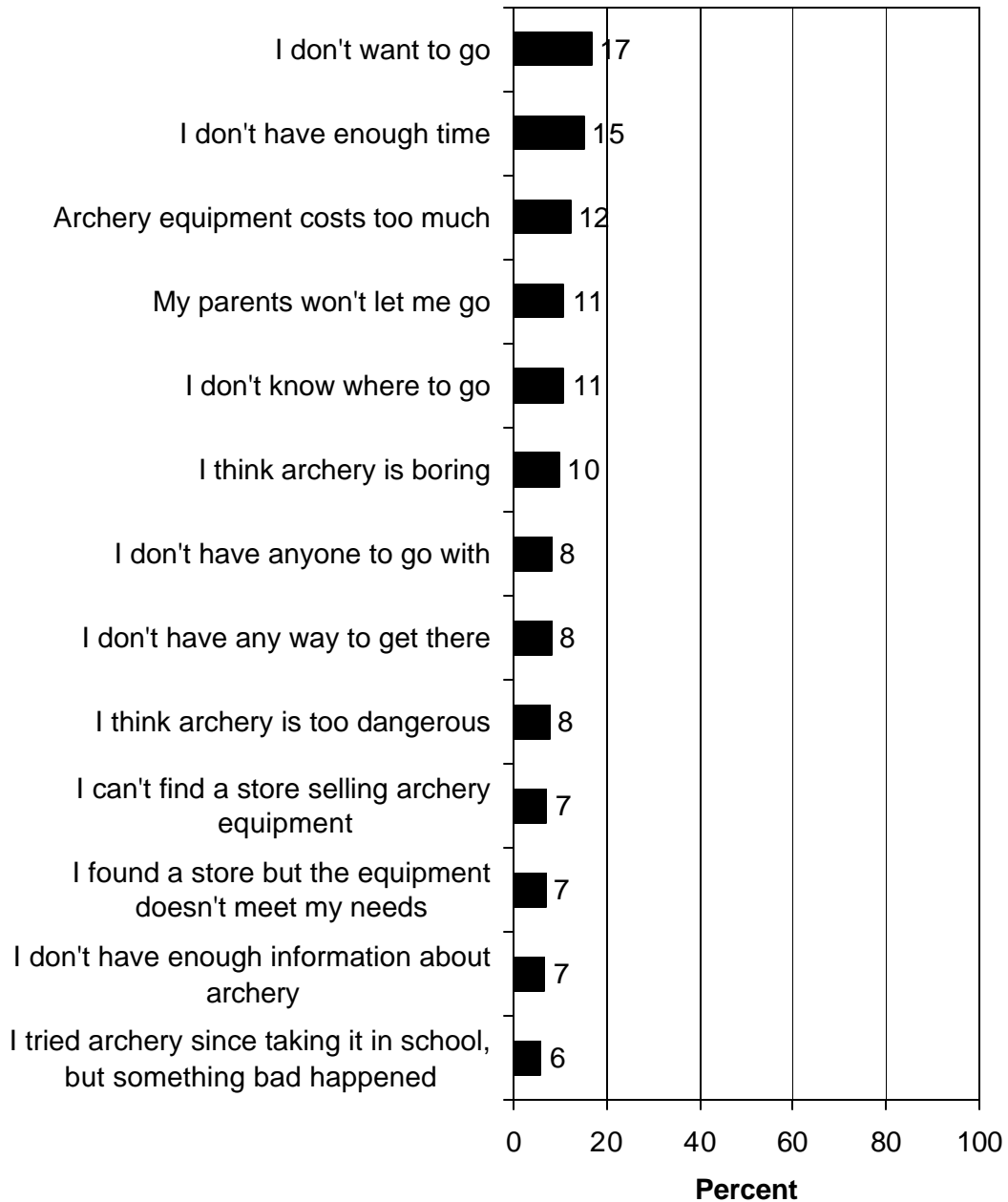
Sample size (n-value) ranges from 1,270 to 1,294.

**Percent who said the following is a major or minor reason for not becoming involved in archery at all or as much as desired since taking archery in school (among those who took the archery course 1 year or more previously).**



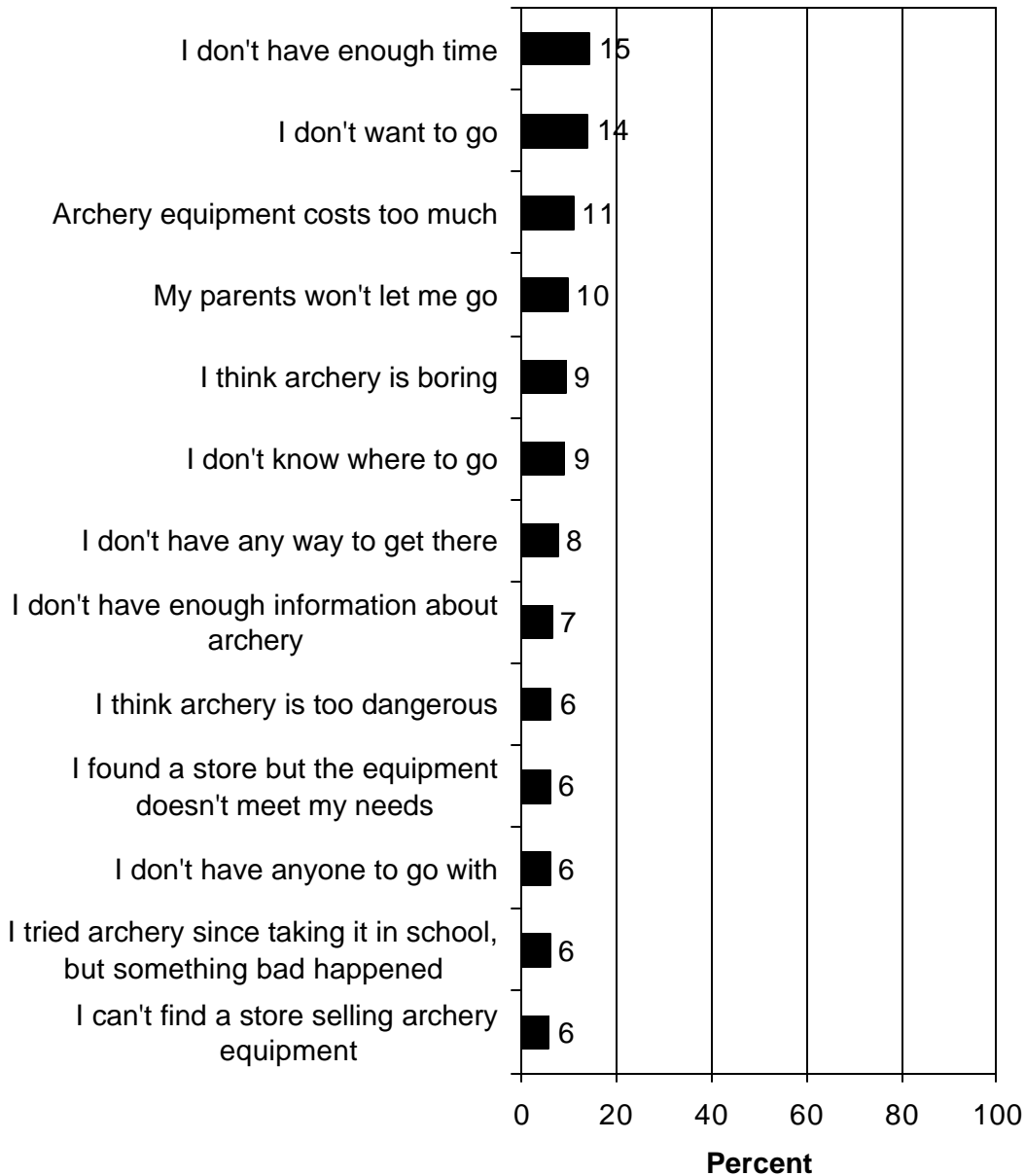
Sample size (n-value) ranges from 433 to 452.

**Percent who said the following is a major reason for not becoming involved in archery at all or as much as desired since taking archery in school.**



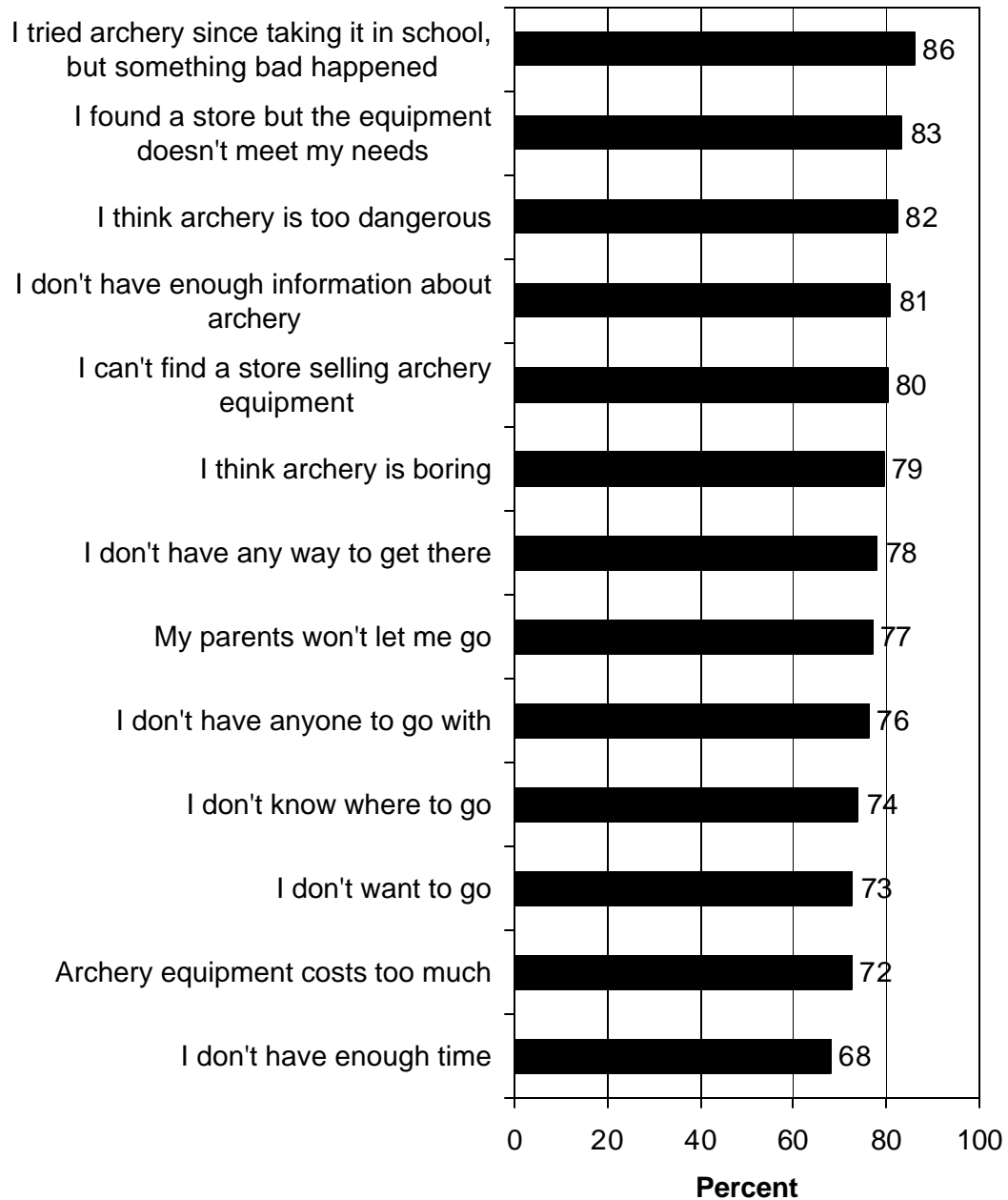
Sample size (n-value) ranges from 1,270 to 1,294.

**Percent who said the following is a major reason for not becoming involved in archery at all or as much as desired since taking archery in school (among those who took the archery course 1 year or more previously).**



Sample size (n-value) ranges from 433 to 452.

**Percent who said the following is not a reason for not becoming involved in archery at all or as much as desired since taking archery in school.**

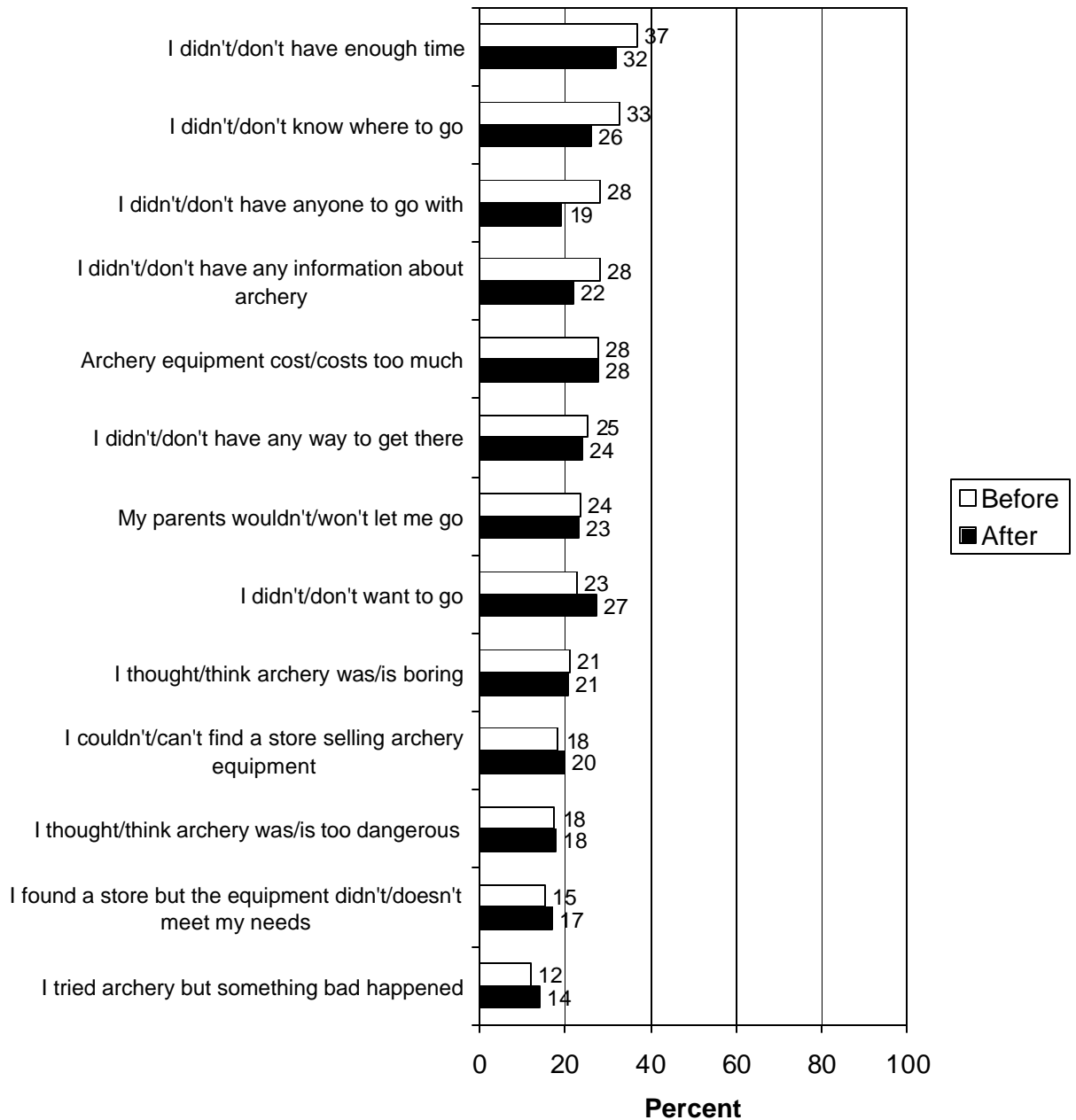


Sample size (n-value) ranges from 1,270 to 1,294.

## COMPARISON OF CONSTRAINTS TO ARCHERY BEFORE AND AFTER TAKING THE ARCHERY COURSE

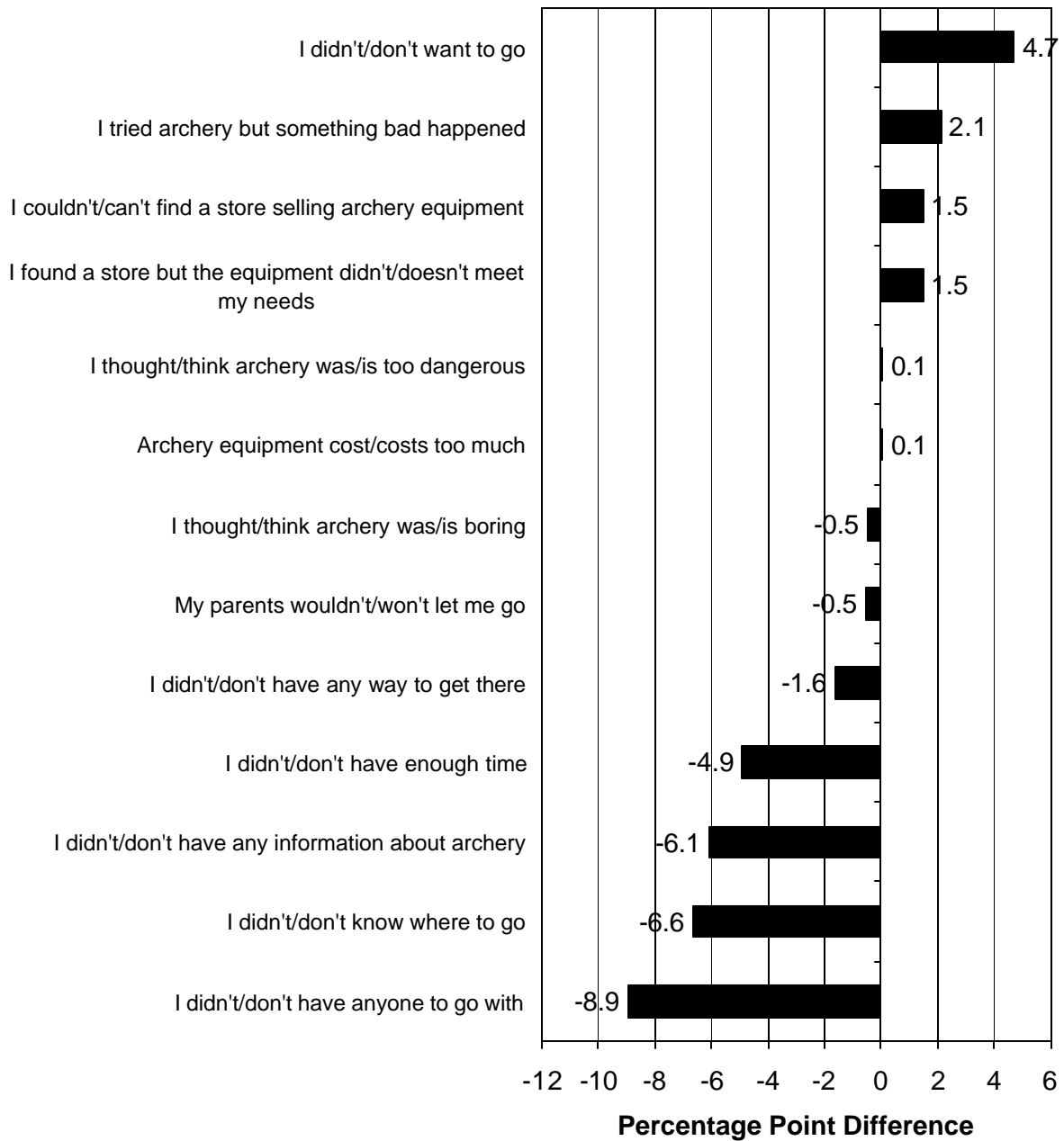
- The constraints to archery participation that declined the most after the students took the archery course (examining a sum of those saying “minor reason” and “major reason” for not participating at all or as much as desired) were not having anyone to go with (a 9 percentage point decline), not knowing where to go (a 7 percentage point decline), not having information about archery (a 6 percentage point decline), and lack of time (a 5 percentage point decline).
  - The constraint of not wanting to participate increased by 5 percentage points (on the graph, rounding causes an apparent discrepancy).
  - In the analysis of those who took the archery course 1 or more years previously, the constraint with the largest change is not having anyone to go with (an 8 percentage point decline), followed by lack of time (a 6 percentage point decline), lack of information about archery (a 4 percentage point decline), and not knowing where to go (also a 4 percentage point decline).
  
- A comparison was run of those who said the constraint was a “major reason” for not participating in archery at all or as much as desired. The following constraints all showed a decline after the archery course: not having a way to get to a place to participate (3 percentage point decline), not having anyone to go with (a 3 percentage point decline), not knowing where to go (a 3 percentage point decline), and not having any information about archery (a 1 percentage point decline).
  - In the analysis of those who took the archery course 1 or more years previously, not having a way to get to the location to participate (a 4 percentage point decline) and not having anyone to go with (a 2 percentage point decline) are the constraints that declined the most. Not wanting to go increased as a constraint by 3 percentage points.

**Percentages saying each of the following was a major or minor reason for not becoming involved in archery at all or as much as desired before and after taking course.**

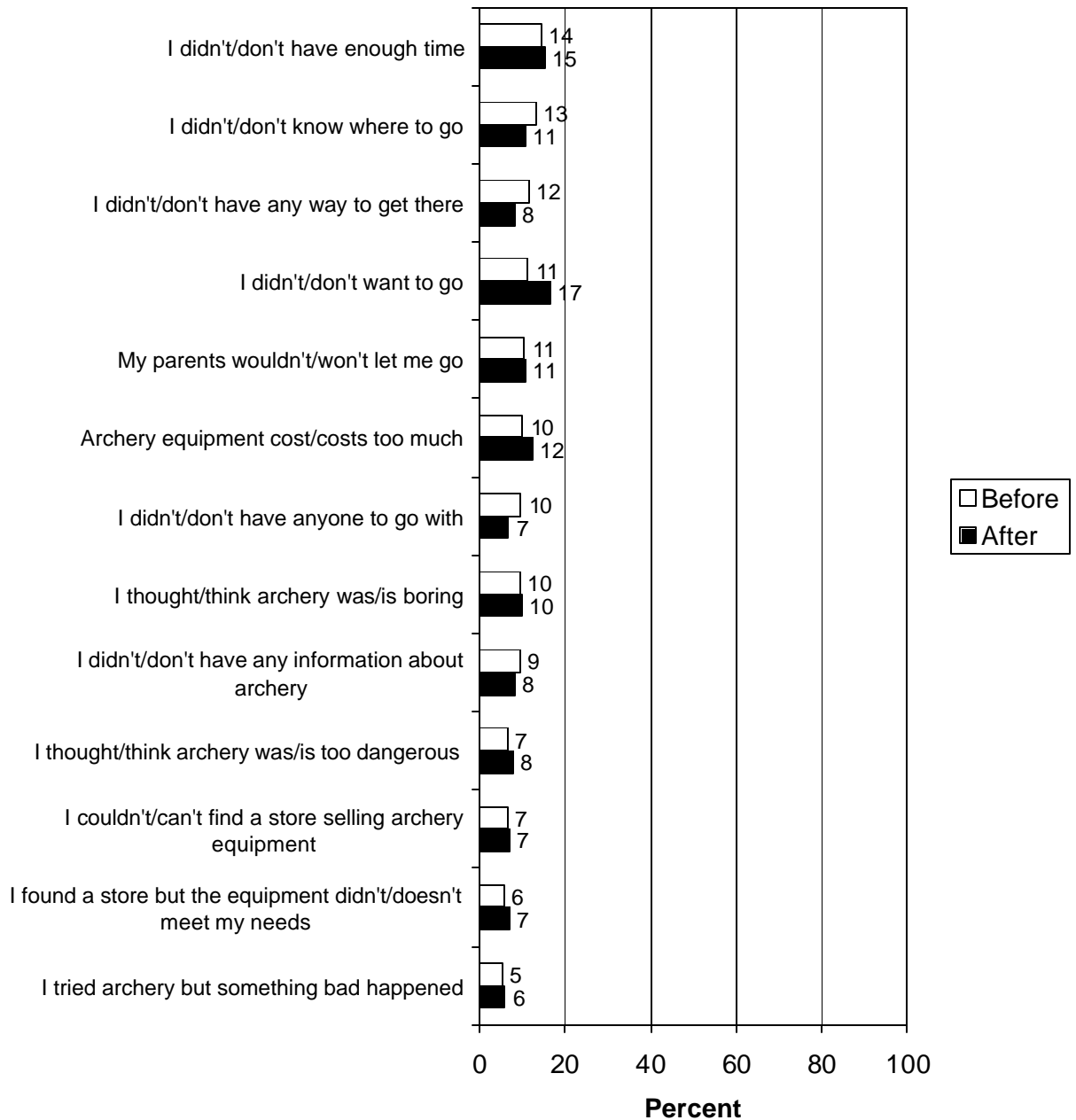


Sample size (n-value) ranges from 1,270 to 1,378.

**Percentage point difference between pre- and post-course percentages saying each of the following was a major or minor reason for not becoming involved in archery at all or as much as desired.**

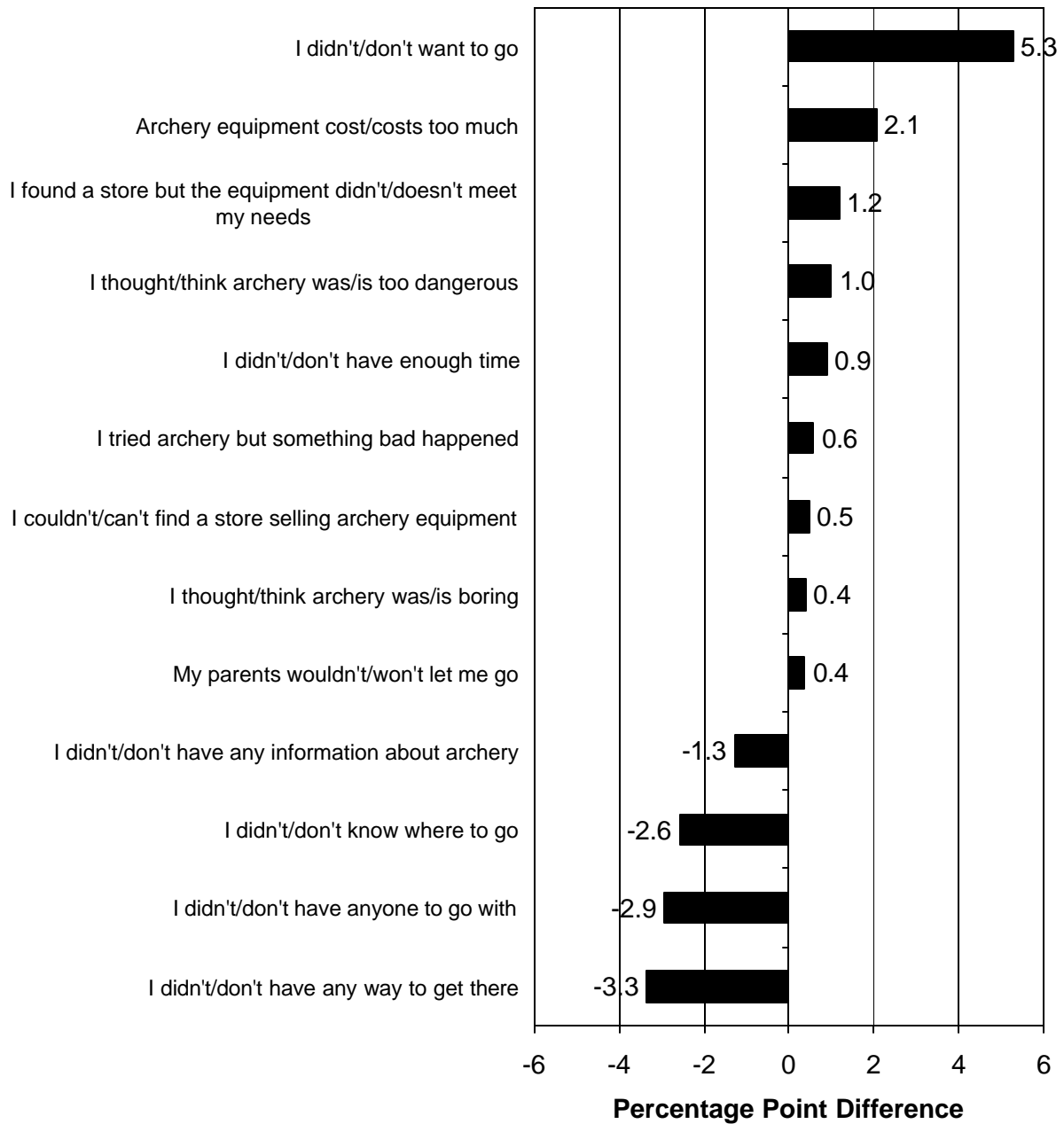


**Percentages saying each of the following was a major reason for not becoming involved in archery at all or as much as desired before and after taking course.**

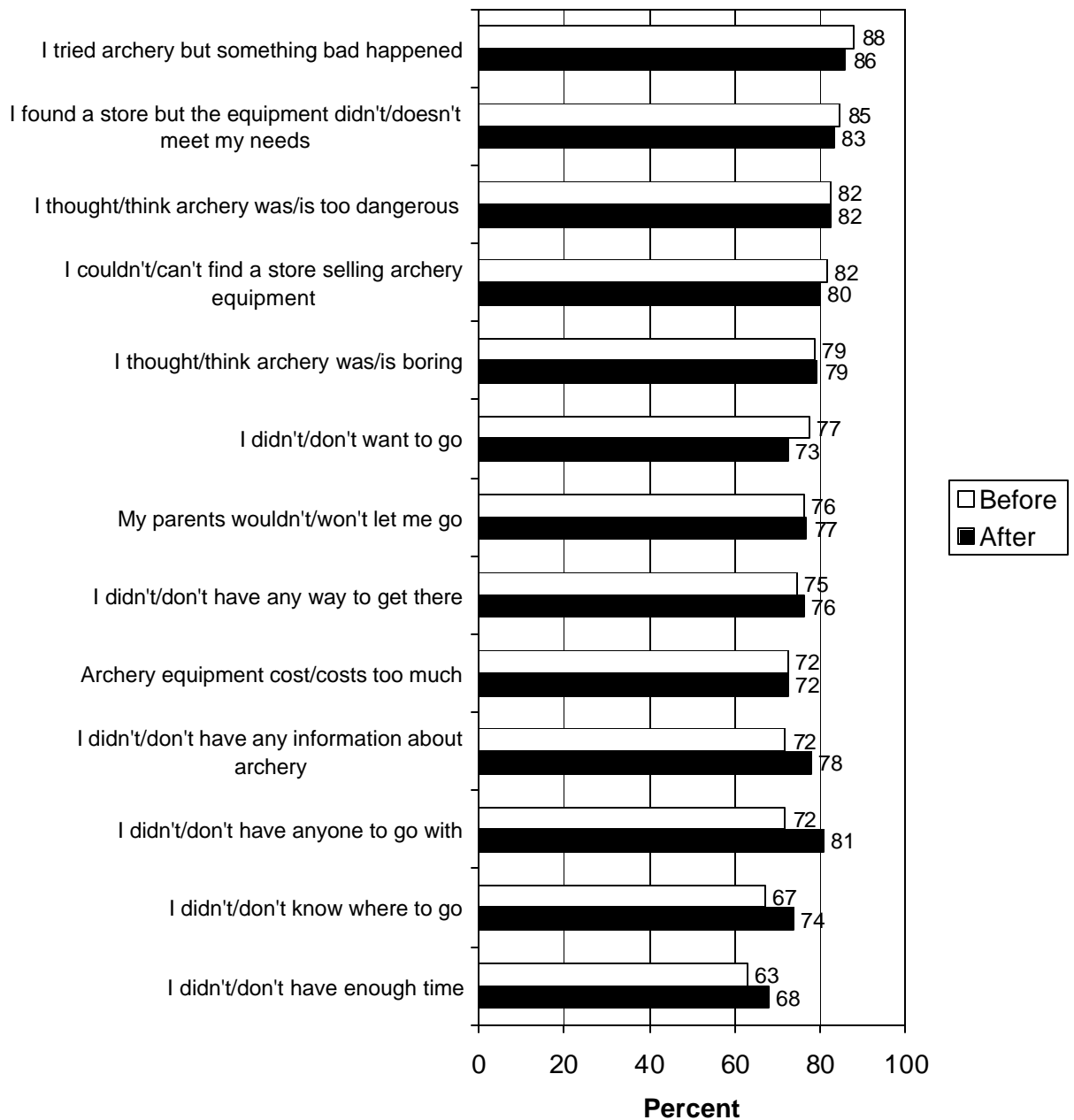


Sample size (n-value) ranges from 1,270 to 1,378.

**Percentage point difference between pre- and post-course percentages saying each of the following was a major reason for not becoming involved in archery at all or as much as desired.**

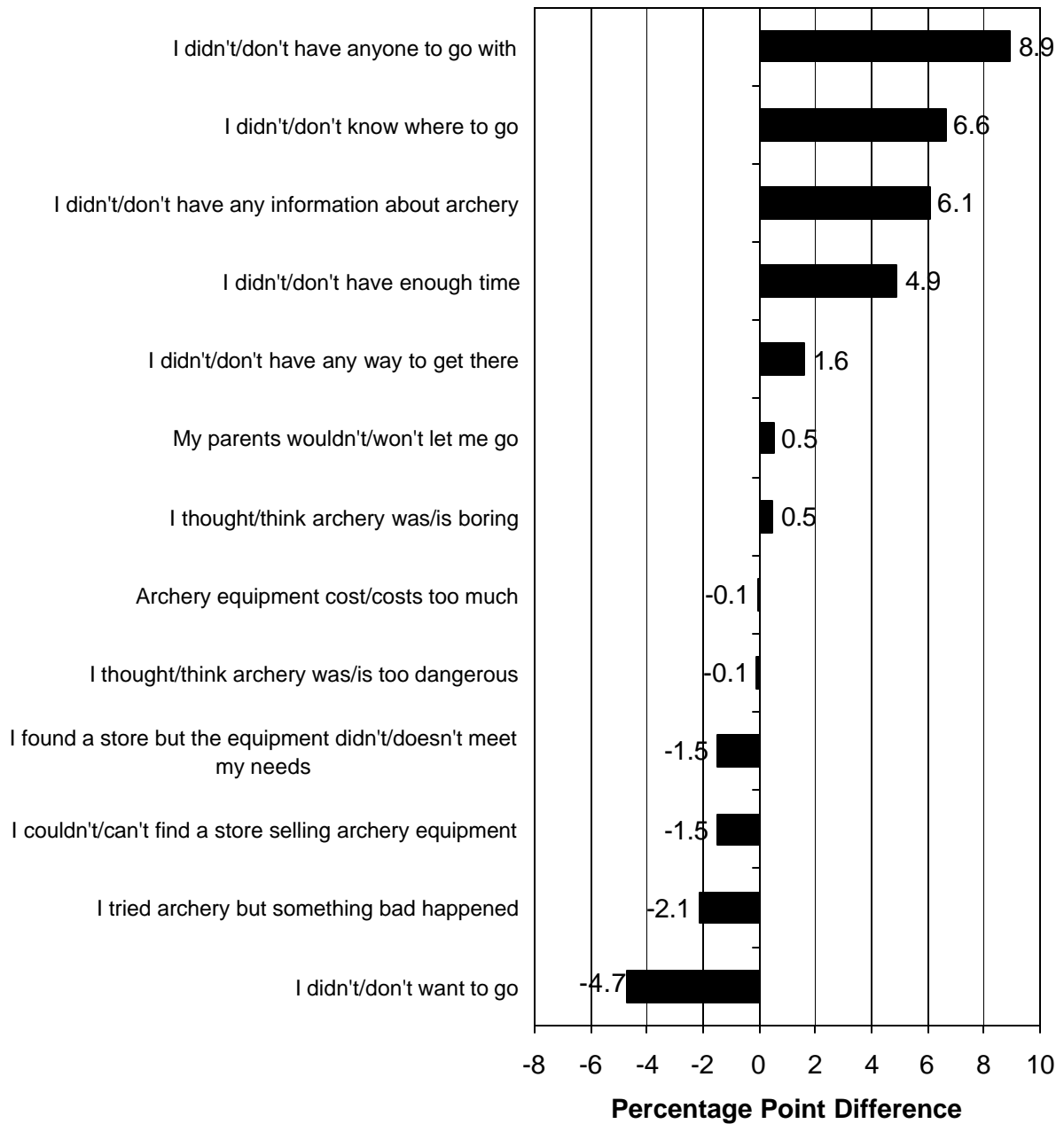


**Percentages saying each of the following was not a reason for not becoming involved in archery at all or as much as desired before and after taking course.**



Sample size (n-value) ranges from 1,270 to 1,378.

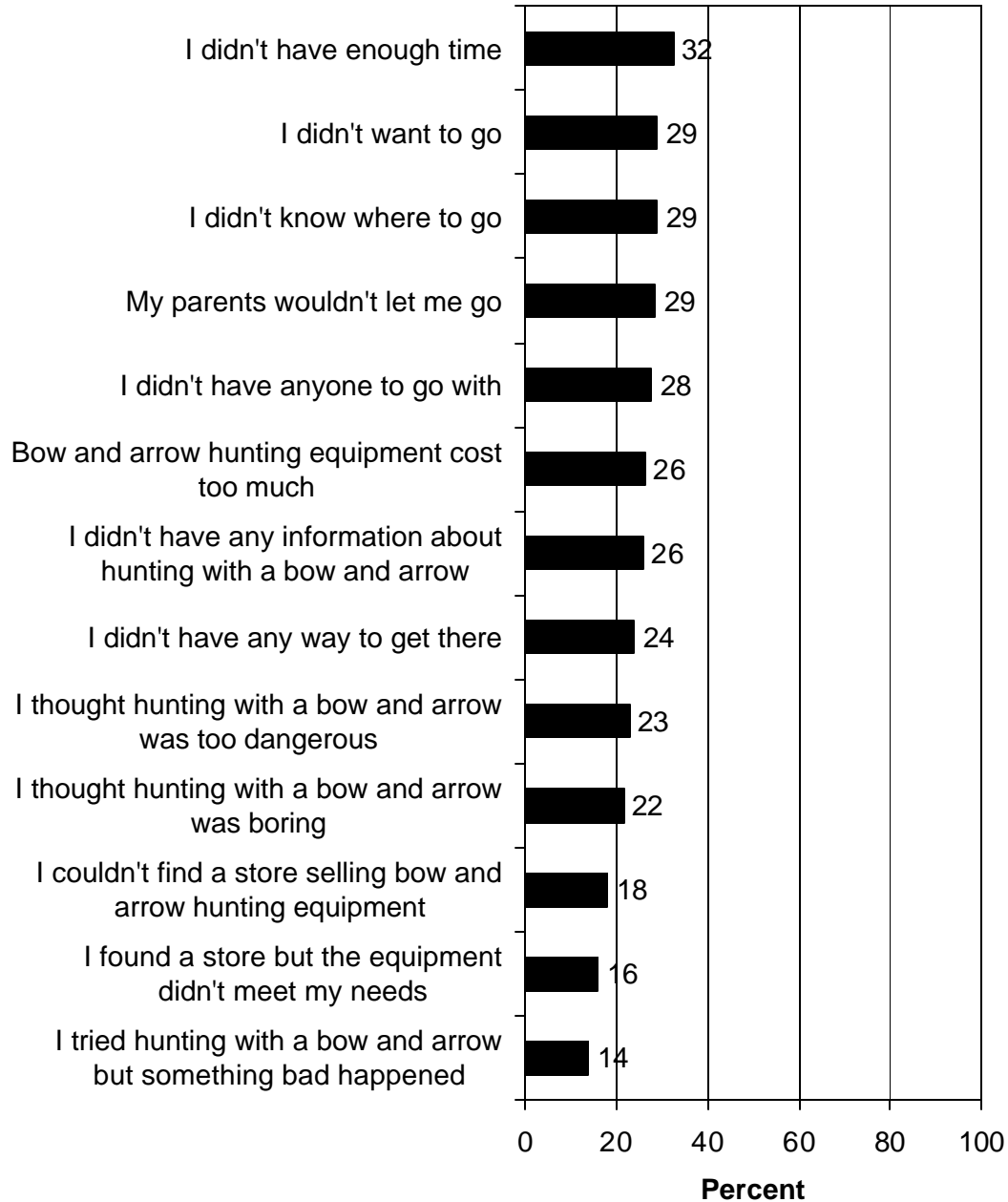
**Percentage point difference between pre- and post-course percentages saying each of the following was not a reason for not becoming involved in archery at all or as much as desired.**



## **CONSTRAINTS TO PARTICIPATION IN BOWHUNTING BEFORE TAKING THE ARCHERY COURSE**

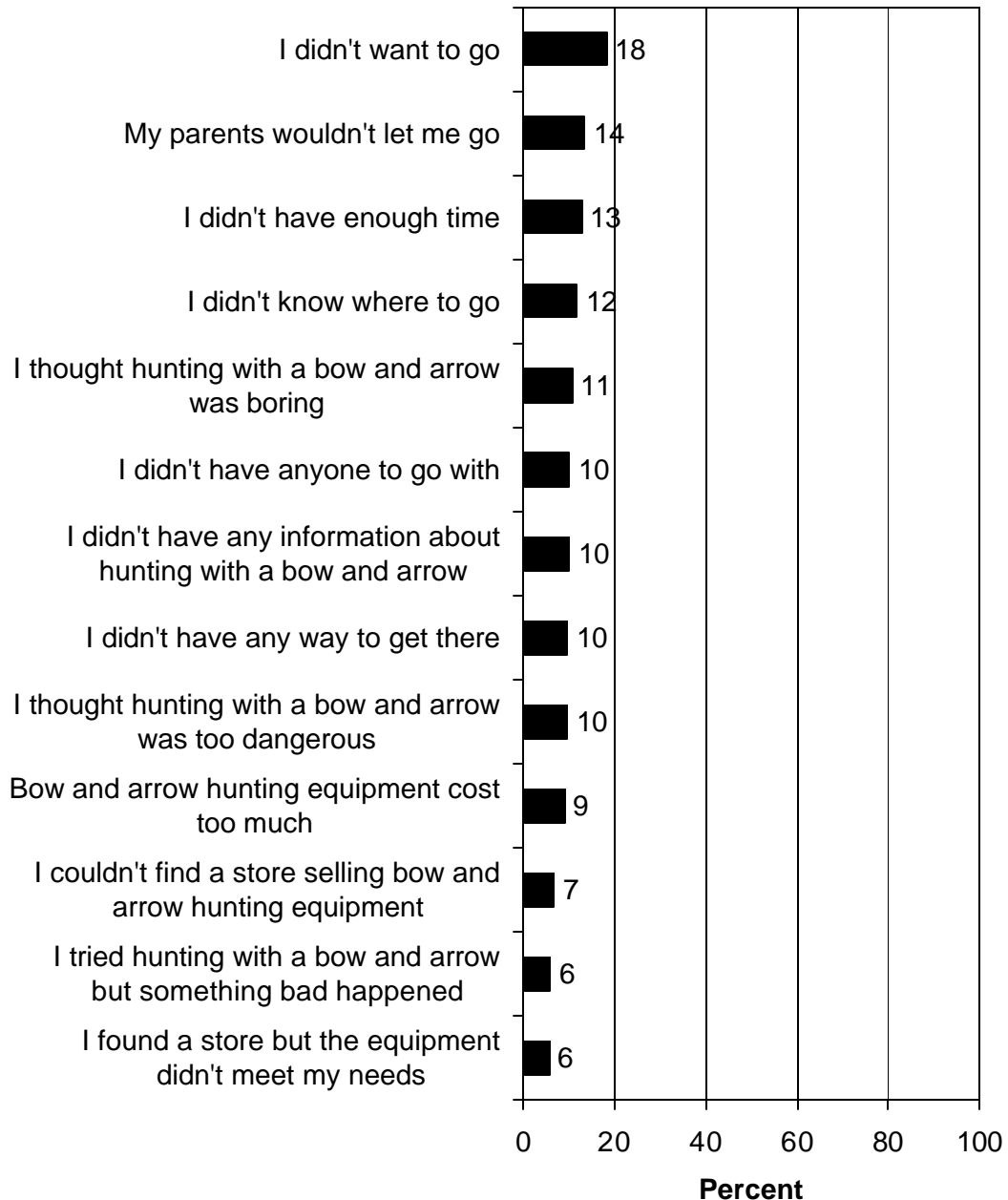
- The top constraints (major and minor considered together) to participation in bowhunting prior to the course were lack of time (32%), not wanting to go (29%), not knowing where to go (29%), lack of permission to participate from parents (29%), and lack of a companion (28%).
  - Similar to participation in archery, danger or something bad happening were not important constraints to participation in bowhunting, and neither was difficulty finding equipment to purchase an important constraint.
  - In the analysis of those who took the archery course 1 or more years previously, not enough time (32%) was the top constraint. The next constraints, all at 28%, were lack of parental permission to go, not wanting to go, and not knowing where to go.
  
- The top major constraint to participation in bowhunting prior to the archery course was simply not wanting to go (18%). Otherwise, the top major constraints were lack of permission to participate from parents (14%), lack of time (13%), and not knowing where to go (12%).
  - Of those who took the archery course 1 or more years previously, the top constraint was not wanting to go (16%), followed by lack of time (12%) and lack of parental permission (11%).

**Percent who said the following was a major or minor reason for not becoming involved in bowhunting at all or as much as desired before taking archery in school.**



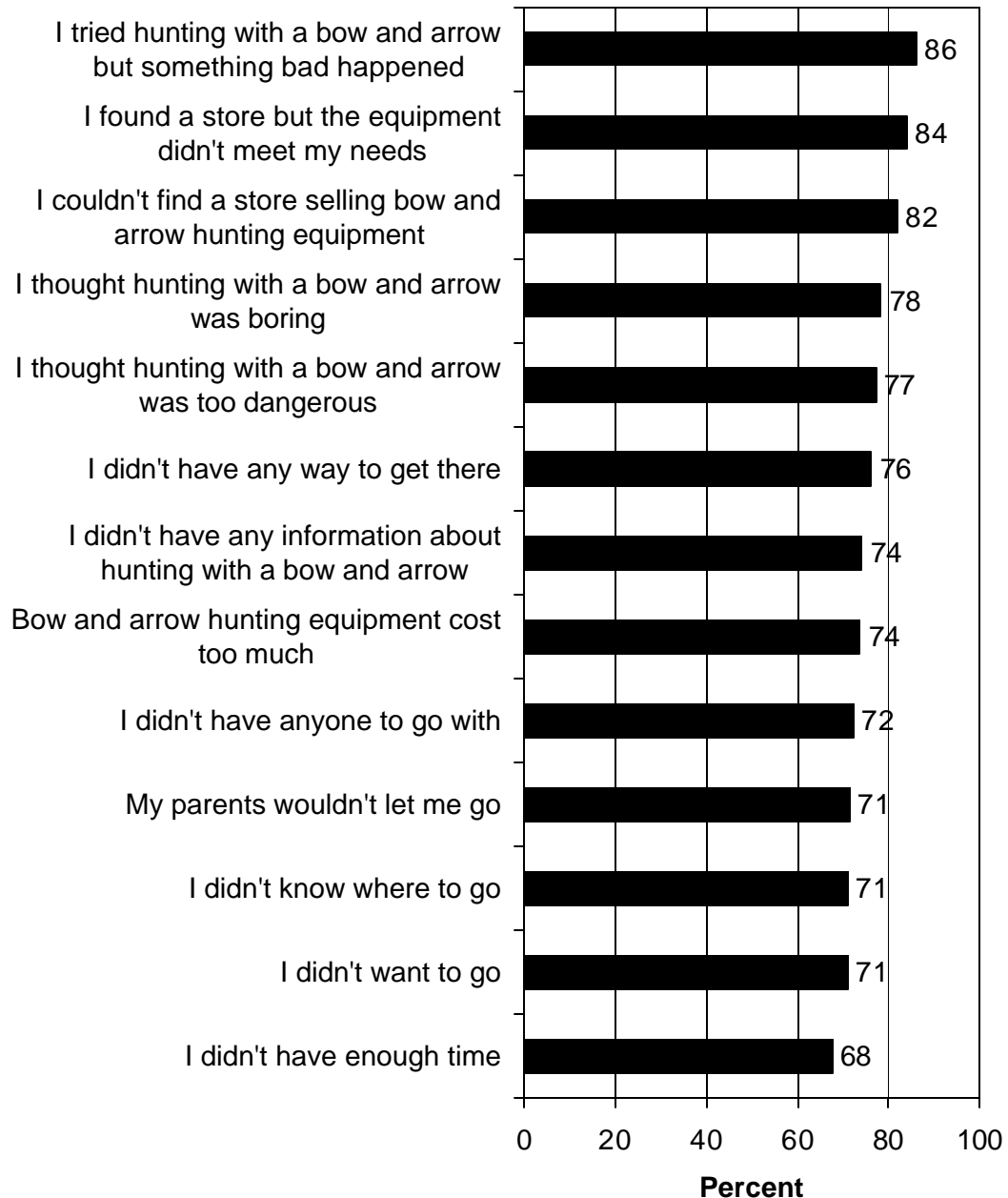
Sample size (n-value) ranges from 1,337 to 1,372.

**Percent who said the following was a major reason for not becoming involved in bowhunting at all or as much as desired before taking archery in school.**



Sample size (n-value) ranges from 1,337 to 1,372.

**Percent who said the following was not a reason  
for not becoming involved in bowhunting at all or  
as much as desired before taking archery in  
school.**

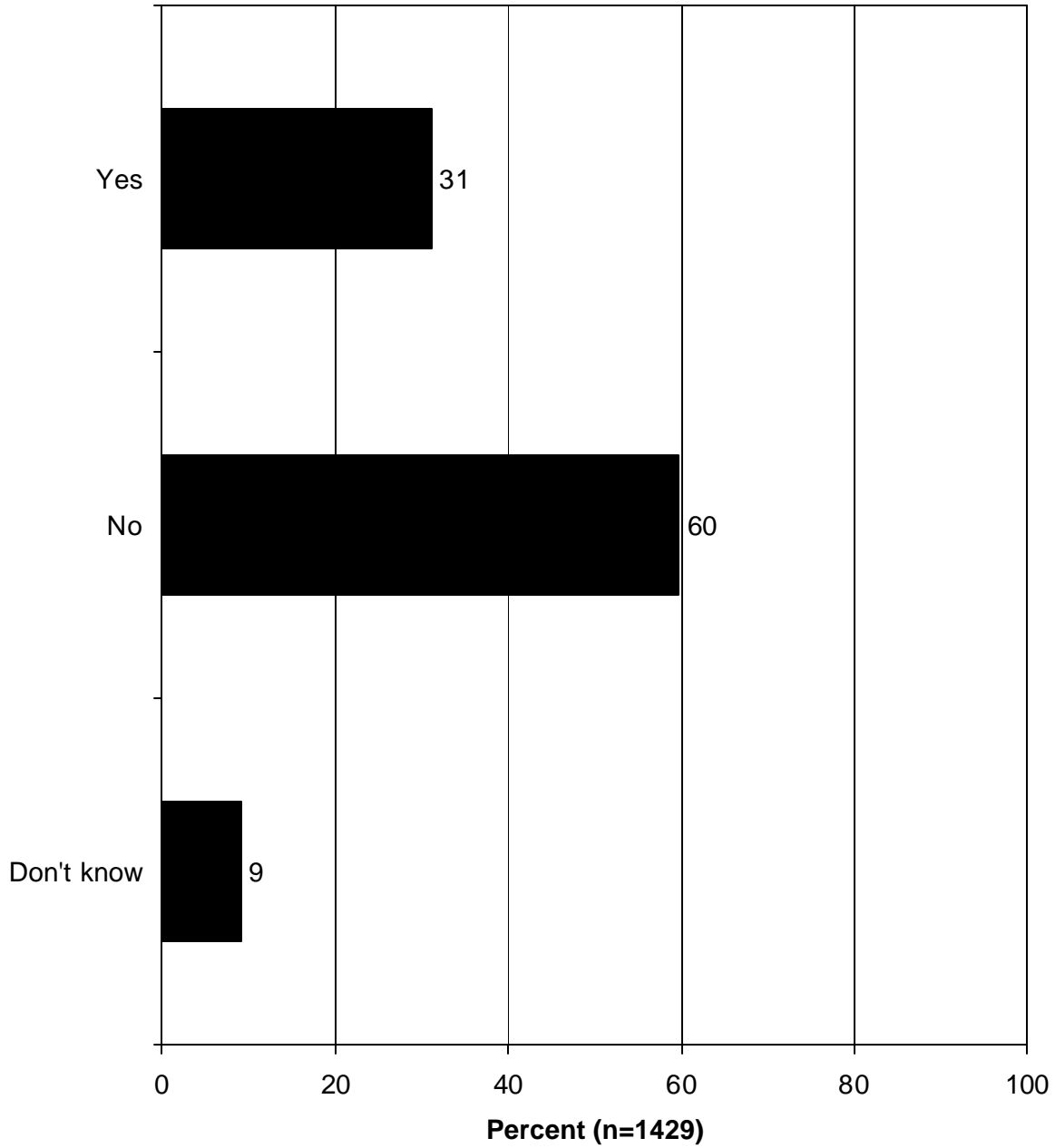


Sample size (n-value) ranges from 1,337 to 1,372.

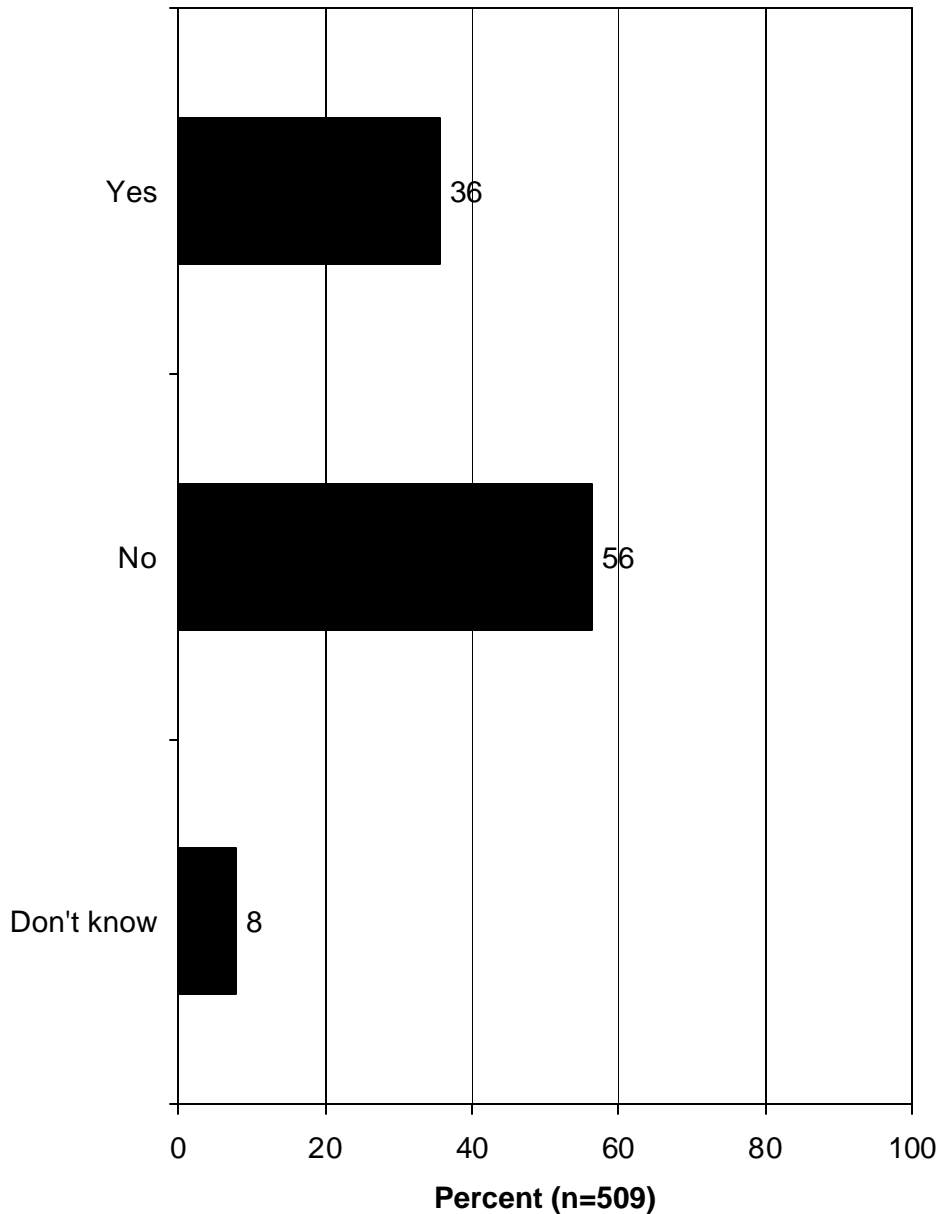
## **CONSTRAINTS TO PARTICIPATION IN BOWHUNTING AFTER TAKING THE ARCHERY COURSE**

- About a third of students surveyed (31%) said that they had tried to become involved in hunting with a bow and arrow since taking the archery course but could not for some reason.
  - Of those who took the archery course 1 or more years previously, 36% said that they had tried to become involved in hunting with a bow and arrow since taking the archery course but could not for some reason.
  
- The top constraints (major and minor considered together) to participation in bowhunting after the course are lack of time (32%), not wanting to go (30%), lack of permission to participate from parents (27%), the cost of equipment (26%), lack of a companion (25%), and not knowing where to go (24%).
  - Similar to participation in archery, danger or something bad happening are not important constraints to participation in bowhunting, and neither is difficulty finding equipment to purchase an important constraint.
  - Of those who took the archery course 1 or more years previously, the top constraints to participation in bowhunting were lack of time (34%), not wanting to go (27%), cost of equipment (26%), and lack of parental permission (26%).
  
- The top major constraint to participation in bowhunting after the archery course is simply not wanting to go (19%). Otherwise, the top major constraints are lack of time (13%), lack of permission to participate from parents (13%), thinking bowhunting is boring (12%), and the cost of equipment (11%).
  - In the analysis of those who took the archery course 1 or more years previously, the top constraints were not wanting to go (16%), lack of time (13%), and lack of parental permission (13%).

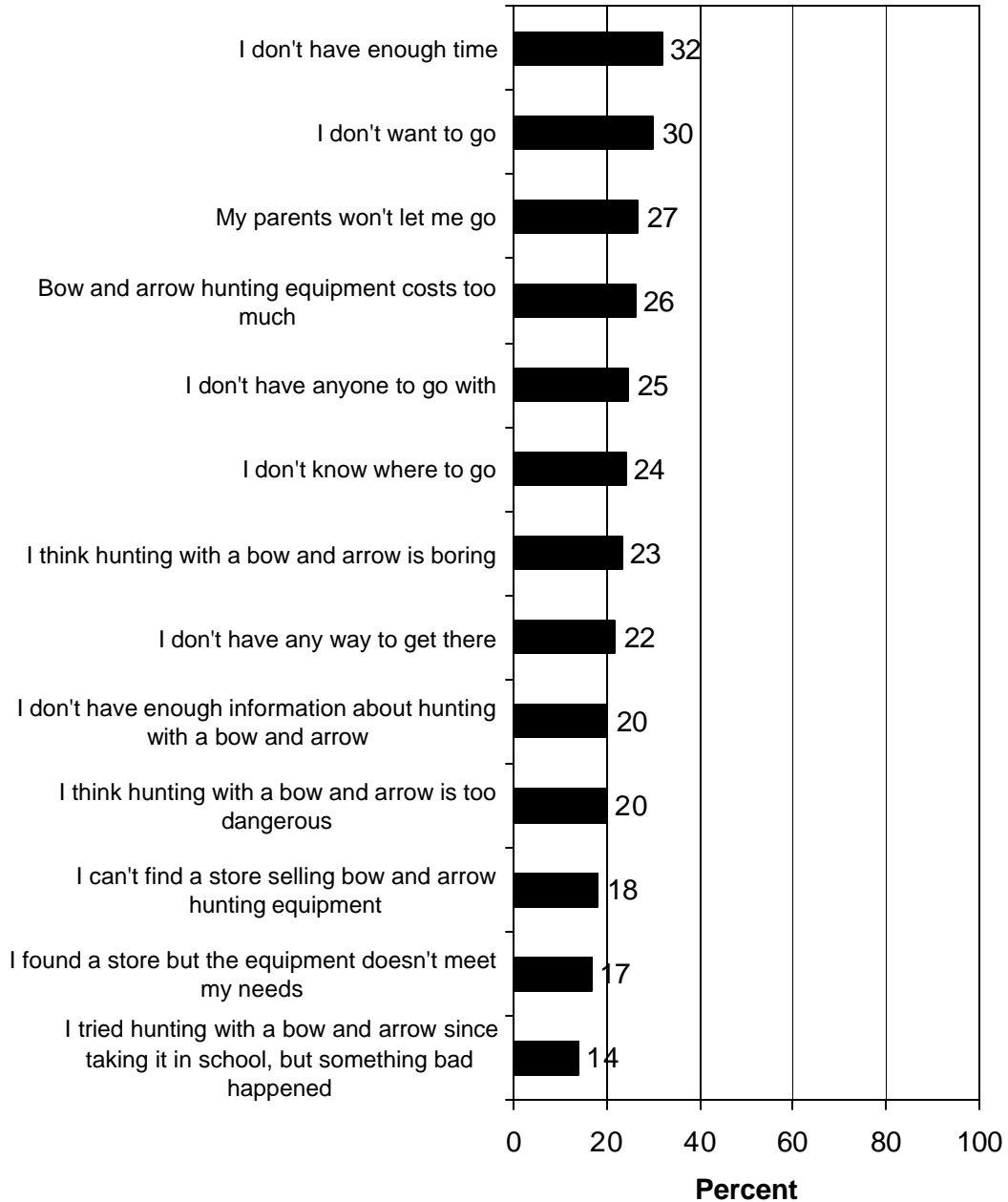
**Have you tried becoming involved in hunting with a bow and arrow since taking archery in school but could not for some reason?**



**Q99. Have you tried becoming involved in hunting with a bow and arrow since taking archery in school but could not for some reason (of those who took the archery course 1 or more years previously)?**

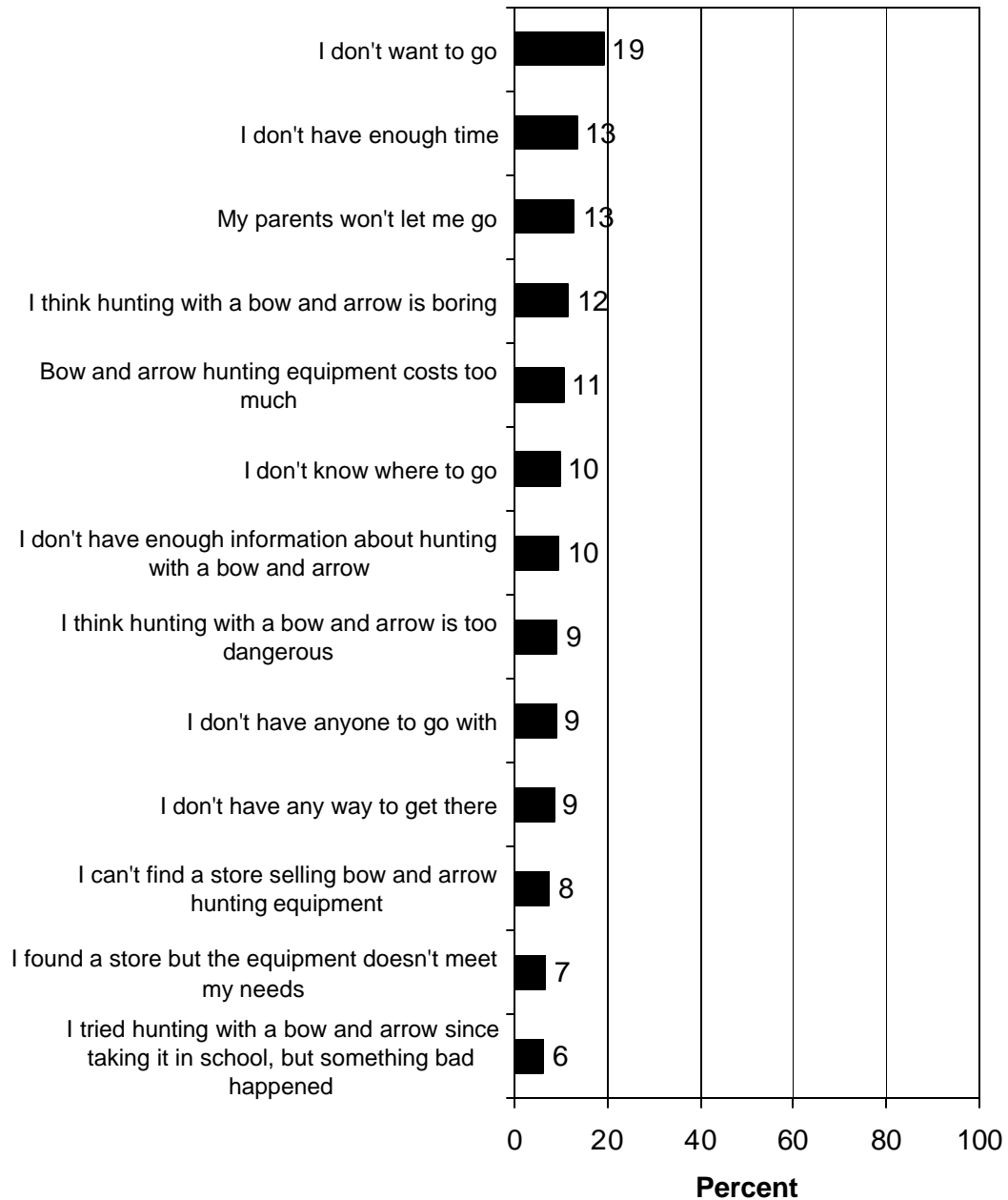


**Percent who said the following is a major or minor reason for not becoming involved in bowhunting at all or as much as desired since taking archery in school.**



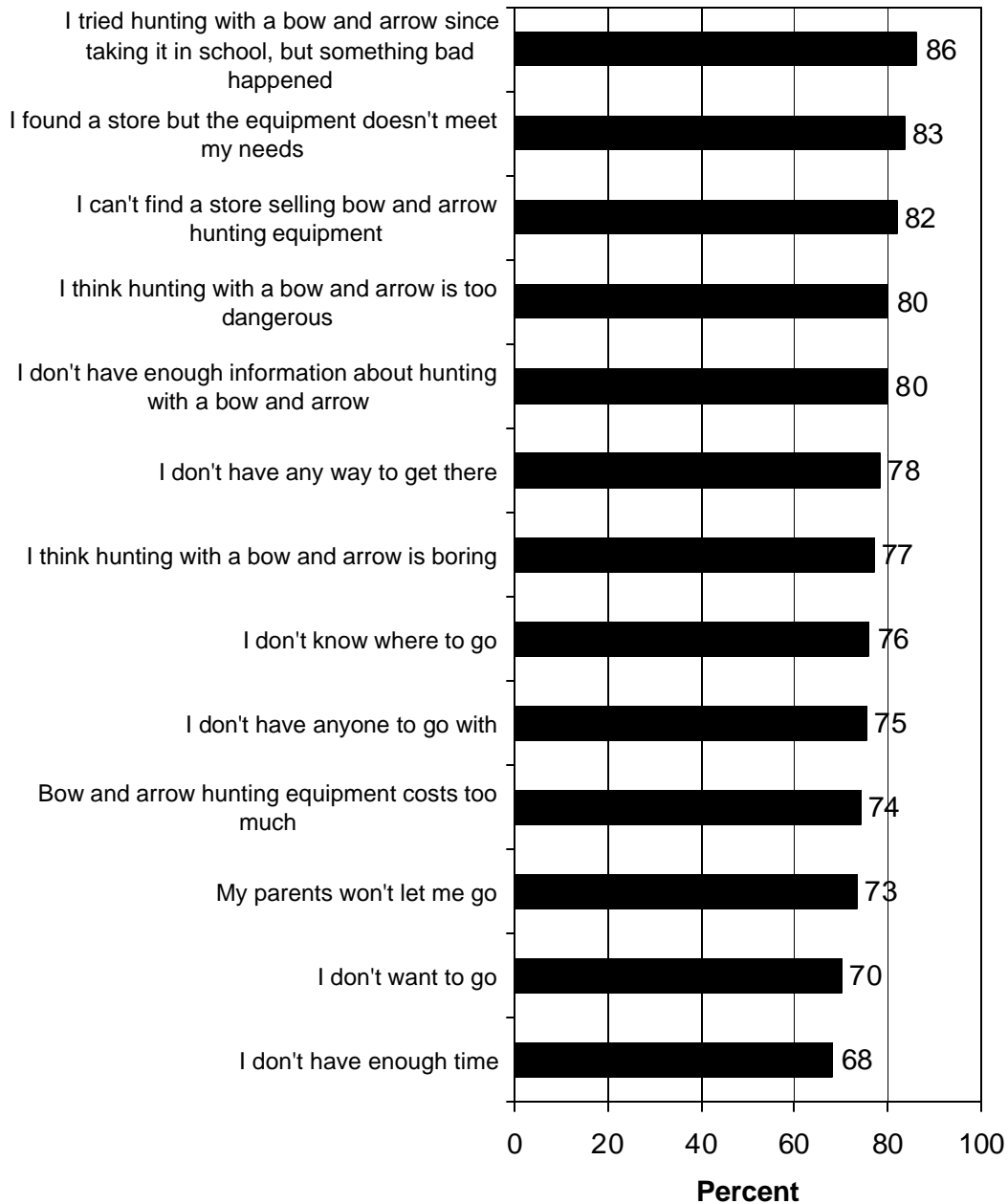
Sample size (n-value) ranges from 1,282 to 1,311.

**Percent who said the following is a major reason for not becoming involved in bowhunting at all or as much as desired since taking archery in school.**



Sample size (n-value) ranges from 1,282 to 1,311.

**Percent who said the following is not a reason for not becoming involved in bowhunting at all or as much as desired since taking archery in school.**

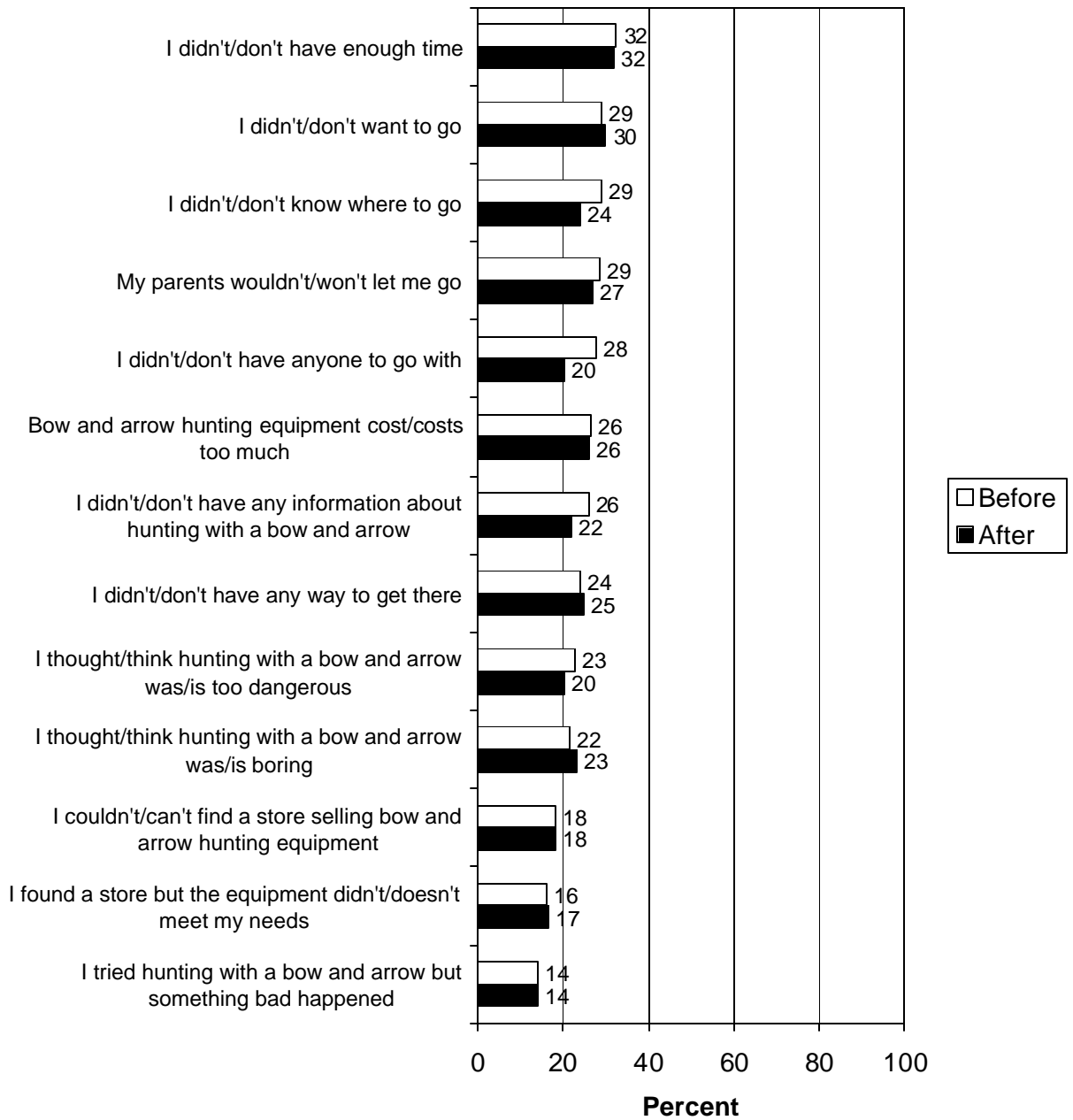


Sample size (n-value) ranges from 1,282 to 1,311.

## COMPARISON OF CONSTRAINTS TO BOWHUNTING BEFORE AND AFTER TAKING THE ARCHERY COURSE

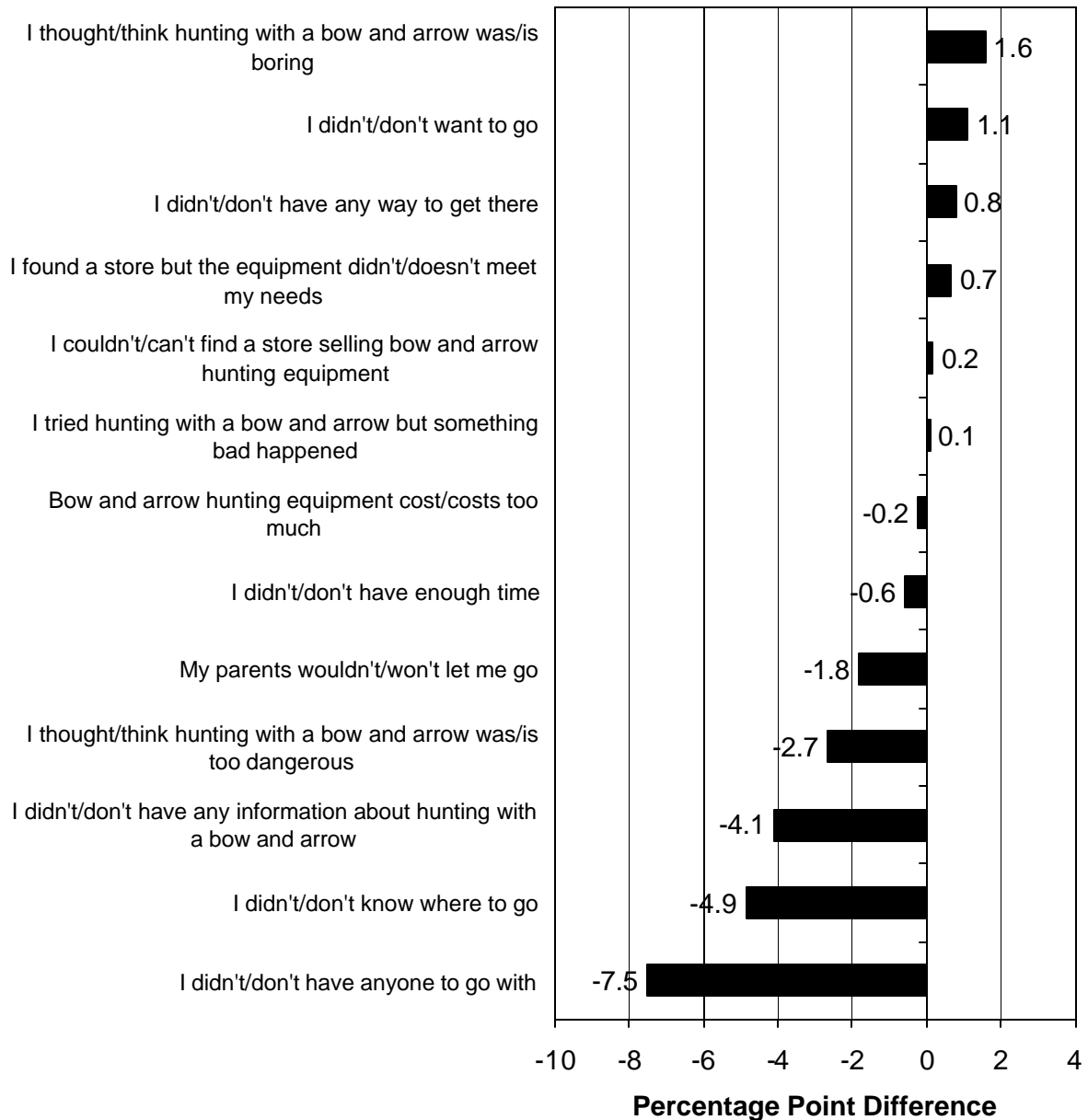
- The constraints to bowhunting participation that declined the most after the students took the archery course (examining a sum of those saying “minor reason” and “major reason” for not participating at all or as much as desired) were not having anyone to go with (a 8 percentage point decline), not knowing where to go (a 5 percentage point decline), and not having information about bowhunting (a 4 percentage point decline).
  - Of those who took the archery course 1 or more years previously, the constraint with the largest decline was not having anyone to go with (a 7 percentage point decline), followed by not knowing where to go (a 6 percentage point decline).
  
- A comparison was run of those who said the constraint was a “major reason” for not participating in bowhunting at all or as much as desired. The following constraints both showed substantial declines after the archery course: not knowing where to go (a 2 percentage point decline) and not having any information about bowhunting (a 2 percentage point decline).
  - In the analysis of those who took the archery course 1 or more years previously, no major constraint changed greatly. The constraints with the greatest declines were not knowing where to go (3 percentage points) and not having any way to get there (3 percentage points). Not having any information about hunting with a bow and arrow as a constraint had the largest increase (3 percentage points).

**Percentages saying each of the following was a major or minor reason for not becoming involved in bowhunting at all or as much as desired before and after taking course.**

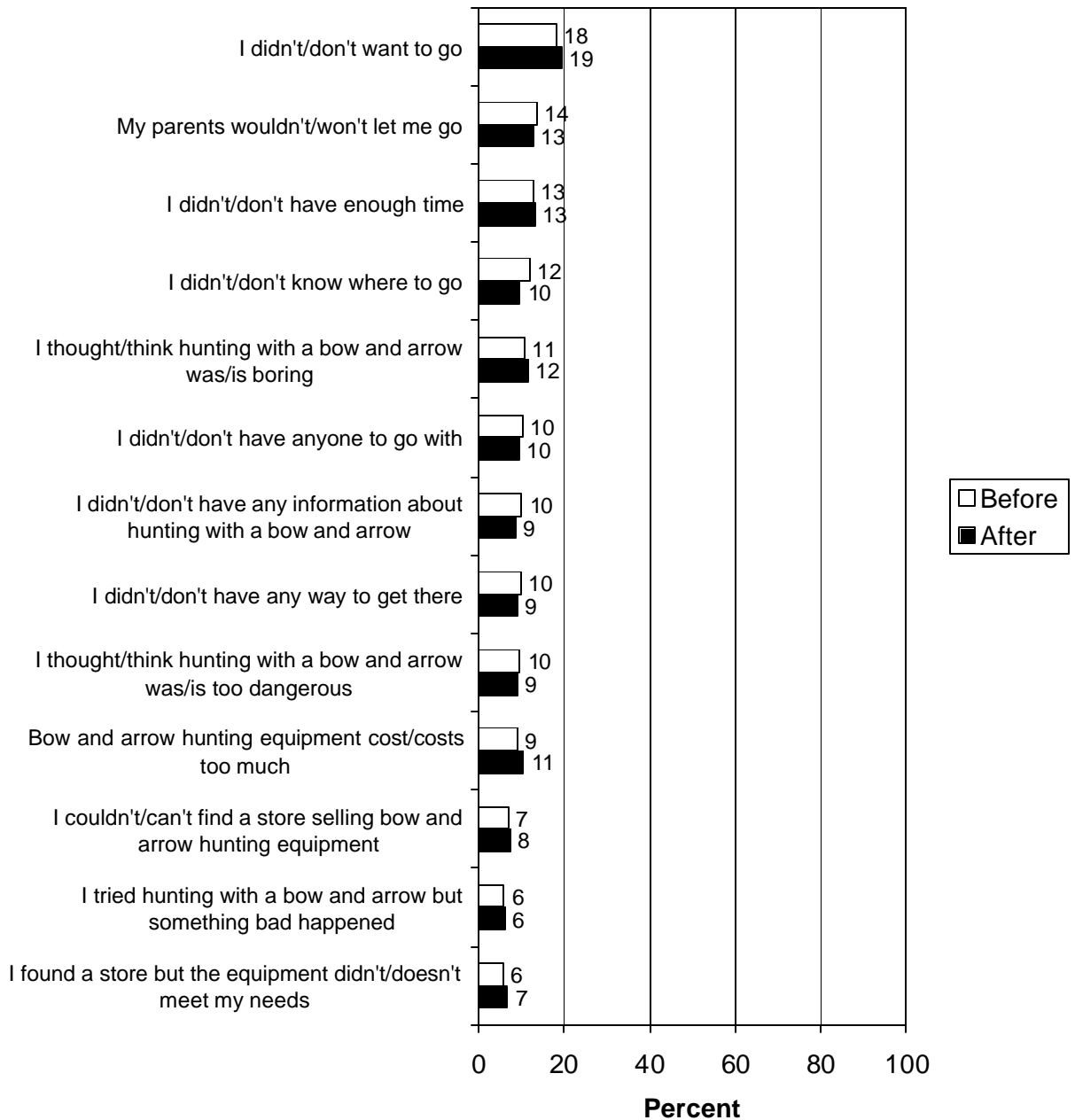


Sample size (n-value) ranges from 1,282 to 1,372.

**Percentage point difference between pre- and post-course percentages saying each of the following was a major or minor reason for not becoming involved in bowhunting at all or as much as desired.**

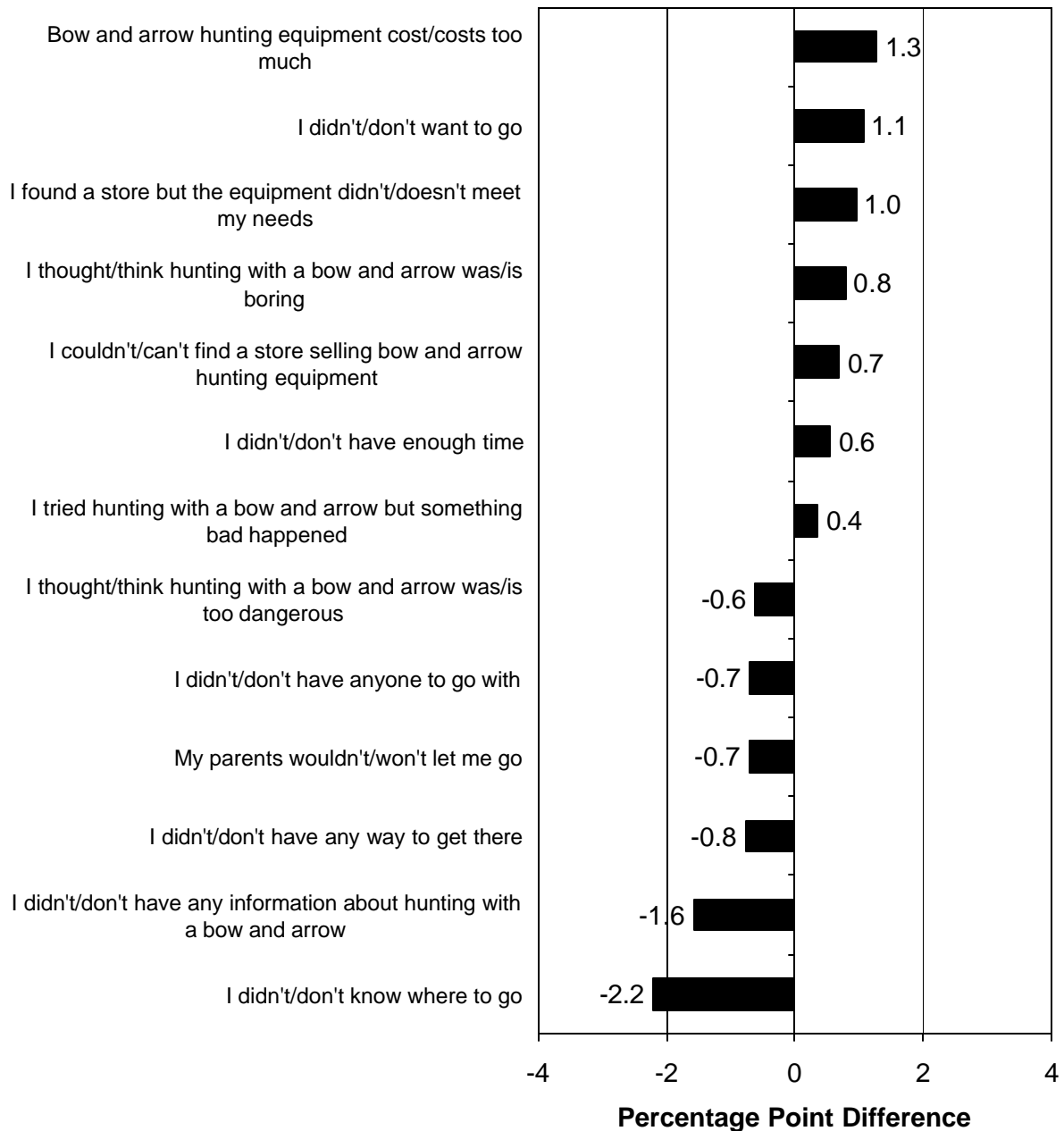


**Percentages saying each of the following was a major reason for not becoming involved in bowhunting at all or as much as desired before and after taking course.**

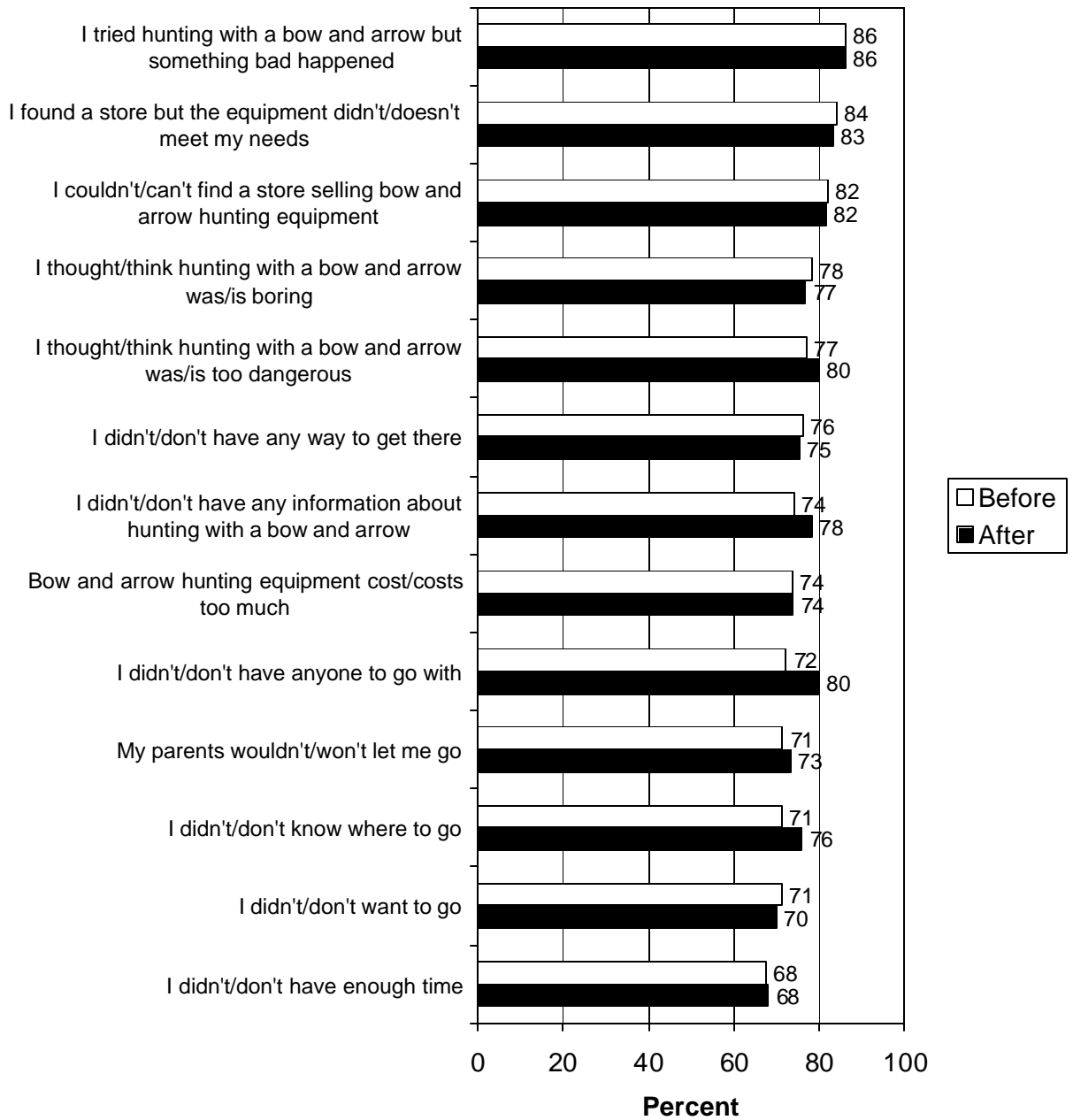


Sample size (n-value) ranges from 1,282 to 1,372.

**Percentage point difference between pre- and post-course percentages saying each of the following was a major reason for not becoming involved in bowhunting at all or as much as desired.**

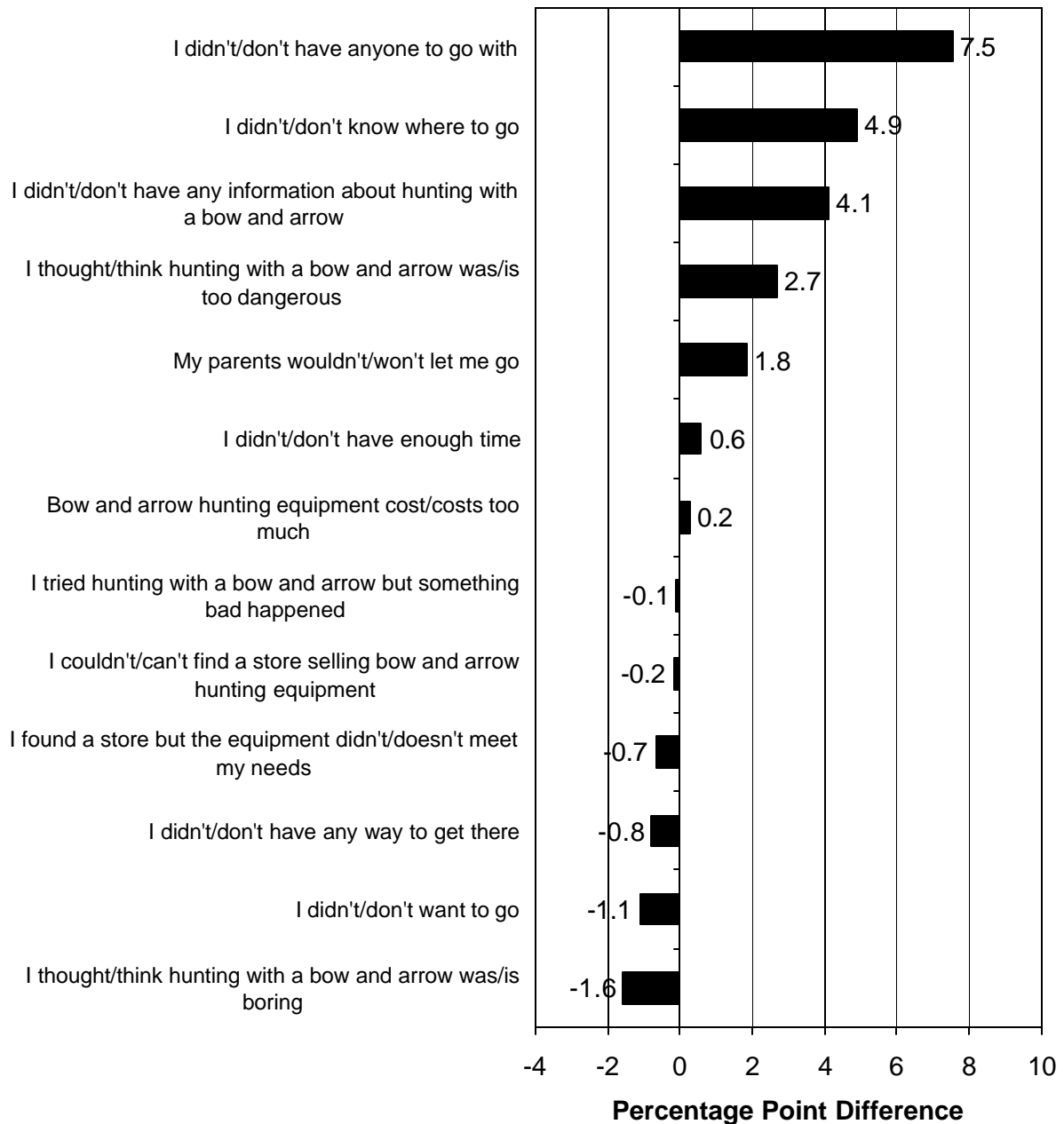


**Percentages saying each of the following was not a reason for not becoming involved in bowhunting at all or as much as desired before and after taking course.**



Sample size (n-value) ranges from 1,282 to 1,372.

**Percentage point difference between pre- and post-course percentages saying each of the following was not a reason for not becoming involved in bowhunting at all or as much as desired.**



## PARTICIPATION IN ACTIVITIES AND SPORTS, INCLUDING ARCHERY AND BOWHUNTING

- The archery program appears to be successful in encouraging participation in archery and bowhunting. Subsequent to the course, students are more likely to participate in archery and bowhunting.
- The increase in archery participation was accompanied by a decline in participation in other sports, including the shooting sports, particularly those shooting sports that are exclusively shooting activities (e.g., target shooting). The decline in some of the sports may be a function of the timing of the survey rather than because children are choosing archery over the other sports; nonetheless, declines in participation in other sports were found.
- The archery course apparently encourages participation among those who previously had not participated in archery. Of those who had previously never participated in archery prior to the course, 45% participated a few times or a lot subsequent to the course.

Participation questions were asked twice: the first time regarding participation *prior* to the student having taken the archery course and then again regarding participation *after* the archery course.

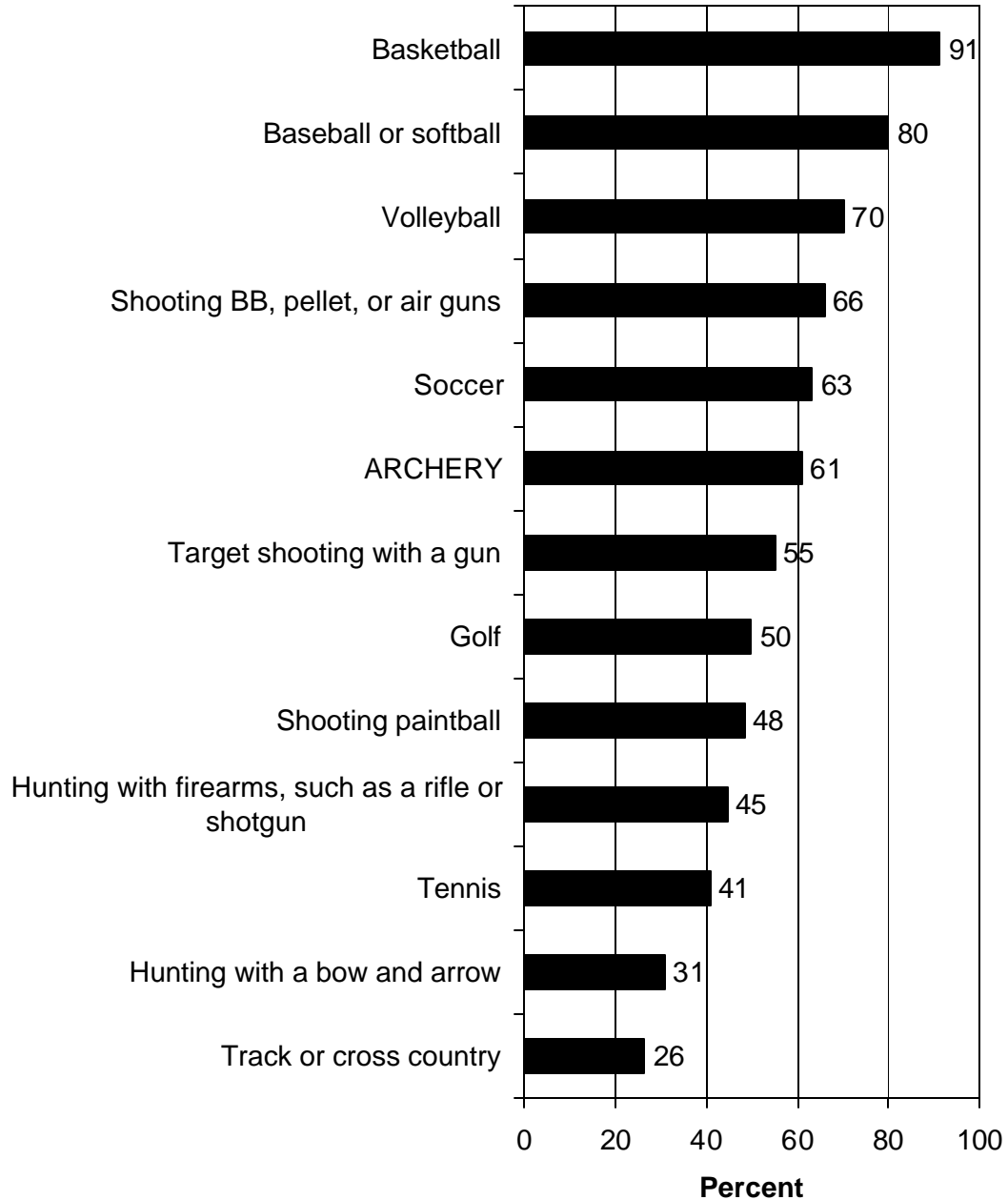
Participation in activities was analyzed below in several ways. One graph shows any participation at all (i.e., the sum of the percentages giving the answers, “once,” “a few times,” and “a lot”). Then participation was examined of those who participated more than once (“a few times” and “a lot” summed). Finally, participation was examined of those who participated “a lot.”

Lastly, participation questions were analyzed among only those who took the archery course 1 year or more previous. This analysis shows whether the influence of the course has a long-term effect.

## **PARTICIPATION IN ACTIVITIES AND SPORTS BEFORE TAKING THE ARCHERY COURSE**

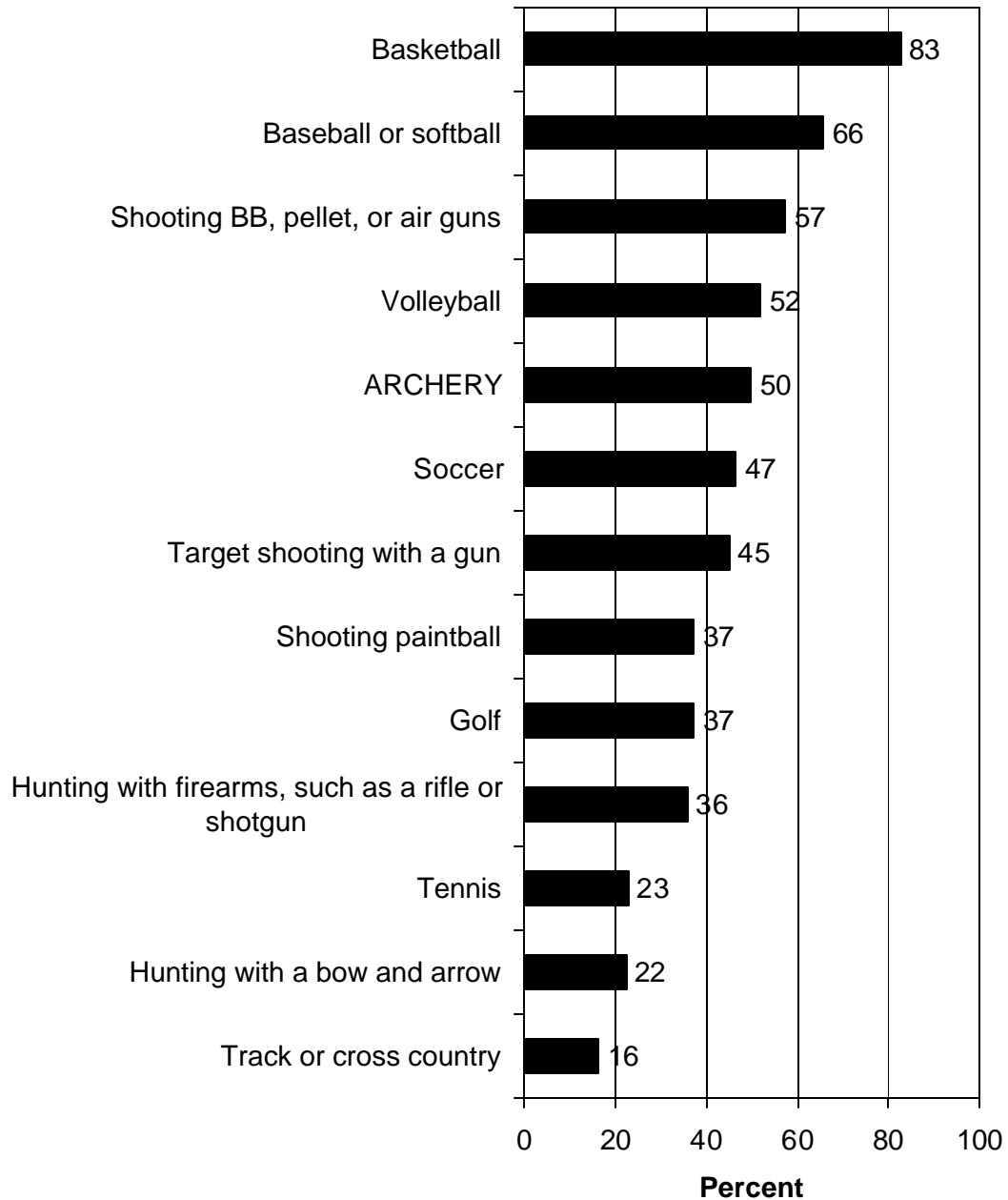
- Students' most popular activities prior to taking the archery course (those who indicated that they had participated at least once) were basketball (91%), baseball/softball (80%), and volleyball (70%). Archery was about midway in this ranking (61%).
  - Of the shooting sports, the most popular was shooting BB, pellet, or air guns (66%); archery was the second most popular shooting sport.
  - Of those who took the archery course 1 or more years previously, basketball (91%), baseball/softball (80%), volleyball (67%), archery (65%), and shooting BB, pellet, or air guns (65%) were the most popular activities.
  
- Students' most popular activities prior to taking the archery course (those who said they participated "a few times" or "a lot") were basketball (83%), baseball/softball (66%), and shooting BB, pellet, or air guns (57%). Archery was just above the midpoint in the ranking (50%).
  - Of the shooting sports, the most popular was shooting BB, pellet, or air guns (57%); archery was the second most popular shooting sport.
  - Of those who took the archery course 1 or more years previously, the most popular activities were basketball (81%), baseball/softball (65%), shooting BB, pellet, or air guns (56%), and archery (52%).
  
- Regarding only those who said that they participated "a lot" prior to taking the archery course, the most popular activities were basketball (49%), shooting BB, pellet, or air guns (37%), and baseball/softball (30%). Archery was about midway in the ranking (17%).
  - Of the shooting sports, the most popular were shooting BB, pellet, or air guns (37%), target shooting with a gun (24%), hunting with firearms (24%), shooting paintball (22%), and then archery.
  - Of those who took the archery course 1 or more years previously, the most popular activities were basketball (48%), shooting BB, pellet, or air guns (37%), baseball/softball (28%), and target shooting with a gun (25%). Archery was midway down the ranking, with 21% who participated "a lot."

**Percent who participated at all in the following activities/sports before taking archery course.**



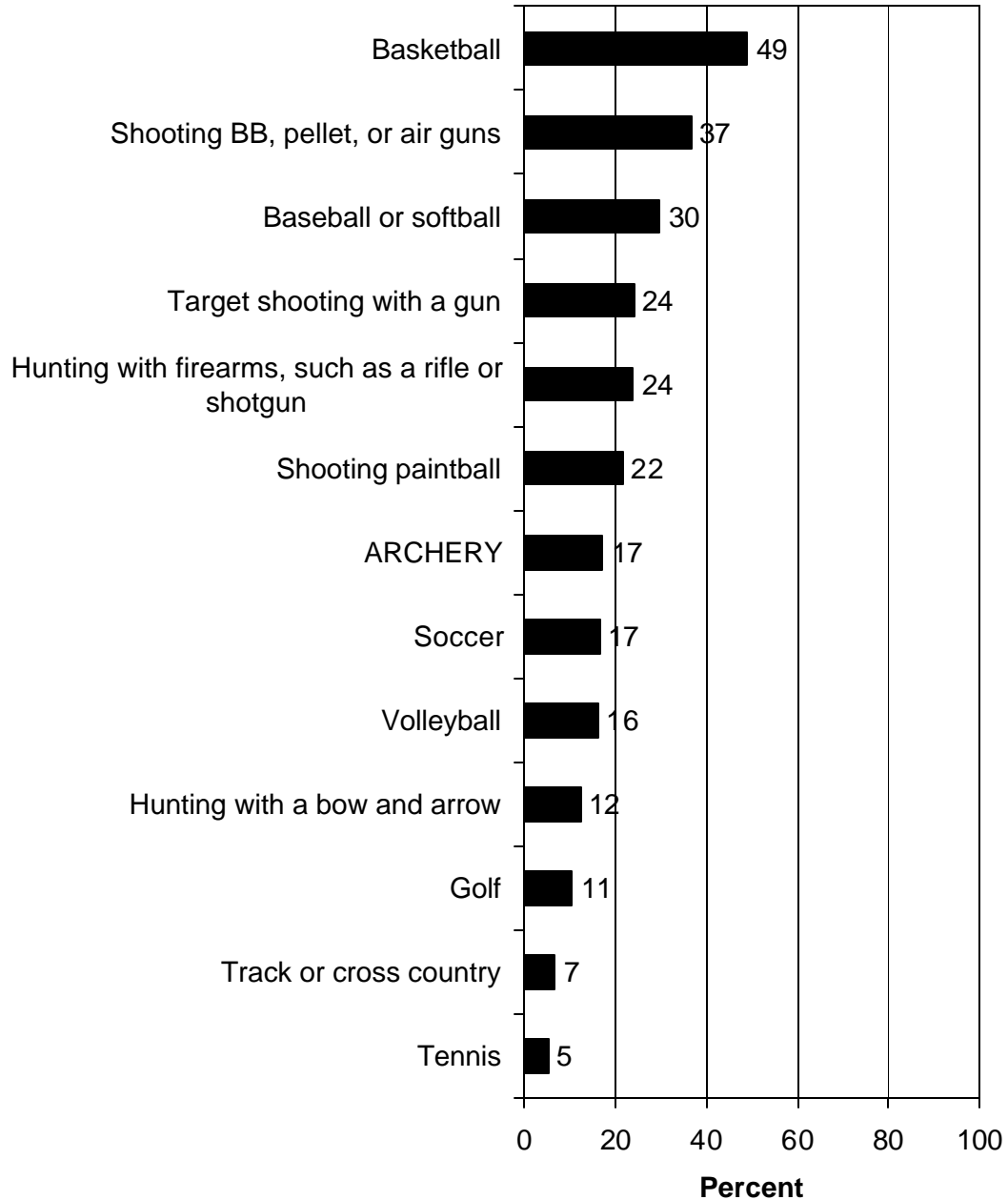
Sample size (n-value) ranges from 1,392 to 1,450.

**Percent who participated more than once in the following activities/sports before taking archery course.**



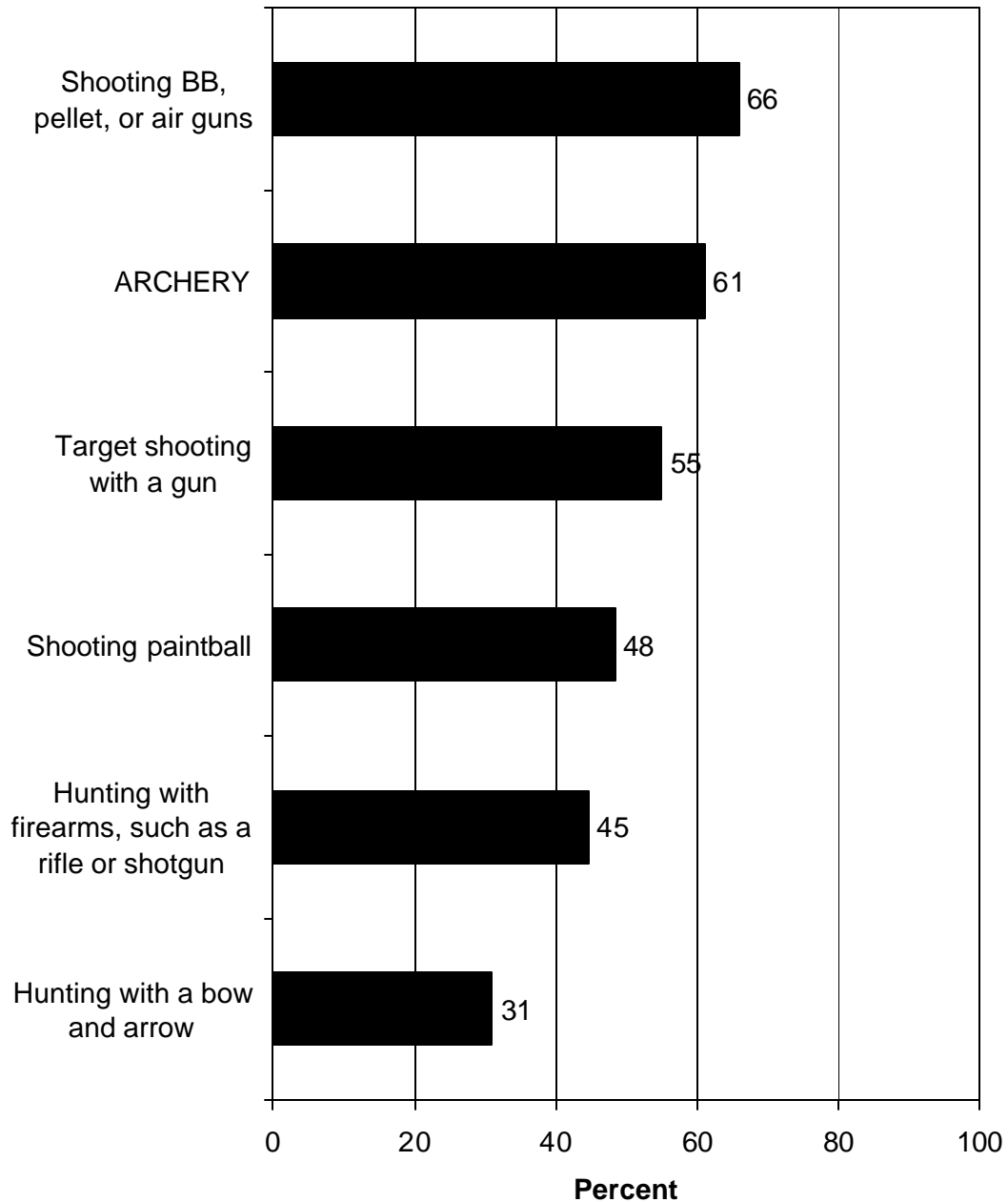
Sample size (n-value) ranges from 1,392 to 1,450.

**Percent who participated a lot in the following activities/sports before taking archery course.**



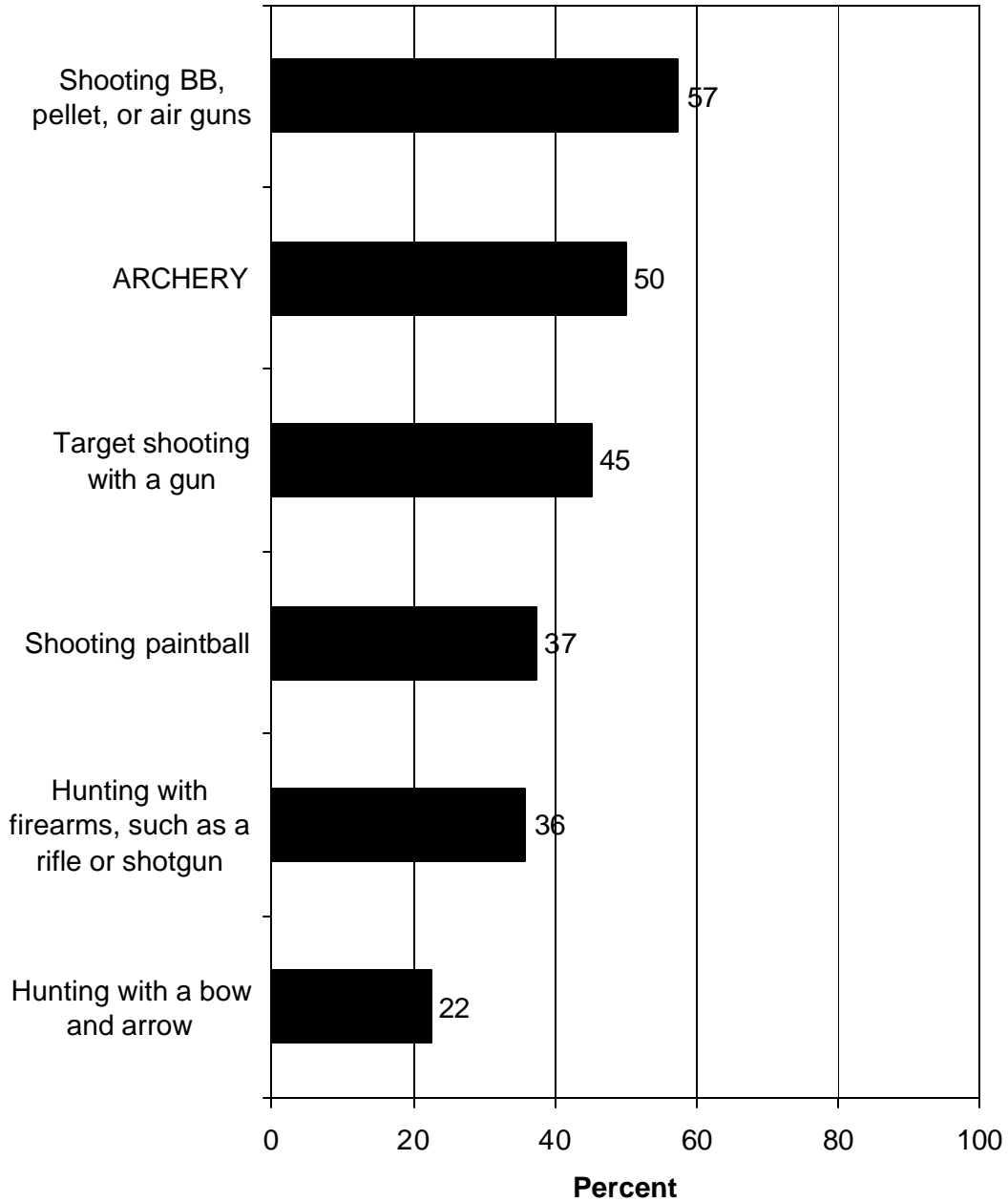
Sample size (n-value) ranges from 1,392 to 1,450.

**Percent who participated at all in the following shooting sports before taking archery course.**



Sample size (n-value) ranges from 1,392 to 1,450.

**Percent who participated more than once in the following shooting sports before taking archery course.**



Sample size (n-value) ranges from 1,392 to 1,450.

**Percent who participated a lot in the following shooting sports before taking archery course.**

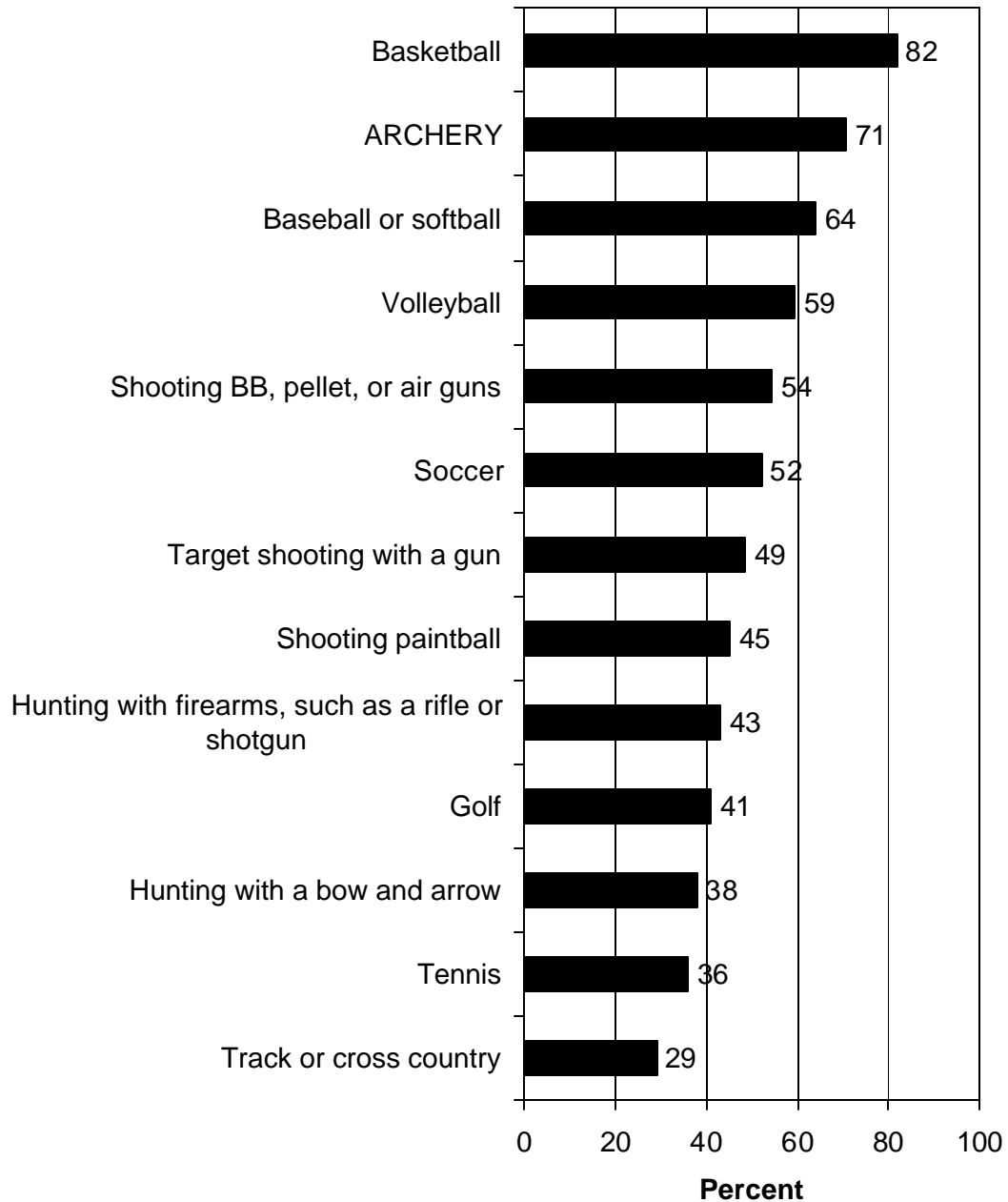


Sample size (n-value) ranges from 1,392 to 1,450.

## **PARTICIPATION IN ACTIVITIES AND SPORTS AFTER TAKING THE ARCHERY COURSE**

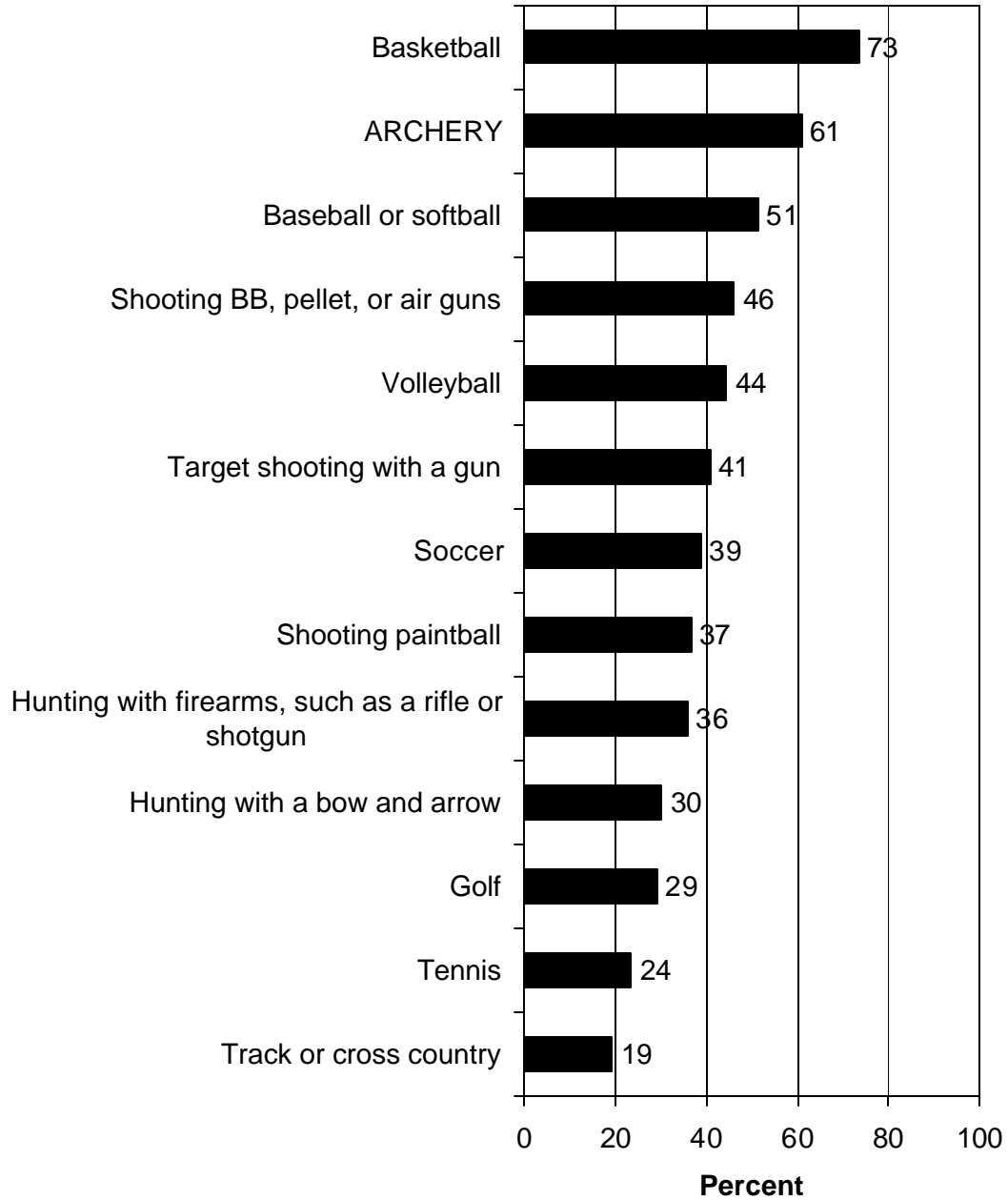
- Students' most popular activities after taking the archery course (those who indicated that they had participated at least once) were basketball (82%), archery (71%), baseball/softball (64%), and volleyball (59%).
  - Of the shooting sports, archery was the most popular (71%), followed by shooting BB, pellet, or air guns (54%), and target shooting with a gun (49%).
  - Of those who took the archery course 1 or more years previously, the most popular activities were basketball (81%), archery (73%), and baseball/softball (70%).
  
- Students' most popular activities after taking the archery course (those who said they participated "a few times" or "a lot") were basketball (73%), archery (61%), baseball/softball (51%), and shooting BB, pellet, or air guns (46%).
  - Of the shooting sports, archery was the most popular (61%), followed by shooting BB, pellet, or air guns (46%), and target shooting with a gun (41%).
  - Of those who took the archery course 1 or more years previously, basketball (71%), archery (62%), and baseball/softball (54%) were the most popular.
  
- Finally, regarding only those who said that they participated "a lot" after taking the archery course, the most popular activities were basketball (46%), shooting BB, pellet, or air guns (32%), archery (28%), and baseball/softball (27%).
  - Of the shooting sports, the most popular were shooting BB, pellet, or air guns (32%), archery (28%), target shooting with a gun (27%), hunting with firearms (27%), and shooting paintball (26%).
  - Of those who took the archery course 1 or more years previously, the top activities were basketball (43%), shooting BB, pellet, or air guns (34%), and archery (30%).
  
- An interesting analysis (shown in pie graphs) is participation in archery after the archery course among those who had never participated in archery prior to the course: 16% of those who had never previously participated indicated that subsequently they participated "a lot," and another 25% indicated that they subsequently participated "a few times." This same type of analysis was also run on those who previously had participated "a lot." The majority of these students (72%) subsequent to the course participated "a lot"; very few substantially reduced their participation level. This analysis was also run for bowhunting.

**Percent who participated at all in the following activities/sports after taking archery course.**



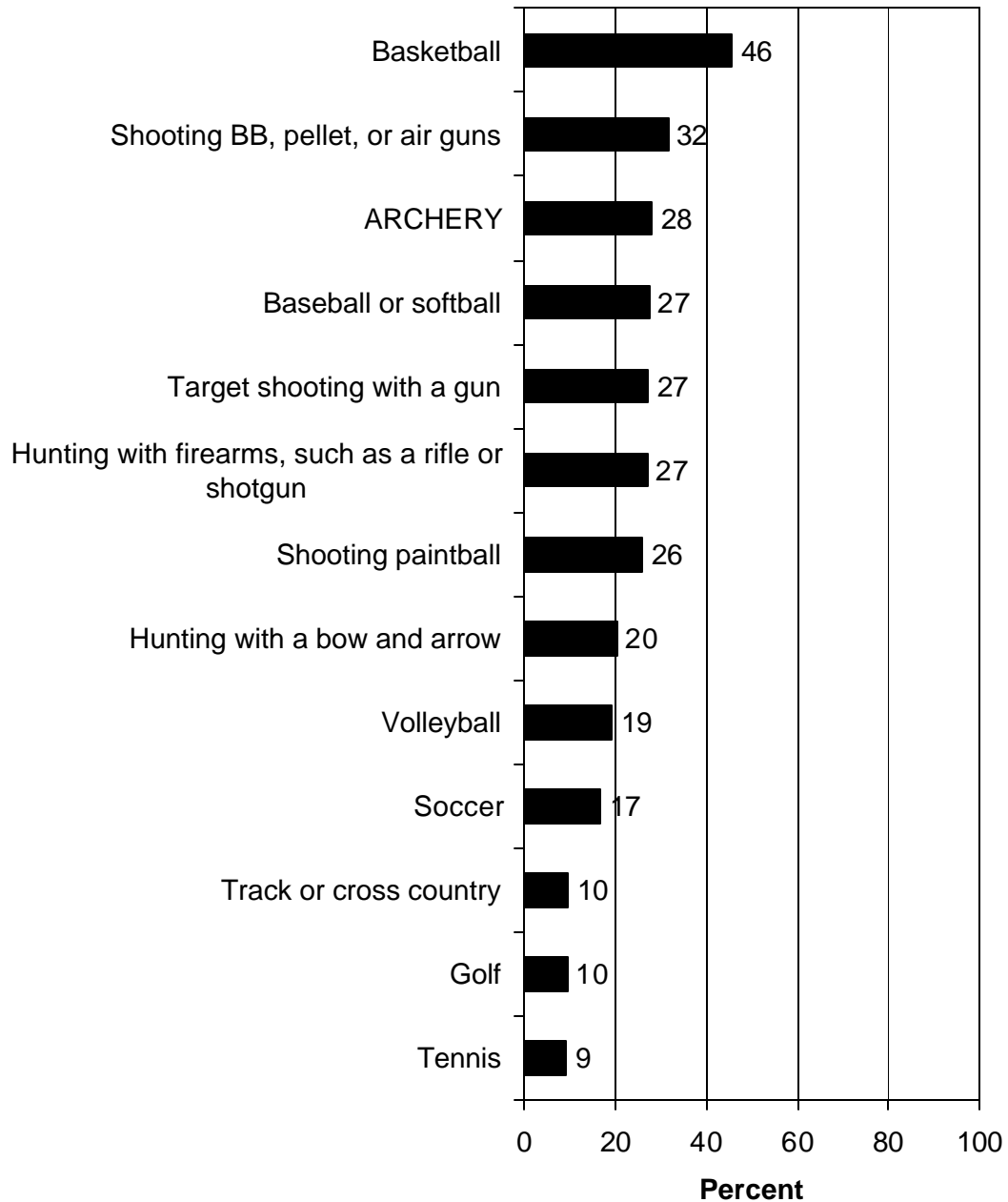
Sample size (n-value) ranges from 1,387 to 1,413.

**Percent who participated more than once in the following activities/sports after taking archery course.**



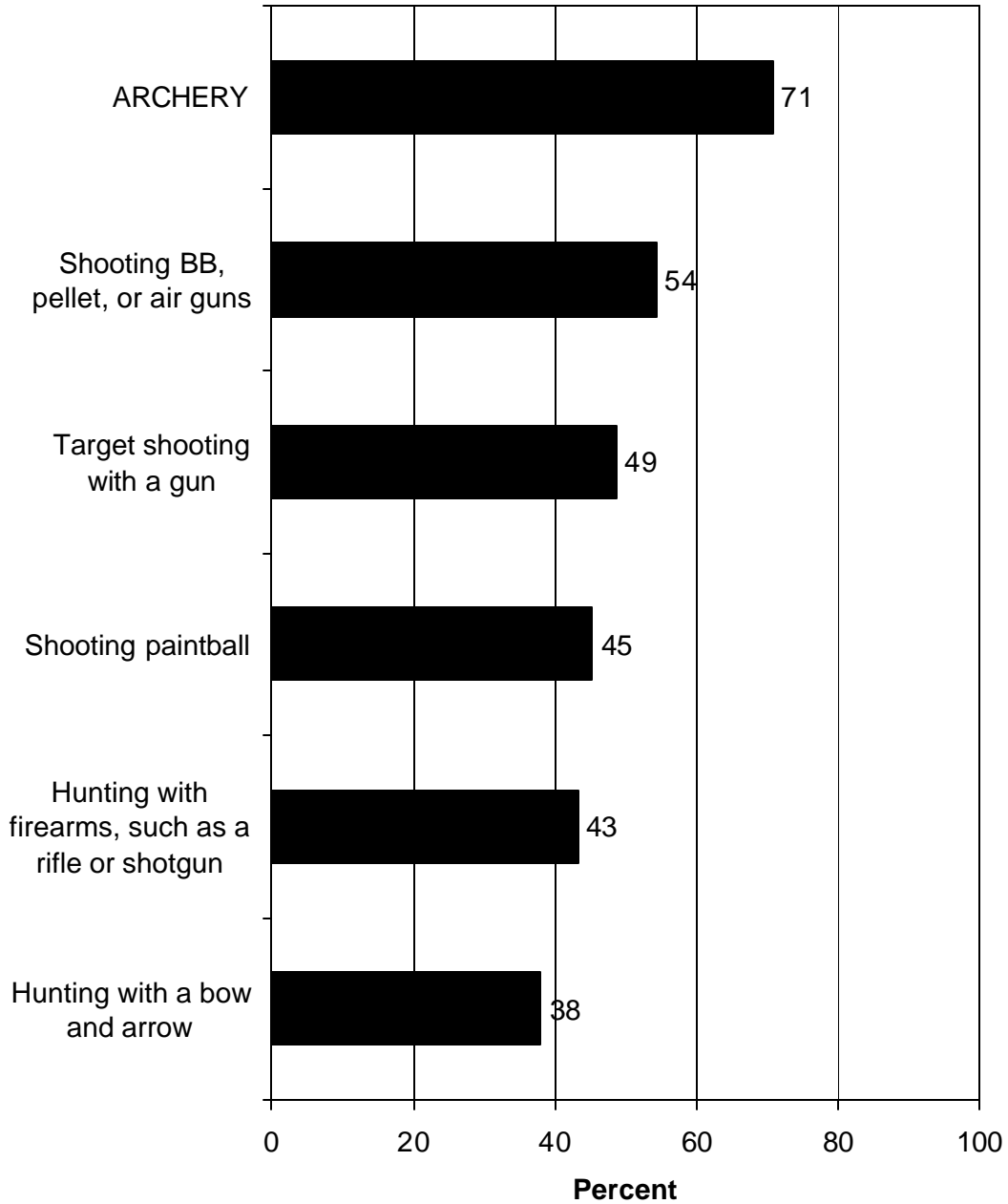
Sample size (n-value) ranges from 1,387 to 1,413.

**Percent who participated a lot in the following activities/sports after taking archery course.**



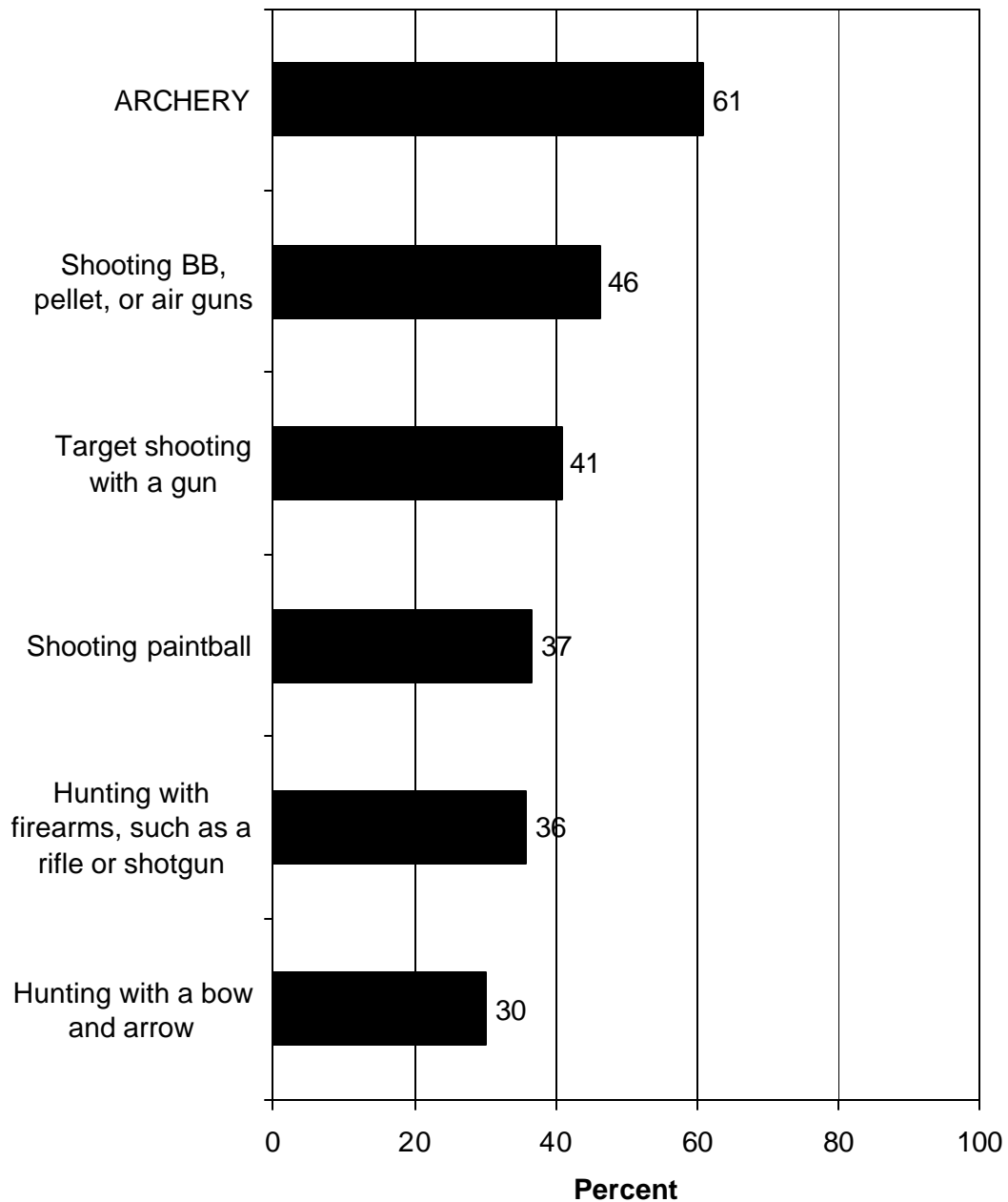
Sample size (n-value) ranges from 1,387 to 1,413.

**Percent who participated at all in the following shooting sports after taking archery course.**



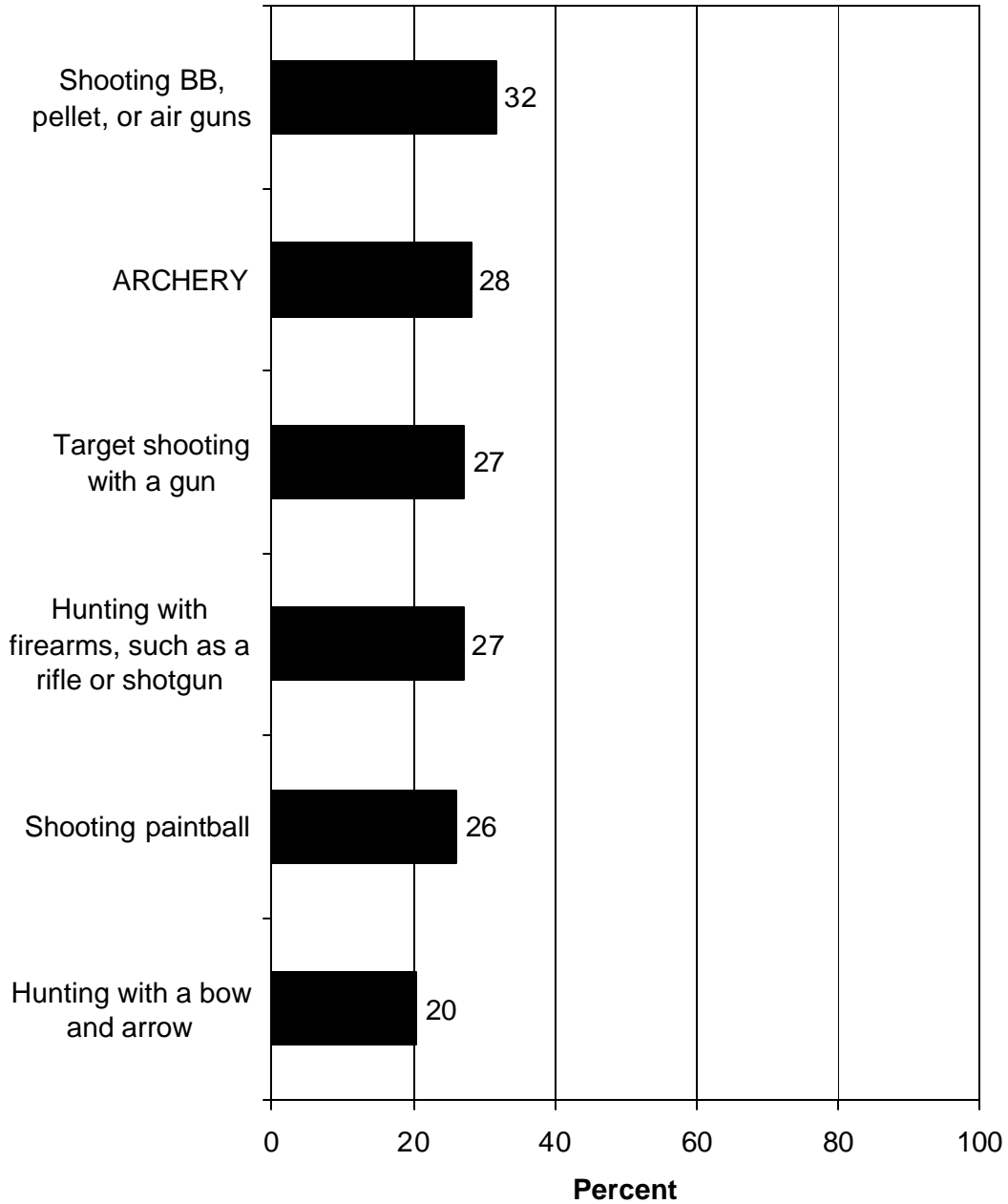
Sample size (n-value) ranges from 1,387 to 1,413.

**Percent who participated more than once in the following shooting sports after taking archery course.**



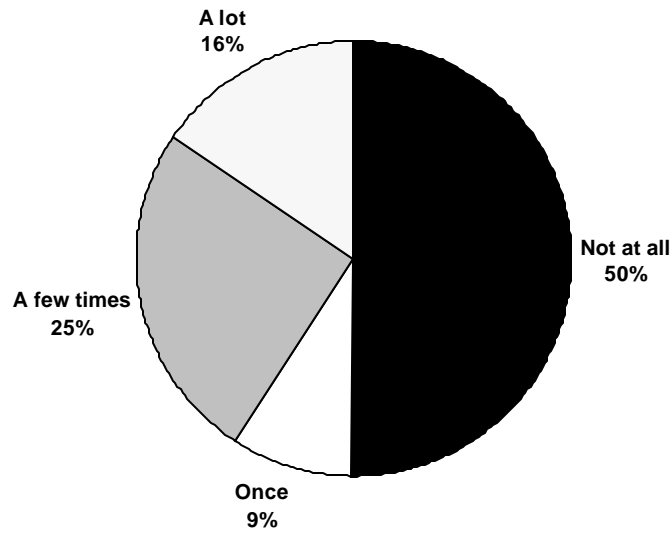
Sample size (n-value) ranges from 1,387 to 1,413.

**Percent who participated a lot in the following shooting sports after taking archery course.**

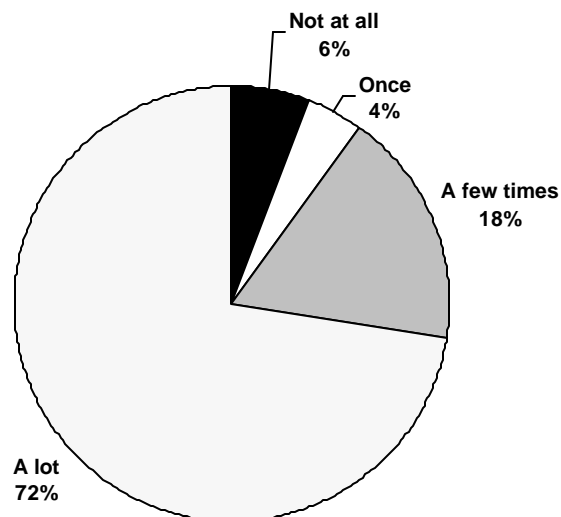


Sample size (n-value) ranges from 1,387 to 1,413.

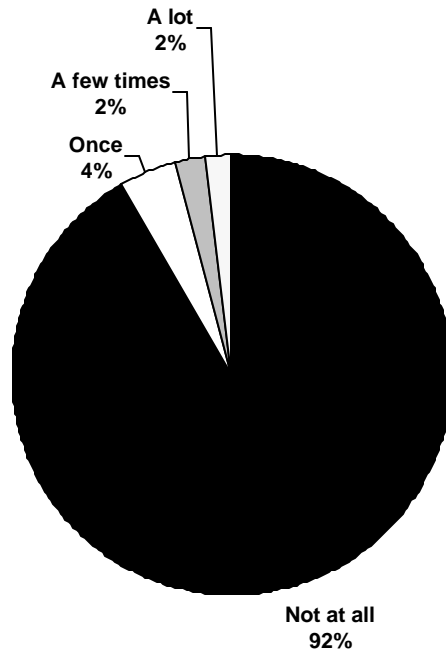
**Percent Participation in Archery After Exposure to the Course Among Those Who Had Previously Never Participated (n=538)**



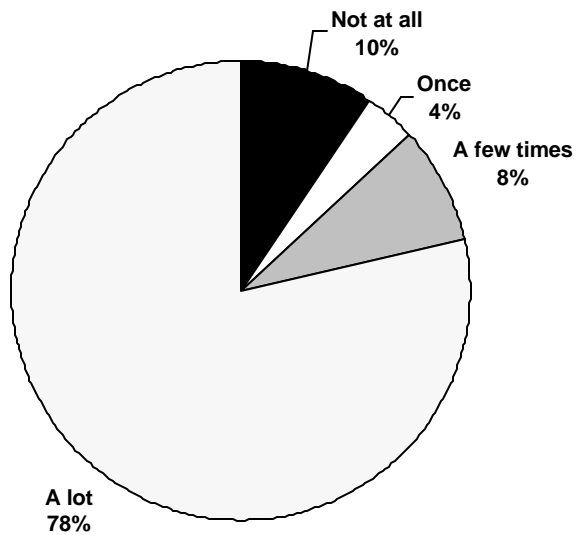
**Percent Participation in Archery After Exposure to the Course Among Those Who Had Previously Participated a Lot (n=239)**



**Percent Participation in Bowhunting After Exposure to the Class Among Those Who Had Previously Never Participated (n=538)**



**Percent Participation in Bowhunting After Exposure to the Class Among Those Who Had Previously Participated in Bowhunting a Lot (n=168)**



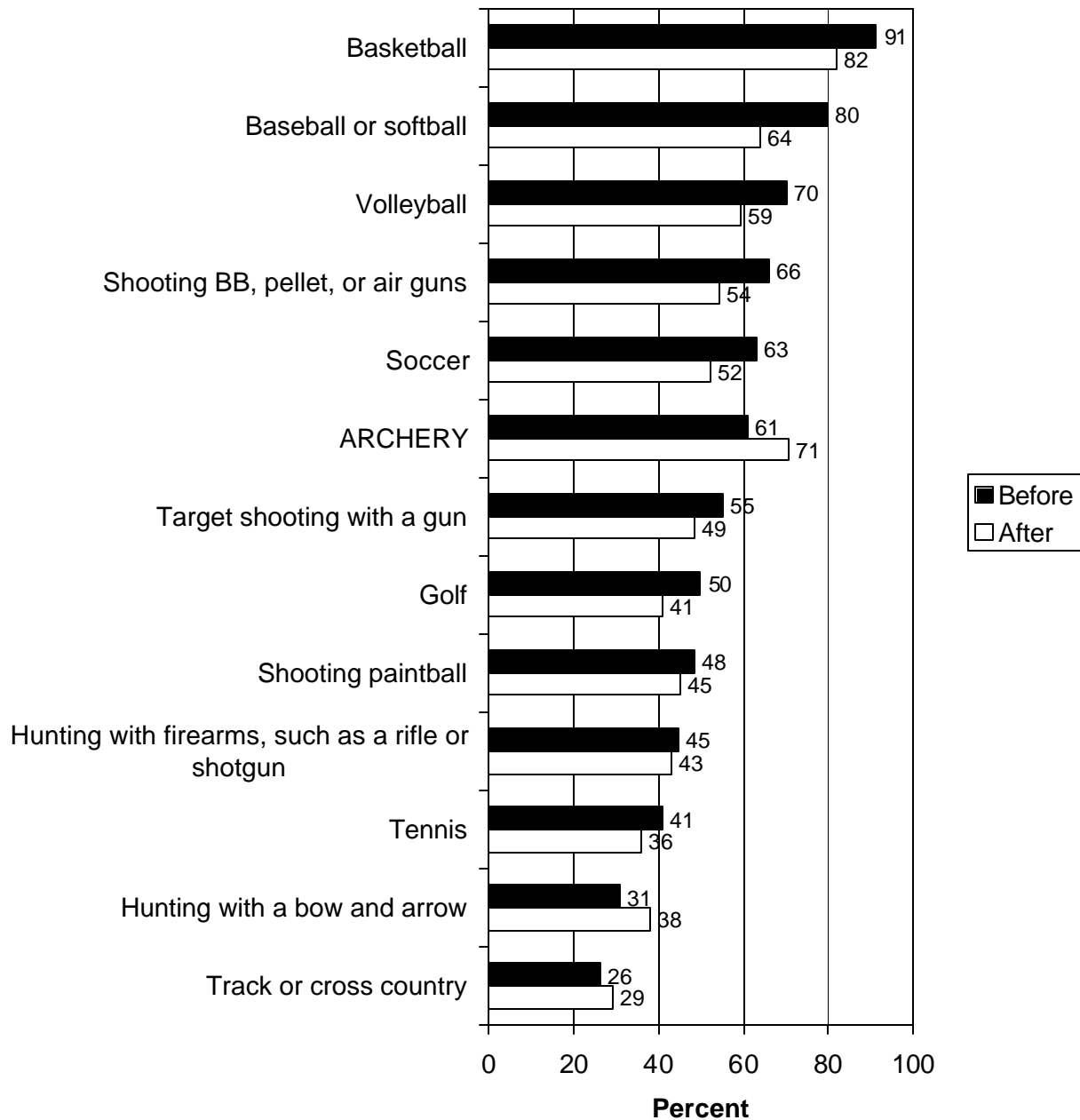
## COMPARISON OF PARTICIPATION IN ACTIVITIES AND SPORTS BEFORE AND AFTER TAKING THE ARCHERY COURSE

- In comparing rates of participation (those who participated at least once) pre- and post-archery course, the greatest positive change was for archery: its rate of participation after the course (71%) was 10 percentage points greater than before the course (61%). The second highest gain, 7 percentage points, was in participation in bowhunting (38% participation after the course; 31% before the course).
  - Baseball/softball declined the most (16 percentage points). Among the shooting sports, shooting BB, pellet, or air guns (-12 percentage points) and target shooting with a gun (-6 percentage points) both had substantial declines.
  - In the analysis of those who took the archery course 1 or more years previously, archery had the largest gain (8 percentage points), followed by bowhunting (6 percentage points) and track/cross country (5 percentage points). Baseball/softball had the largest loss of participation (10 percentage points).
  
- In comparing rates of participation (those who participated “a few times” or “a lot”) pre- and post-archery course, the greatest positive change was for archery: its rate of participation after the course (61%) was 11 percentage points greater than before the course (50%). The second highest gain, 8 percentage points, was in participation in bowhunting (30% participation after the course; 22% before the course).
  - Baseball/softball declined the most (14 percentage points—rounding causes apparent discrepancy on the graphs). Among the shooting sports, shooting BB, pellet, or air guns (-11 percentage points) and target shooting with a gun (-4 percentage points) both had substantial declines.
  - In the analysis of those who took the archery course 1 or more years previously, archery had the largest gain in participation (10 percentage points), and bowhunting had the second largest gain (6 percentage points). Baseball/softball had the biggest loss of participation (11 percentage points).
  
- In comparing rates of participation (only those who participated “a lot”) pre- and post-archery course, the greatest positive change was for archery: its rate of participation after the

course (28%) was 11 percentage points greater than before the course (17%). The second highest gain, 8 percentage points, was in participation in bowhunting (20% participation after the course; 12% before the course).

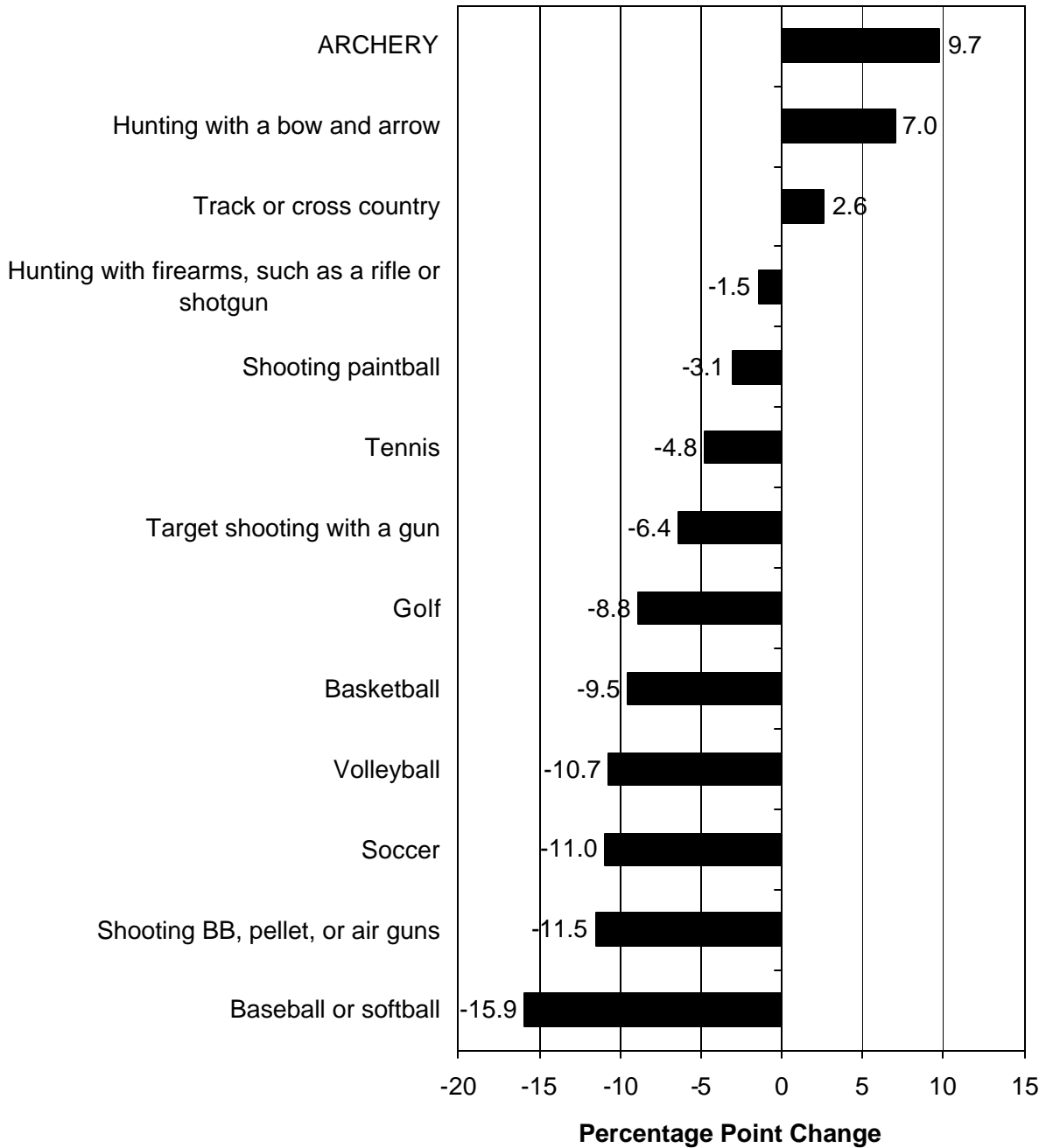
- Shooting BB, pellet, or air guns (-5 percentage points) declined the most of any activity.
  - In the analysis of those who took the archery course 1 or more years previously, archery again had the biggest gain (9 percentage points), and bowhunting also had a large gain (7 percentage points).
- A graph is included showing the results for the statistical significance test in both participation and interest. This analysis first made means of the results of the participation questions by assigning values to the responses “not at all,” “once,” “a few times,” and “a lot.” The means pre- and post-course were then compared, and only the significant changes are shown.

**Comparison of participation (at all) in the following activities or sports before and after taking archery course.**

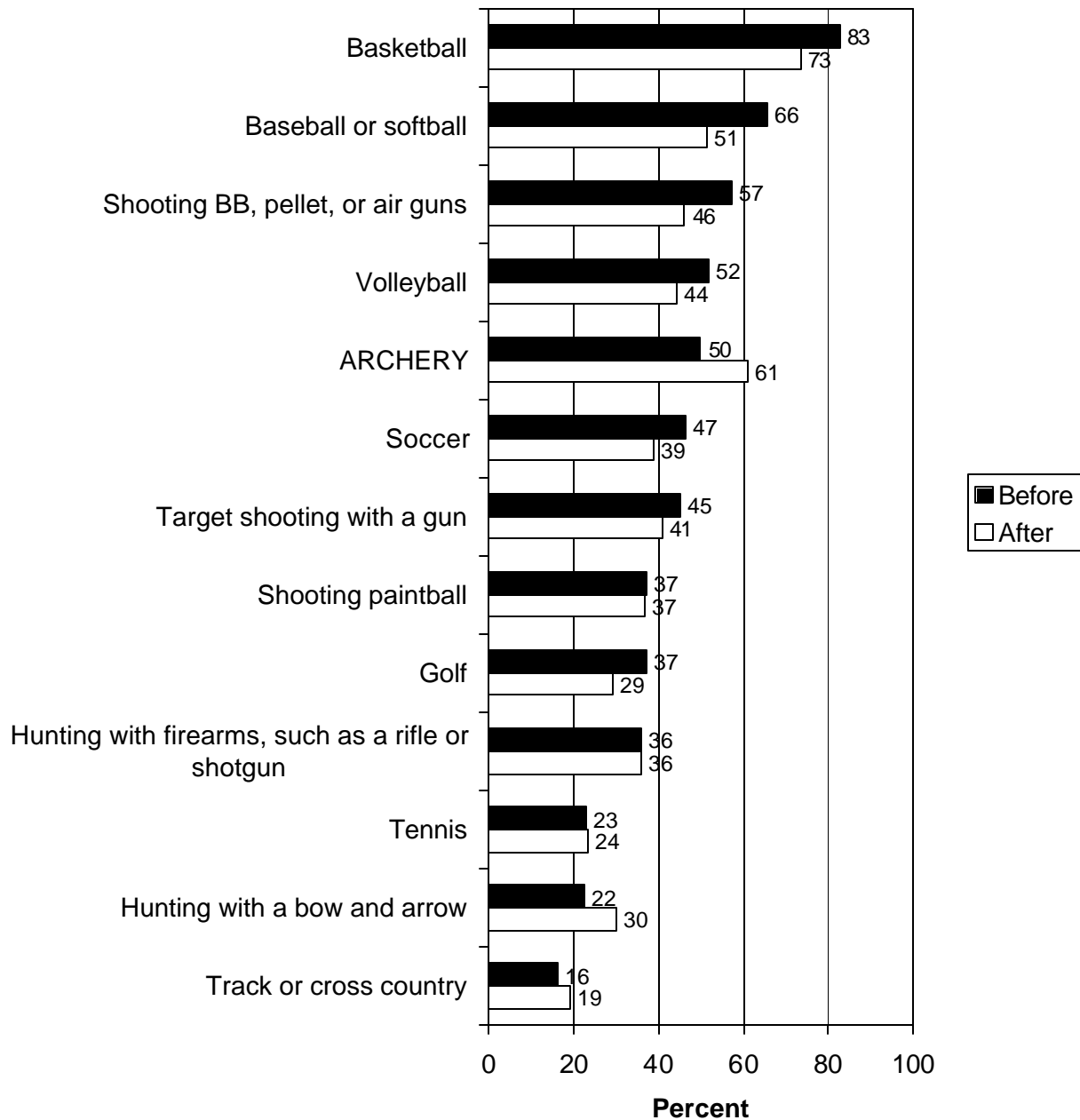


Sample size (n-value) ranges from 1,387 to 1,450.

**Difference in percentage participating at all in the following activities before and after taking archery course.**

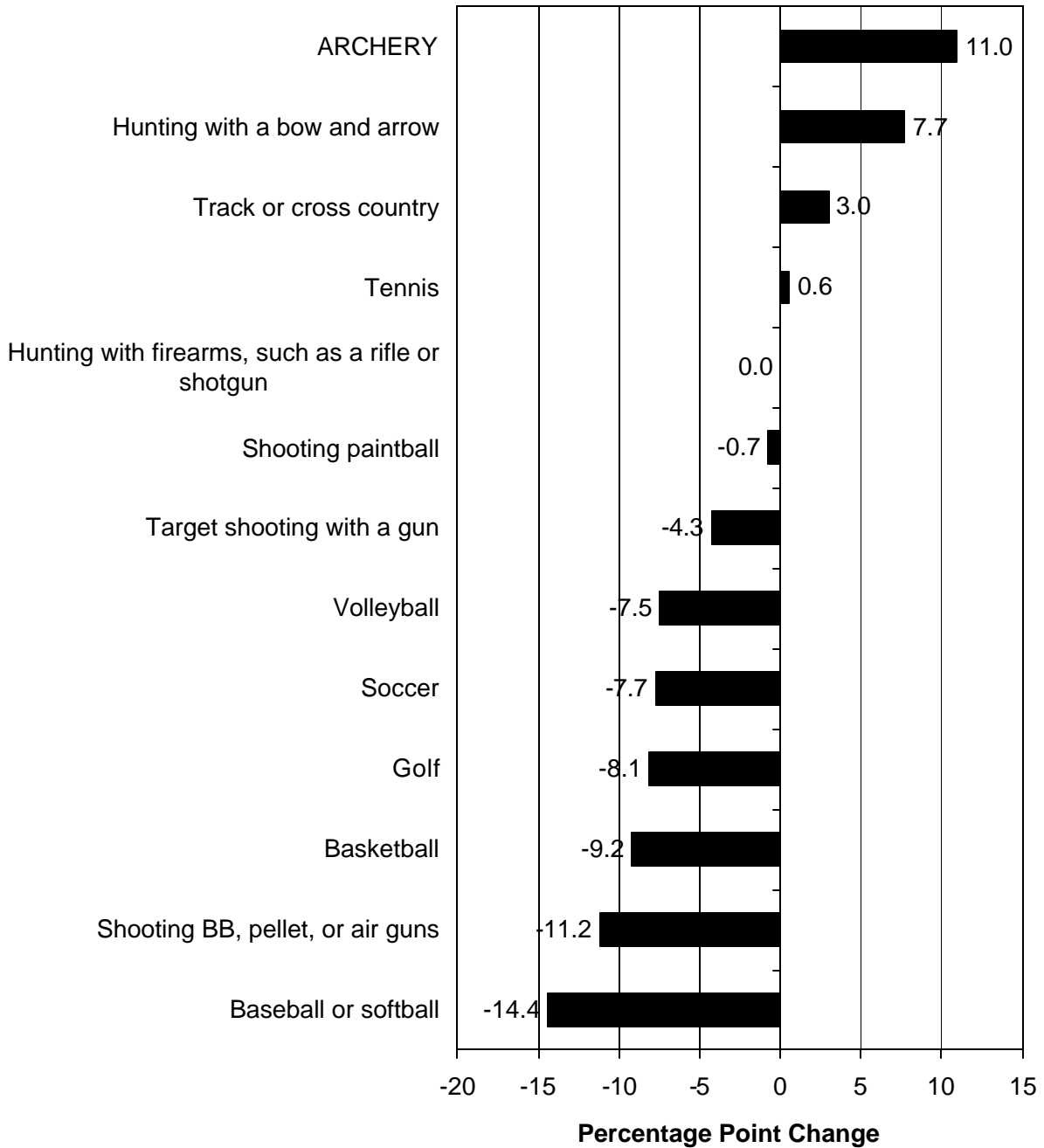


**Comparison of participation (more than once) in the following activities or sports before and after taking archery course.**

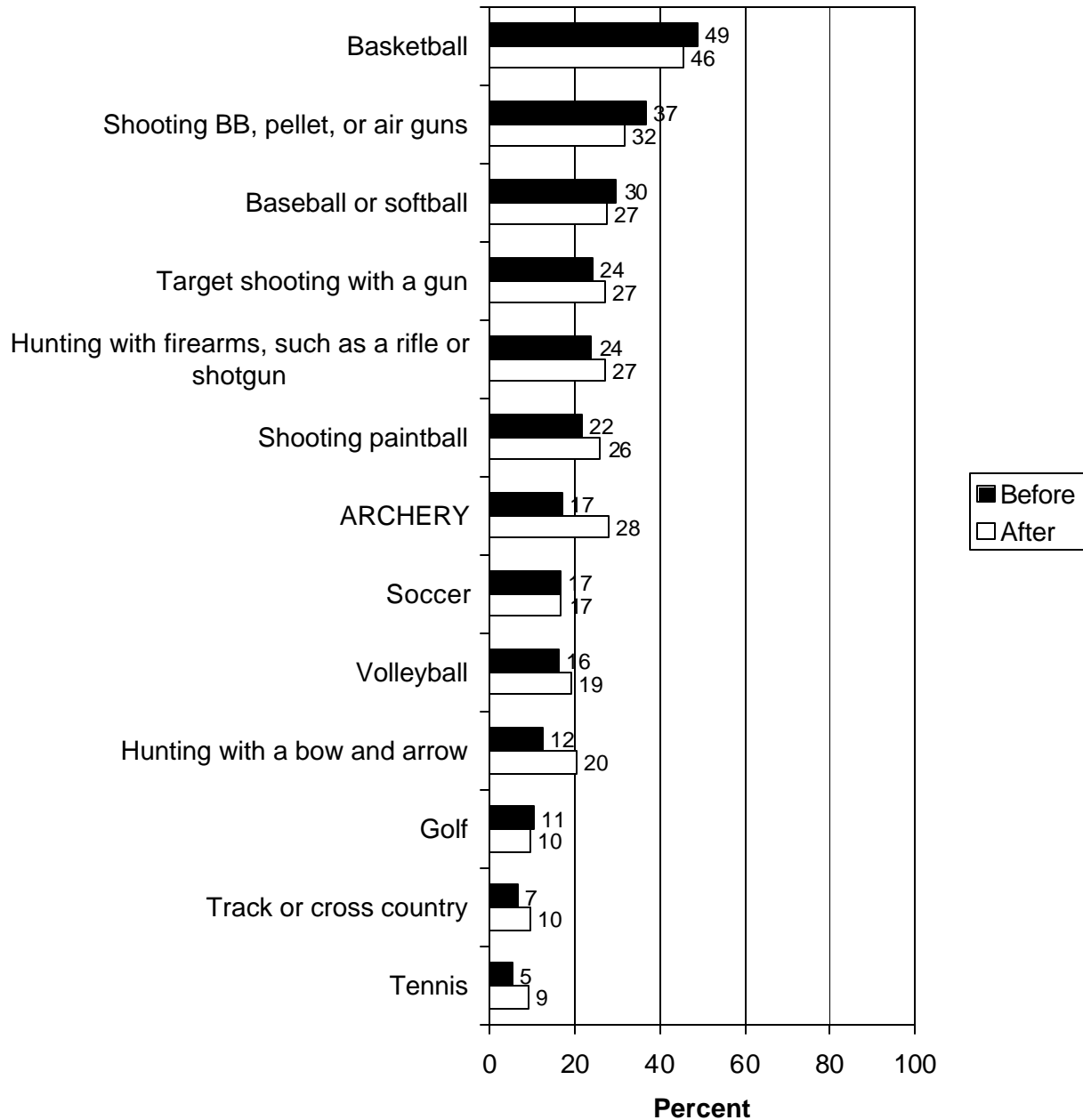


Sample size (n-value) ranges from 1,387 to 1,450.

**Difference in percentage participating more than once in the following activities before and after taking archery course.**

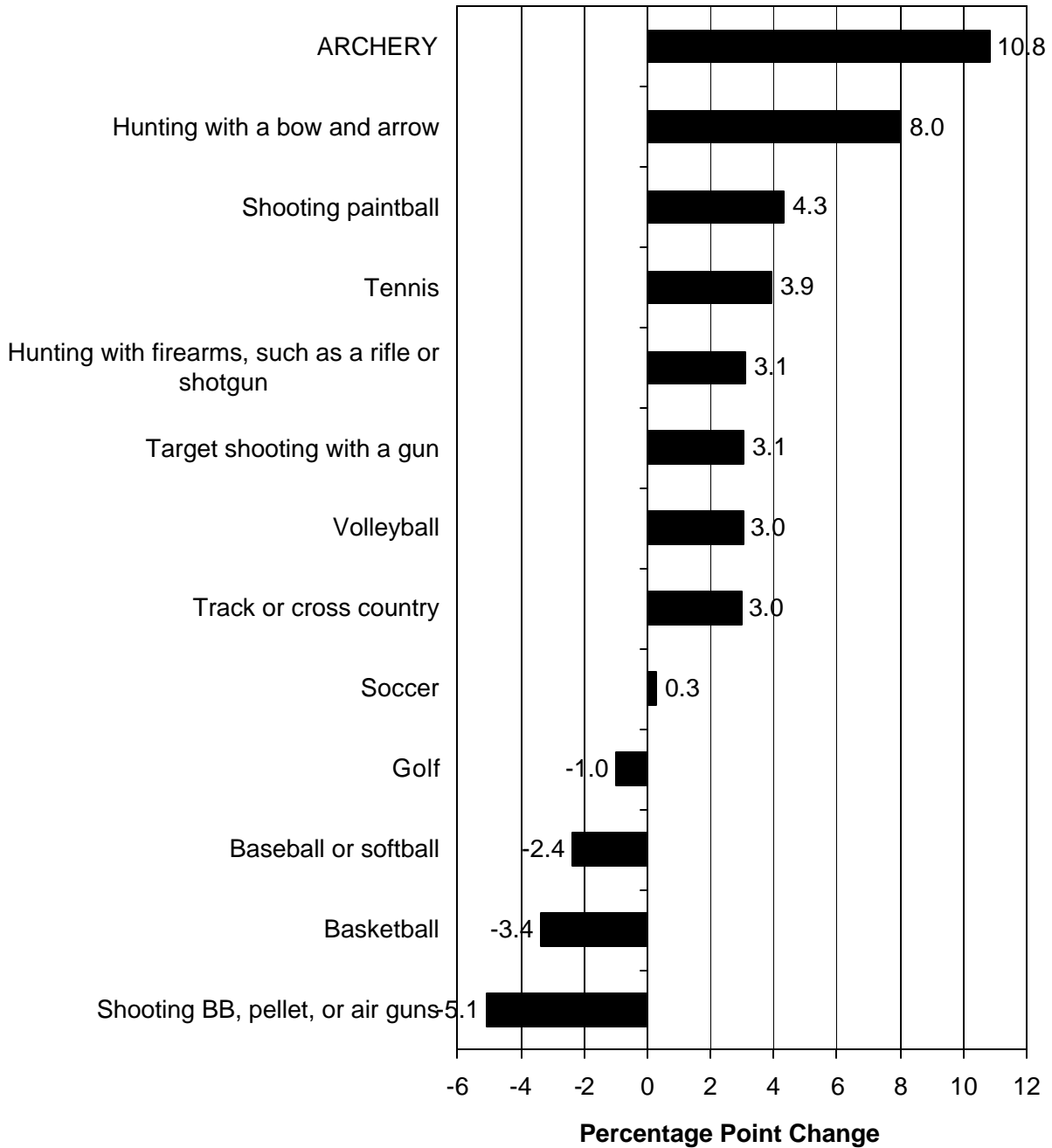


**Comparison of participation (a lot) in the following activities or sports before and after taking archery course.**

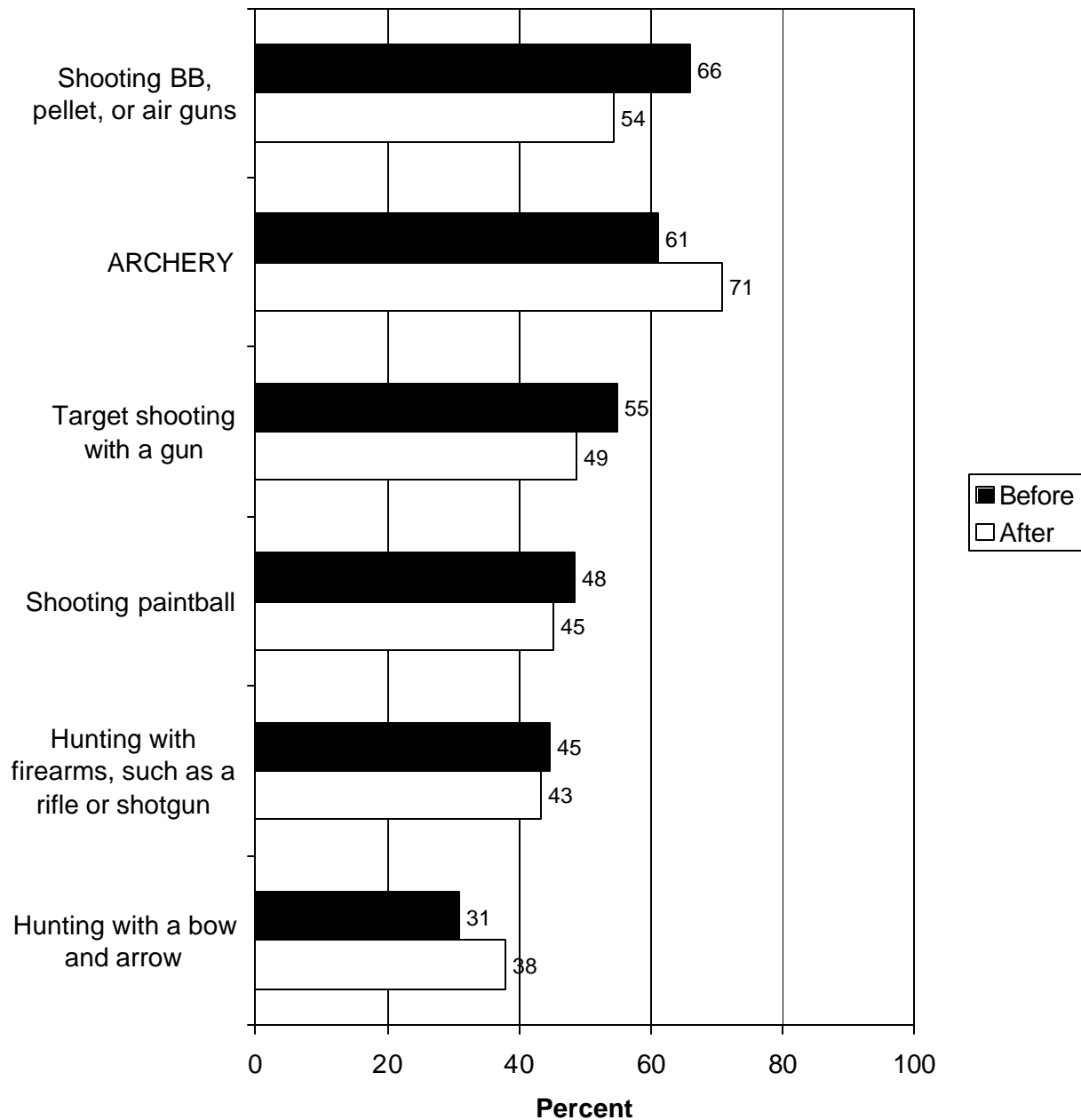


Sample size (n-value) ranges from 1,387 to 1,450.

**Difference in percentage participating a lot in the following activities before and after taking archery course.**

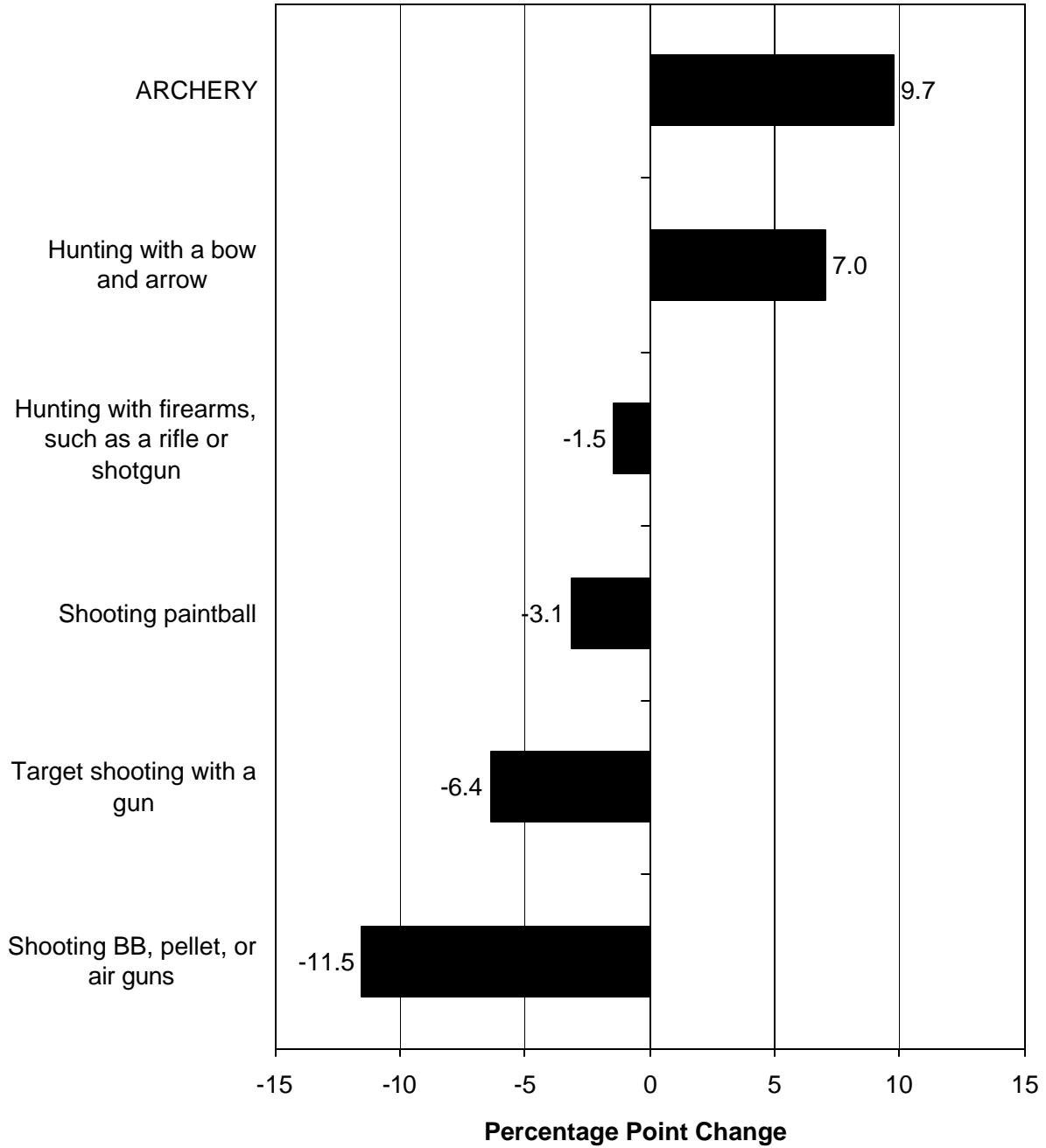


**Comparison of participation (at all) in the following shooting sports before and after taking archery course.**

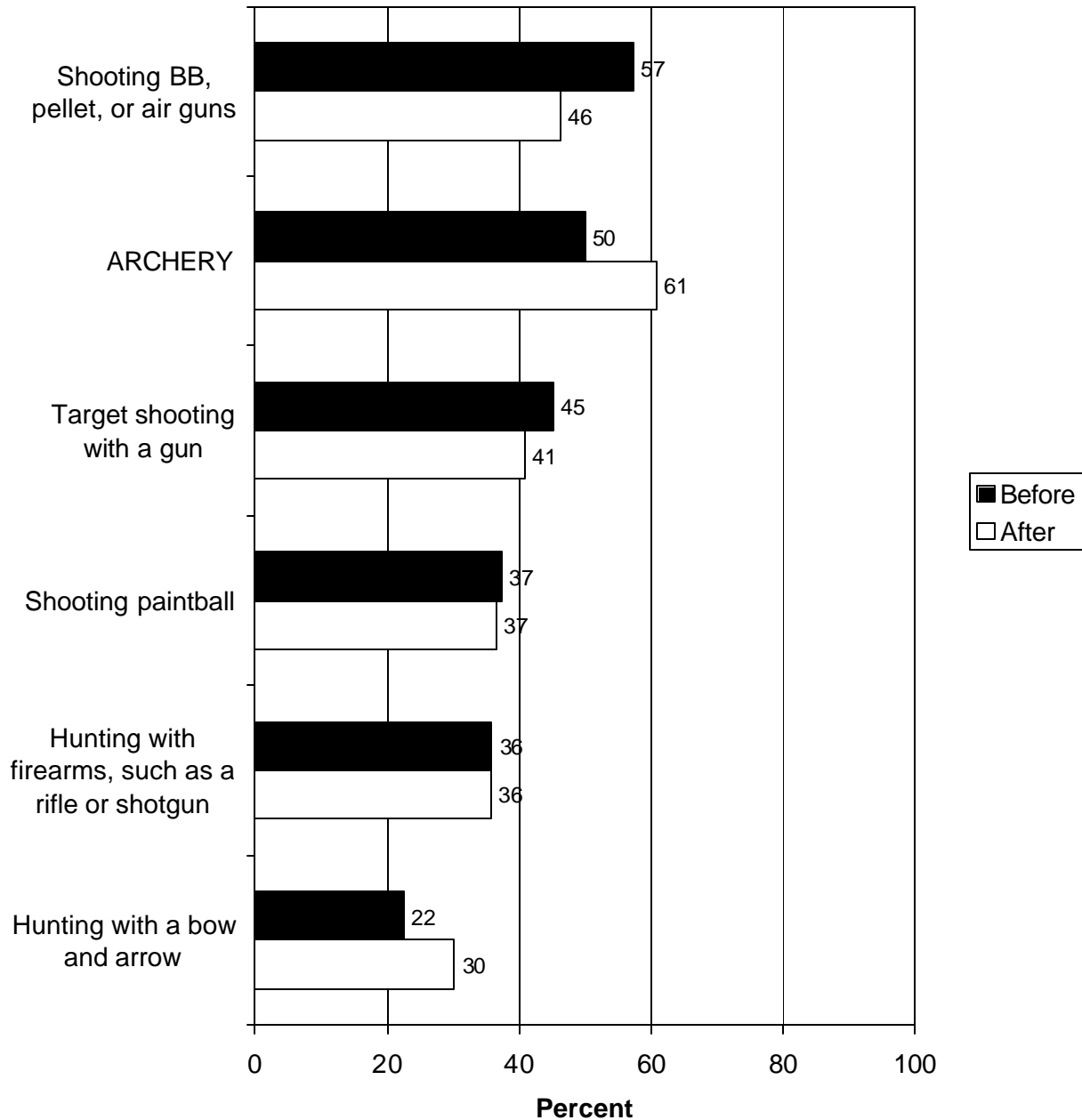


Sample size (n-value) ranges from 1,387 to 1,450.

**Difference in percentage participating at all in the following shooting sports before and after taking archery course.**

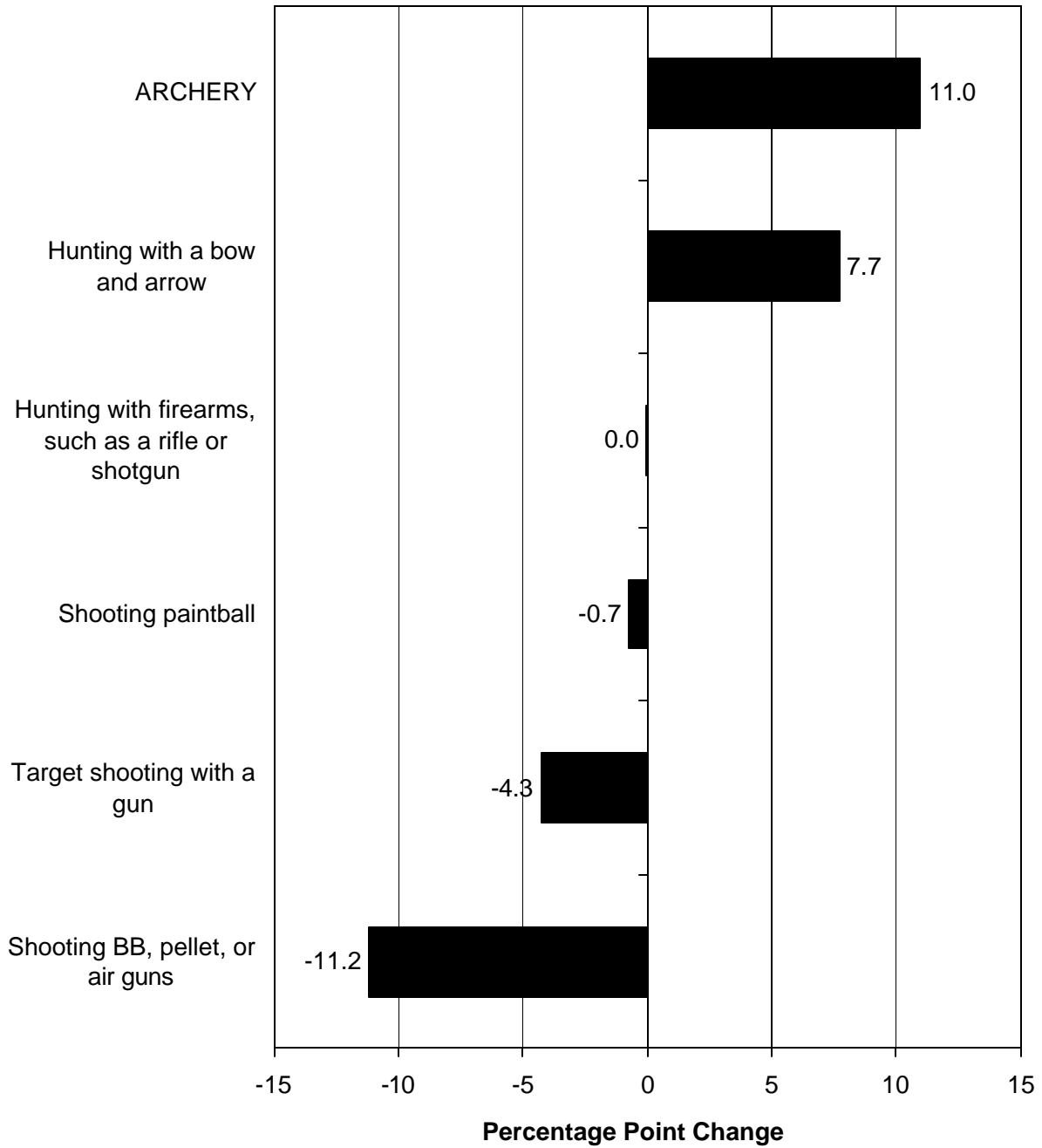


**Comparison of participation (more than once) in the following shooting sports before and after taking archery course.**

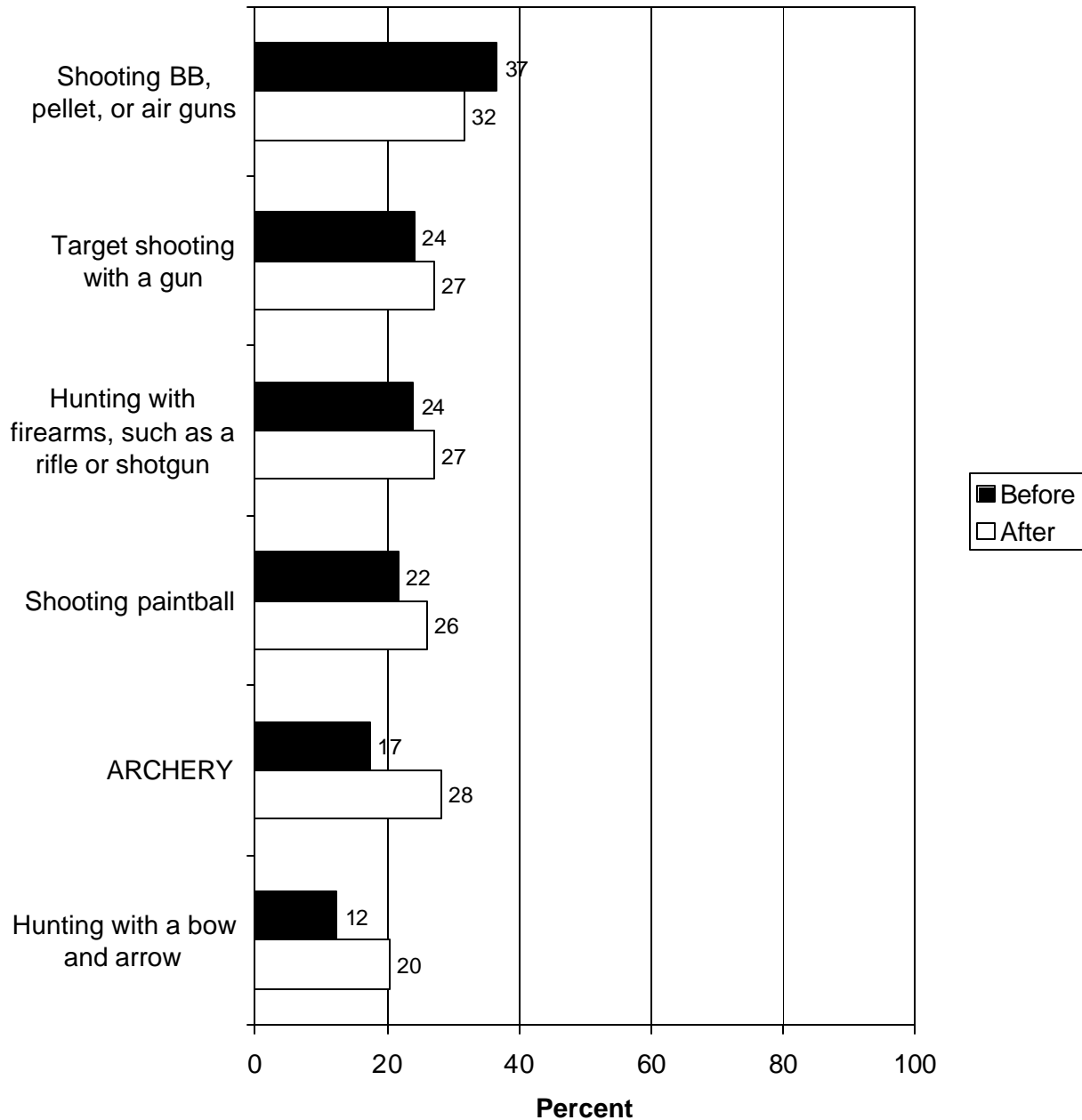


Sample size (n-value) ranges from 1,387 to 1,450.

**Difference in percentage participating more than once in the following shooting sports before and after taking archery course.**

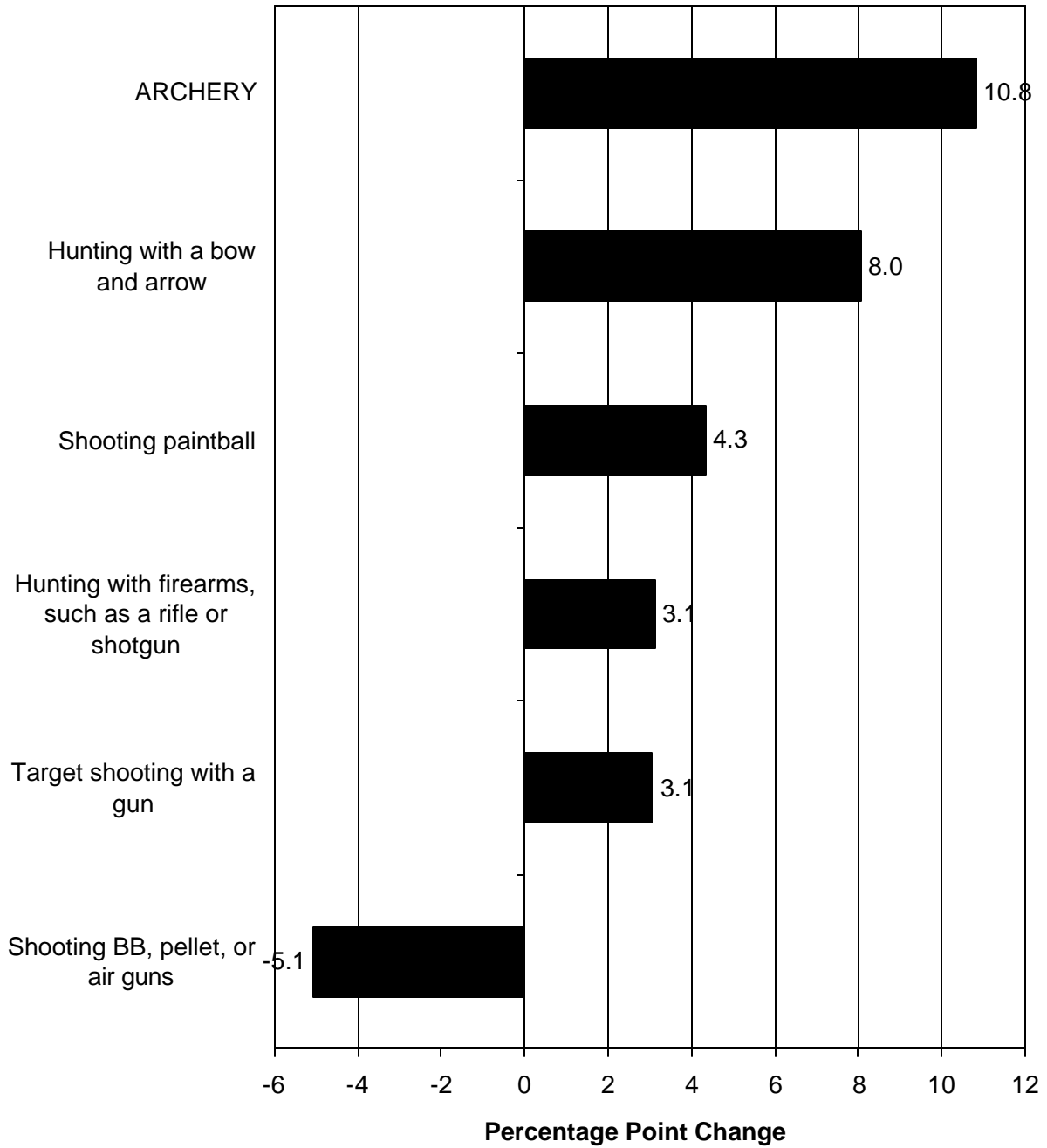


**Comparison of participation (a lot) in the following shooting sports before and after taking archery course.**

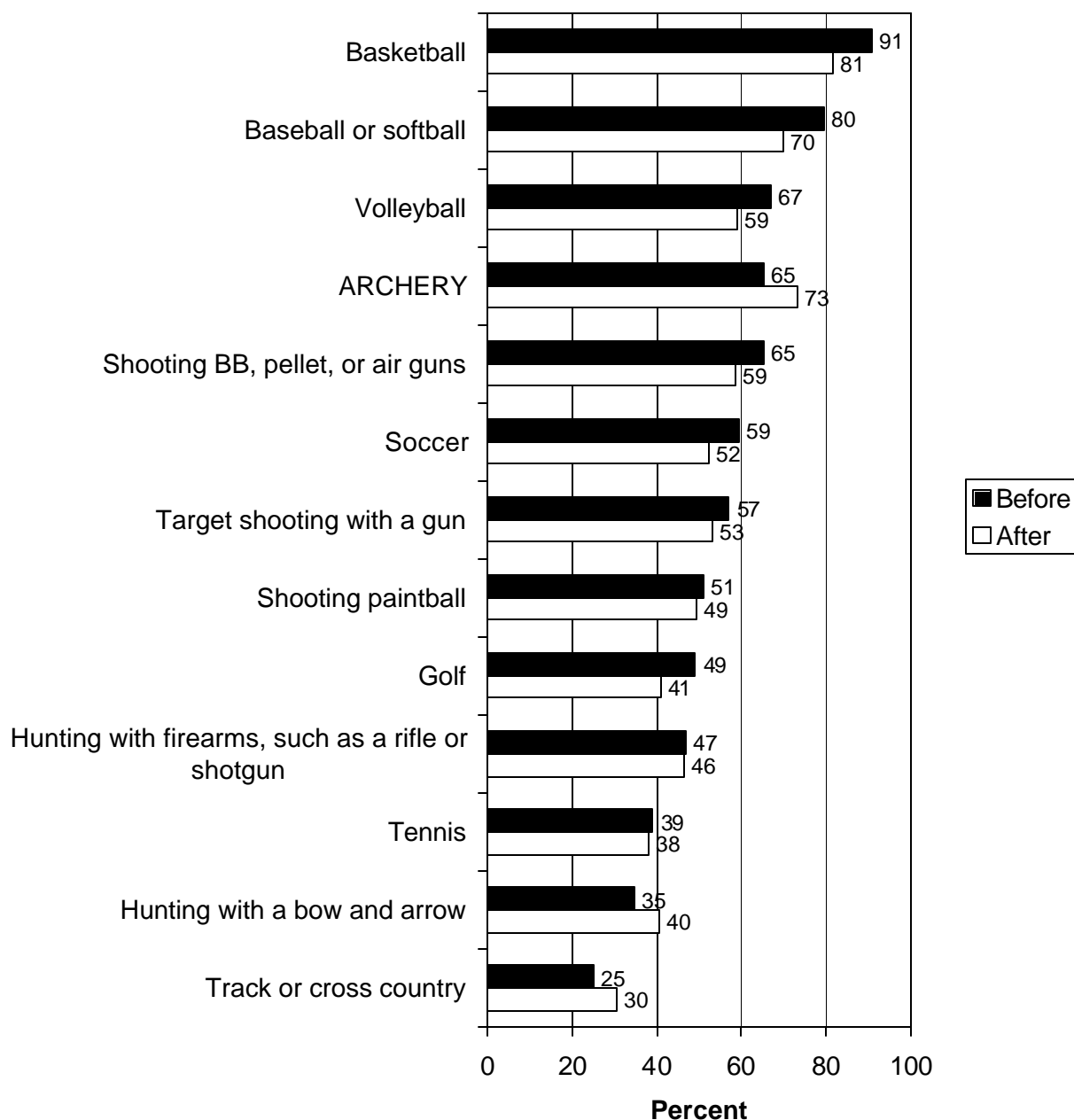


Sample size (n-value) ranges from 1,387 to 1,450.

**Difference in percentage participating a lot in the following shooting sports before and after taking archery course.**

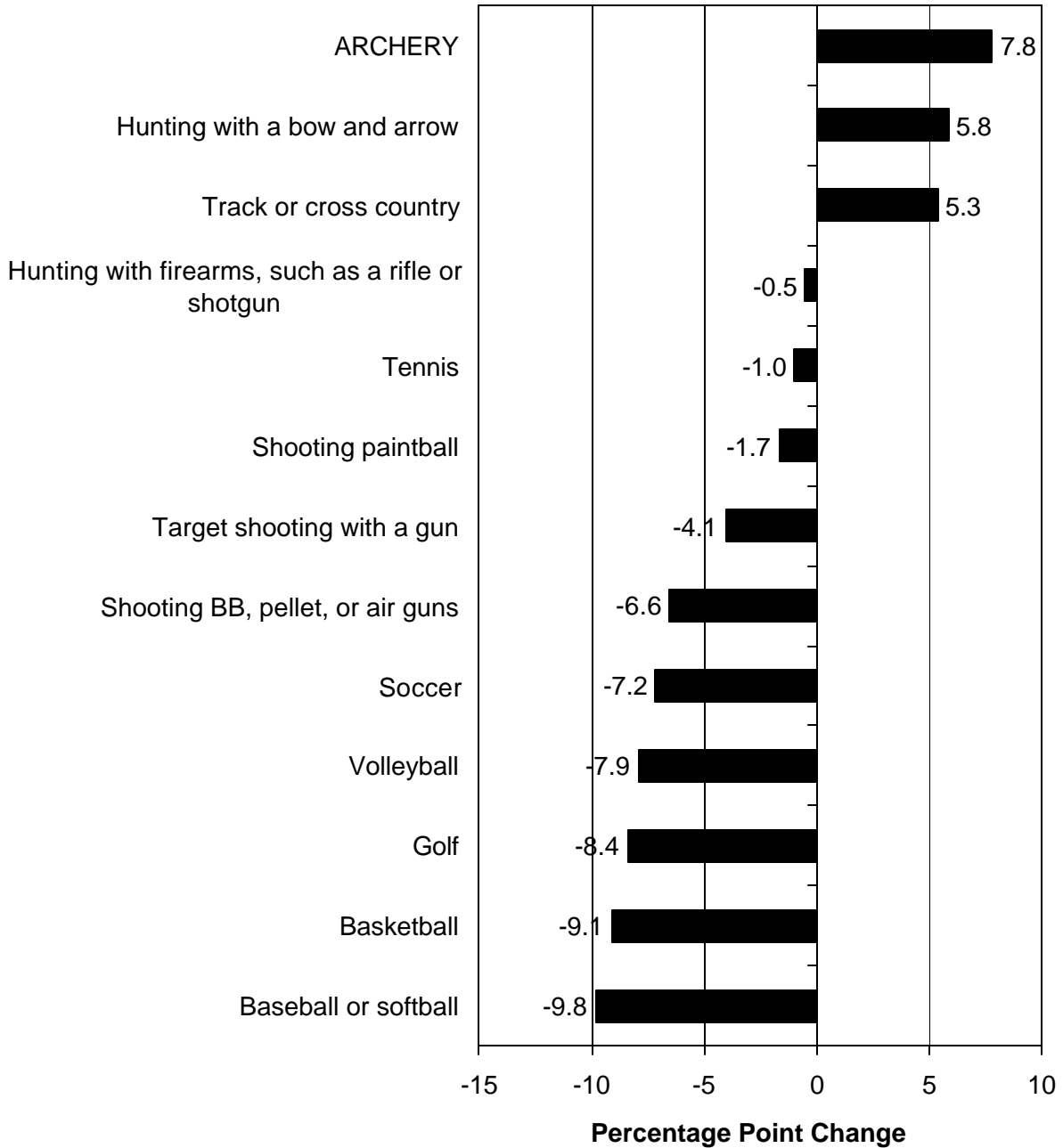


**Comparison of participation (at all) in the following activities or sports before and after taking archery course (among those who took the archery course 1 year or more previously).**

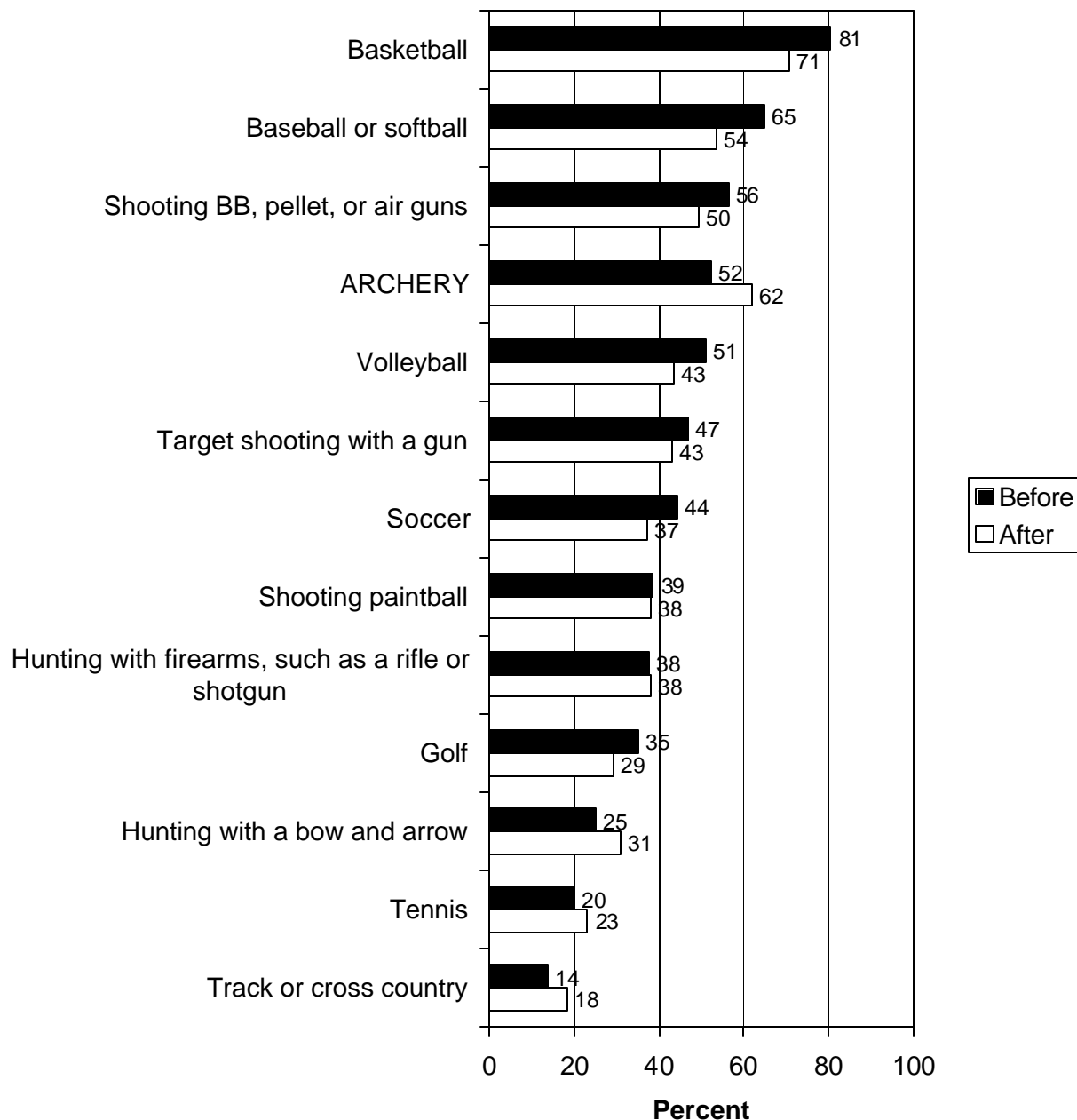


Sample size (n-value) ranges from 499 to 518.

**Difference in percentage participating at all in the following activities before and after taking archery course (among those who took the archery course 1 year or more previously).**

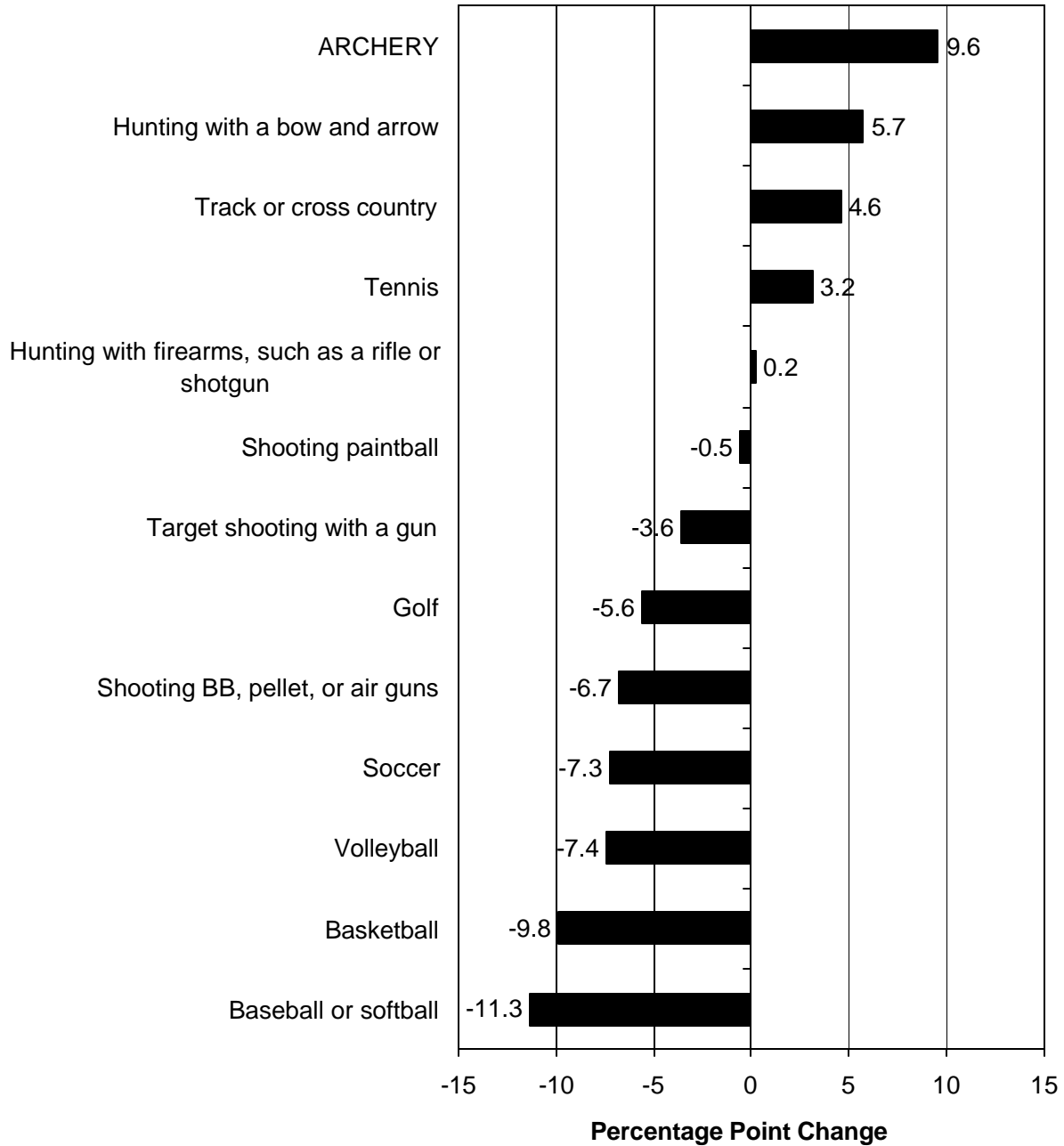


**Comparison of participation (more than once) in the following activities or sports before and after taking archery course (among those who took the archery course 1 year or more previously).**

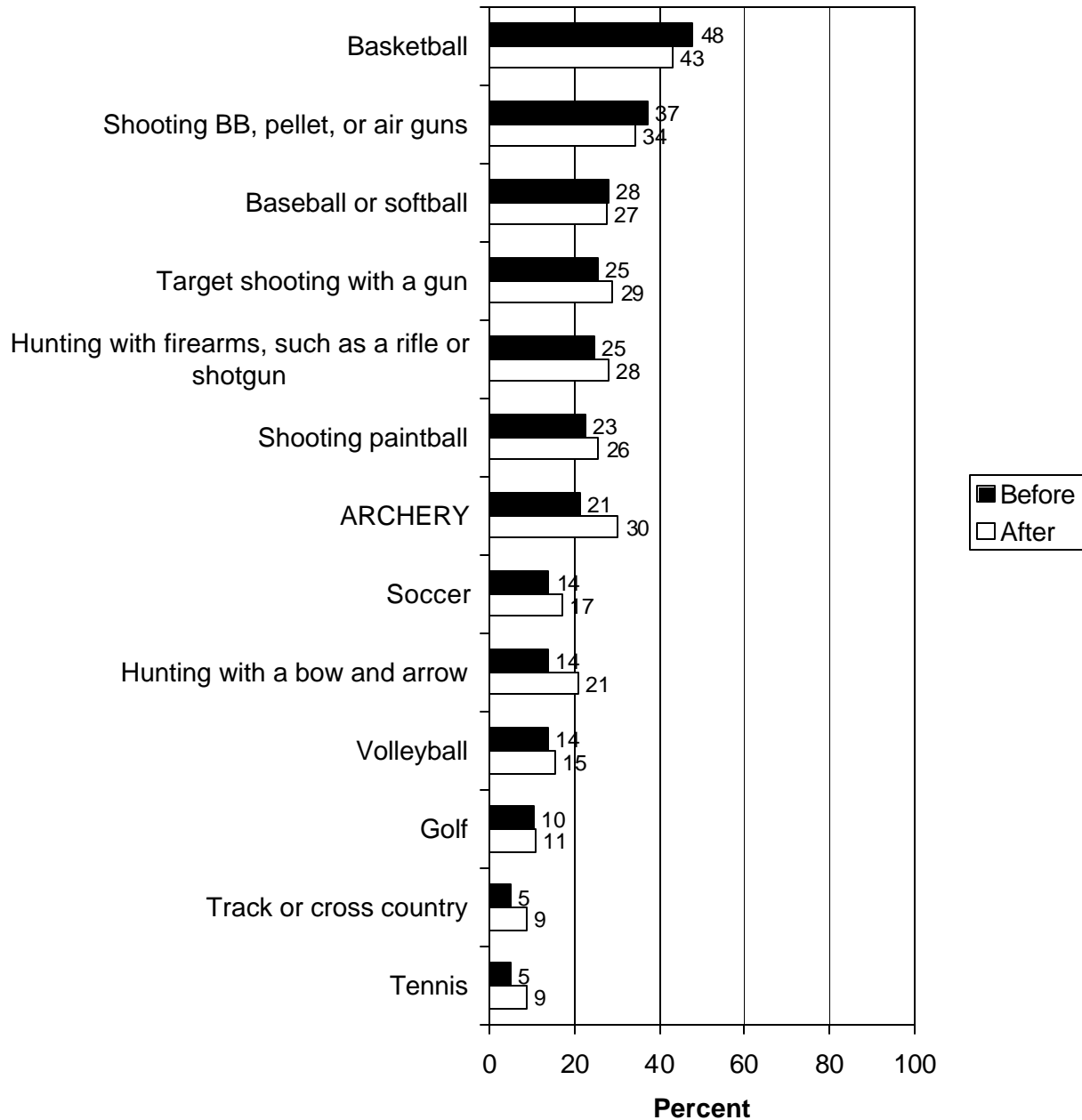


Sample size (n-value) ranges from 499 to 518.

**Difference in percentage participating more than once in the following activities before and after taking archery course (among those who took the archery course 1 year or more previously).**

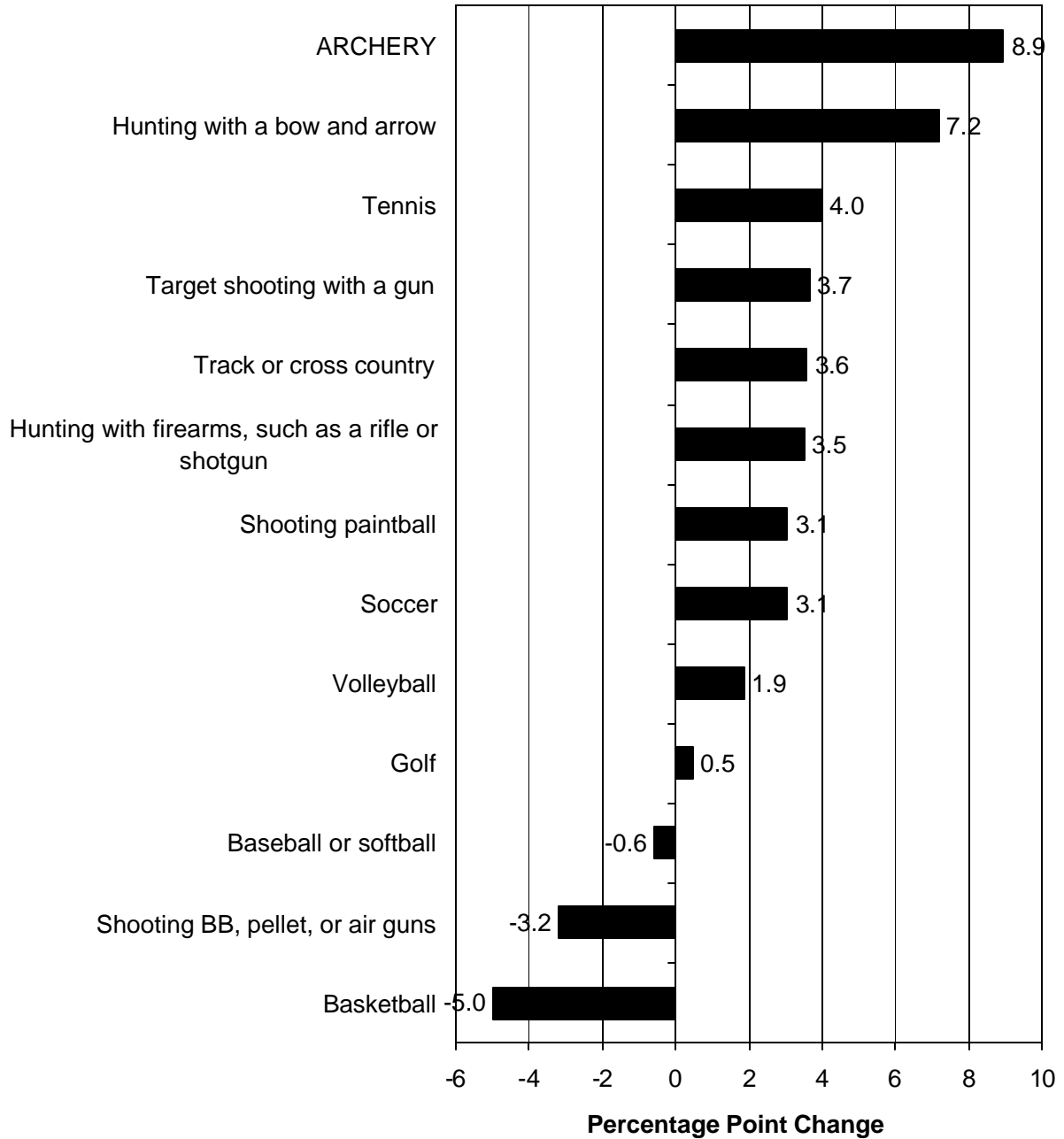


**Comparison of participation (a lot) in the following activities or sports before and after taking archery course (among those who took the archery course 1 year or more previously).**

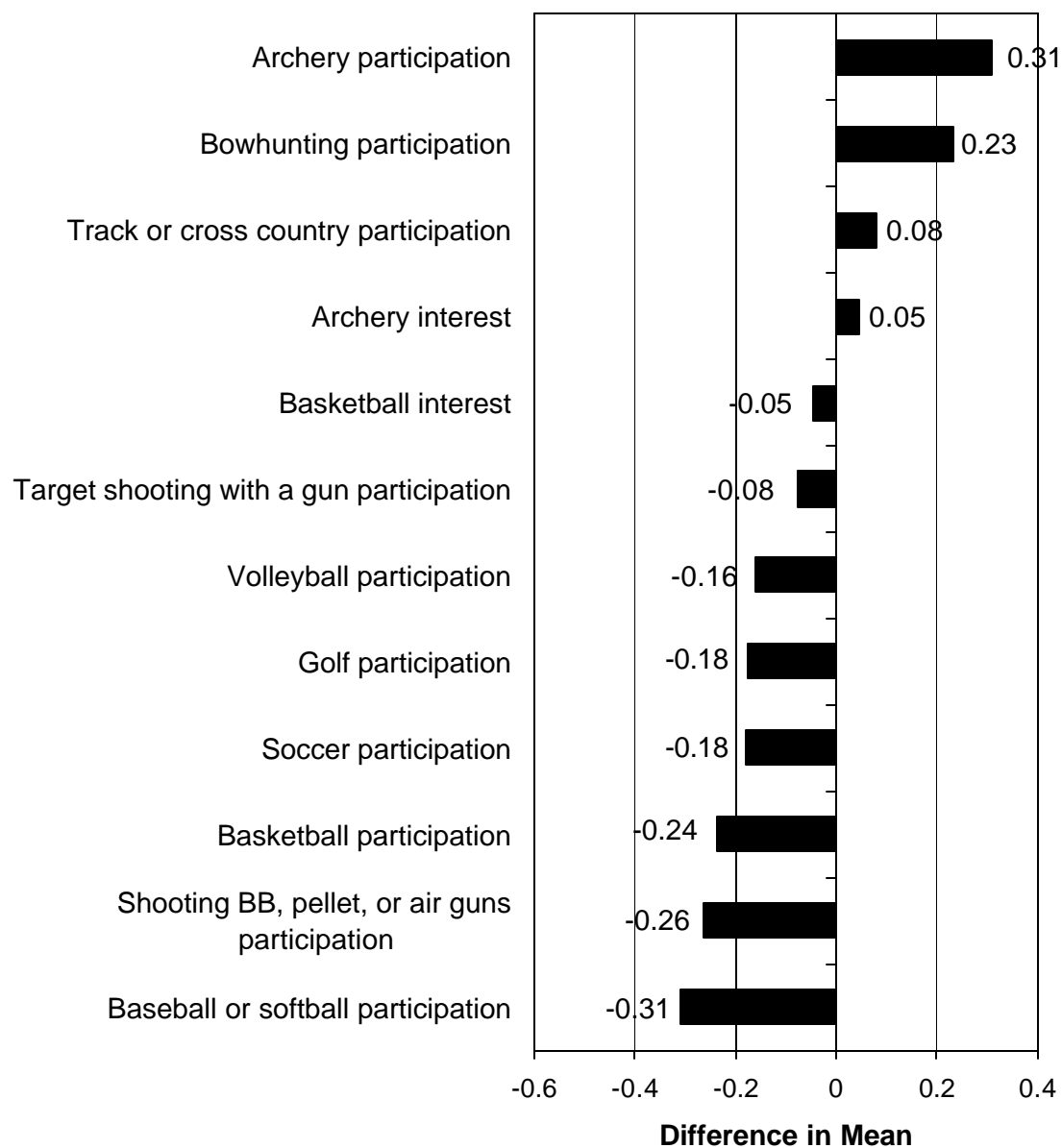


Sample size (n-value) ranges from 499 to 518.

**Difference in percentage participating a lot in the following activities before and after taking archery course (among those who took the archery course 1 year or more previously).**



**Significant changes (paired t-tests) in sport participation and interest before and after taking archery course (activities and sports for which changes were insignificant are not shown).**



## **INTEREST IN PARTICIPATING IN ACTIVITIES AND SPORTS, INCLUDING ARCHERY AND BOWHUNTING**

- The archery program appears to be successful in stimulating interest in archery and bowhunting. Subsequent to the course, students are more likely to show interest in archery and bowhunting.

Interest was examined in two ways: those who expressed “a little” or “a lot” of interest considered together, and then just those who expressed “a lot” of interest. Again, these questions were asked twice regarding the students’ interest prior to taking the archery course and their interest after taking the course. Also, one of the analyses considers only those who took the archery course 1 or more years previously.

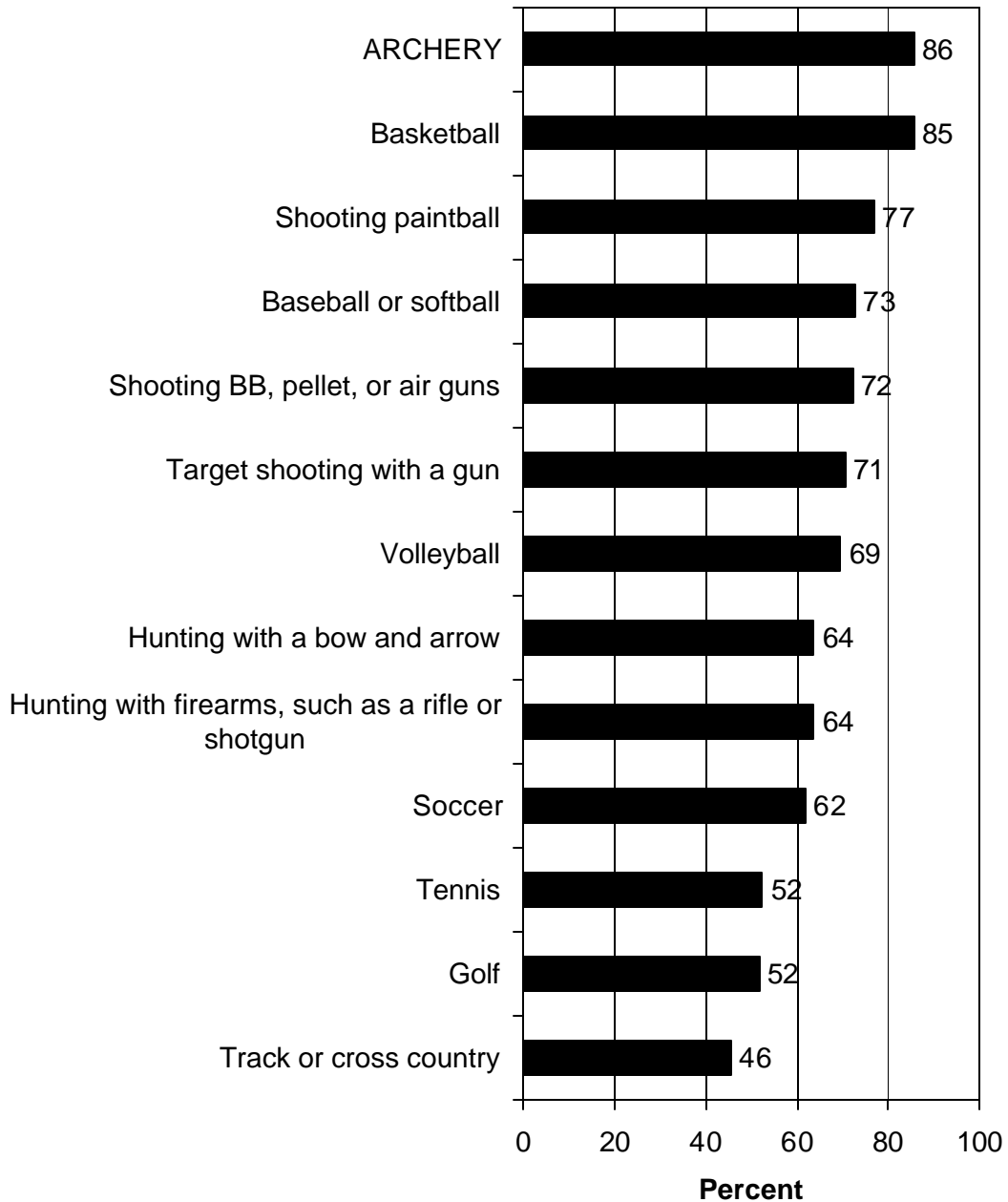
### **INTEREST IN PARTICIPATION IN ACTIVITIES AND SPORTS BEFORE TAKING THE ARCHERY COURSE**

- Regarding those who said that they were interested in trying the activity “a little” or “a lot” prior to taking the archery course, the top ranked activity was archery (86%). Basketball (85%) was a close second. Other popular activities, include shooting paintball (77%), baseball/softball (73%), shooting BB, pellet, or air guns (72%), and target shooting with a gun (71%). It is noteworthy that every activity except track/cross country had a majority of students saying that they were a little or a lot interested in trying it.
  - Of the shooting sports, the most interest prior to taking the archery course was expressed for archery (86%), followed by shooting paintball (77%), shooting BB, pellet, or air guns (72%), target shooting with a gun (71%), bowhunting (64%), and hunting with firearms (64%).
  - Of those who took the archery course 1 or more years previously, archery (86%) was the most popular activity, closely followed by basketball (85%). Shooting paintball (78%) was in the third position.
- In examining the ranking according to the percentage who indicated “a lot” of interest prior to taking the archery course, basketball (57%) is the top ranked activity, followed by

shooting paintball (54%), archery (50%), target shooting with a gun (48%), and shooting BB, pellet, or air guns (48%).

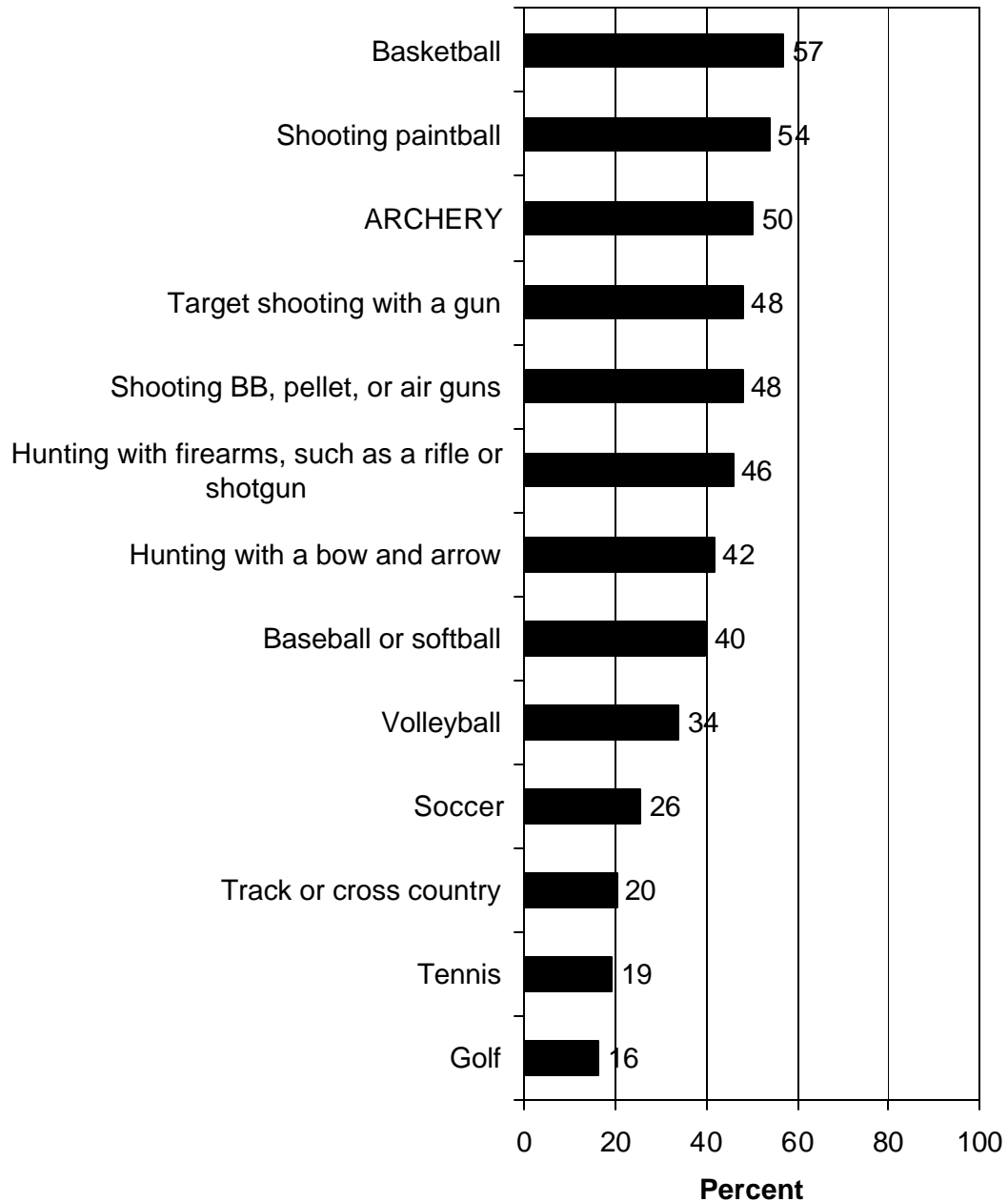
- Of the shooting sports, the most interest prior to taking the archery course was expressed for shooting paintball (54%), followed by archery (50%), target shooting with a gun (48%), shooting BB, pellet, or air guns (48%), hunting with firearms (46%), and bowhunting (42%).
- Of those who took the archery course 1 or more years previously, the top activities were basketball (54%), shooting paintball (53%), and archery (50%).

**Percent who expressed a little or a lot of interest in trying the following activities/sports before taking archery.**



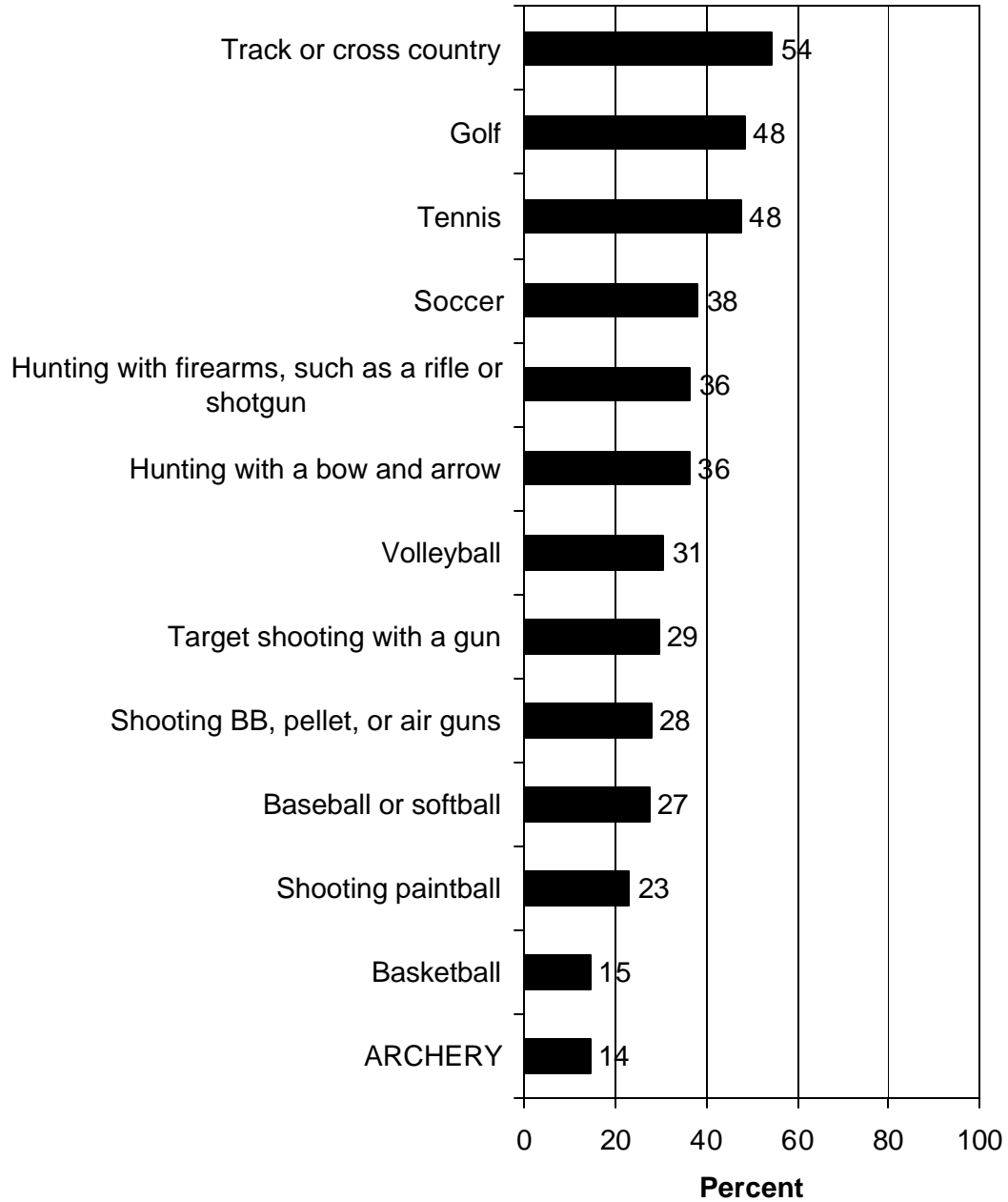
Sample size (n-value) ranges from 1,418 to 1,449.

**Percent who expressed a lot of interest in trying the following activities/sports before taking archery.**



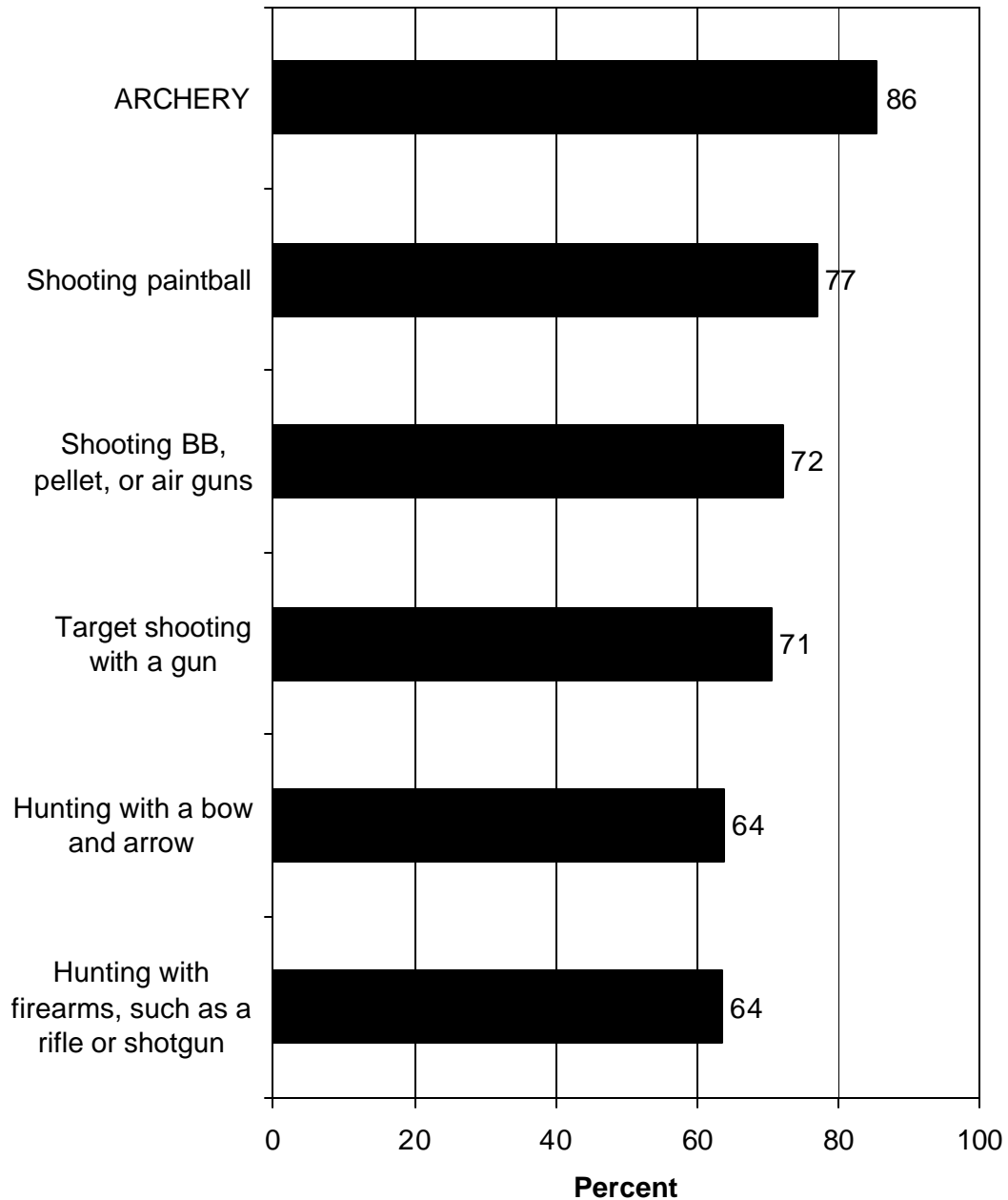
Sample size (n-value) ranges from 1,418 to 1,449.

**Percent who expressed no interest in trying the following activities/sports before taking archery.**



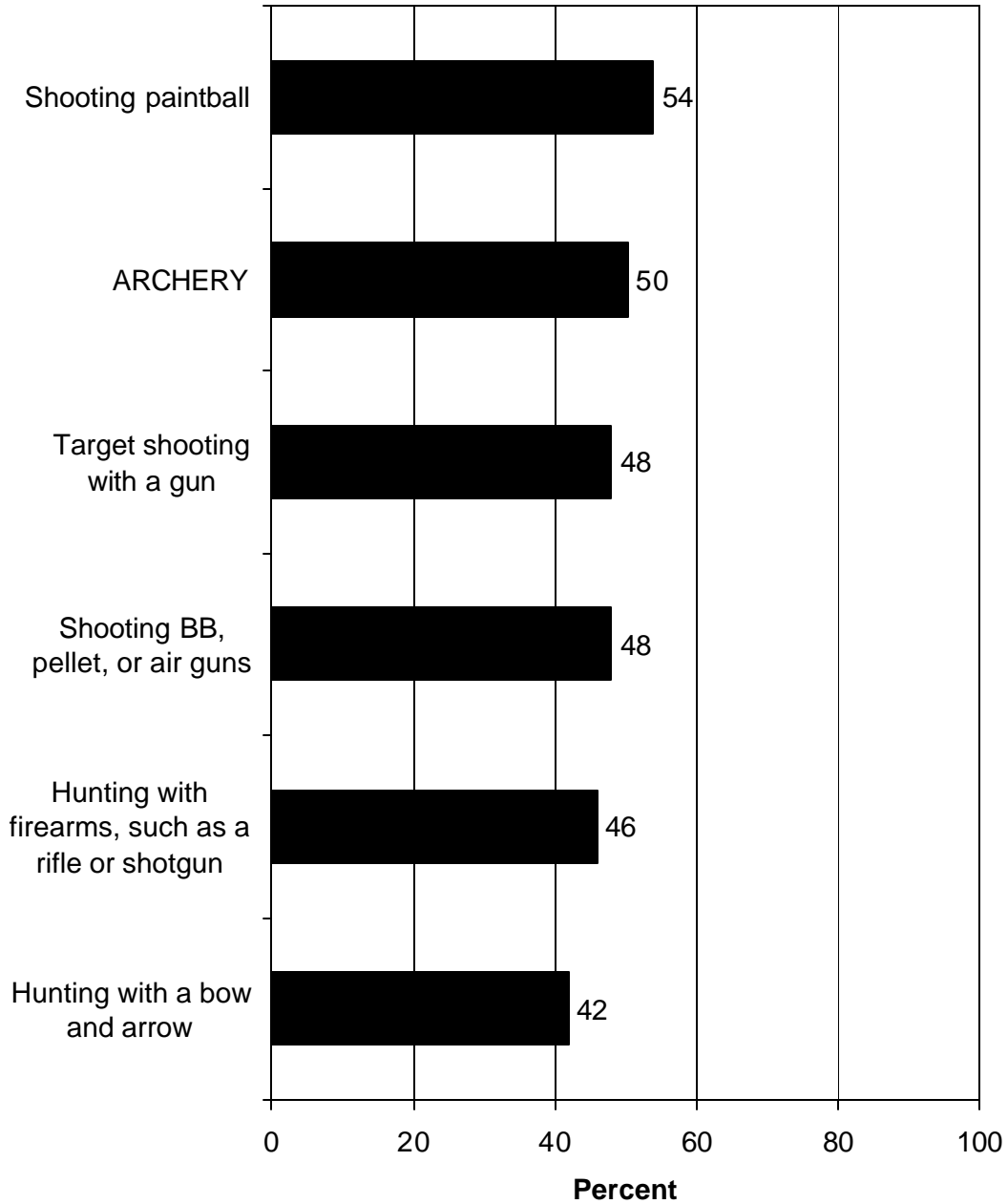
Sample size (n-value) ranges from 1,418 to 1,449.

**Percent who expressed a little or a lot of interest in trying the following shooting sports before taking archery.**



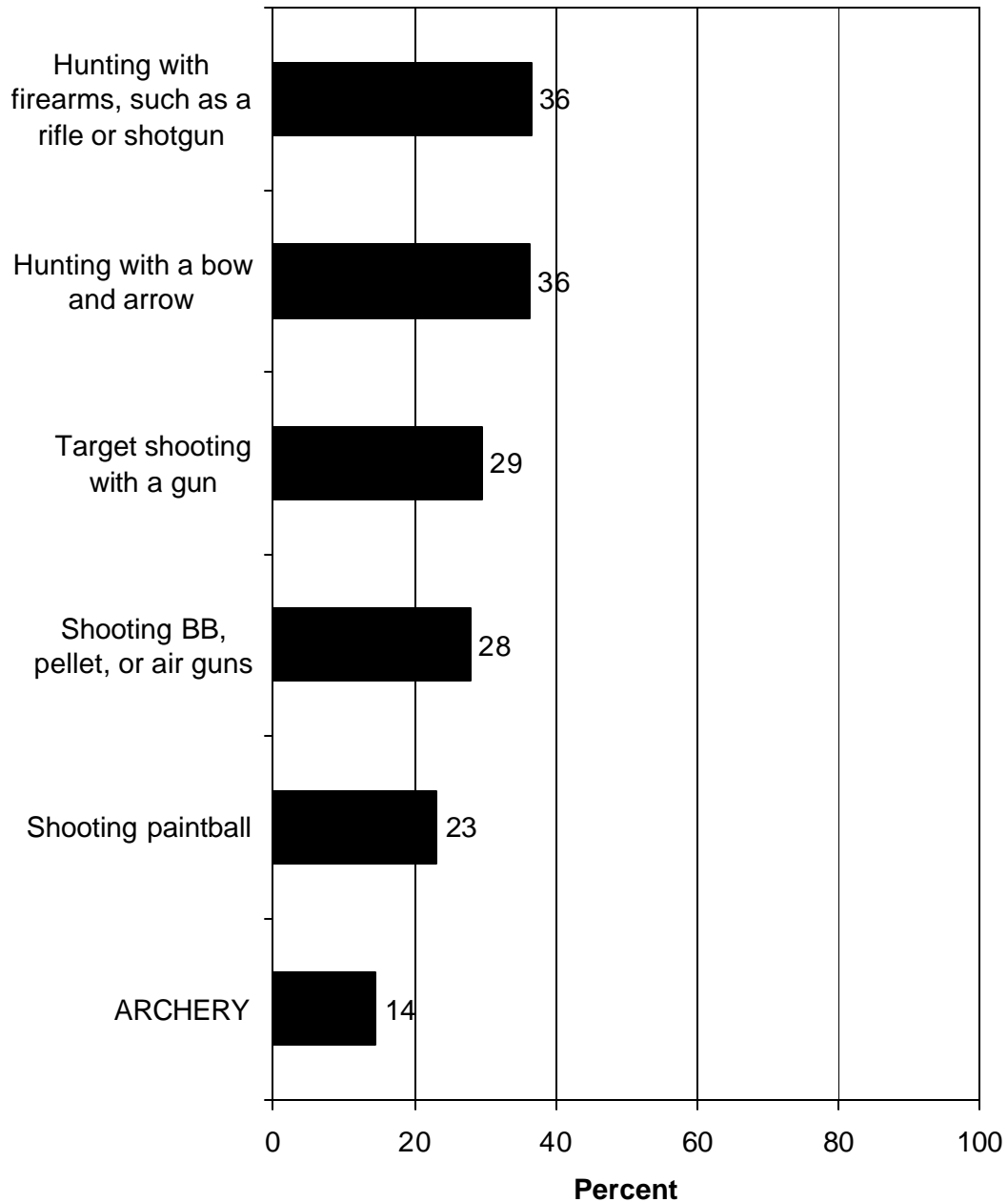
Sample size (n-value) ranges from 1,418 to 1,449.

**Percent who expressed a lot of interest in trying the following shooting sports before taking archery.**



Sample size (n-value) ranges from 1,418 to 1,449.

**Percent who expressed no interest in trying the following shooting sports before taking archery.**

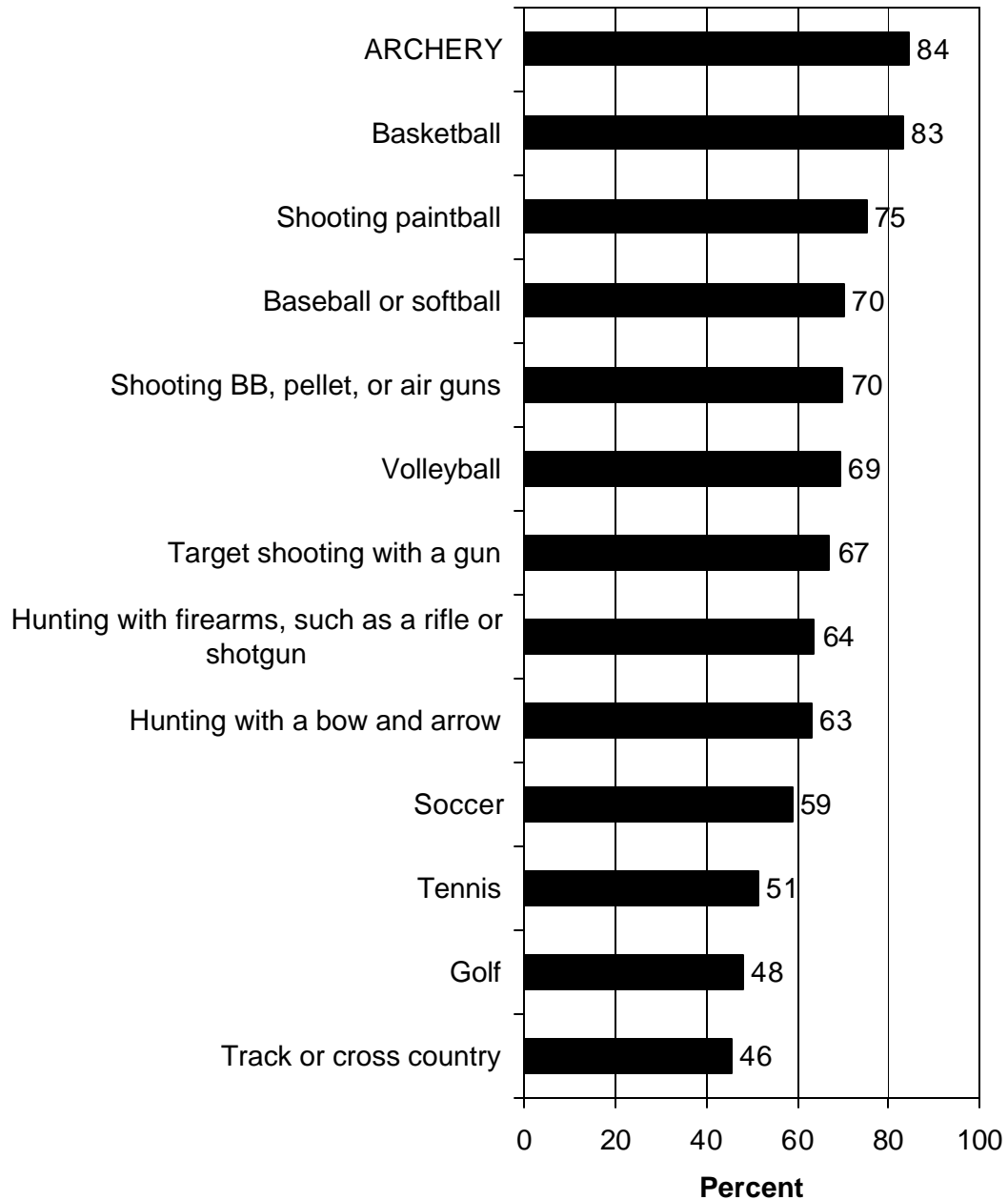


Sample size (n-value) ranges from 1,418 to 1,449.

## **INTEREST IN PARTICIPATION IN ACTIVITIES AND SPORTS AFTER TAKING THE ARCHERY COURSE**

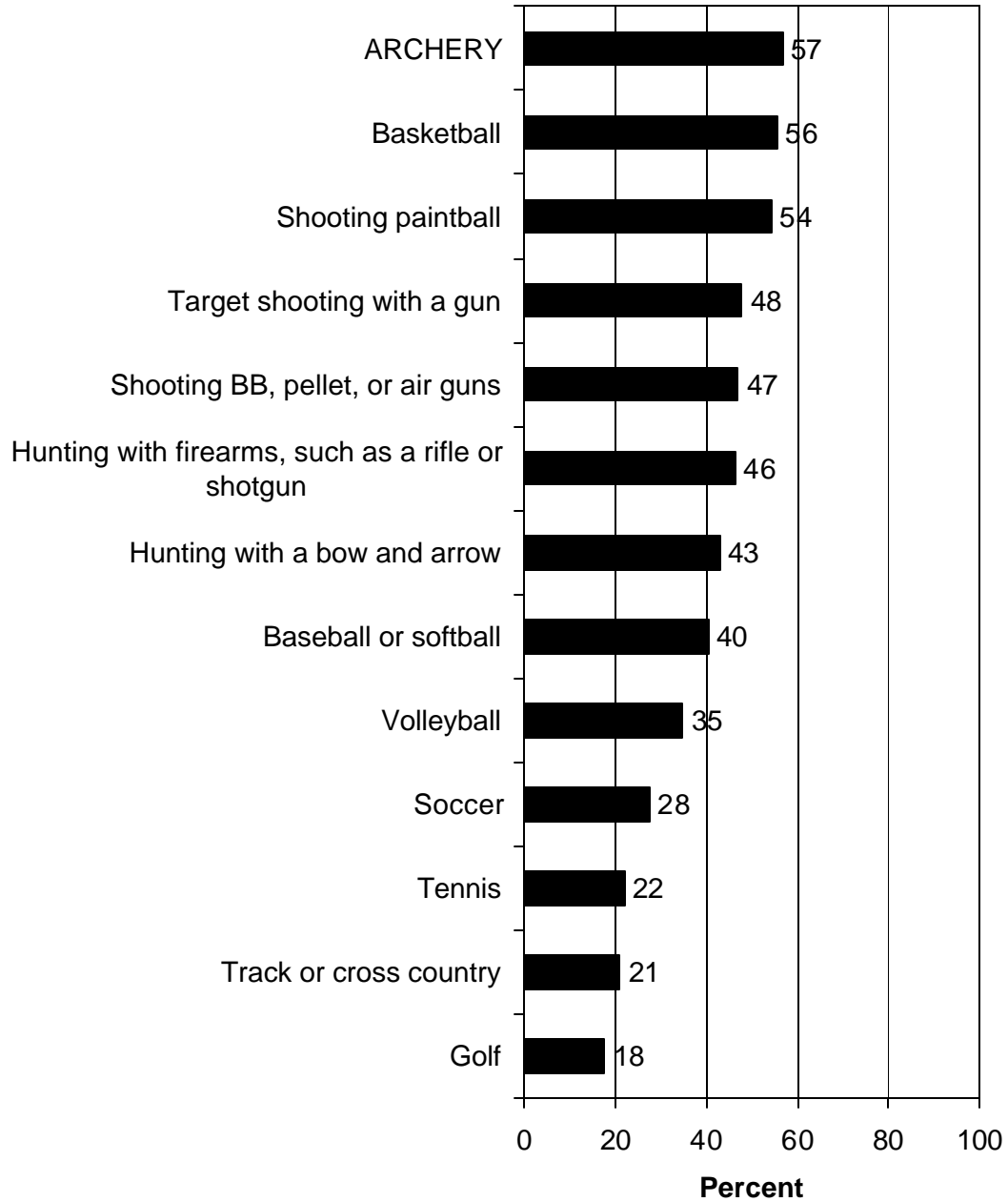
- Regarding those who said that they were interested in doing the activity “a little” or “a lot” after taking the archery course, the top ranked activity was archery (84%), followed by basketball (83%), shooting paintball (75%), baseball/softball (70%), and shooting BB, pellet, or air guns (70%). Every activity except golf and track/cross country had a majority of students saying that they were a little or a lot interested in doing it.
  - Of the shooting sports, the most interest after taking the archery course was expressed for archery (84%), followed by shooting paintball (75%), shooting BB, pellet, or air guns (70%), target shooting with a gun (67%), hunting with firearms (64%), and bowhunting (63%).
  - In the analysis of those who took the archery course 1 or more years previously, archery (85%) was the most popular, followed by basketball (82%) shooting paintball (76%), and shooting BB, pellet, or air guns (71%).
  
- In examining the ranking according to the percentage who indicated “a lot” of interest after taking the archery course, archery (57%) is the top ranked activity, followed by basketball (56%), shooting paintball (54%), target shooting with a gun (48%), and shooting BB, pellet, or air guns (47%).
  - Of the shooting sports, the most interest after taking the archery course was expressed for archery (57%), followed by shooting paintball (54%), target shooting with a gun (48%), shooting BB, pellet, or air guns (47%), hunting with firearms (46%), and bowhunting (43%).
  - Of those who took the archery course 1 or more years previously, archery (60%), shooting paintball (54%), and basketball (53%) were the top activities.

**Percent who expressed a little or a lot of interest in doing the following activities/sports after taking archery.**



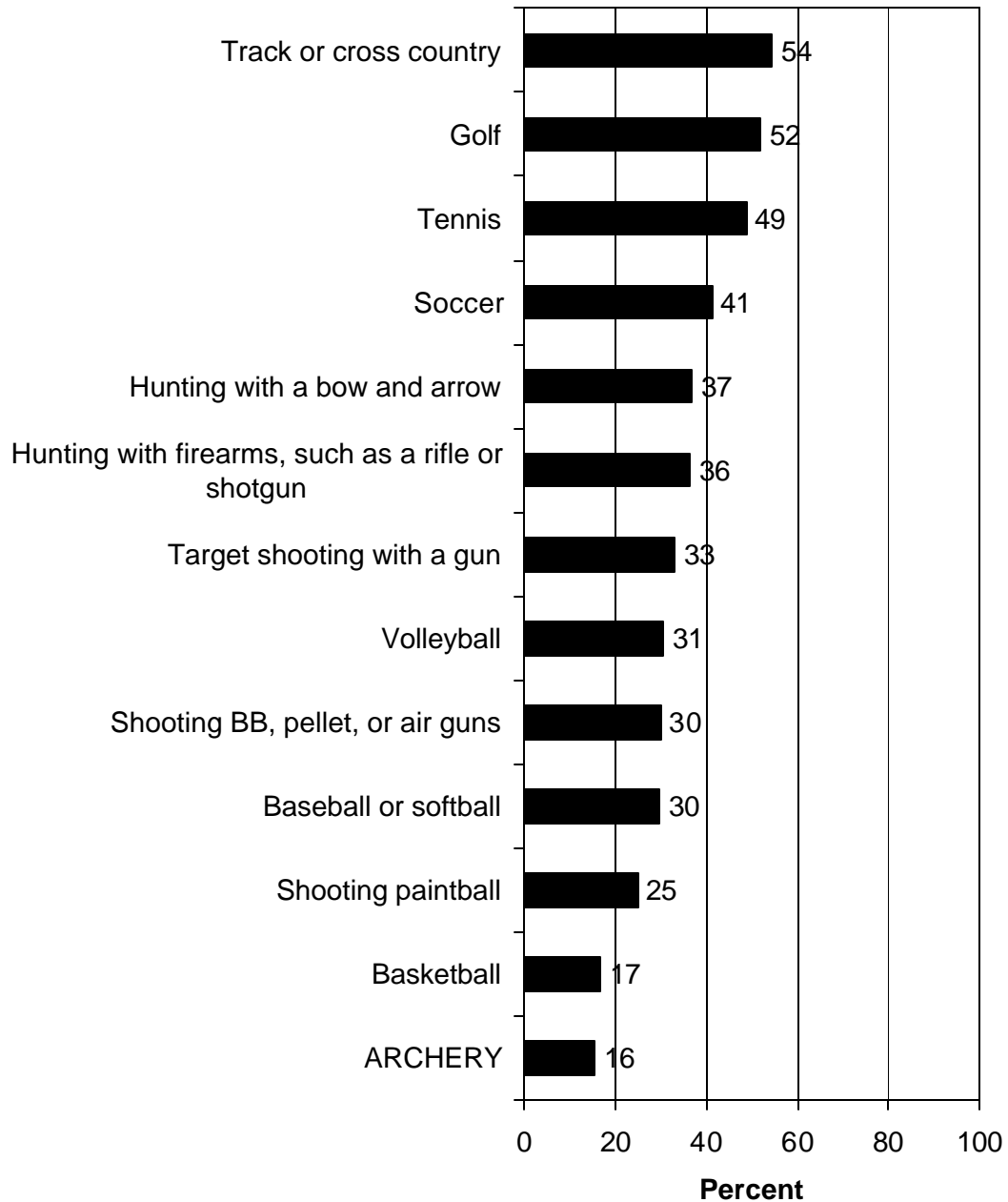
Sample size (n-value) ranges from 1,391 to 1,415.

**Percent who expressed a lot of interest in doing the following activities/sports after taking archery.**



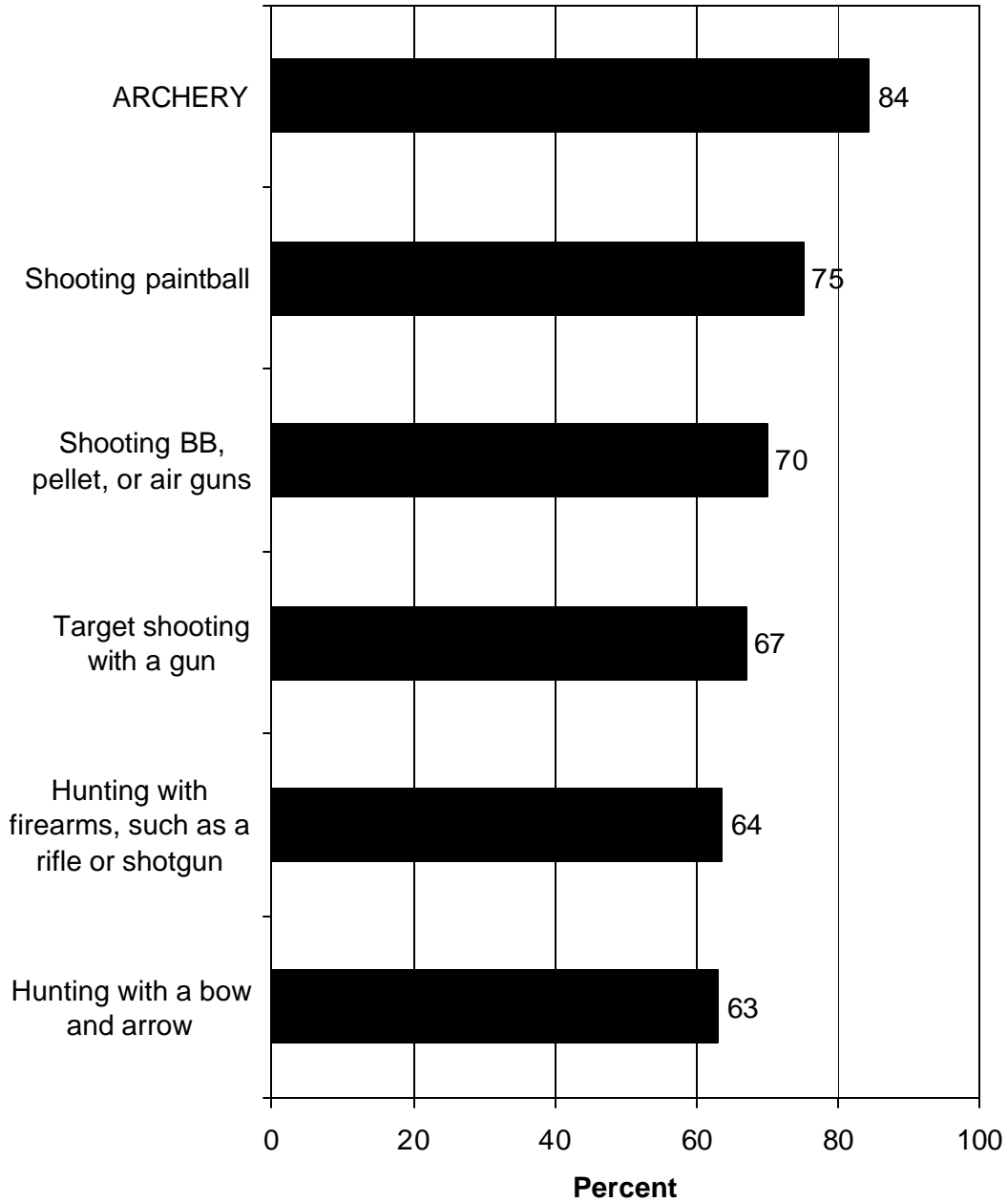
Sample size (n-value) ranges from 1,391 to 1,415.

**Percent who expressed no interest in doing the following activities/sports after taking archery.**



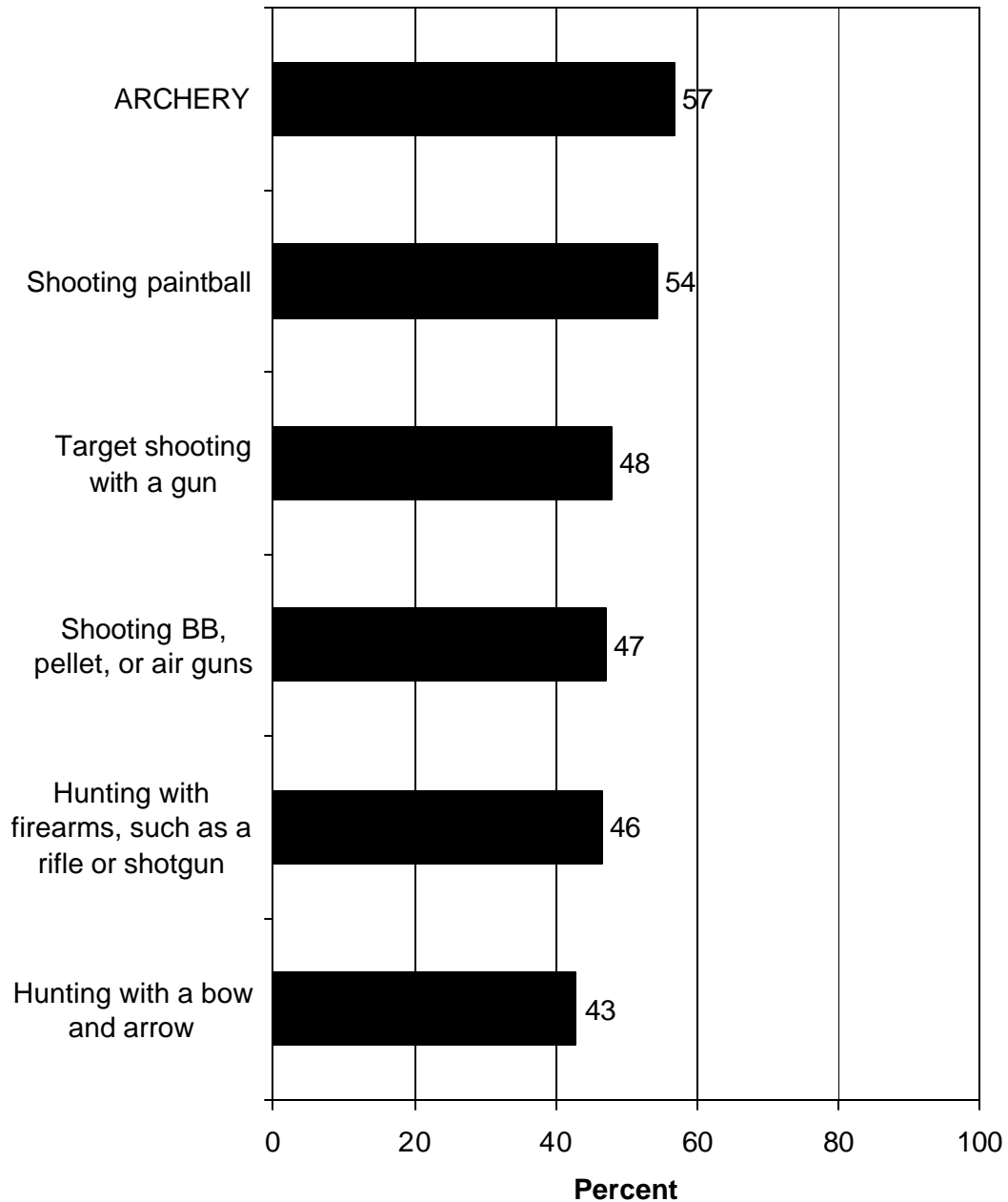
Sample size (n-value) ranges from 1,391 to 1,415.

**Percent who expressed a little or a lot of interest in doing the following shooting sports after taking archery.**



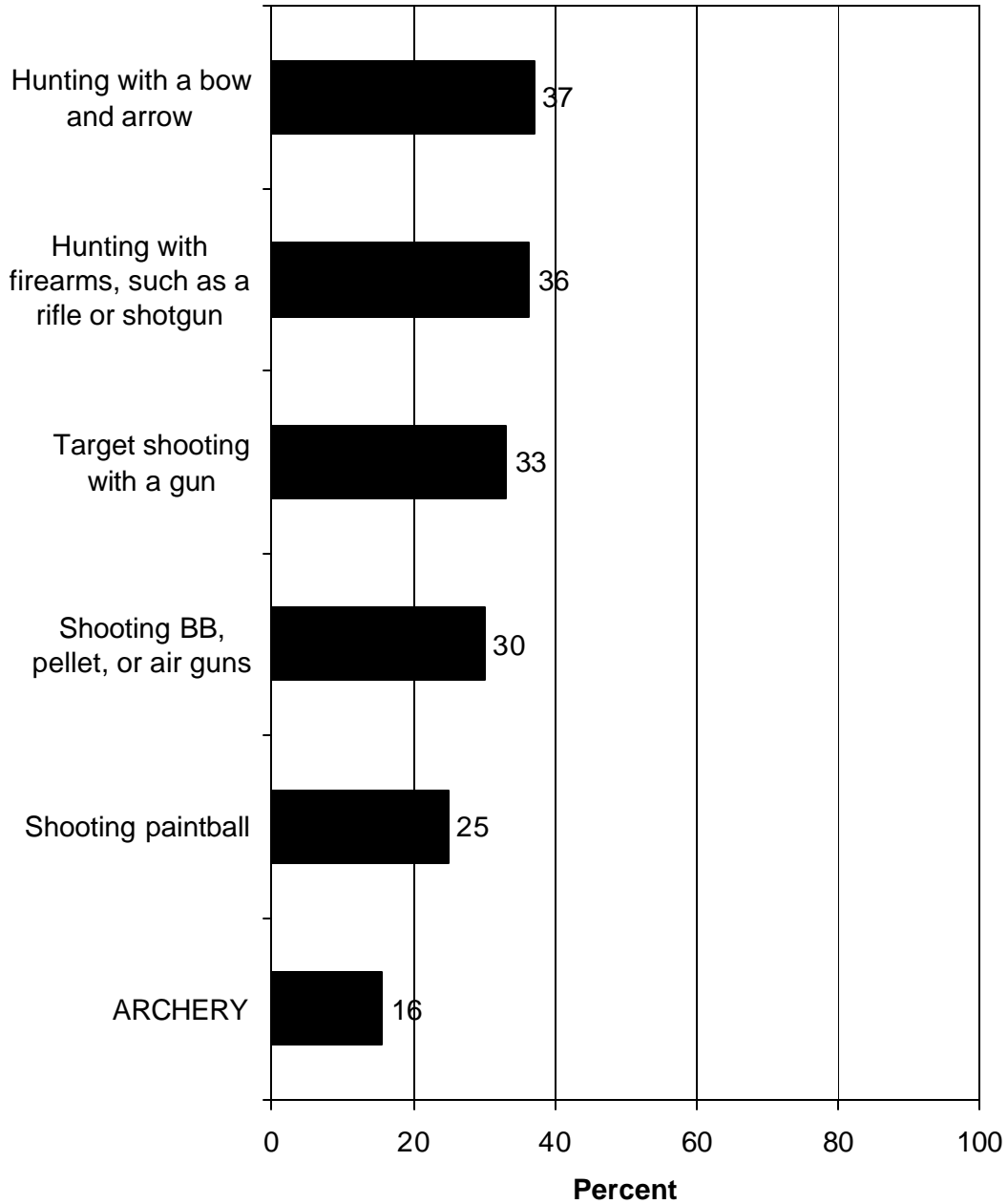
Sample size (n-value) ranges from 1,391 to 1,415.

**Percent who expressed a lot of interest in doing the following shooting sports before after archery.**



Sample size (n-value) ranges from 1,391 to 1,415.

**Percent who expressed no interest in doing the following shooting sports after taking archery.**

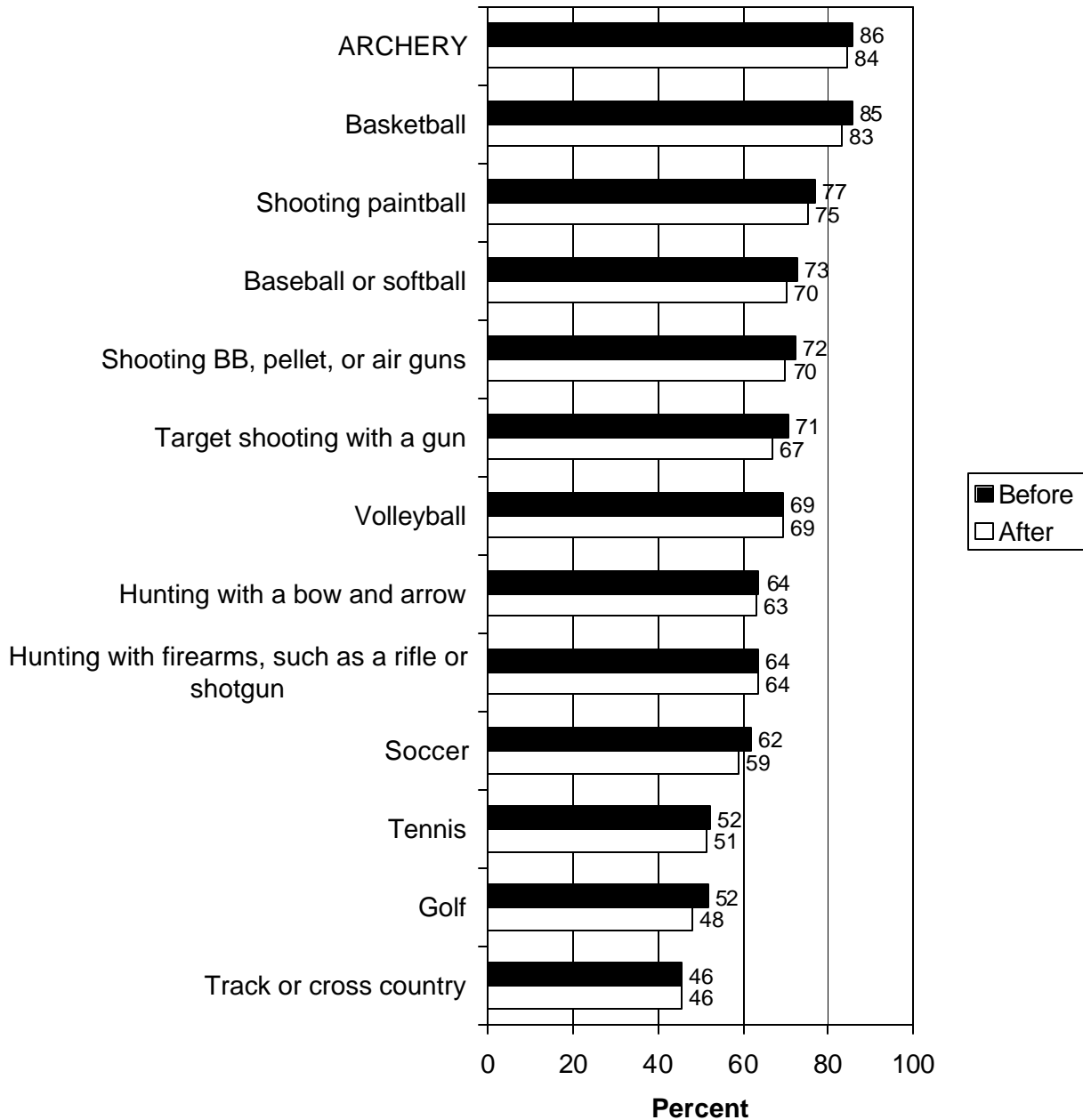


Sample size (n-value) ranges from 1,391 to 1,415.

## COMPARISON OF INTEREST BEFORE AND AFTER TAKING THE ARCHERY COURSE

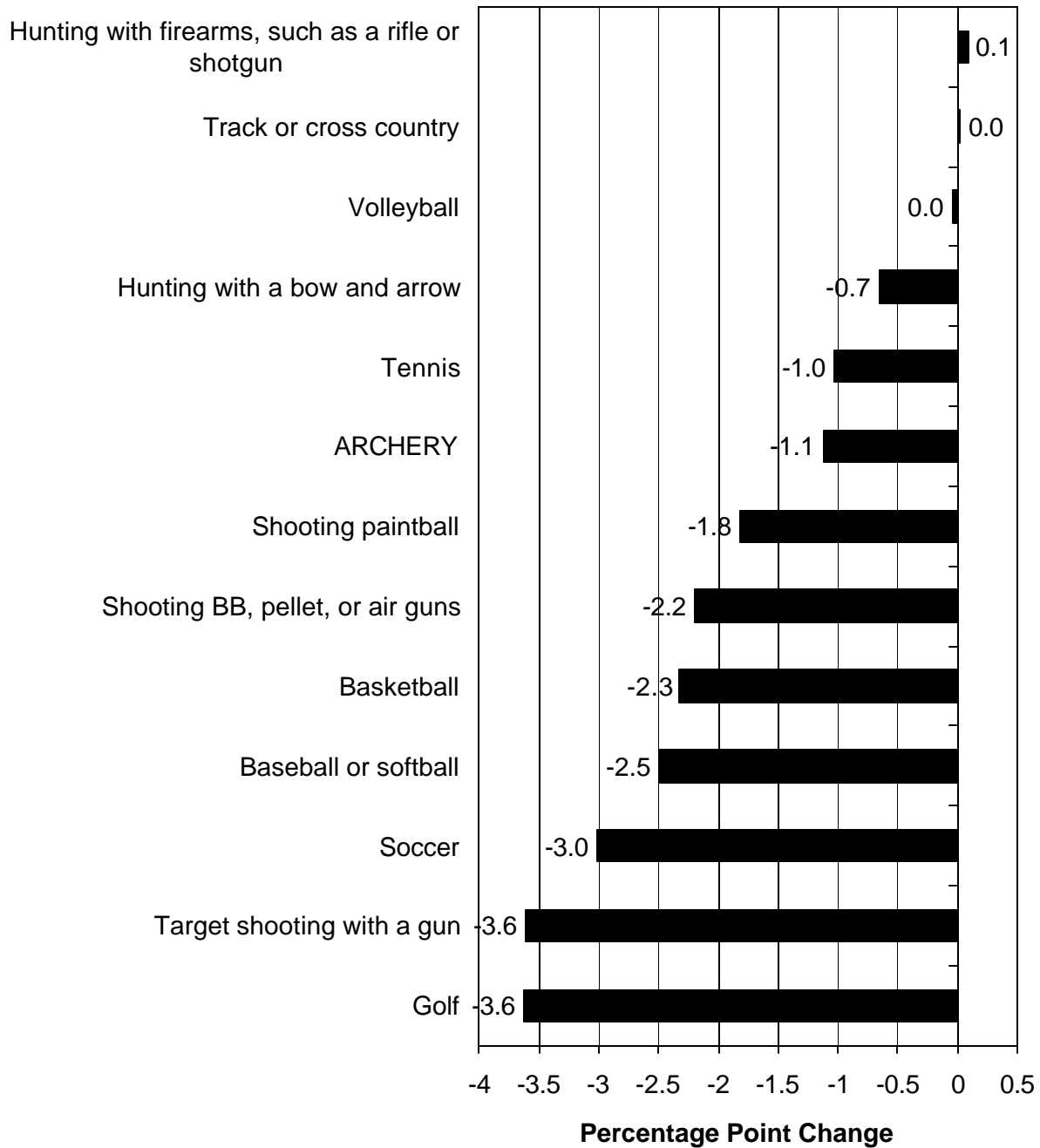
- When looking at those expressing “a little” or “a lot” of interest in the activities, nearly every activity had a decline in the percentage who expressed any interest. However, a comparison of only those expressing “a lot” of interest shows that archery had the greatest gain in interest: 6 percentage points, from 50% to 57% (rounding causes the apparent 1 percentage point discrepancy).
  - Of those who took the archery course 1 or more years previously, archery had a slight decline (2 percentage points) in participation. The largest increase, of only 3 percentage points, was for track/cross country; the largest decrease was for baseball/softball (4 percentage points). However, in looking at only “a lot” of interest among those who took the archery course 1 or more years previously, archery had a large increase in interest (10 percentage points).
  
- A graph is included that shows the results for the statistical significance test in both interest and participation. This analysis first made means of the results of the interest questions by assigning values to the responses “not at all,” “a little,” and “a lot.” The means pre- and post-course were then compared, and only the significant changes are shown.

**Comparison of interest (a little or a lot) in the following activities or sports before and after taking archery course.**

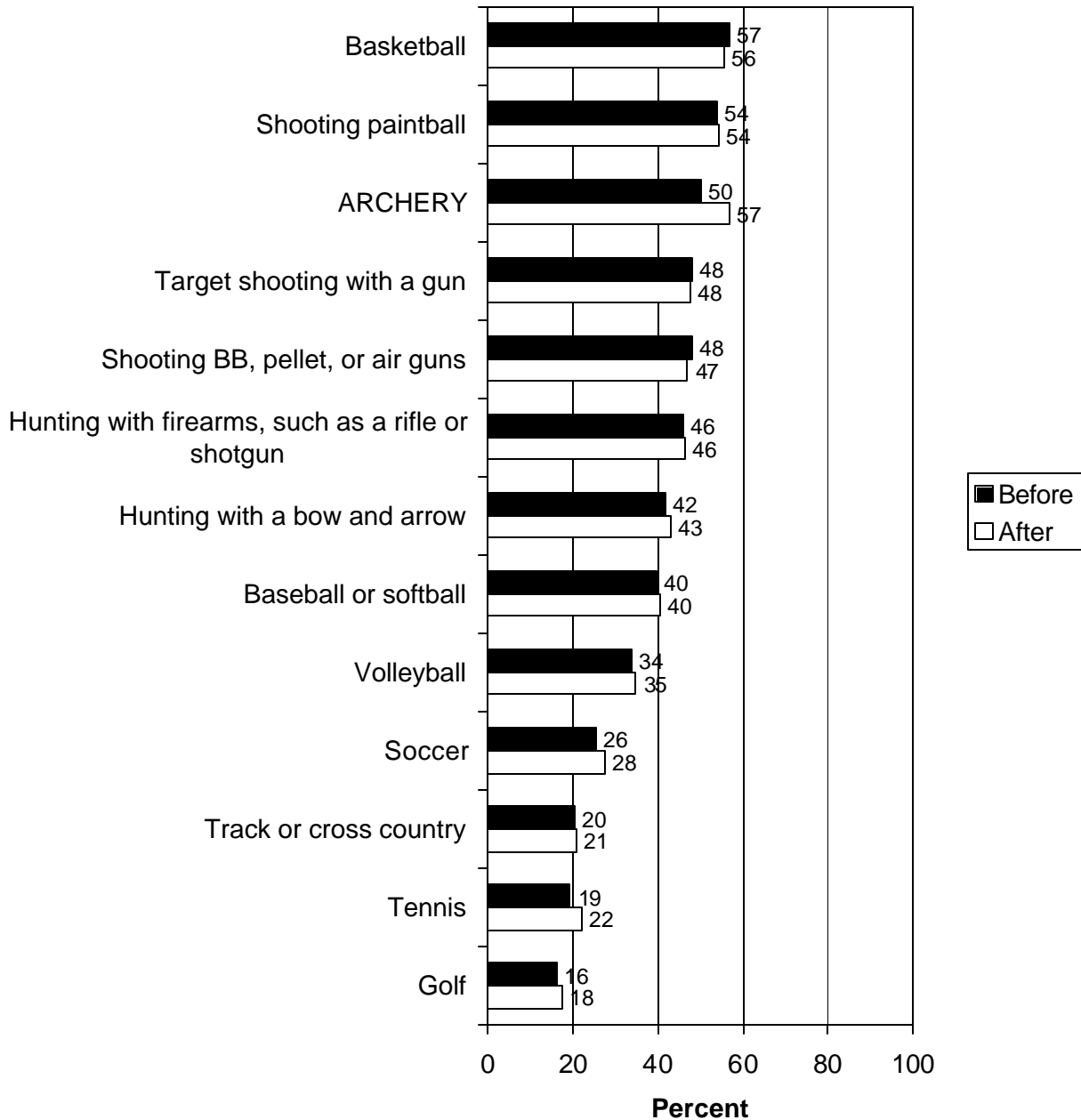


Sample size (n-value) ranges from 1,391 to 1,449.

**Difference in percentage expressing a little or a lot of interest in participating in the following activities before and after taking archery course.**

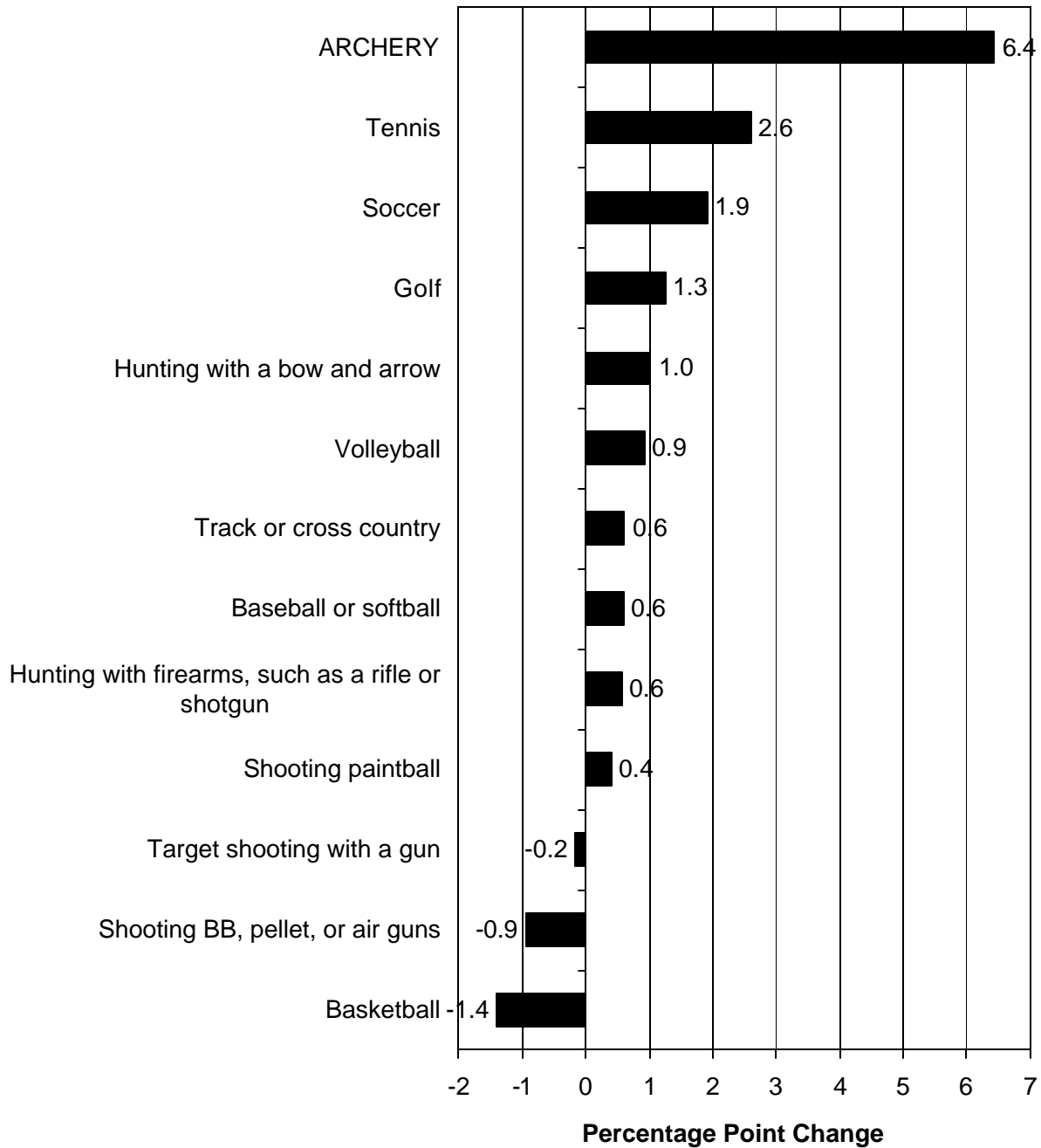


**Comparison of interest (a lot) in the following activities or sports before and after taking archery course.**

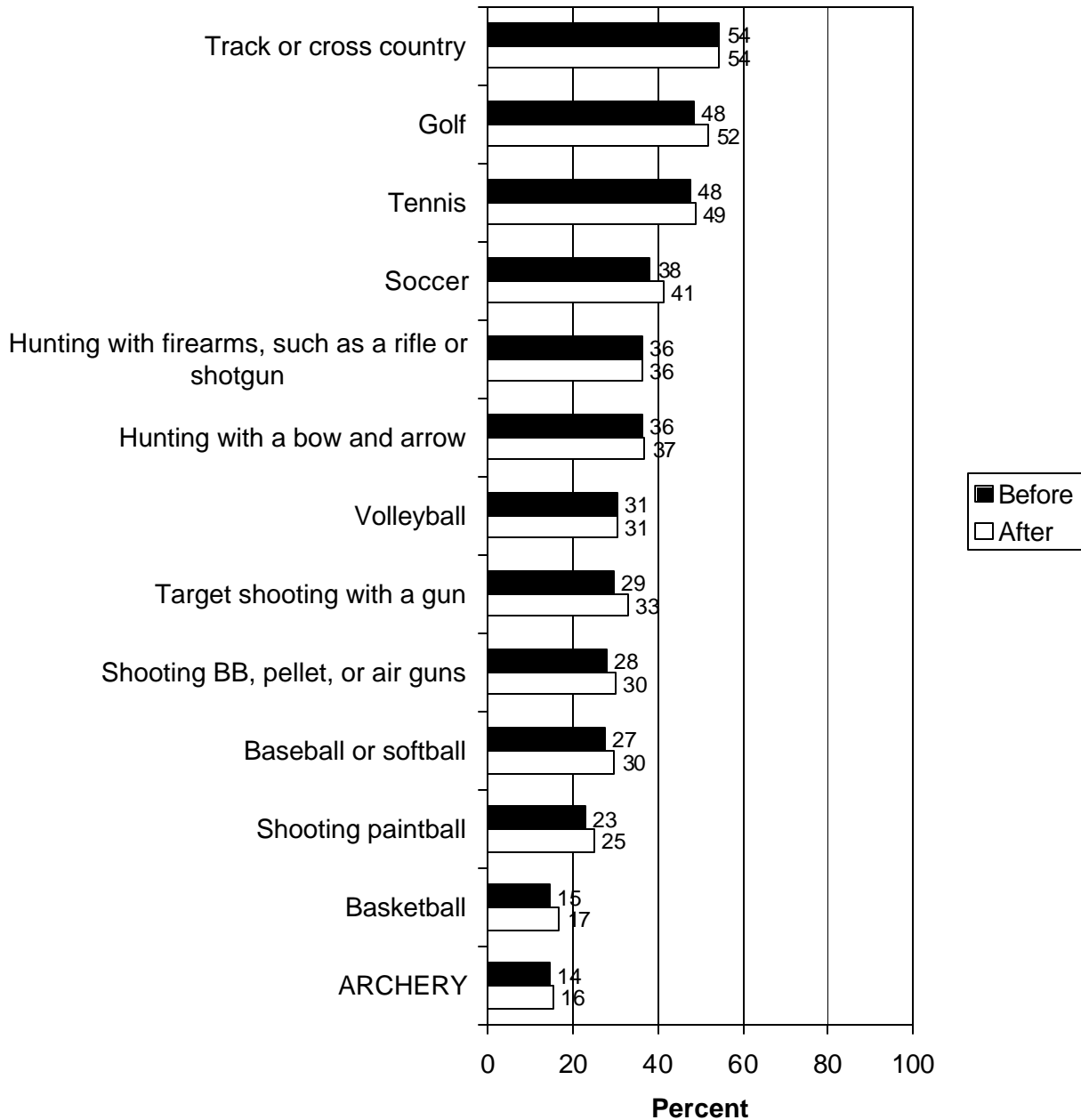


Sample size (n-value) ranges from 1,391 to 1,449.

**Difference in percentage expressing a lot of interest in participating in the following activities before and after taking archery course.**

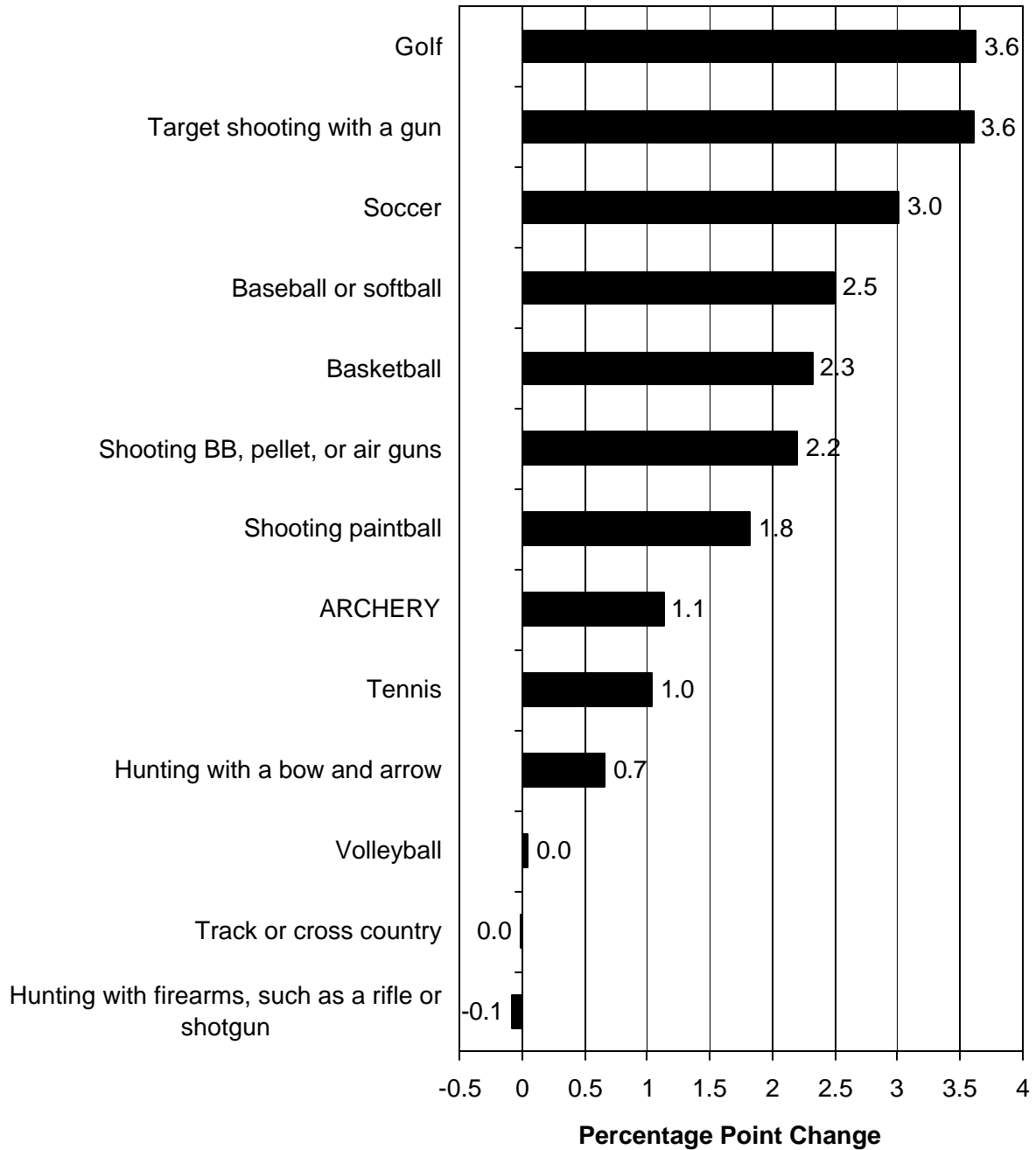


**Comparison of interest (no interest at all) in the following activities or sports before and after taking archery course.**

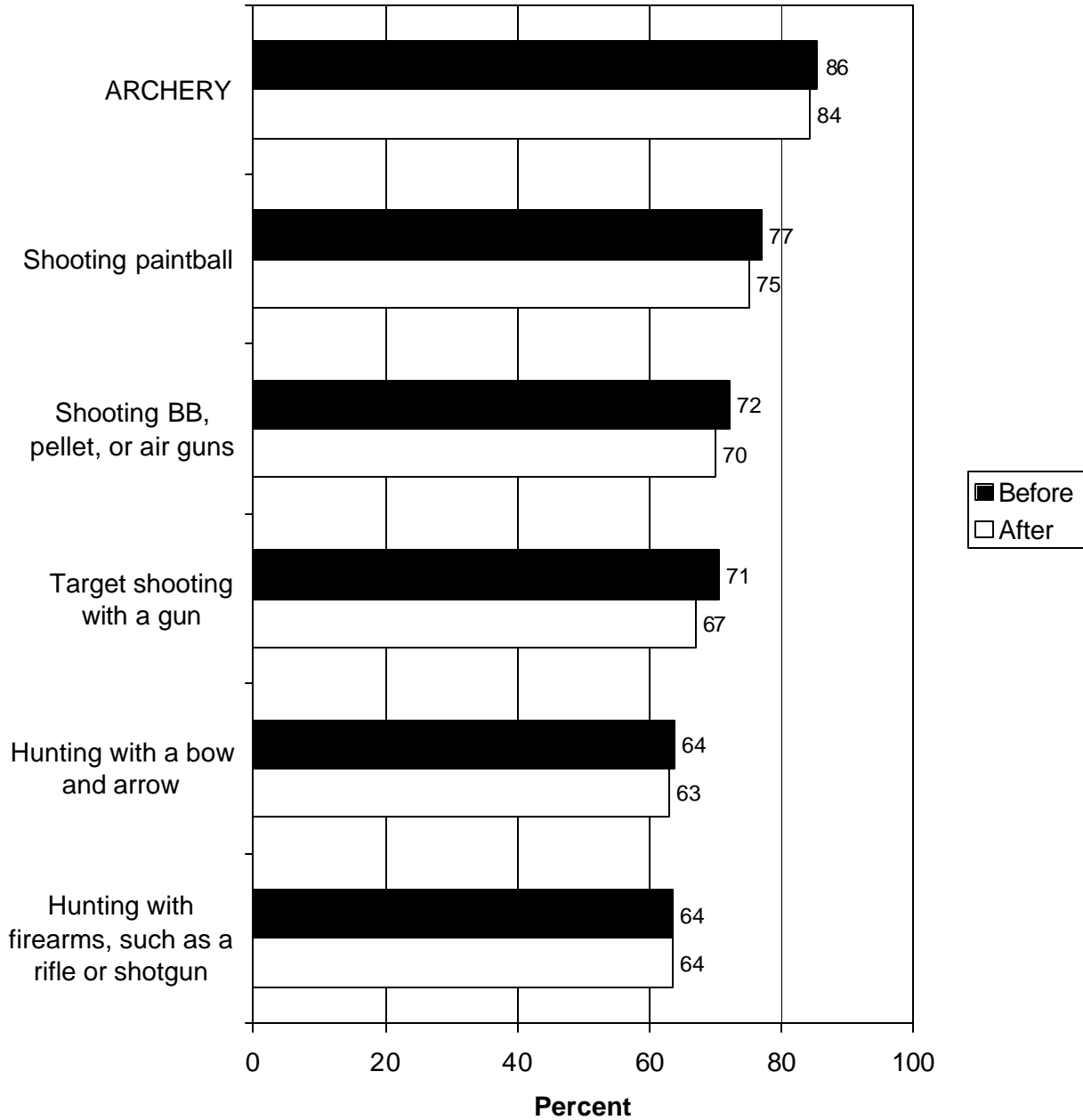


Sample size (n-value) ranges from 1,391 to 1,449.

**Difference in percentage expressing no interest in participating in the following activities before and after taking archery course.**

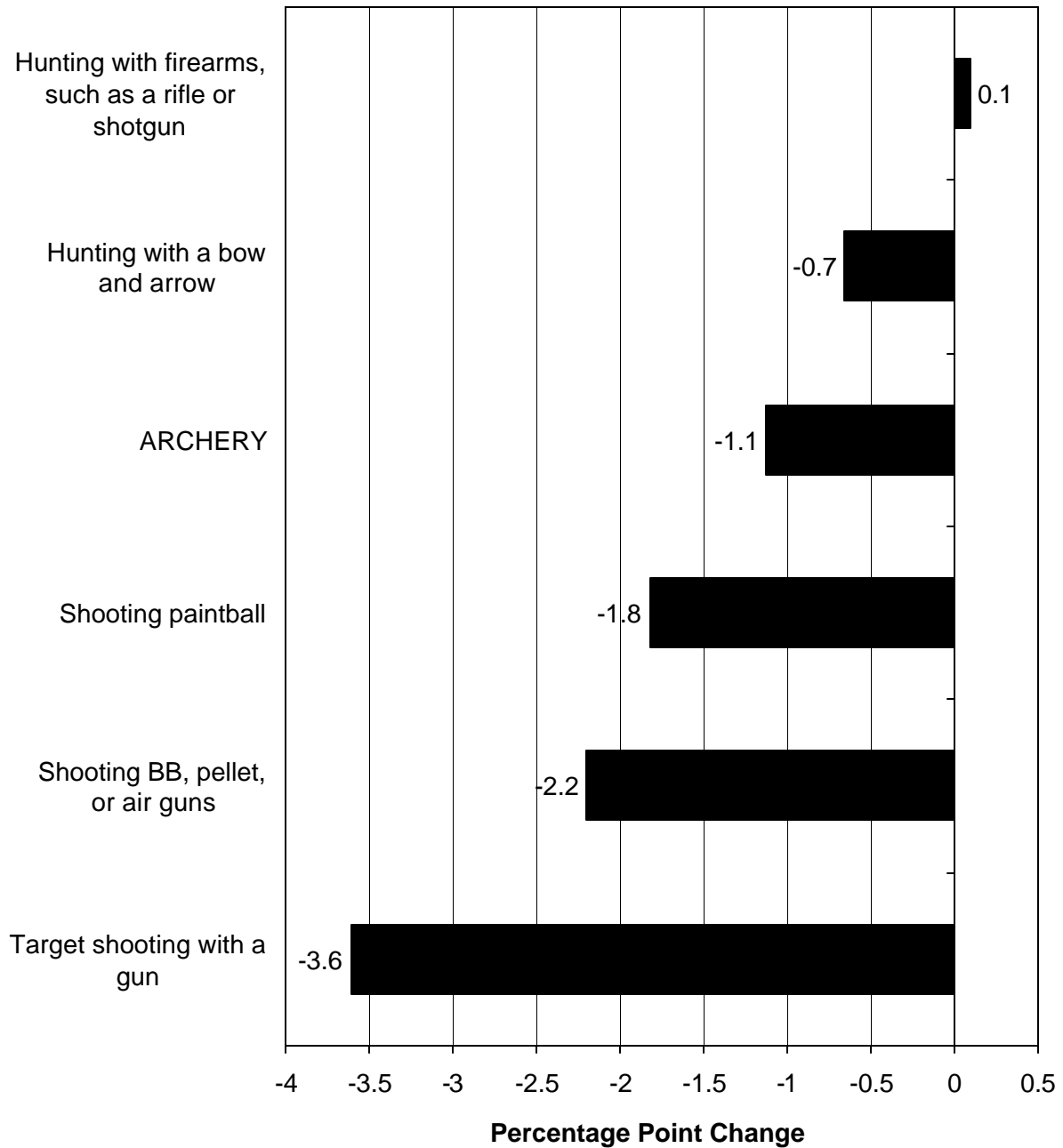


**Comparison of interest (a little or a lot) in the following shooting sports before and after taking archery course.**

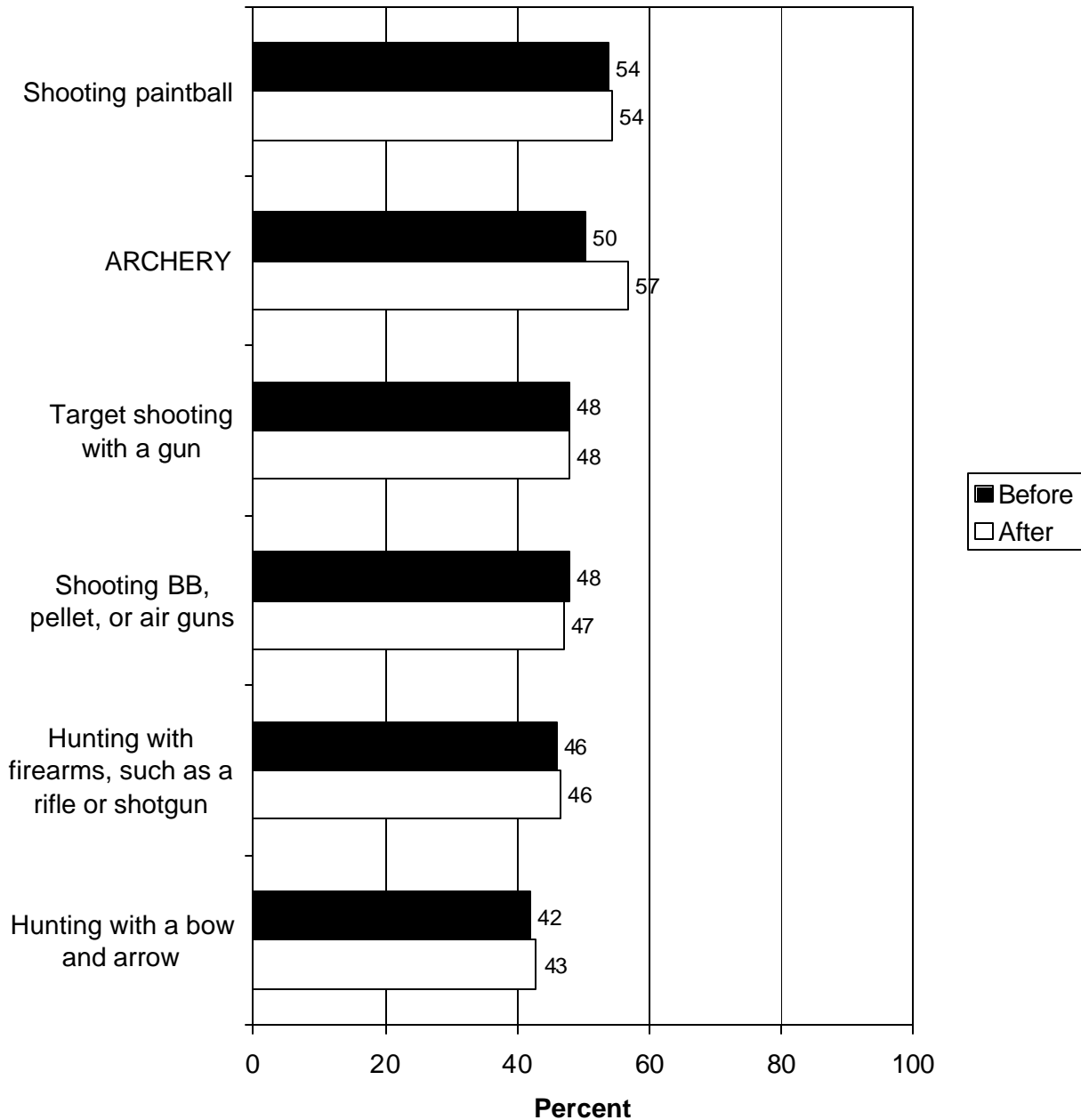


Sample size (n-value) ranges from 1,391 to 1,449.

**Difference in percentage expressing a little or a lot of interest in participating in the following shooting sports before and after taking archery course.**

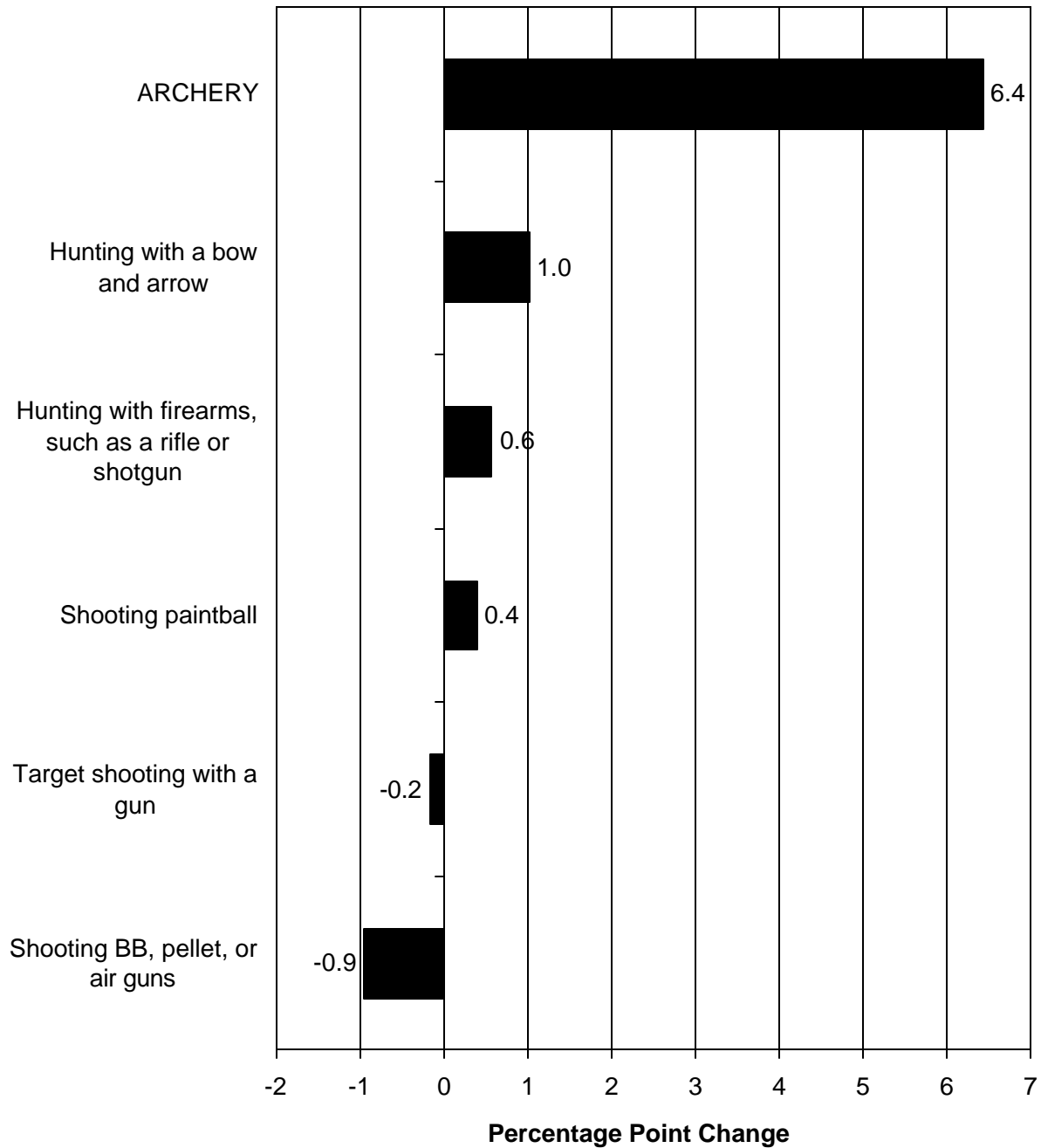


### Comparison of interest (a lot) in the following shooting sports before and after taking archery course.

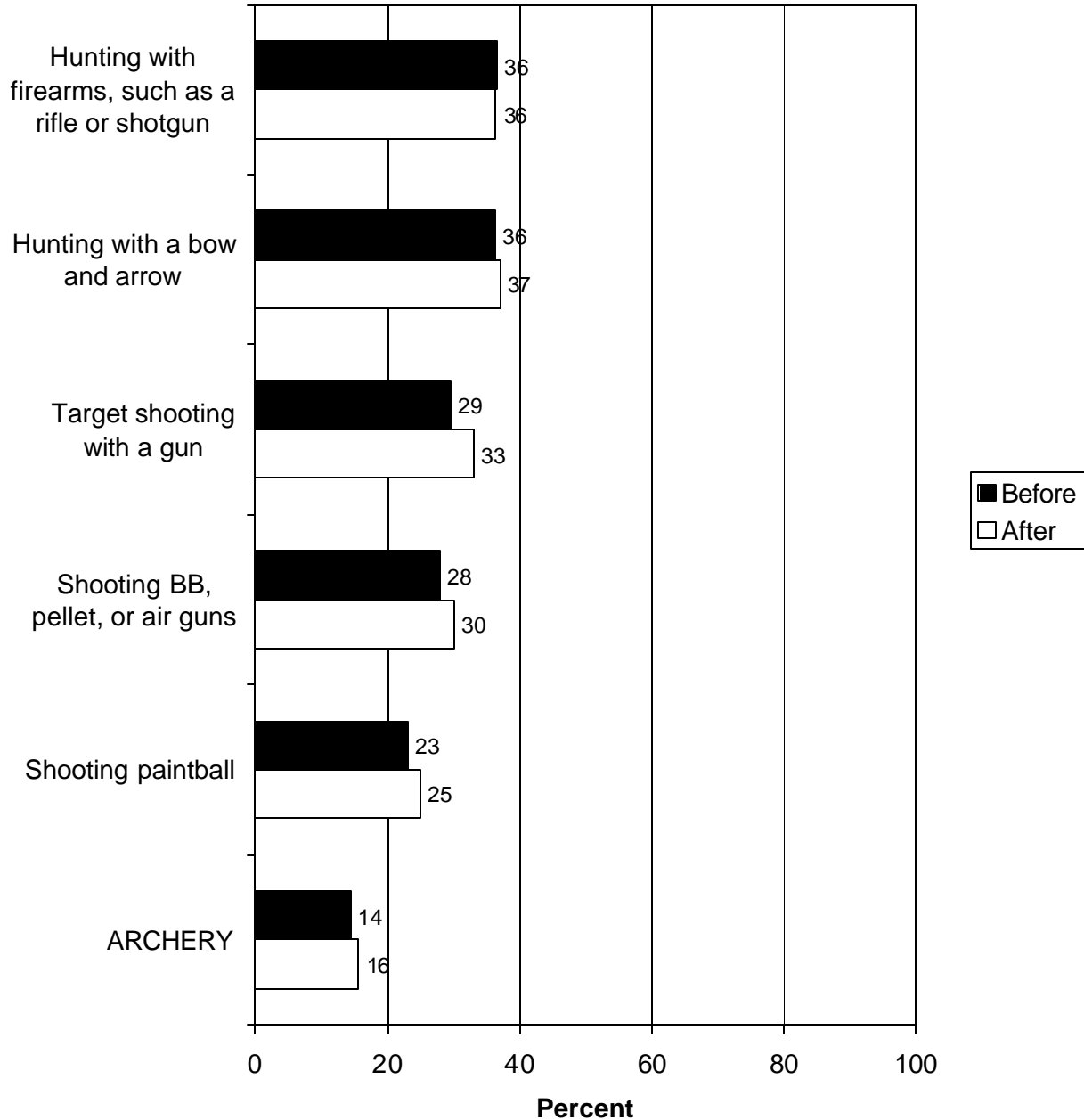


Sample size (n-value) ranges from 1,391 to 1,449.

**Difference in percentage expressing a lot of interest in participating in the following shooting sports before and after taking archery course.**

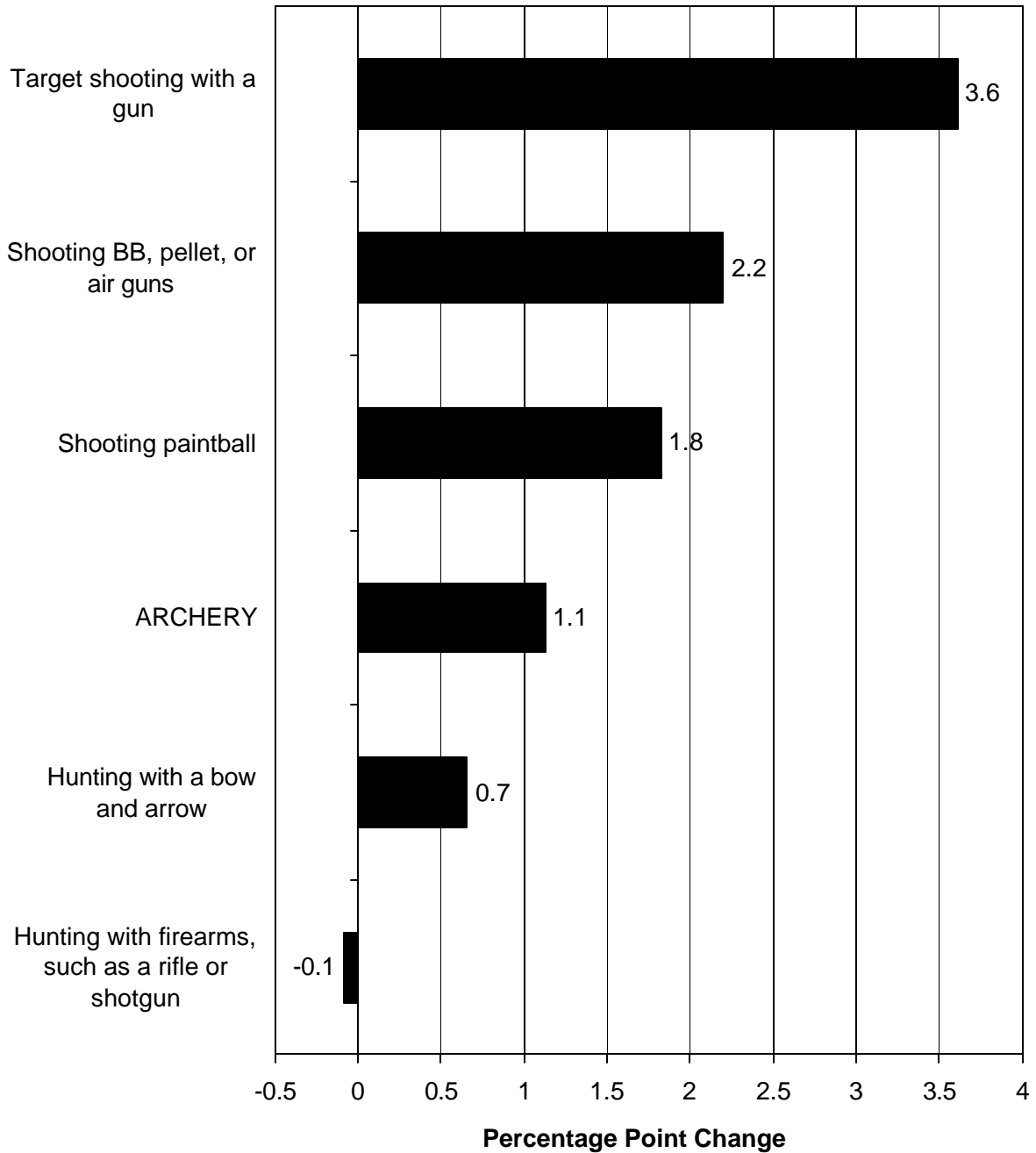


**Comparison of interest (no interest at all) in the following shooting sports before and after taking archery course.**

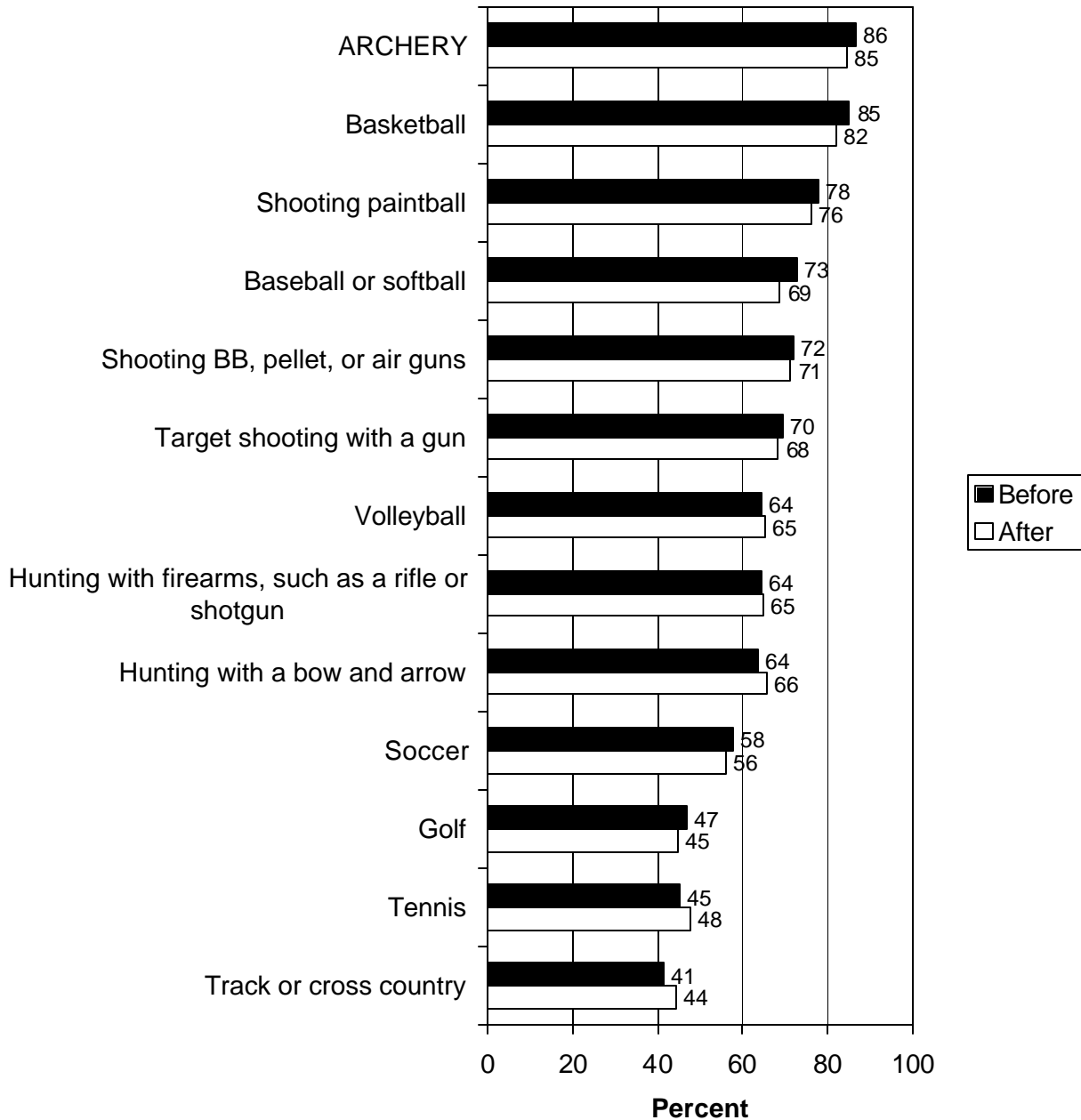


Sample size (n-value) ranges from 1,391 to 1,449.

**Difference in percentage expressing no interest in participating in the following shooting sports before and after taking archery course.**

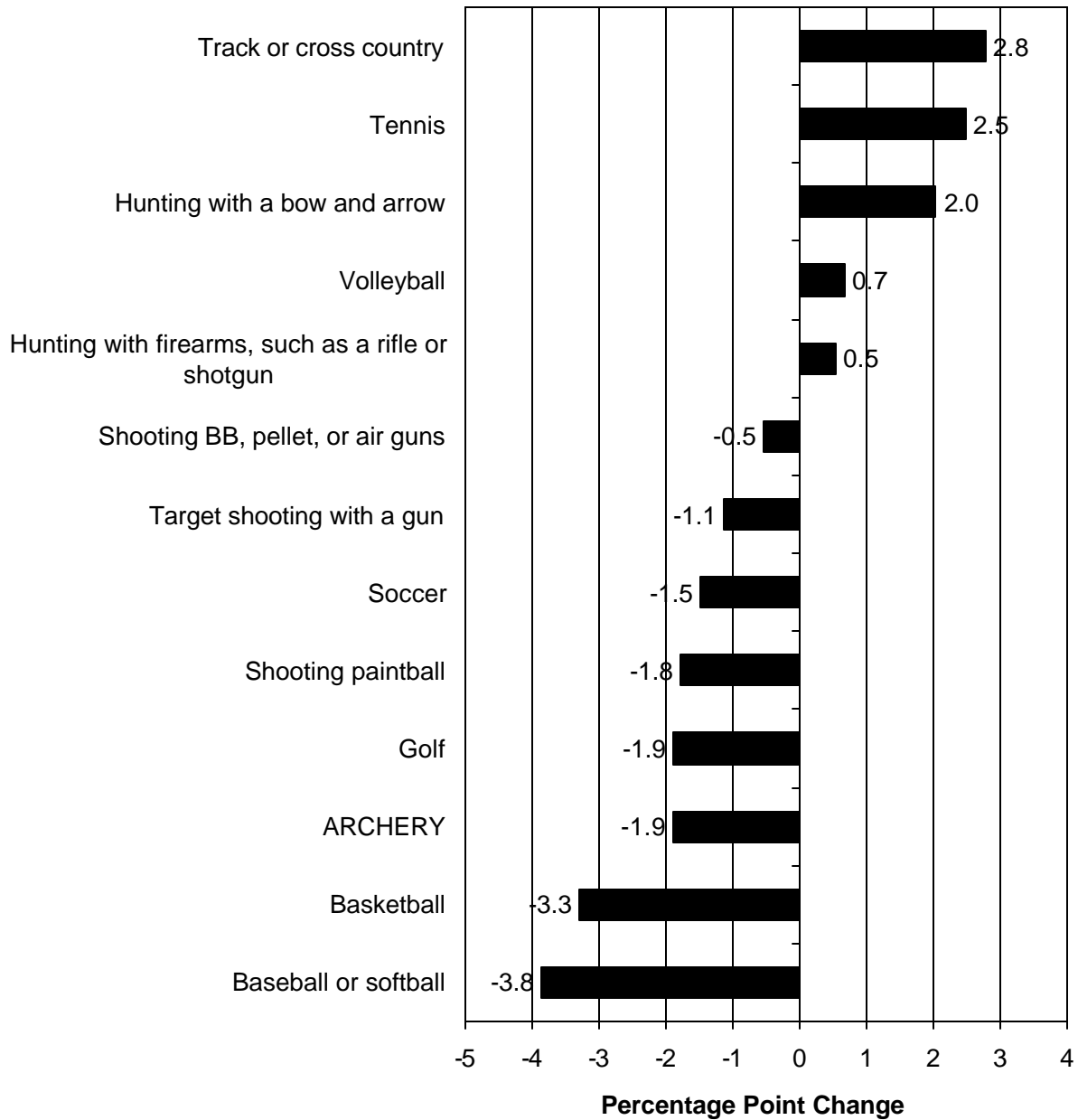


**Comparison of interest (a little or a lot) in the following activities or sports before and after taking archery course (among those who took the archery course 1 year or more previously).**

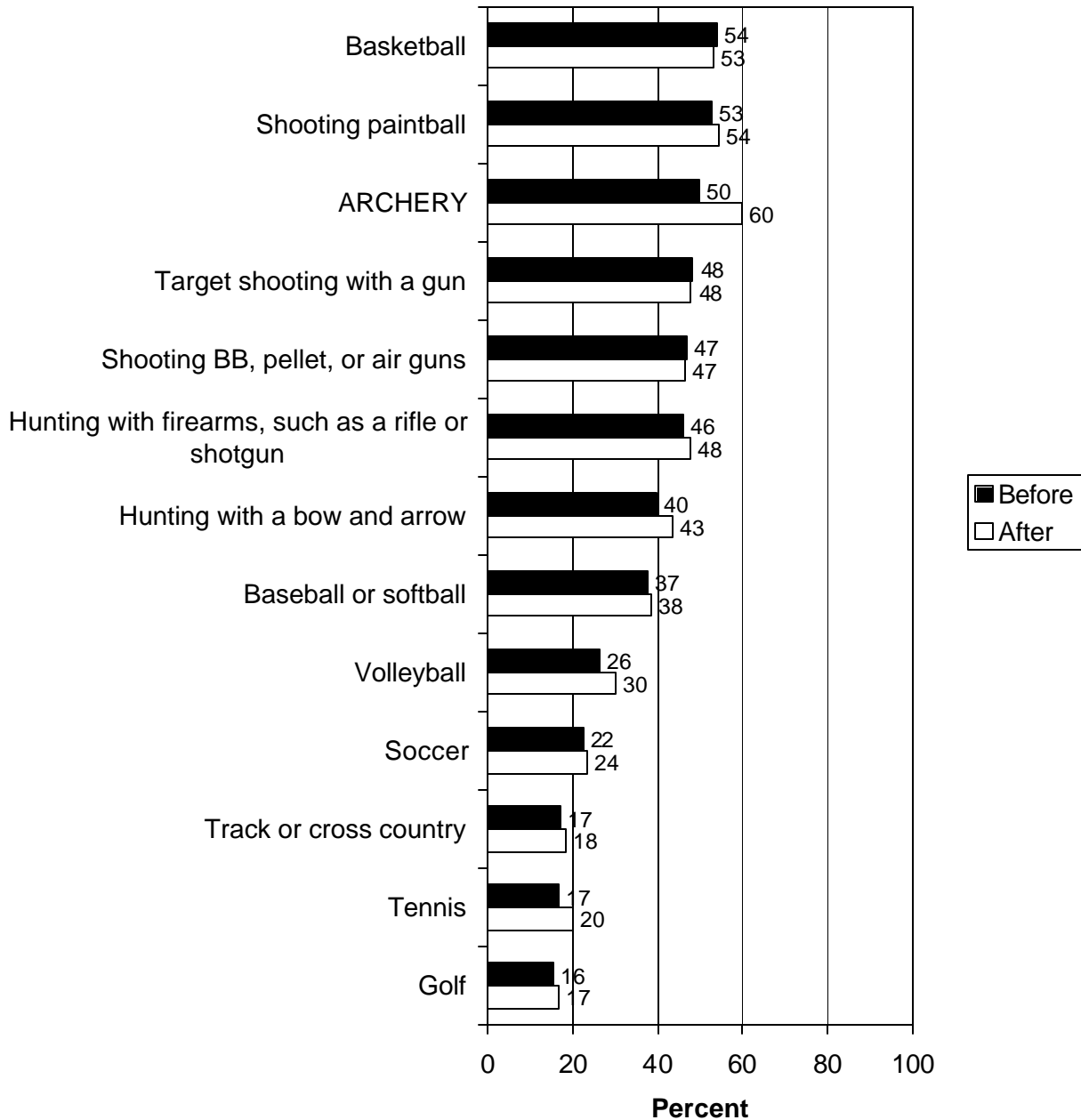


Sample size (n-value) ranges from 499 to 518.

**Difference in percentage expressing a little or a lot of interest in participating in the following activities before and after taking archery course (among those who took the archery course 1 year or more previously).**

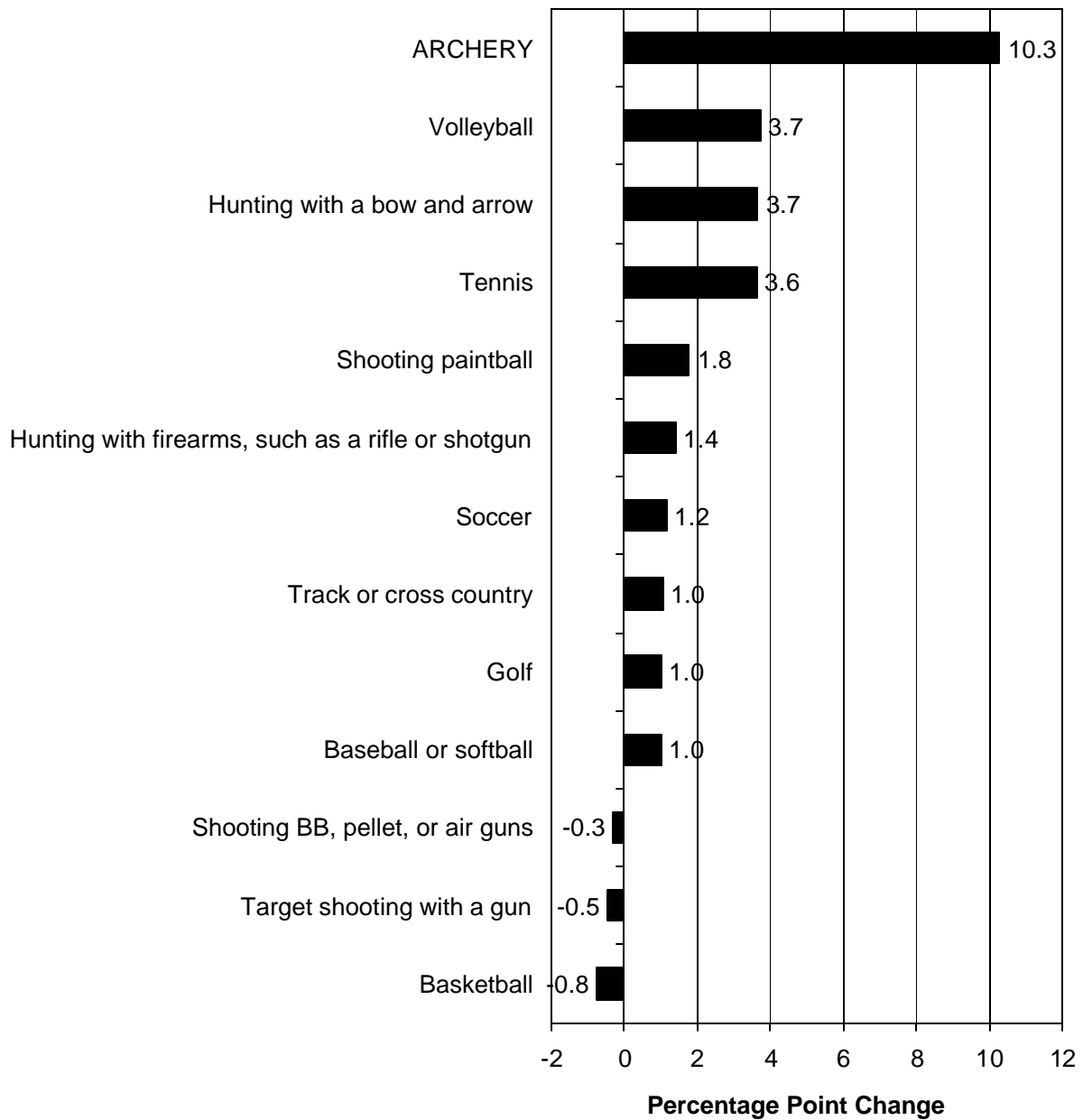


**Comparison of interest (a lot) in the following activities or sports before and after taking archery course (among those who took the archery course 1 year or more previously).**

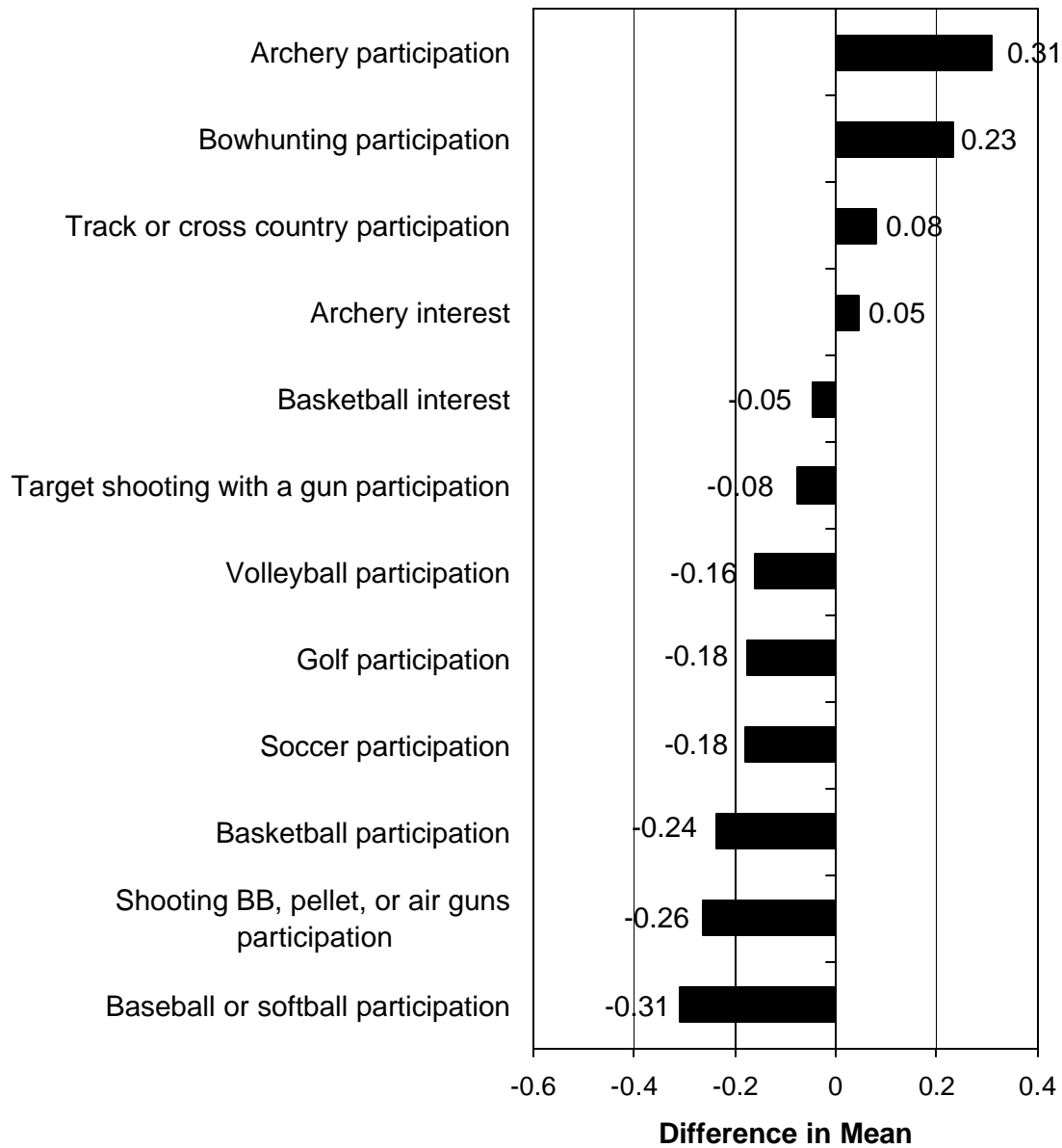


Sample size (n-value) ranges from 499 to 518.

**Difference in percentage expressing a lot of interest in participating in the following activities before and after taking archery course (among those who took the archery course 1 year or more previously).**



**Significant changes (paired t-tests) in sport participation and interest before and after taking archery course (activities and sports for which changes were insignificant are not shown).**

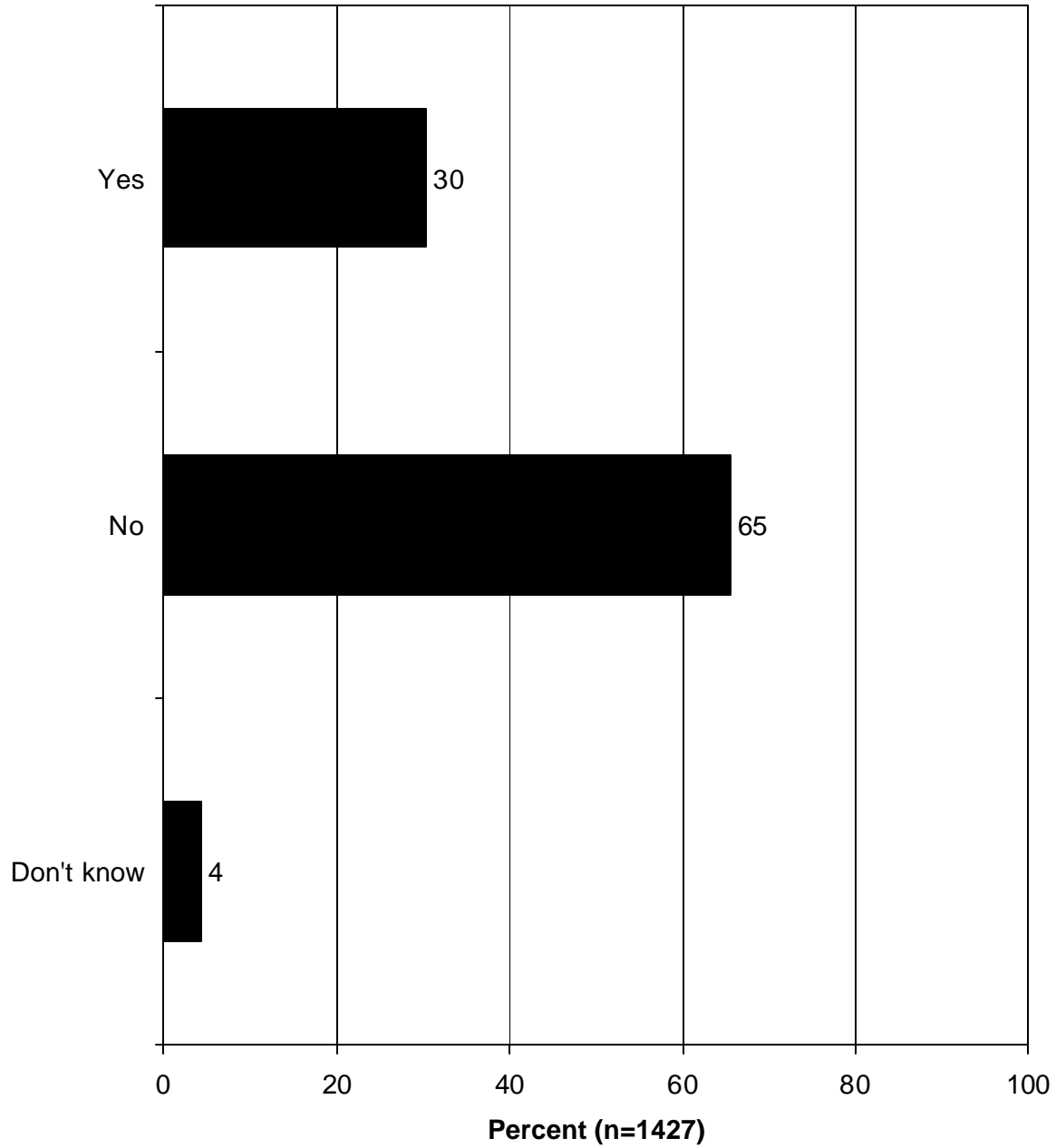


## PURCHASING ARCHERY EQUIPMENT

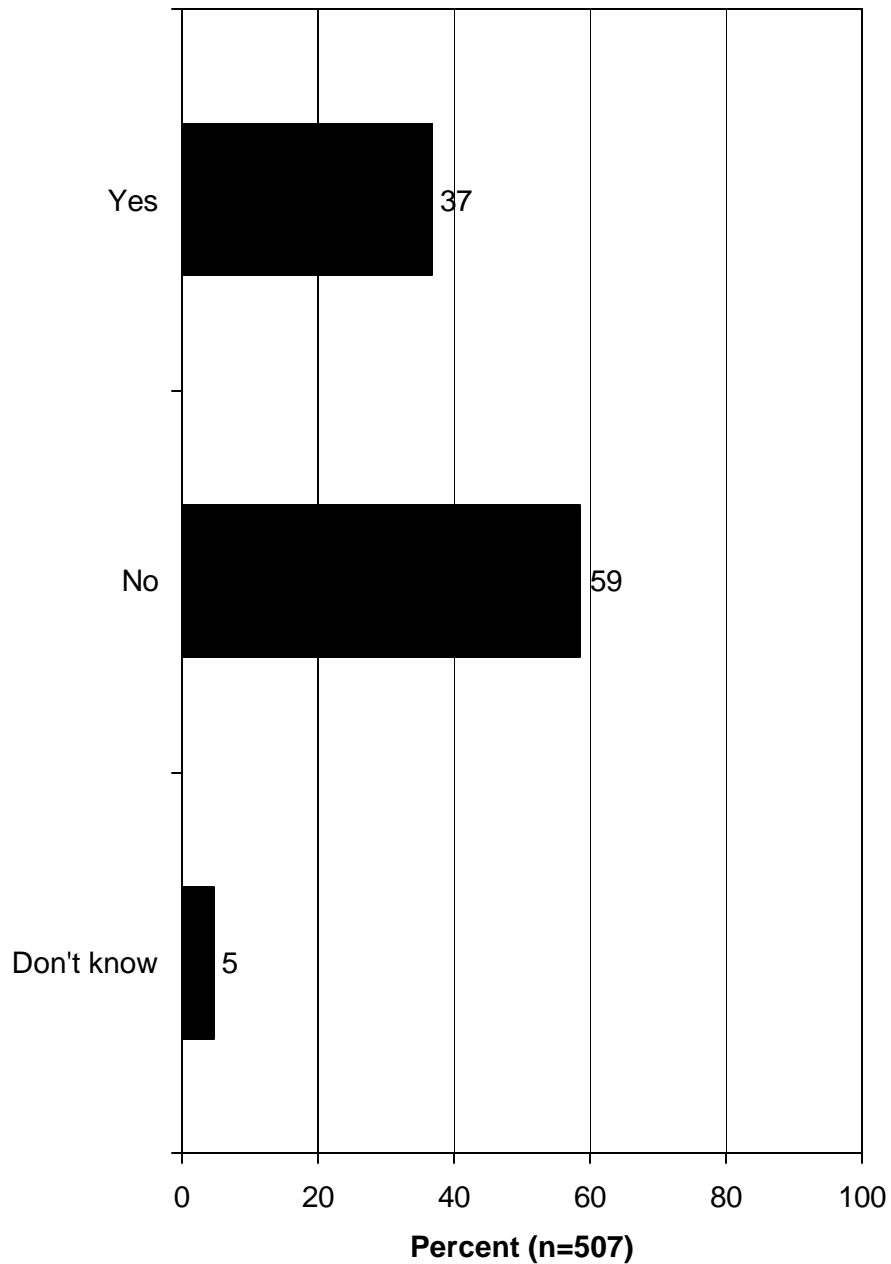
- Inability to find a store selling archery equipment is not a big constraint: an overwhelming majority (83%) of those who searched for a store found one selling archery equipment.
- About a fifth of students had purchased archery equipment subsequent to taking the course.

- About a third of students (30%) had looked for a store selling archery equipment, and a large percentage of them (73% of those who had looked for a store) found a store selling the archery equipment for which they were looking (83% had actually found a store selling archery equipment, but apparently not all stores had the specific equipment for which the students were looking).
  - A slightly higher percentage of those who took the archery course 1 or more years previously (37%) had looked for a store selling archery equipment.
- About a fifth of students (21%) had purchased archery equipment since taking archery in school. Of those who purchased equipment, 69% bought a bow and arrows, 46% bought targets, and 25% bought repair kits.
  - About a quarter (26%) of those who took the archery course 1 or more years previously had purchased equipment since taking archery.
- Among those who did not purchase archery equipment, cost was the leading reason (other than simply lacking interest in archery or bowhunting).

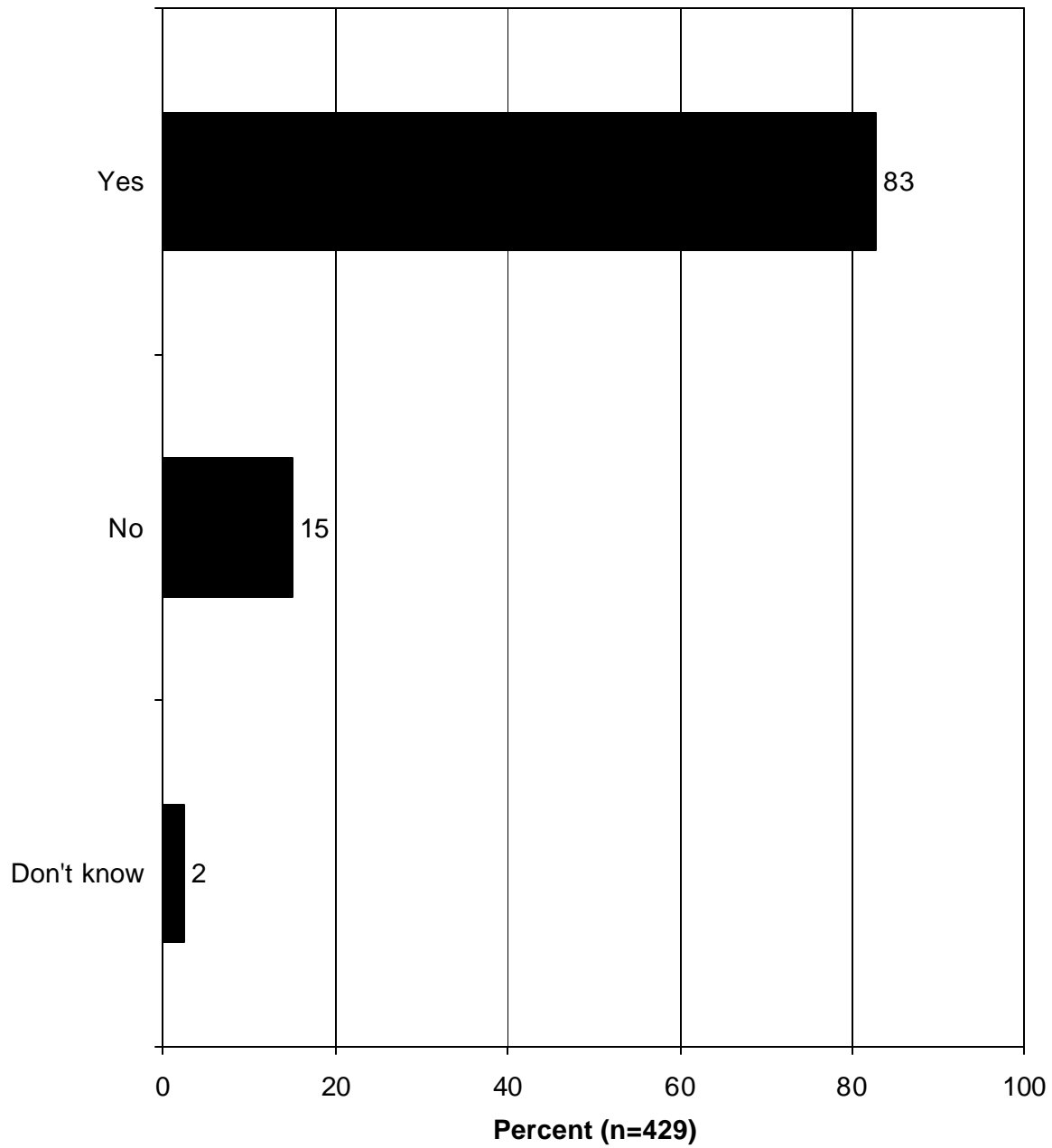
### Have you looked for a store that sells archery equipment?



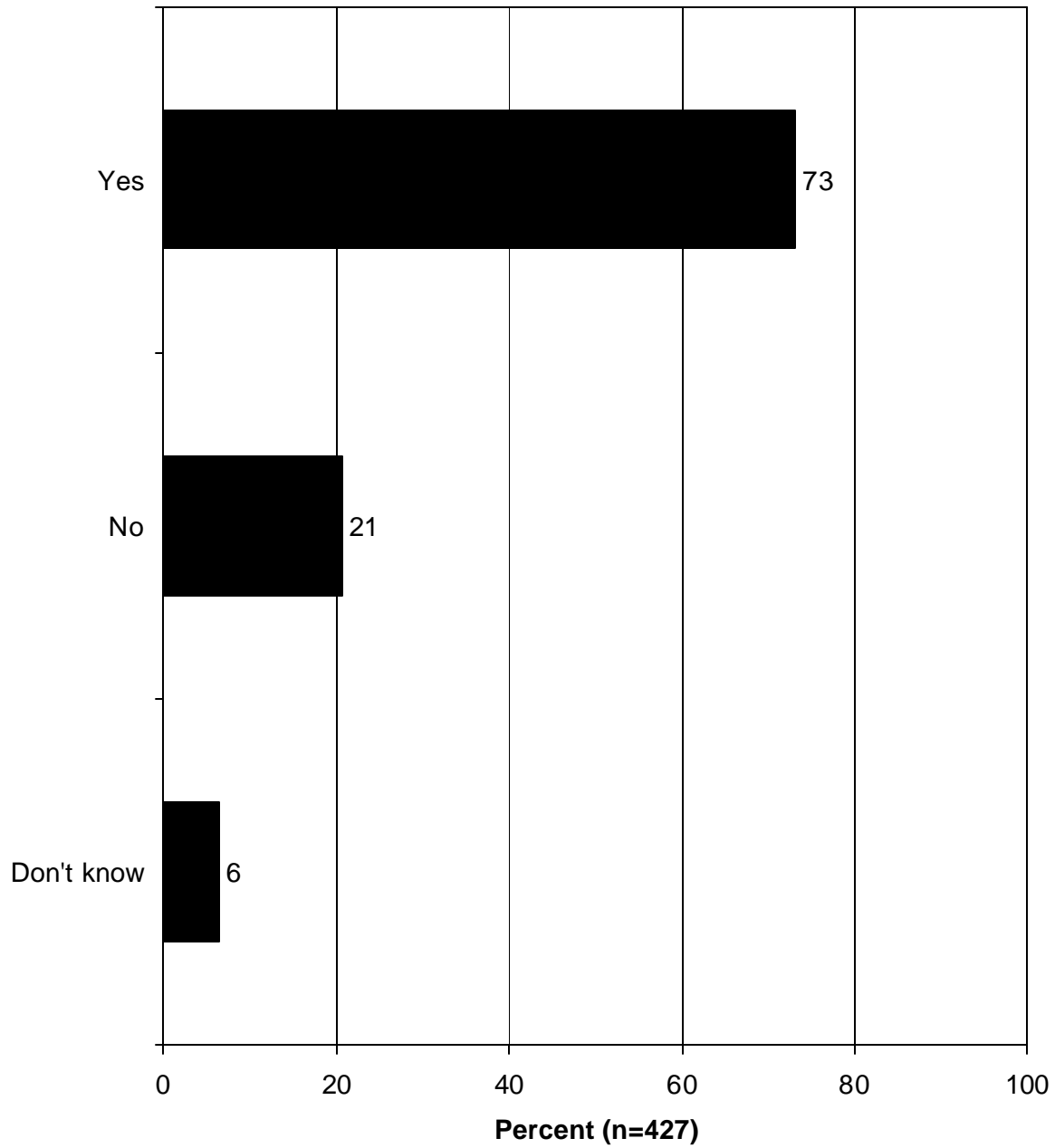
**Have you looked for a store that sells archery equipment (of those who took the archery course 1 or more years previously)?**



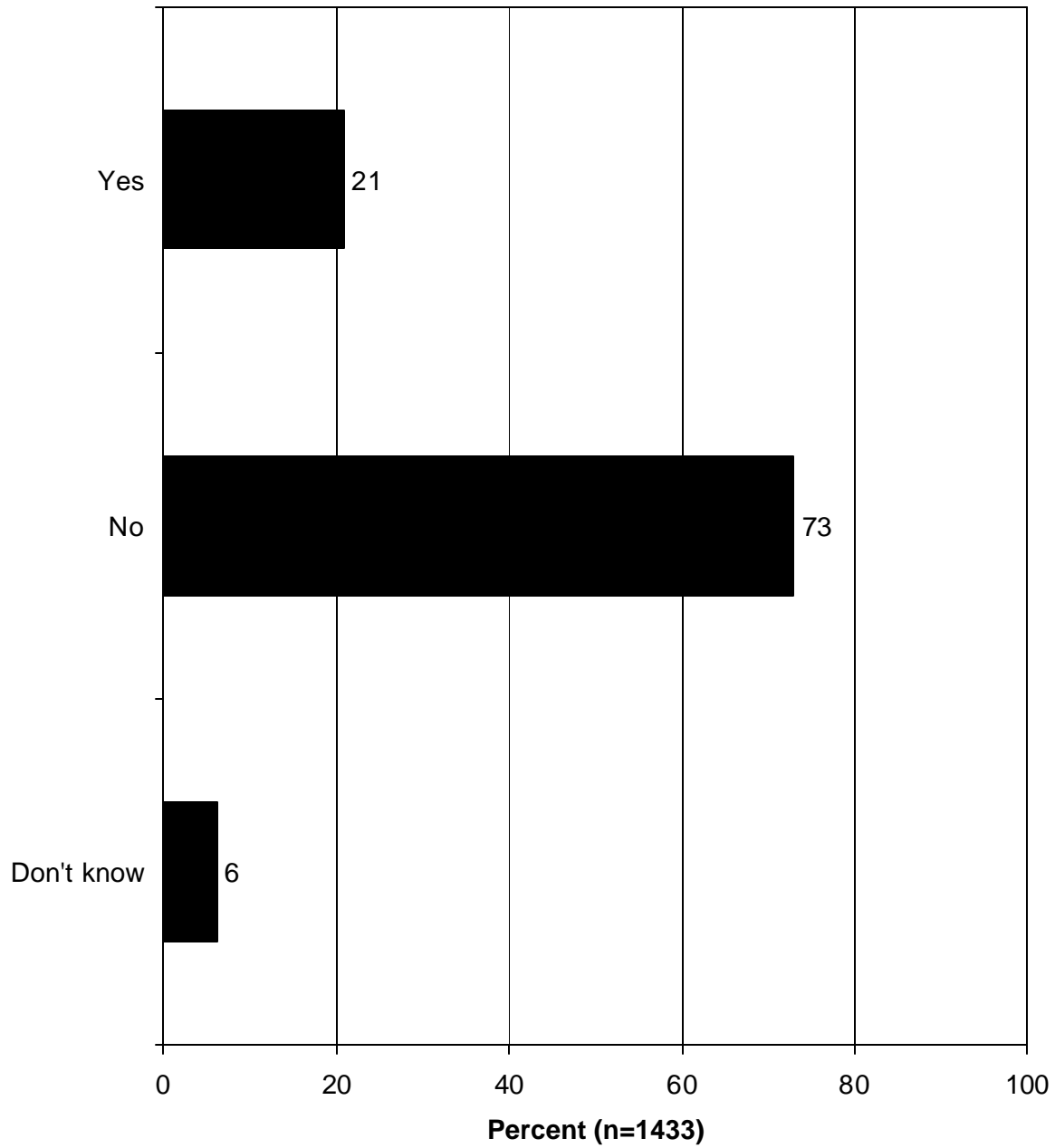
### Did you find a store that sells archery equipment?



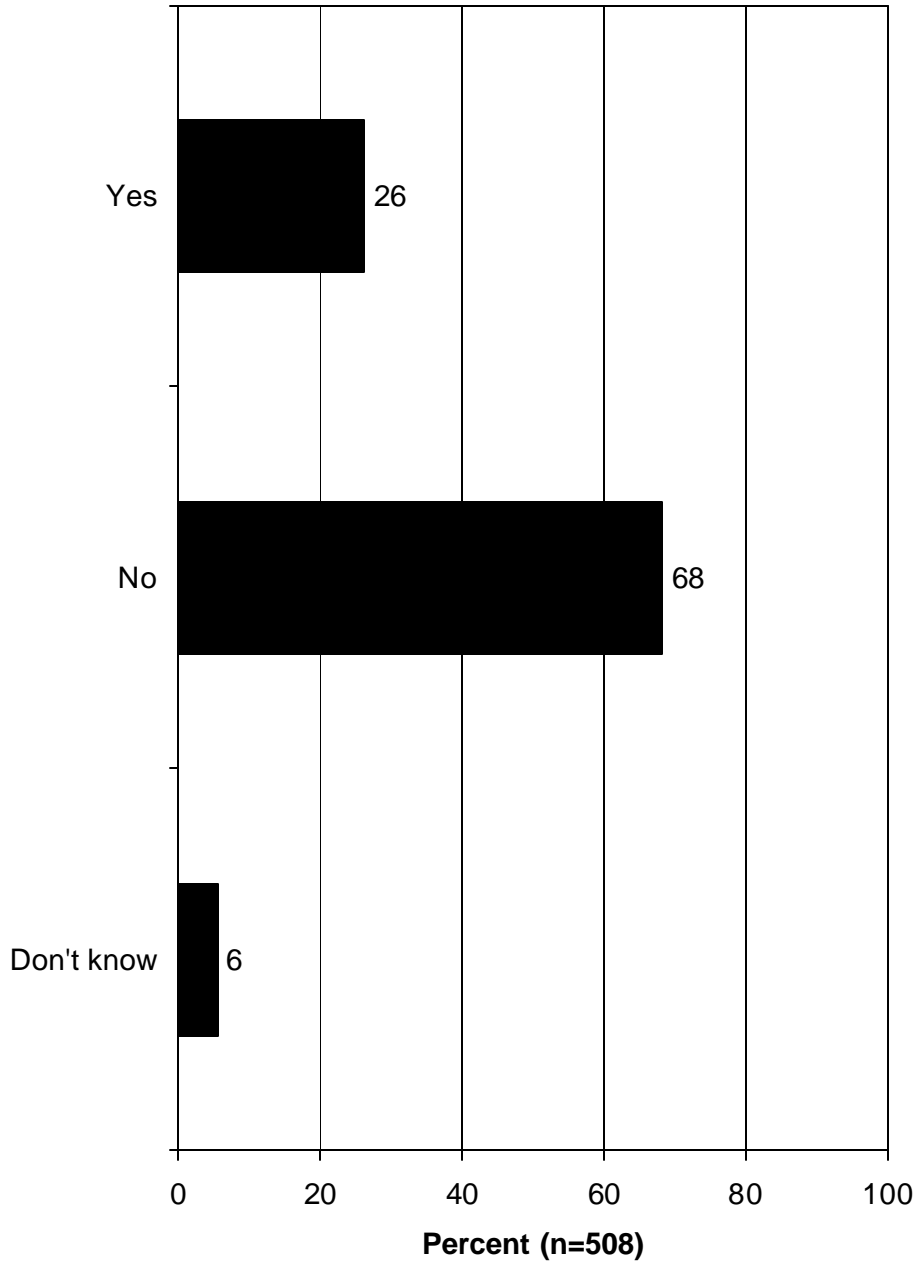
**Did the store have the archery equipment you were looking for?**



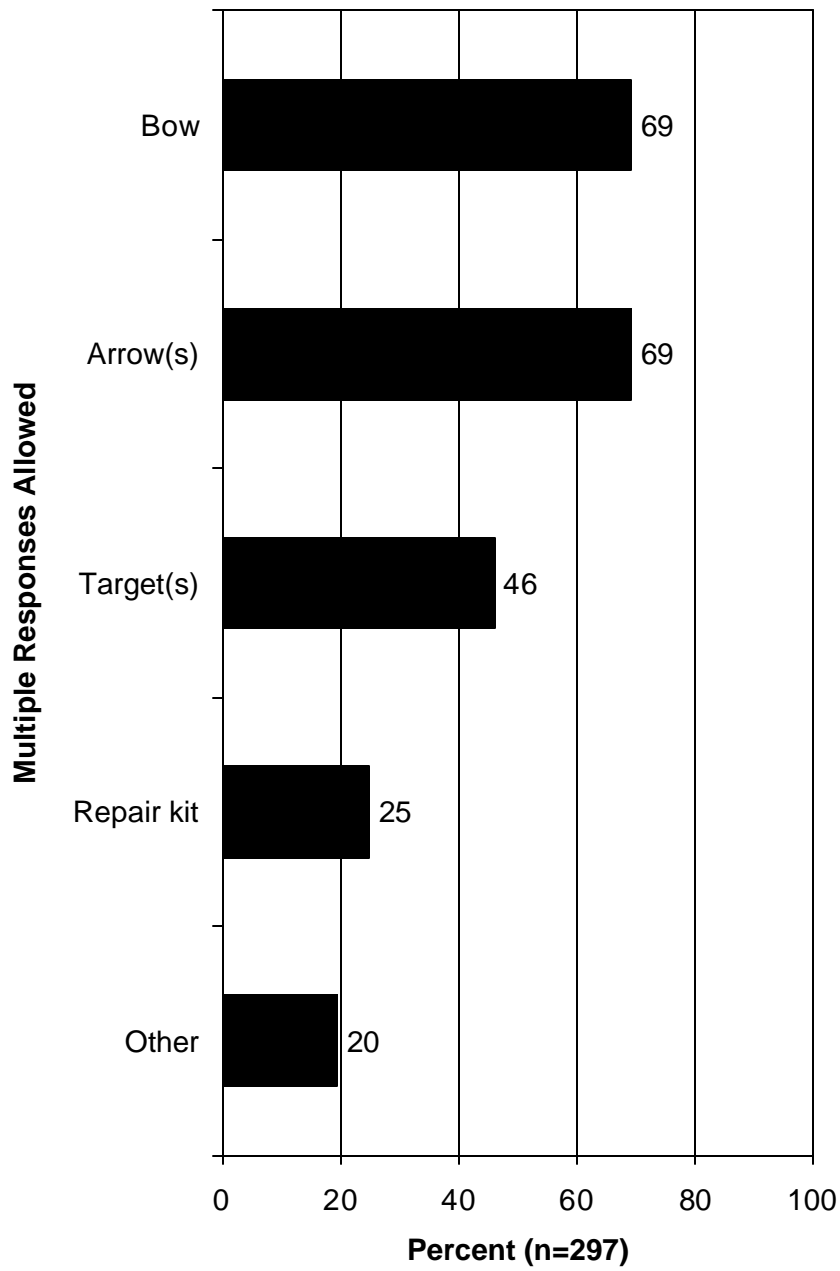
### Have you purchased archery equipment since taking archery in school?



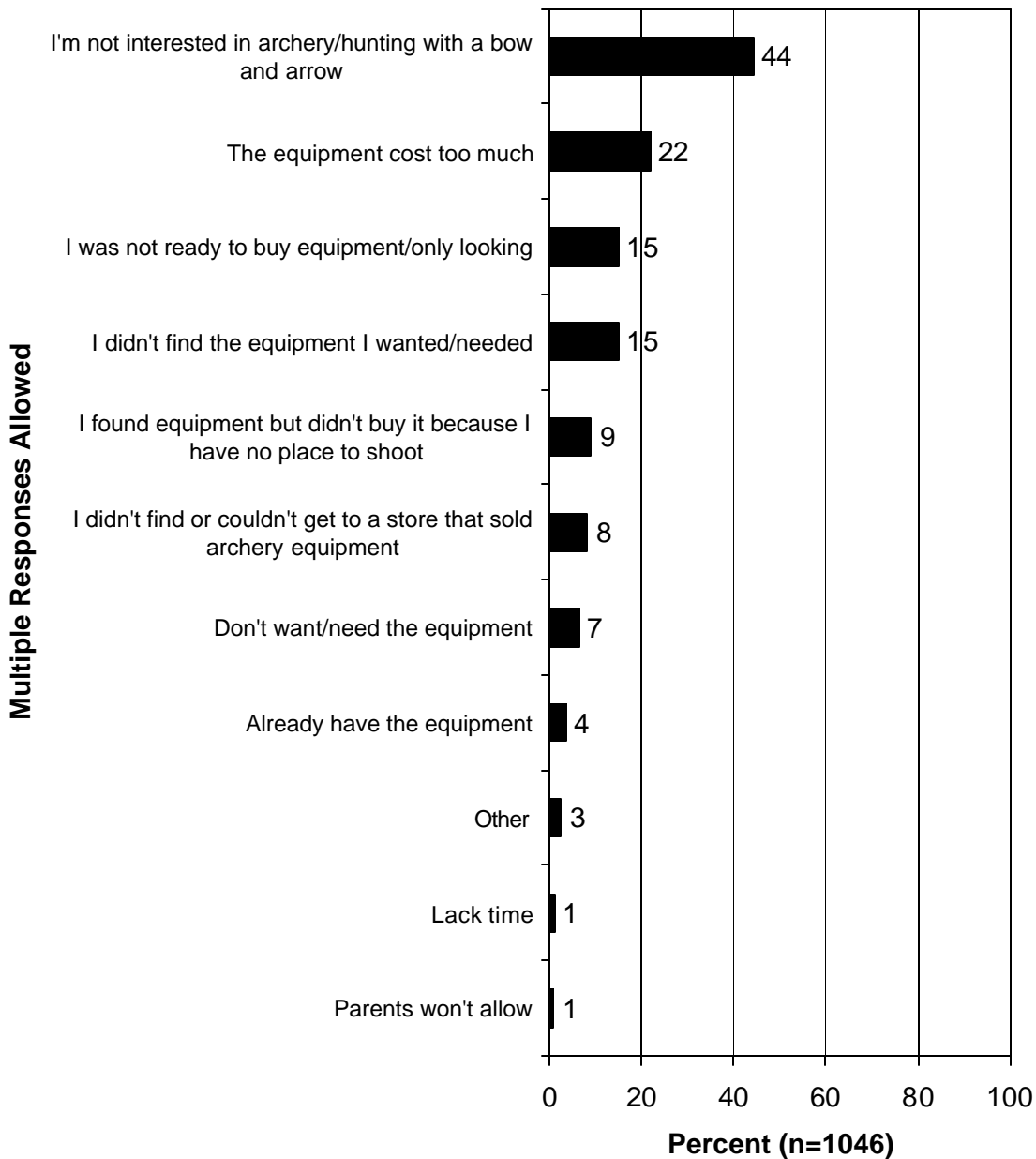
**Have you purchased archery equipment since taking archery in school (of those who took the archery course 1 or more years previously)?**



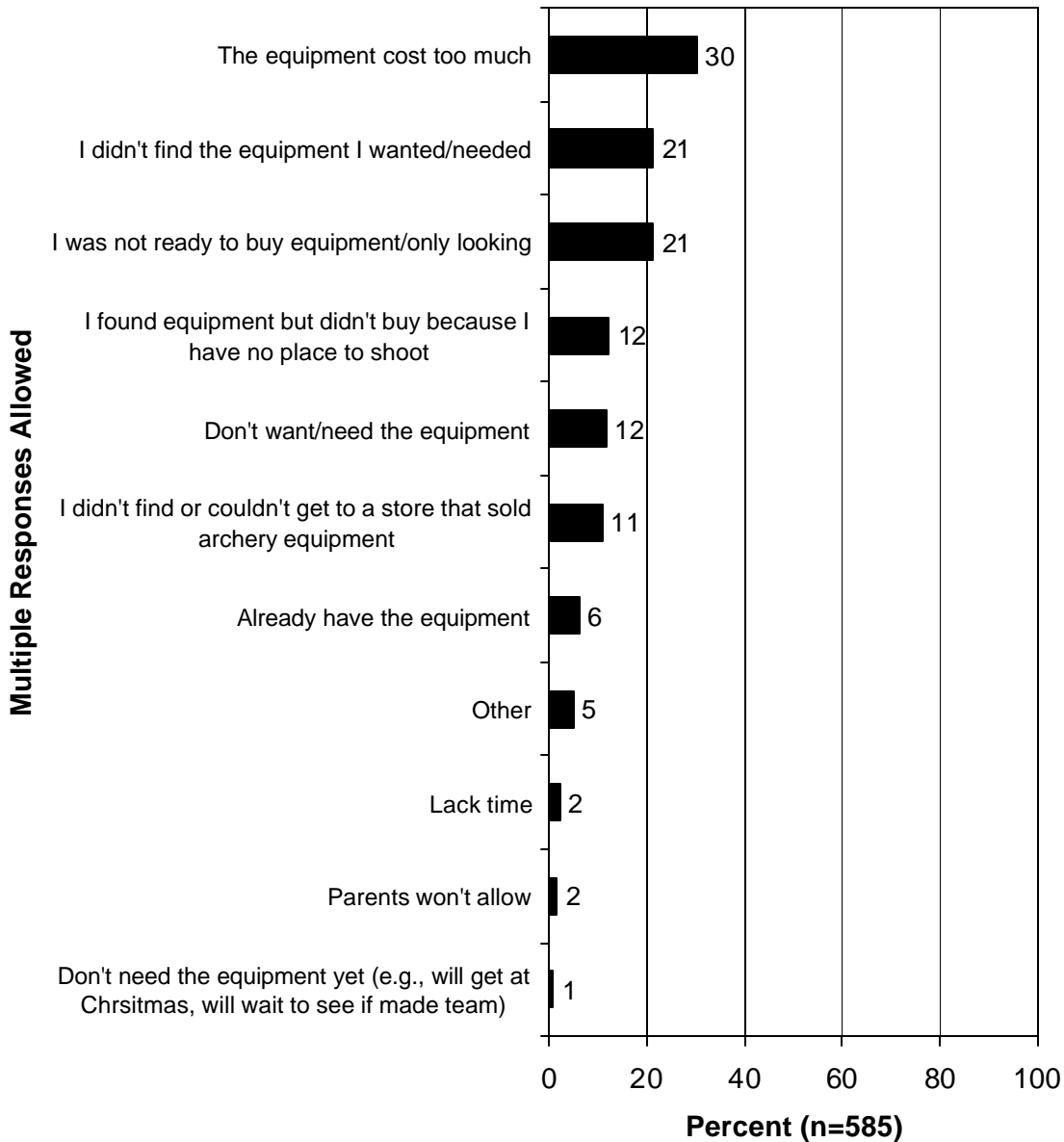
### If yes, what equipment have you bought?



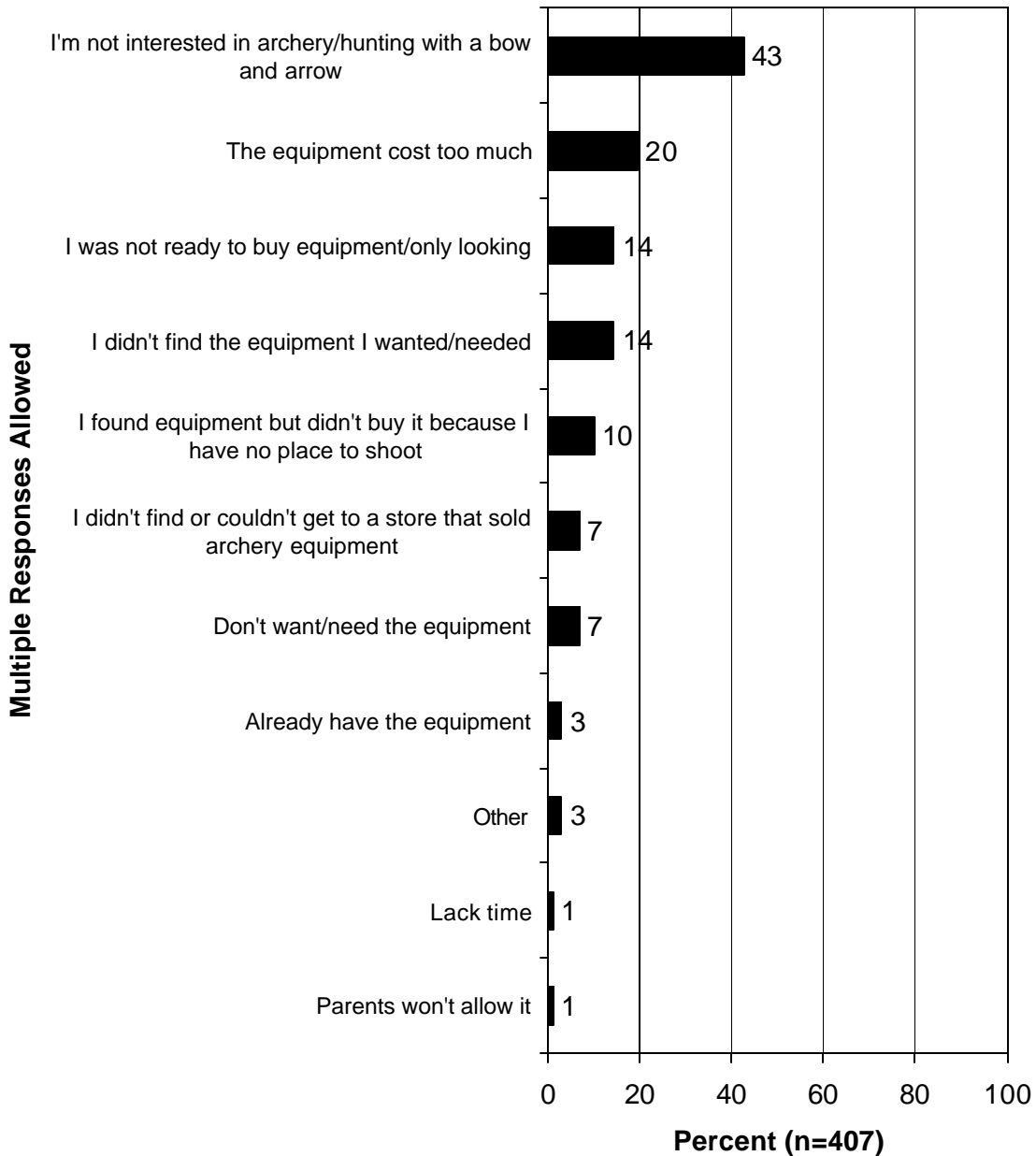
### If no (you didn't buy any archery equipment), what was your reason for not buying the equipment?



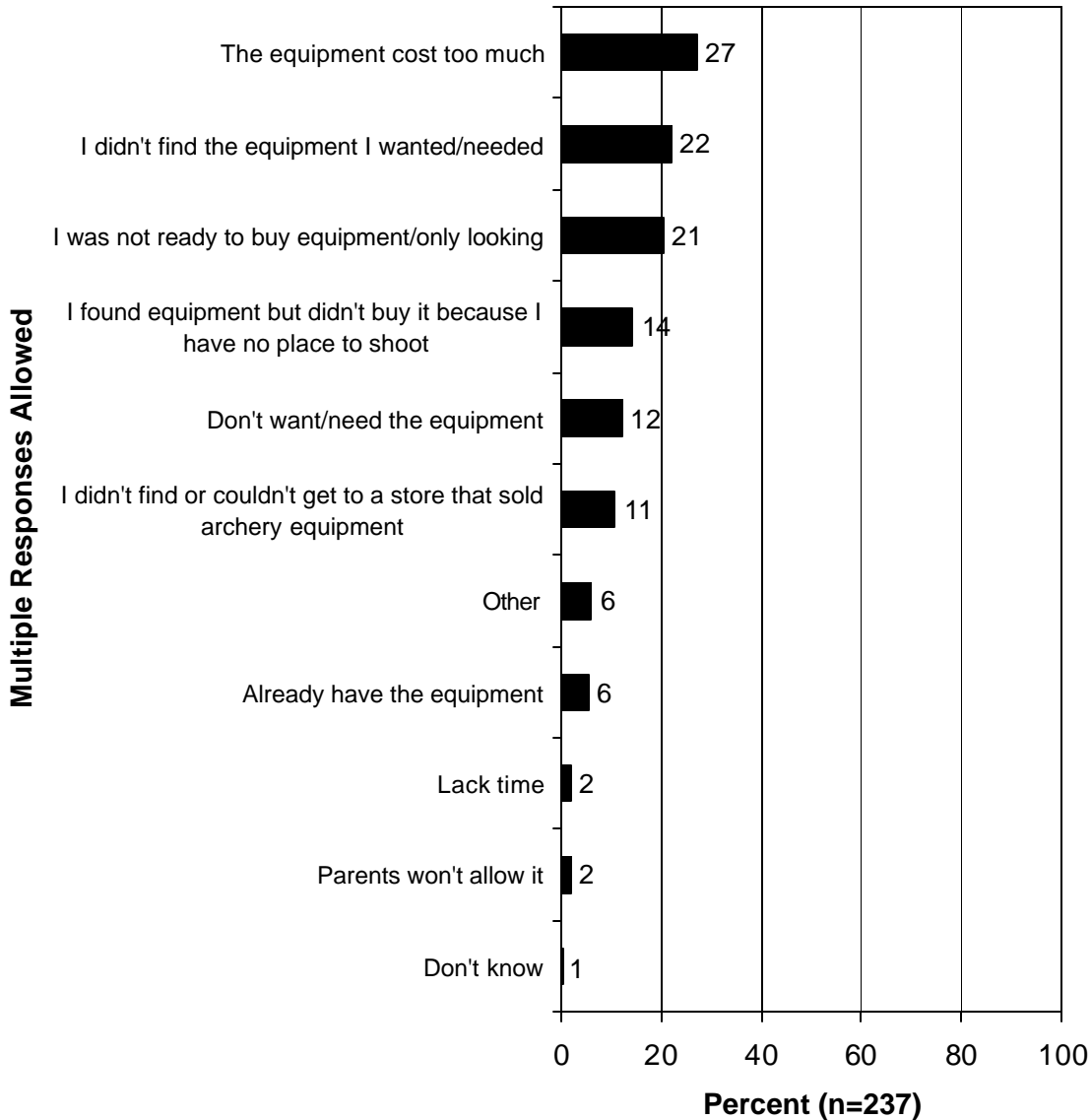
**If no (you didn't buy any archery equipment), what was your reason for not buying the equipment?  
(Excluding those who said that they were not interested in archery or bowhunting.)**



**If no (you didn't buy any archery equipment), what was your reason for not buying the equipment (of those who took the course 1 or more years previously)?**



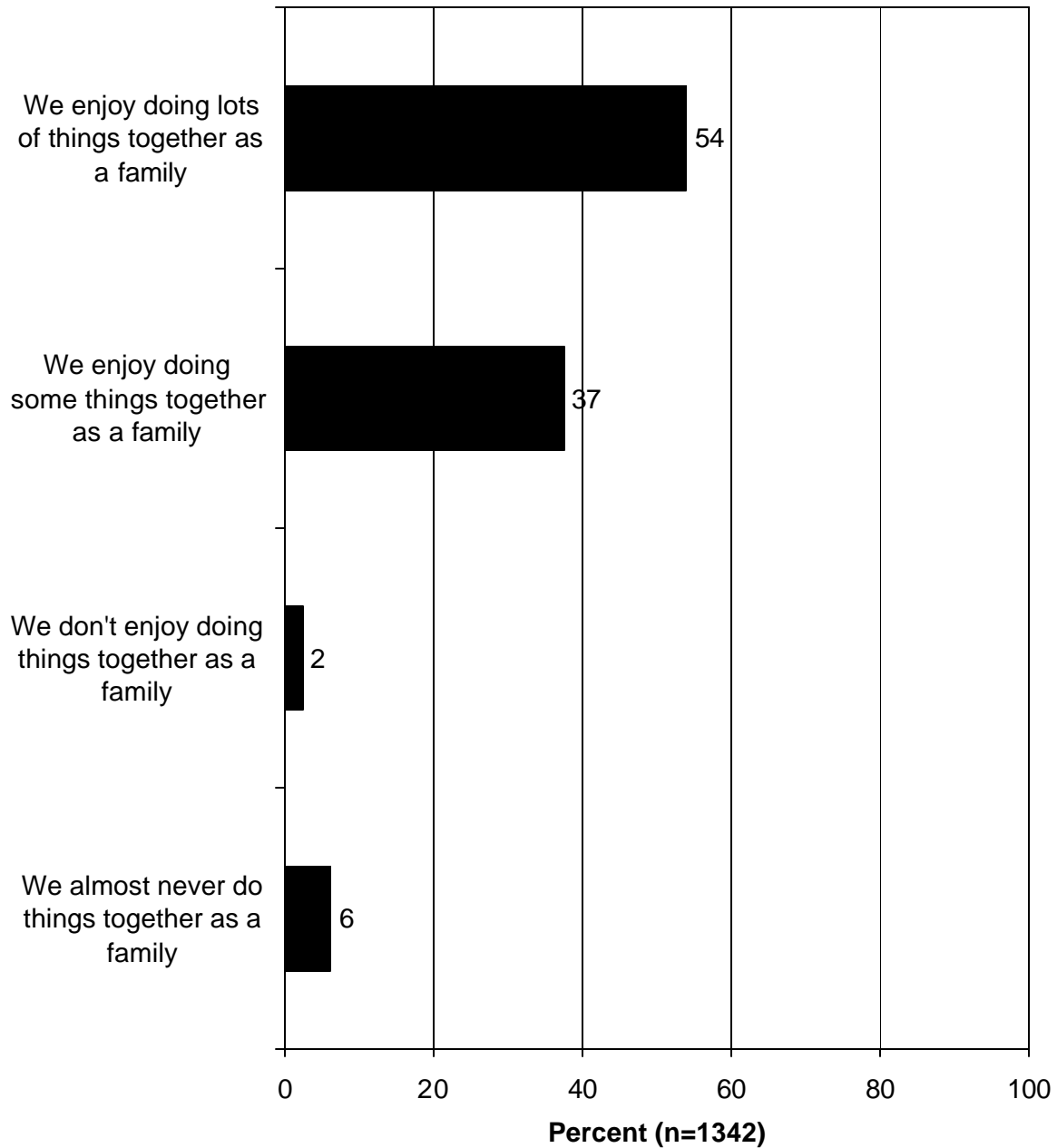
**Q160. If no (you didn't buy any archery equipment), what was your reason for not buying the equipment (of those who took the archery course 1 or more year previously)? (Excludes those who said that they were not interested in archery or bowhunting.)**



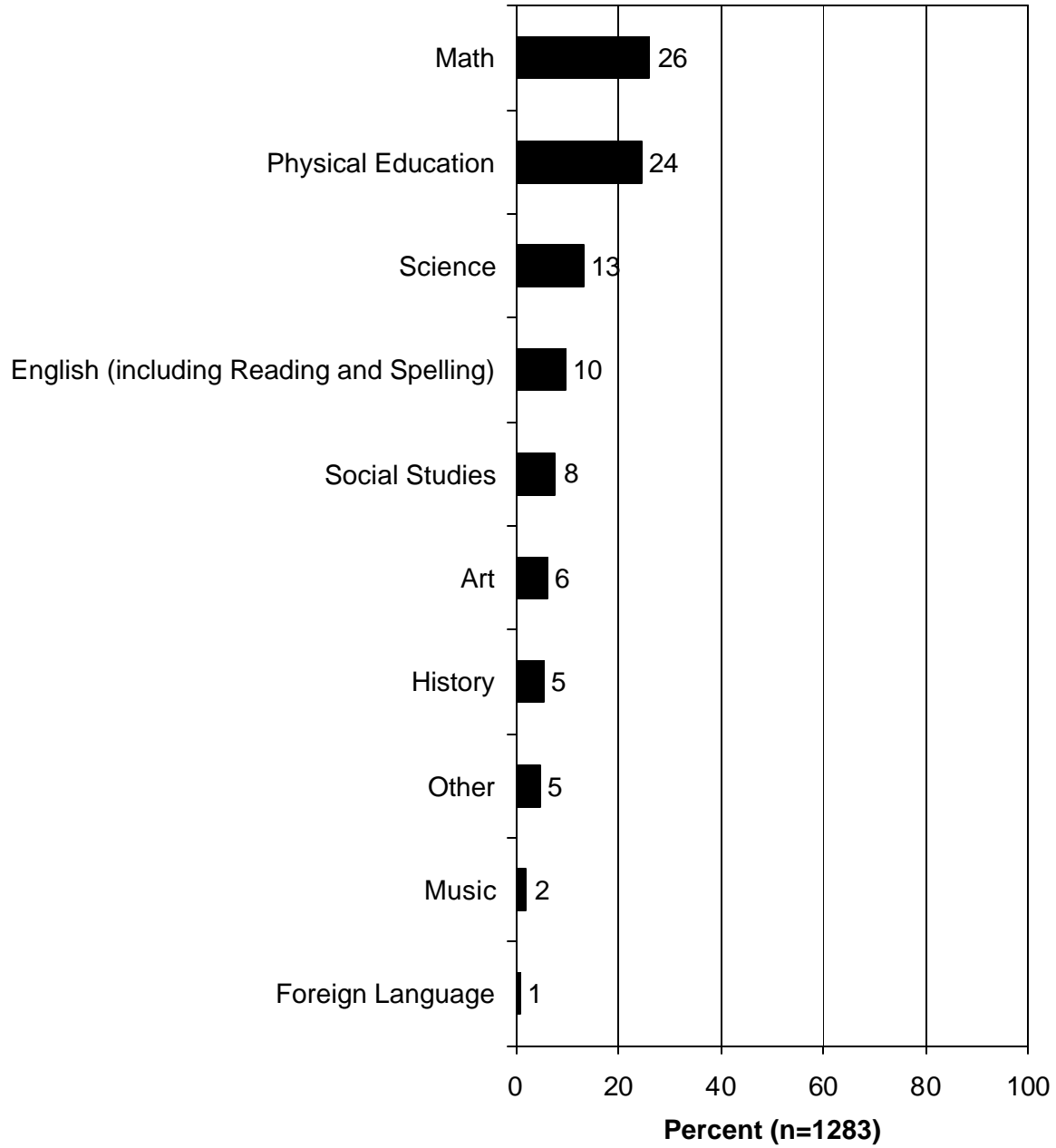
## DEMOGRAPHIC AND OTHER BACKGROUND INFORMATION

- A majority of students (54%) described their family as enjoying doing lots of things together as a family.
  - An additional 37% described their family as enjoying doing some things together as a family.
  
- Students' favorite subjects in school are math (26%) and physical education (24%).
  
- A majority of students (65%) indicated that they make mostly A's and B's.
  
- A strong majority of students (61%) said that they would very likely go to college.
  
- Students are split on whether they feel complete confidence or if they have a little apprehension about having to learn new things: 48% indicated that they feel sure they can do it, but 38% indicated that they feel a little nervous about having to learn new things.
  
- The students in the sample are mostly from rural areas: 50% are from a rural area.
  
- The gender split of the sample was exactly even: 50% were boys, and 50% were girls.

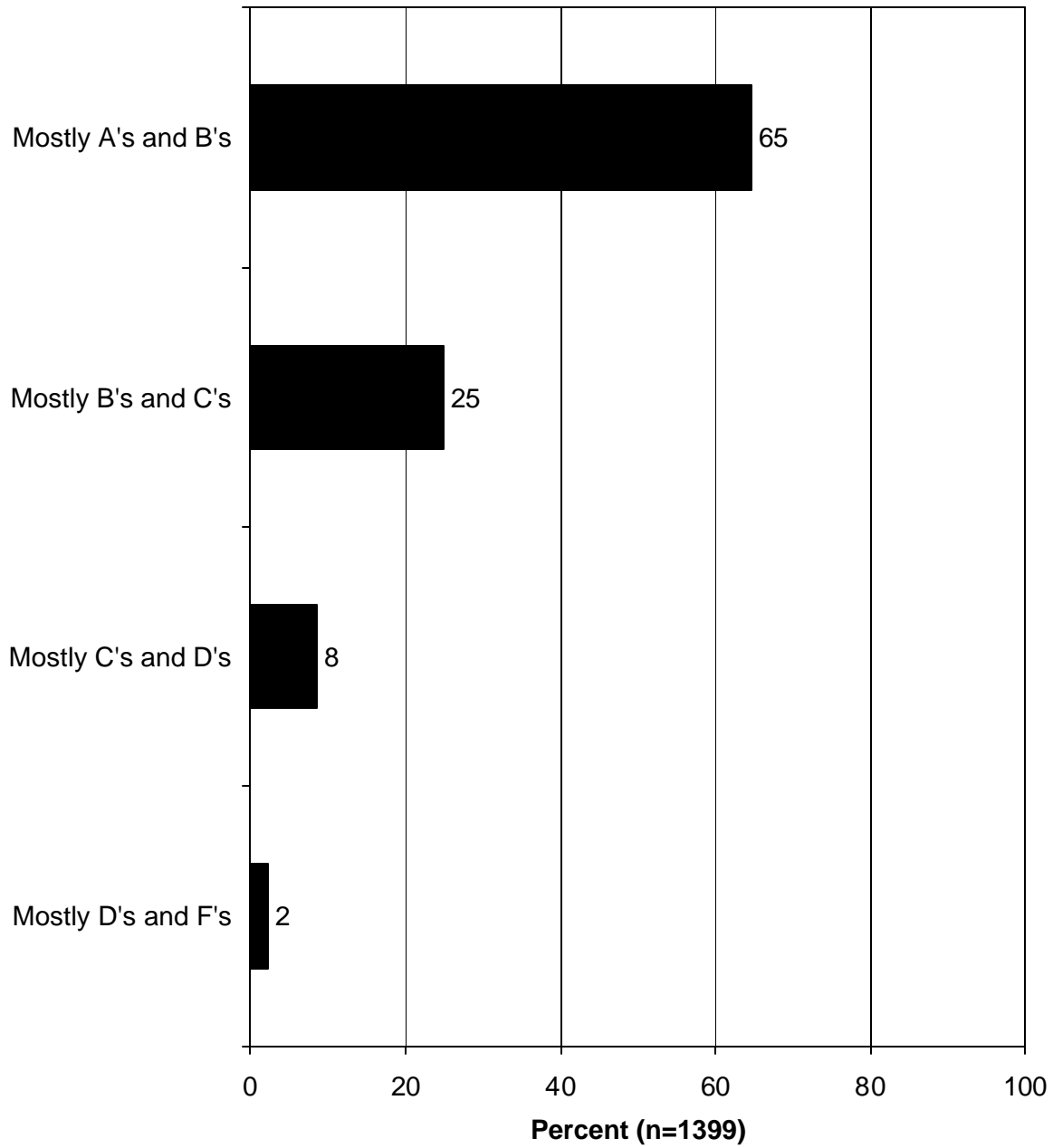
### How would you describe your family?



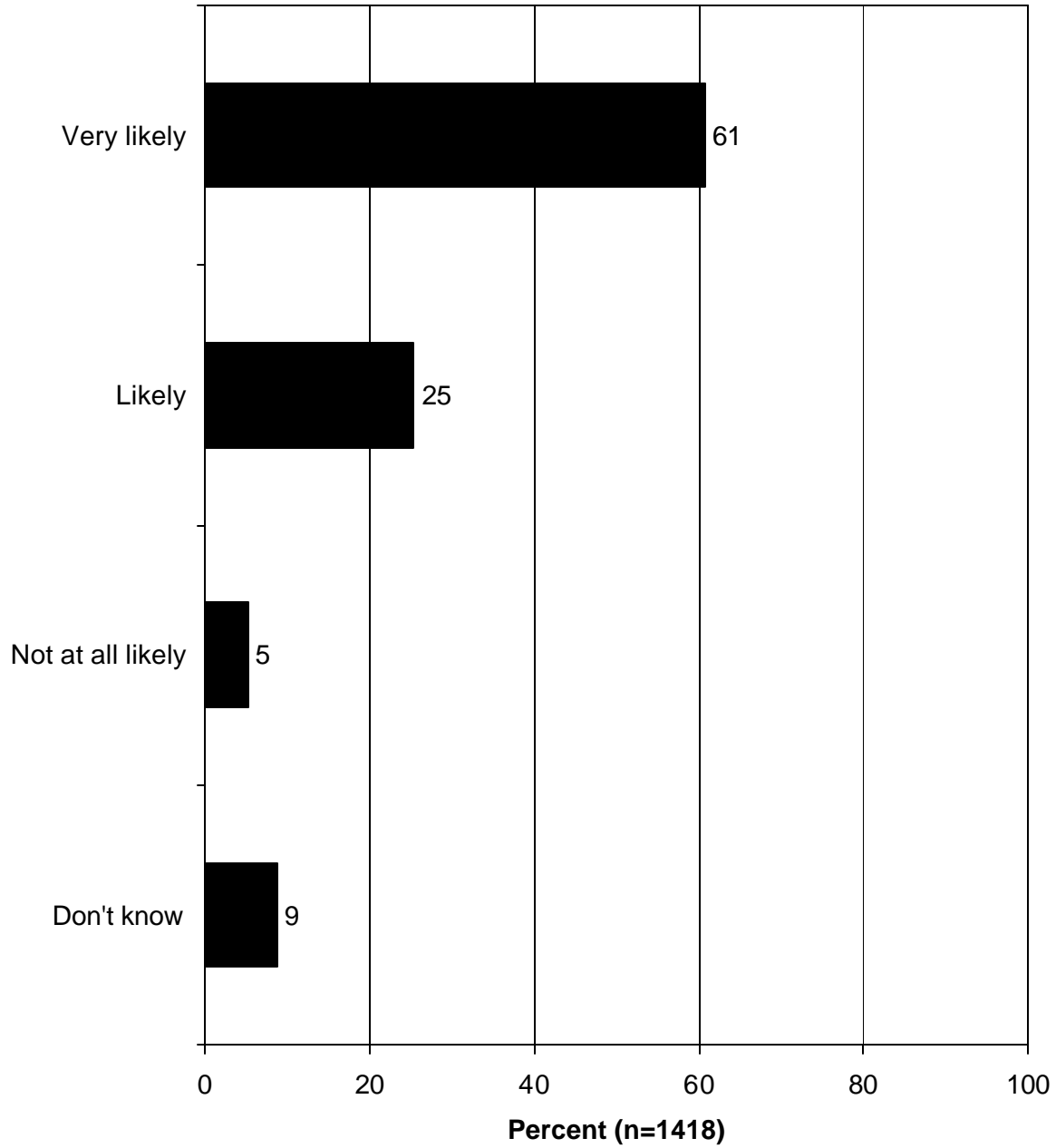
## What is your favorite subject in school?



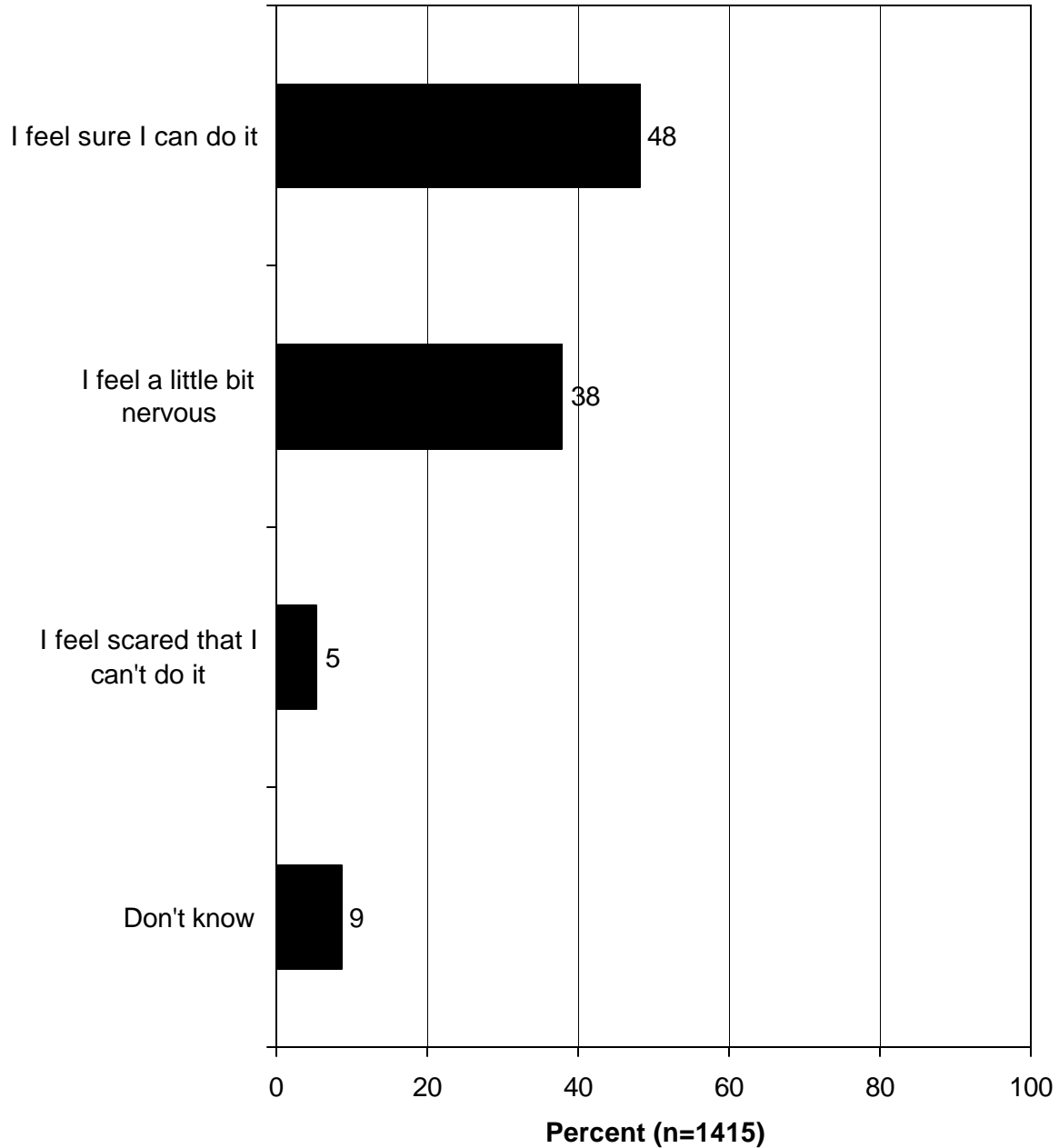
### What types of grades do you get in school?



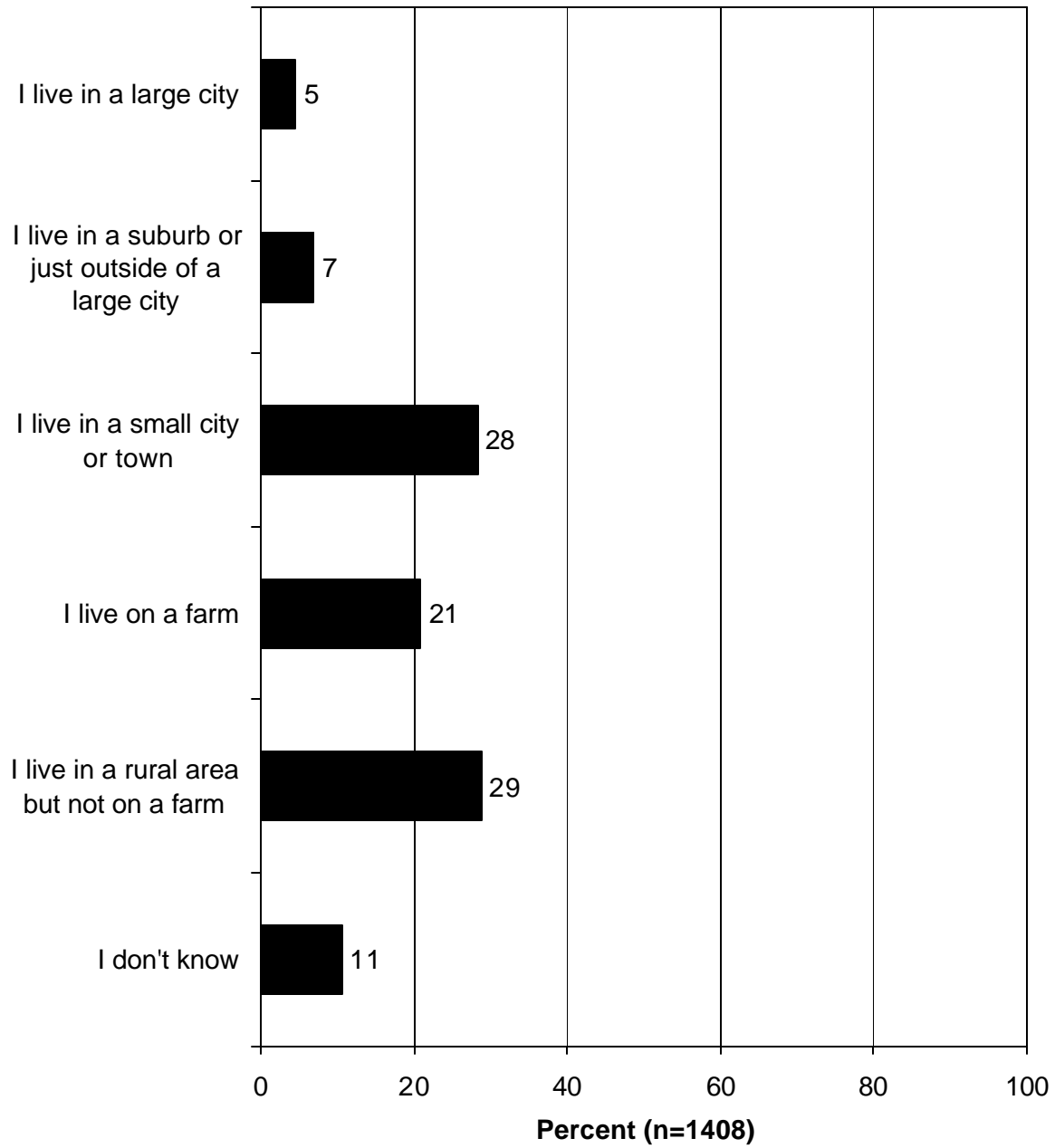
### How likely do you think it is that you will go to college?



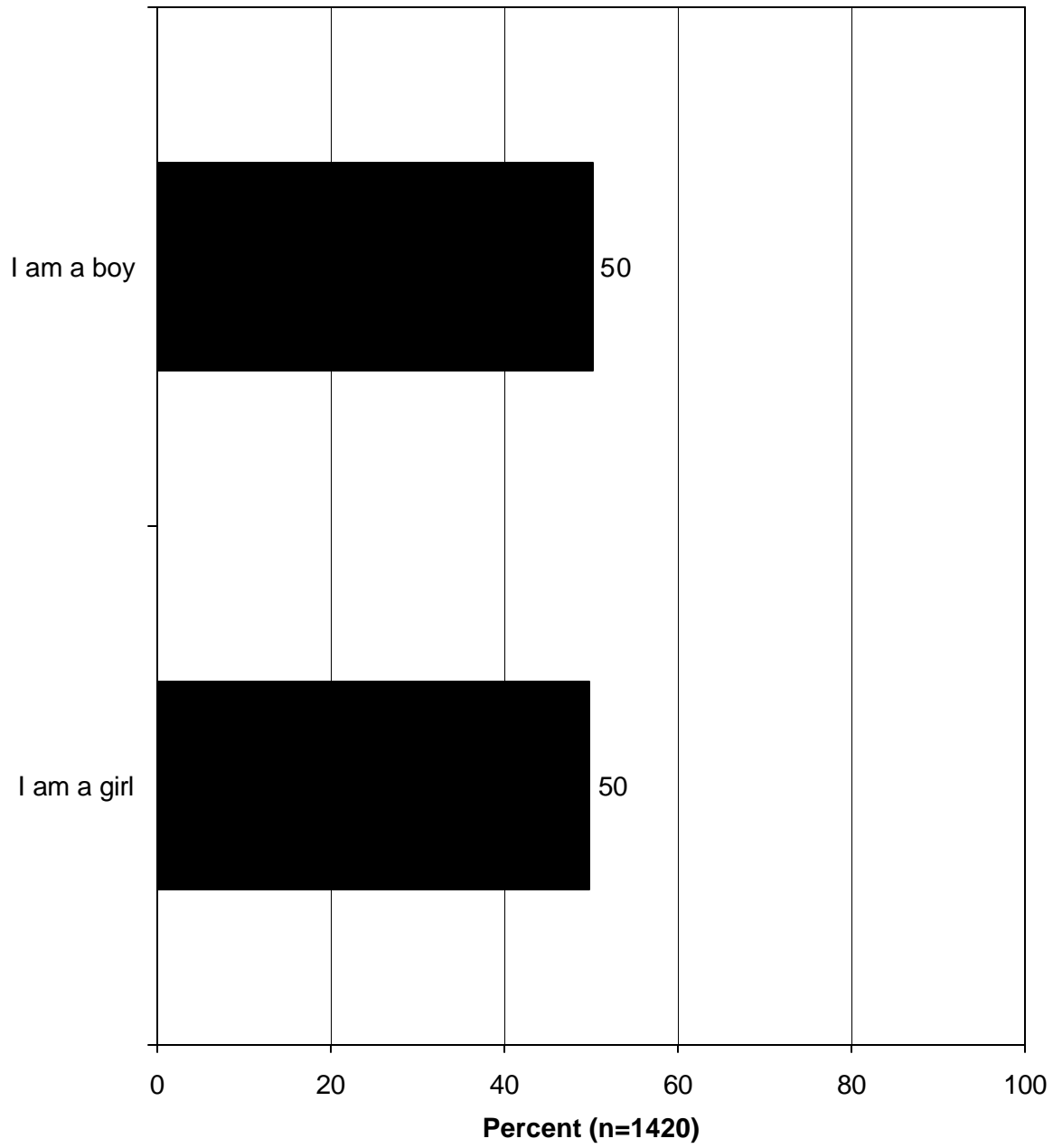
**How do you feel when you have to learn to do something you have never done before, such as a new sport or new homework?**



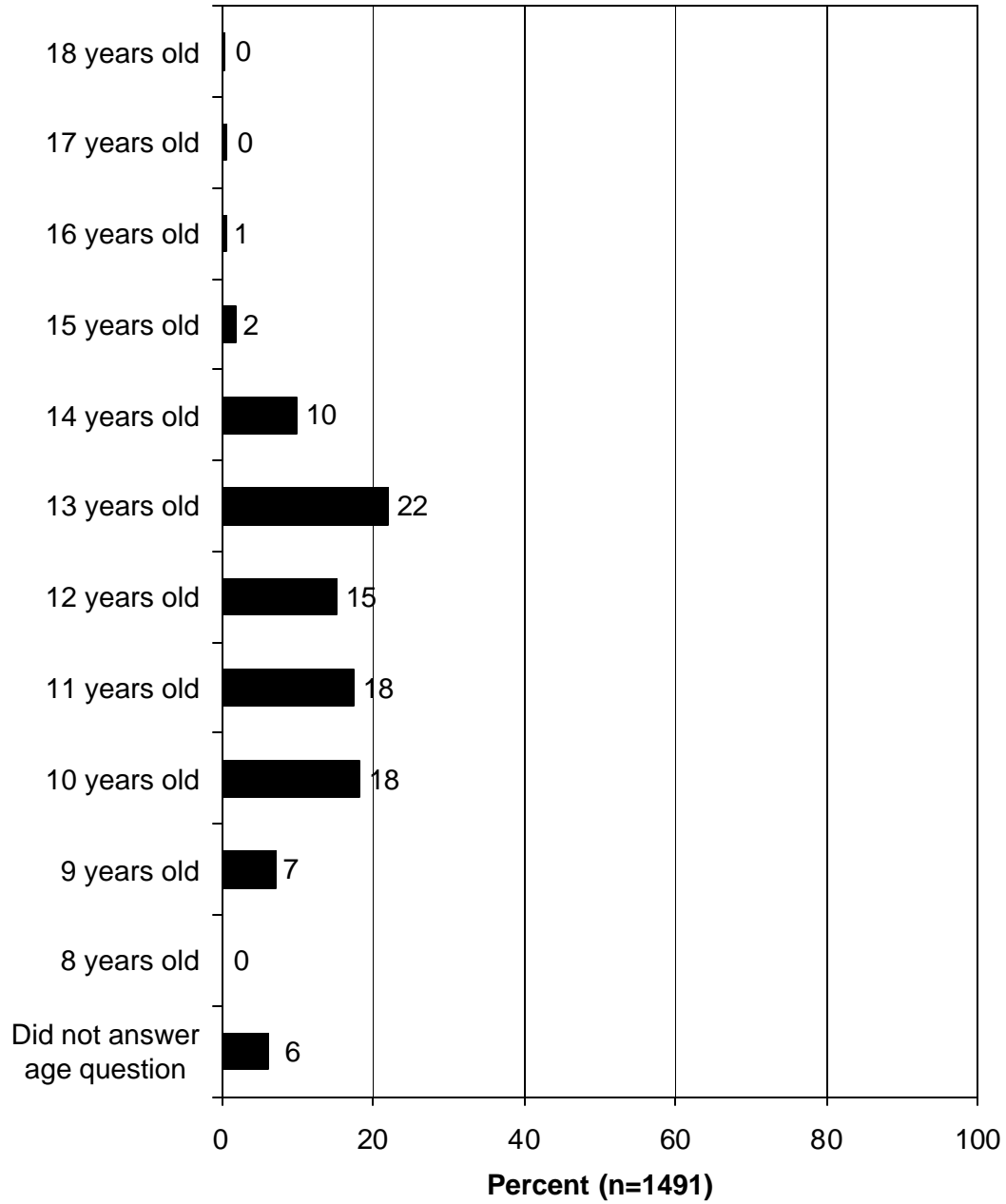
### What type of area do you live in?



### Gender



## How old are you?



## **ABOUT RESPONSIVE MANAGEMENT**

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

Utilizing its in-house, full-service, computer-assisted telephone and mail survey center with 65 professional interviewers, Responsive Management has conducted more than 1,000 telephone surveys, mail surveys, personal interviews, and focus groups, as well as numerous marketing and communications plans, need assessments, and program evaluations on natural resource and outdoor recreation issues.

Clients include most of the federal and state natural resource, outdoor recreation, and environmental agencies, and most of the top conservation organizations. Responsive Management also collects attitude and opinion data for many of the nation's top universities, including the University of Southern California, Virginia Tech, Colorado State University, Auburn, Texas Tech, the University of California—Davis, Michigan State University, the University of Florida, North Carolina State University, Penn State, West Virginia University, and others.

Among the wide range of work Responsive Management has completed during the past 15 years are studies on how the general population values natural resources and outdoor recreation, and their opinions on and attitudes toward an array of natural resource-related issues. Responsive Management has conducted dozens of studies of selected groups of outdoor recreationists, including anglers, boaters, hunters, wildlife watchers, birdwatchers, park visitors, historic site visitors, hikers, and campers, as well as selected groups within the general population, such as landowners, farmers, urban and rural residents, women, senior citizens, children, Hispanics, Asians, and African-Americans. Responsive Management has conducted studies on environmental education, endangered species, waterfowl, wetlands, water quality, and the reintroduction of numerous species such as wolves, grizzly bears, the California condor, and the Florida panther.

Responsive Management has conducted research on numerous natural resource ballot initiatives and referenda and helped agencies and organizations find alternative funding and increase their memberships and donations. Responsive Management has conducted major agency and organizational program needs assessments and helped develop more effective programs based upon a solid foundation of fact. Responsive Management has developed Web sites for natural resource organizations, conducted training workshops on the human dimensions of natural resources, and presented numerous studies each year in presentations and as keynote speakers at major natural resource, outdoor recreation, conservation, and environmental conferences and meetings.

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 routinely conducts surveys in Spanish and has also conducted surveys and focus groups in Chinese, Korean, Japanese, and Vietnamese.

Responsive Management's research has been featured in most of the nation's major media, including CNN's *Crossfire*, ESPN, *The Washington Post*, *The Washington Times*, *The New York Times*, *Newsweek*, *The Wall Street Journal*, and on the front page of *USA Today*.