# Hunting and Recreational Shooting Among Active Military Personnel:

Implications for Recruitment, Retention, and Reactivation





Conducted by Responsive Management and the Sportsmen's Alliance Foundation under Multistate Conservation Grant F21AP00192

2021







# HUNTING AND RECREATIONAL SHOOTING AMONG ACTIVE MILITARY PERSONNEL

## IMPLICATIONS FOR RECRUITMENT, RETENTION, AND REACTIVATION

## **Sportsmen's Alliance Foundation**

Evan Heusinkveld, President/CEO

801 Kingsmill Parkway Columbus, OH 43229 614/888-4868

#### **Responsive Management National Office**

Mark Damian Duda, Executive Director
Martin Jones, Senior Research Associate
Tom Beppler, Senior Research Associate
Steven J. Bissell, Ph.D., Qualitative Research Associate
Amanda Center, Research Associate
Andrea Criscione, Senior Research Associate
Patrick Doherty, Research Associate
Gregory L. Hughes, P.E., Research Associate
Caroline Gerken, Survey Center Manager
Alison Lanier, Business Manager

130 Franklin Street Harrisonburg, VA 22801 Phone: 540/432-1888

Email: mark@responsivemanagement.com www.responsivemanagement.com

Although the Sportsmen's Alliance Foundation partnered with Responsive Management for this
study and the U.S. Fish and Wildlife Service provided funding for it, any errors in the report are the sole responsibility of Responsive Management.
The views expressed in this report may not be those of the U.S. Fish and Wildlife Service; rather, they are the responsibility of Responsive Management based on the research.
The Sportsmen's Alliance Foundation and Responsive Management would like to thank Rob Sexton of RTS Strategies and Ken Perrotte for input and support during this project.

## **OVERVIEW AND MAJOR FINDINGS**

Approximately 1.4 million people are on active duty in American armed forces, with another 0.4 million in the National Guard. This substantial segment of the population is trained proficiently with firearms, and many are already accustomed to the outdoors, making them a good target audience for hunting and sport shooting recruitment, retention, and reactivation (R3). Despite this potential, there is little information on these individuals that reveal their attitudes and proclivities toward hunting and recreational shooting. This project is perhaps the first comprehensive study of military personnel on hunting and sport shooting and how to best reach them with R3 efforts.

This project arose because the Sportsmen's Alliance Foundation (SAF), after launching a project to identify and eliminate legal and regulatory impediments to the recruitment of American servicemen and women, found that they lacked basic data on this subset of the American population. In order to reach these military members, the R3 community has a real need for sound data.

The project entailed a survey of active service members to obtain necessary data on them, as well as to establish a baseline for comparison to subsequent surveys that might be done. The data analyses included segmentation of the sample for targeted R3. For existing hunters and sport shooters, the goal of the data collection will be to provide a much better understanding of participants to facilitate efforts to increase their participation. For those who have lapsed, the goal will be to determine the best reactivation strategies and messages. Finally, for those individuals who have never tried hunting or sport shooting, the goal will be to help identify existing barriers impeding their participation to develop the best strategies to approach and recruit them.

The survey was developed by Responsive Management (with input from RTS Strategies) and the SAF. It was administered by Responsive Management. Overall, Responsive Management obtained 1,650 completed surveys of active duty military personnel. The data analyses were performed by Responsive Management, and the development of the implications and recommendations was conducted jointly by Responsive Management (again, with input from RTS Strategies) and the SAF.

One part of the project consisted of a survey of a randomly distributed nationwide sample of active-duty military members to establish baseline participation rates in hunting, bowhunting, sport shooting with firearms, and archery shooting. This nationwide sample was also used for the questions on interest. Another part of the project entailed surveying holders of military hunting licenses or military-associated hunting licenses; their data was merged with the nationwide data to learn in-depth details about the opinions and participatory behaviors of hunters and sport shooters, potential hunters and shooters, and non-hunters and non-shooters. (The last section of the report, *Methodology*, contains the full details of the sampling plan.)

When this report discusses hunting, it refers to both firearm hunting and bowhunting together, unless the text specifically refers to *hunting with firearms* or *bowhunting*. Likewise, *sport shooting* refers to using either firearms or archery equipment unless specifically referenced as either *sport shooting with firearms* or *archery shooting*.

This report also categorizes hunters and sport shooters according the question that asked whether they had participated:

- In the past 2 years
- In the past 10 years (but not the past 2)
- Ever (but not in the past 10)
- Never

(Note that sport shooting for the survey was specifically defined as recreational and as separate from any military firearms training.)

Based on this question, the following terms are used throughout this report:

- *Active* participant: a person who has participated within the previous 2 years. These individuals would be targeted with retention efforts.
- *Short-term lapsed* participant: a person who has participated within the previous 10 years, but not in the past 2 years. People in this group would be targeted with reactivation efforts (as well as retention efforts to some degree, if they are not too far gone).
- Long-term lapsed participant: a person who has participated at some point but not within the previous 10 years. These people would be targeted with reactivation efforts (and recruitment efforts to some degree if they never really considered themselves participants).
- *Non*-participant: a person who has never participated. These people would be targeted with recruitment efforts.

Finally, this report presents results *among active military members*. Any reference to hunters or sport shooters means hunters or sport shooters *in the military*, not the general population. However, rather than tediously repeating "in the military" or "among military members" in the reporting of the results, the report will simply talk about *active hunters*, for instance, rather than *active hunters in the military*.

This overview looks at the implications of the results, with just the most basic results showing the supporting data for the implications. The full results are detailed in the body of this report.

## PARTICIPATION IN HUNTING, BOWHUNTING, SPORT SHOOTING, AND ARCHERY

#### > Just less than a third of military personnel (31%) are active hunters.

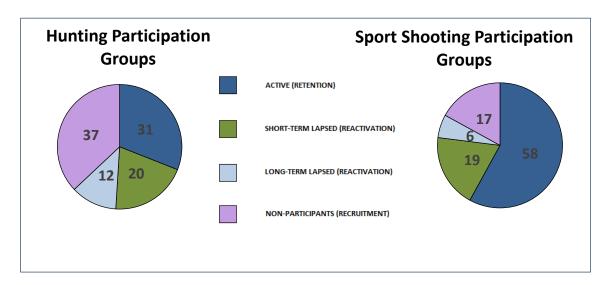
Specifically, combining the 28% who hunted with a firearm in the past 2 years with the 12% who went bowhunting in the past 2 years, 31% of military personnel did some type of hunting in that time period (some did both). These are the targets for retention.

Another 20% of military members are short-term lapsed hunters, meaning they hunted in the past 10 years (either with firearms or archery) but not in the past 2 years. These are the targets primarily for reactivation (and retention to a lesser extent, as some are not yet ex-hunters). The pie graph below shows the full breakdown.

➤ Participation in sport shooting is even higher: more than half of military members are active sport shooters, with 58% going sport shooting in the past 2 years (using firearms or archery).

More than half of military members (54%) went firearm sport shooting for recreation in the 2-year timeframe, while 22% went target archery shooting—targets for retention efforts.

Short-term lapsed sport shooters make up 19% of military members—sport shooting in the past 10 years but not the past 2 years. This is a sizeable group for reactivation efforts (as well as some retention). The pie graph on the following page shows the full breakdown.



> About two thirds of military personnel show robust interest in hunting with firearms, three quarters in sport shooting with firearms, and about half show robust interest in bowhunting and target archery shooting. This includes those already doing the activities.

Robust interest means being either *very* or *somewhat* interested in the activity. Specifically, robust interest levels are at:

- 66% for hunting with firearms.
- 52% for bowhunting.
- 72% for sport shooting with firearms.
- 53% for target archery shooting.
- > The most interest is in hunting with modern (not AR platform) rifles—nearly three quarters of those interested want to use this type. However, half of those interested want to hunt with AR platform rifles, and half also want to try shotgun hunting.

In follow-up to the interest question, 74% want to hunt with modern firearms, 50% want to hunt with AR platform rifles, and 50% want to hunt with shotguns.

> The types of sport shooting with the greatest interest is plinking with rifles (both non-AR and AR platform rifles) and handguns.

For each of these three types of shooting, more than half of those interested in sport shooting wanted to do that type of shooting.

- > Those with children in the household and those living on base have the highest rates of interest in hunting with firearms.
- ➤ Likewise, for bowhunting, the most interest is among those in the National Guard, Hispanics/Latinos, and those 26 to 35 years old.
- ➤ Interest in sport shooting with firearms is high among those in the Coast Guard, residents of small cities or towns, Officers or Warrant Officers, those serving for 5 to 10 years, those over 25 years old, and those with children in their household.
- > Those groups disproportionally interested in target archery shooting are those in the Navy or Marines, Hispanics/Latinos, residents of small cities or towns, and those living in off-base housing.
- Another audience ripe for R3 efforts are those who expressed interest in the activities but who had not done them in the previous 10 years. In general, Hispanics/Latinos, Blacks/African Americans, National Guard members, and those serving for 10 years or less are the groups with the highest latent interest (i.e., are interested but have not done it).
- > The participation and interest questions together allow for the subsequent categorization of military members into various target audiences for R3 efforts.
  - Active hunters and shooters: retention efforts. (Participated in the past 2 years.)
  - Short-term lapsed: reactivation efforts. (Participated in the past 10 years but not in the past 2 years.)
  - Long-term lapsed: reactivation efforts. (Participated ever but not in the past 10 years.)
  - Non-participants: recruitment efforts. (Never participated.) These were divided into non-participants who are very or somewhat interested and those who were not, the former group being a viable target for recruitment.

#### **ACTIVE PARTICIPANTS: RETENTION**

This section looks at the demographic characteristics, the characteristics of hunting and sport shooting participation, motivations, constraints, and encouragements.

#### **Demographic Characteristics of Active Hunters and Sport Shooters**

> Active firearm hunters are disproportionally from the Army or Air Force, reside in a small city or town, and are ethnically white.

Those doing retention efforts to active hunters should consider that these groups have a higher rate of participation compared to other groups.

➤ Active firearm sport shooters are disproportionally made up of Coast Guard personnel, those serving for 5 to 10 years, residents of a small city or town, those who are married, and those who are ethnically white.

The retention efforts at these sport shooters should consider these characteristics.

> In looking at archery participation, either bowhunting or target archery shooting, the characteristics associated with being active in these activities include being an Officer or Warrant Officer, being in the Air Force, and serving for more than 10 years.

In retention efforts for archery, these groups should be considered.

## **Characteristics of Hunting Participation Among Active Hunters**

- ➤ Deer are the most popular species among active hunters (91% hunt it), with wild turkey (47%) at about half that rate. About a third hunt small game (33%) and waterfowl (30%), and about a quarter hunt upland game birds (27%).
- Firearm use in hunting is as follows: 81% use modern rifles (non-AR platform), 74% use shotguns, and 63% use archery (non-crossbow).

These top three are distantly followed by muzzleloaders (36%), AR platform rifles (25%), and crossbows (22%).

- > Public land, off base, predominates as hunting locations. Also important are private land *not* part of a lease. Meanwhile, a little more than a third hunt on base.
  - Specifically, in the past 10 years, 74% used public land off base, 53% used private land not part of a lease, 39% hunted on base, and 28% used private leased land.
- > While camaraderie is important in hunting (two thirds hunt with other military friends, half hunt with friends outside the military, and well more than half hunt with family), about two thirds of active hunters in the military hunt alone at least some of the time.

Among active hunters in the military, 66% hunt with military friends, 51% hunt with non-military friends, 61% hunt with family, and 68% hunt alone some of the time. Additionally, 14% belong to a hunting club, most typically an off-base club.

## **Motivations for Hunting Among Active Hunters**

> The top motivations for hunting among active hunters are to be in nature, for sport/recreation, for the challenge, for a mental health break, and for food.

Although food is within the top tier of reasons for hunting, the aesthetic, recreational, and stress-relief reasons generally predominate. On a scale of 0 to 10, where 0 is not important at all and 10 is extremely important as a reason for hunting, to be in nature was the top-ranked motivation among active hunters with a mean rating of 9.0. Four other items are in the top tier: for the sport or recreation (mean rating of 8.0), for the challenge (8.0), for a mental health break (also at 8.0), and for food (7.9).

> Men are more attracted to hunting for the sport or recreation than are women hunters, as well as to get a break from military duties.

Mean ratings among men are higher than among women for these reasons: for the sport or recreation and to get a break from military duties (this analysis was run on active and short-term lapsed together, as shown in the appendix).

## **Constraints to More Hunting Participation Among Active Hunters**

> Even among active hunters, there are important constraints to their participation: lack of time and access.

These two constraints are related: lack of close access means it takes more time to go hunting. In the open-ended question, lack of time was the top constraint, and problems with access was the second reason in the ranking. In the series of questions asked of active hunters, the top two constraints were work obligations and duty or training status affecting free time. This was followed by not enough access. Another important constraint in the series was access-related as well: not *knowing* where to hunt.

**>** Bans on Sunday hunting are constraining participation in hunting.

State fish and wildlife agencies cannot unilaterally change Sunday bans in states that have them. Nonetheless, it is a problem with hunting participation. In the open-ended question on things that prevented as much hunting as the hunter would have liked, a ban on Sunday hunting was commonly mentioned. It was the 5th-ranked item of the 25 constraints asked of active hunters. In the open-ended questions related to constraints, hunters talked about their only time available to hunt—the weekend—being arbitrarily cut in half by the bans.

## **Encouraging More Participation Among Active Hunters**

> Better access (by far the most important) and allowing Sunday hunting are most commonly named by active hunters as things that would encourage more hunting. Also high in the ranking are camaraderie-related and mentoring-related items.

Better access is the top encouragement to hunt among active hunters in response to an openended question about things that would encourage them to hunt more. Their top item is better access—by far the most important. More free time and the ability to hunt on Sunday were also often mentioned.

In the series of questions in which active hunters rated items that might encourage them to hunt more, the top response by far is access to a place to go hunting. Also high in the ranking are camaraderie-related and mentoring-related items: having a child ask to be taken, being invited by a friend, and kids/family programs or licenses

> Active hunters overwhelmingly say that there are species that they would like to hunt that they have not heretofore hunted (80% indicated this). Elk, bear, and wild hog are high on the list of those species they want to try to hunt.

Appealing to the desire to try to hunt new species is a tactic that would seemingly work well.

## **Characteristics of Sport Shooting Participation Among Active Sport Shooters**

- ➤ The types of recreational shooting most commonly done by active sport shooters are target shooting or plinking with a handgun and with a modern rifle—with participation rates of about three quarters. Additionally, a large majority target shoot/plink with an AR platform rifle, do various clay sports, and shoot with a shotgun—all at 60% or more of active sport shooters.
- > Off-base shooting ranges and land owned by a friend or family member are the most commonly used locations for sport shooting among active sport shooters.
  - Specifically, 43% use an off-base outdoor range and 36% use an off-base indoor range, while range use on base is 8% at an indoor on-base range and 19% at an outdoor on-base range. Meanwhile, 42% use a friend's land, 27% use their own land, and 27% use public land off base.
- ➤ Camaraderie plays a role in sport shooting participation among active sport shooters: 69% go with military friends, 51% go with friends outside the military, and 64% go with family members. Additionally, 52% go alone at least some of the time.

## **Motivations for Sport Shooting Among Active Sport Shooters**

> The top motivations for sport shooting among active participants are to prepare for hunting and for the sport or recreation. Also important are the challenge, camaraderie, self-defense training, and for a mental health break.

This top tier contains these two items, with mean ratings of 7.9 and 7.8, respectively, on a 0 to 10 scale, where 0 is not important at all and 10 is extremely important as a reason for sport shooting. A second tier, with rating from 6.2 to 7.1, includes the challenge, camaraderie (with friends and family), self-defense training, and a mental health break.

> There is a huge difference between men and women in reasons to sport shoot. Men give higher ratings than women to the importance of sport shooting to prepare for hunting and for the sport or recreation. Otherwise, they are largely the same in the top-rated items.

Men's mean rating to shooting for the sport or recreation is much higher than the rating among women. Likewise, men's mean rating of shooting to prepare for hunting is well above the rating among women—the largest difference in this series of questions (this analysis was run on active and short-term lapsed together, as shown in the appendix).

## **Constraints to More Sport Shooting Participation Among Active Sport Shooters**

> Important constraints to sport shooting participation among active sport shooters are lack of time, lack of access, and the cost and availability of ammunition.

Access is the biggest problem over which the sport shooting community may have some influence. In the series of questions about constraints asked of active sport shooters, the availability of ammunition was the top-rated reason, closely followed by the cost of ammunition. The next two items were related to time: work obligations and duty or training status affecting time. Then the next item was access. These five constraints were in the top tier, with markedly higher ratings than the other constraints asked about.

In the series of questions about the effectiveness of things to encourage more shooting (discussed later), the highest mean rating was for better access to shooting areas or ranges, and the second encouragement in the list was having a range on base that allows recreational shooting.

## **Encouraging More Participation Among Active Sport Shooters**

Access and better availability and cost of ammunition are top encouragements among active sport shooters to get them to participate more, as well as camaraderie.

An open-ended question was followed by a series of items that were rated for effectiveness, asking about any things that might encourage more participation among active sport shooters. The most commonly mentioned items to encourage more participation among active shooters (in an open-ended question) were better access and lower cost/better availability of ammunition. The series of questions on encouragements among active shooters shows that access tops the ranking closely followed by camaraderie/family-related encouragements: having better access, having a range on base, and being invited by a friend are in a top tier clearly above the rest.

#### LAPSED PARTICIPANTS: REACTIVATION

Note that lapsed participants were divided into short-term lapsed (participated in the past 10 years but not the past 2) and long-term lapsed (participated ever but not in the past 10 years). They are divided this way because they are approached differently, with short-term lapsed being addressed primarily by reactivation but some retention, and long-term lapsed being addressed by reactivation but some amount of recruitment if their participation was long in the past.

## **Demographic Characteristics of Lapsed Hunters and Sport Shooters**

> Being a short-term lapsed firearm hunter is associated with being in the military for 5 to 10 years, being in the Navy or Coast Guard, residing in a rural area, and being married.

Reactivation (primarily) and retention (secondarily) efforts to short-term lapsed hunters should be carried out with these groups in particular in mind.

➤ Long-term lapsed firearm hunters are disproportionally made up of National Guard members, those who served more than 10 years, and those in the higher education bracket (bachelor's degree or higher).

The reactivation efforts at long-term lapsed hunters should be developed with these groups in mind, targeting them as the most likely to be long-term lapsed hunters.

> Short-term lapsed firearm sport shooters are well represented among military personnel in the Navy and those who have served a long time (more than 10 years).

These groups should be considered in reactivation and retention efforts aimed at short-term lapsed shooters.

> Long-term lapsed firearm sport shooters are disproportionally made up of those in the Air Force and residents of a large city or urban area.

The reactivation efforts aimed at long-term lapsed sport shooters should consider these characteristics that are associated with this status.

## **Characteristics of Hunting Participation Among Lapsed Hunters**

> Deer was the most hunted species among lapsed hunters. Other species (or species groups) that were commonly hunted included small game, wild turkey, and upland game birds.

The most commonly hunted species among short-term lapsed hunters was deer (76%), distantly followed by small game, wild turkey, and upland game birds—in the range of 23% to 30%.

> Modern rifles (non-AR) and shotguns were the types of equipment most commonly used by lapsed hunters.

Among short-term lapsed hunters, 71% used modern rifles and 59% used shotguns. Other use was lower: 28% used archery other than crossbows, and 25% used AR platform rifles.

- > Public land off base and private land not part of a lease were the most used types of land among lapsed hunters.
- Family members were the most common hunting companions among short-term lapsed shooters—64% went with family. Additionally, 48% went with military friends, 41% went with non-military friends, and 36% went alone (at least some of the time). Finally, only 4% belong to a hunting club.

## **Motivations for Hunting Among Lapsed Hunters**

> The top motivations for hunting among short-term lapsed hunters were to be in nature, for the challenge, for food, and for sport/recreation.

Although food was within the top tier of reasons for hunting (when they had hunted), aesthetic and recreational reasons were prominent. On a scale of 0 to 10, where 0 is not important at all and 10 is extremely important as a reason for hunting, to be in nature was the top-ranked motivation among short-term lapsed hunters with a mean rating of 8.3. Three other items were in the top tier: for the challenge (mean rating of 7.1), for food (7.1), and for the sport or recreation (7.0).

## **Constraints to Hunting Participation Among Lapsed Hunters**

> Among short-term and long-term lapsed hunters, lack of time and access were the top constraints. No one to go with was also an important constraint among long-term lapsed hunters.

Obligations of work and duty (the top two items), lack of access, and frequent change of station moves to unfamiliar areas (also an access-related item) topped the list of reasons that short-term lapsed hunters did not go hunting in the past 2 years.

## **Encouraging Participation Among Lapsed Hunters**

Access and invitations to go hunting, as well as being asked to take a child hunting, are all top encouragements among lapsed hunters.

An open-ended question started the encouragements section of the survey: more free time and better access top the list among short-term lapsed hunters. In the series of things that might encourage participation, better access is a top encouragement, as are two mentoring-related items: being invited to go by a friend (being mentored) and having a child ask to be taken (doing the mentoring).

A large percentage of short-term lapsed hunters say that there are species that they would like to hunt that they have not heretofore hunted (64% indicated this). Bear, elk, wild hog, and wild turkey are high on the list of those species they want to try to hunt.

Appealing to the desire to try to hunt new species is a tactic that would seemingly work well to reactivate these lapsed hunters.

## **Characteristics of Sport Shooting Participation Among Lapsed Sport Shooters**

> The most popular types of shooting were target shooting/plinking with a handgun and doing the same with a modern rifle.

The most common types of sport shooting among short-term lapsed sport shooters were target shooting or plinking with a handgun and doing the same with a modern rifle (at 61% and 54%, respectively). Three more activities were in a middle tier, that were done by 39% to 44%: target shooting/plinking with an AR platform rifle, clay sports, and target shooting/patterning a shotgun.

> Off-base shooting ranges and land owned by a friend or family member were the most commonly used locations for sport shooting among short-term lapsed sport shooters.

Specifically, 31% used an off-base outdoor range and 31% used an off-base indoor range. Meanwhile, 5% used an indoor on-base range and 14% used an outdoor on-base range. Land owned by friends and family was used by 41%, 16% used their own land, and 22% used public land off base.

As with active sport shooters, camaraderie was important in sport shooting participation among short-term lapsed sport shooters: 60% went with military friends, 39% went with friends outside the military, and 53% went with family members. Also, 34% went alone at least some of the time.

## **Motivations for Sport Shooting Among Lapsed Sport Shooters**

> The sport or recreation, the challenge, and being with friends were the top-rated motivations for sport shooting among short-term lapsed sport shooters.

Shooting for the sport or recreation was the most important motivation, but this was closely followed by doing so for the challenge and to be with friends—all with mean ratings of more than 6.0 on a 0 to 10 scale.

## **Constraints to Sport Shooting Participation Among Lapsed Sport Shooters**

➤ Lack of time and access were the biggest constraints to sport shooting participation among lapsed sport shooters.

Lack of time, the associated reason of deployment/military duties, and lack of access were the most important constraints to sport shooting participation among short-term lapsed sports shooters. Among long-term lapsed sport shooters, add cost to the list.

## **Encouraging Participation Among Lapsed Sport Shooters**

> Someone to go sport shooting with, access, and a safe/controlled program are all top encouragements to sport shooting among lapsed sport shooters.

Someone to shoot with, access, and free time are the most commonly named encouragements in an open-ended question among both short-term and long-term lapsed hunters. In the series of questions, being invited to go, having better access (including on base), and having a safe program are the top encouragements among short-term lapsed sport shooters.

#### NON-PARTICIPANTS: RECRUITMENT

Interest in the activities was used as a way to divide non-participants into those who are very or somewhat interested (have robust interest) and those who are not very or somewhat interested. For purposes of this implications section, the focus is on those with robust interest.

## **Demographic Characteristics of Non-Hunters and Non-Sport Shooters**

Non-participants interested in hunting (i.e., have latent interest) are disproportionally National Guard members or Marines, those serving for 5 years or less, and those who are married. Latent interest in bowhunting is high among National Guard members, Marines, and Hispanics/Latinos.

The demographic-participatory graphs show that being in the National Guard, having served for 5 years or less, not being married, and being in the Marines are associated with being interested with firearm hunting while not having done so. These should be targets for hunting recruitment.

The National Guard and Marines are associated with interest in bowhunting among those who have never bowhunted. Being Hispanic/Latino also is associated with this. These also should be targets for hunting recruitment.

Latent interest in sport shooting is associated with being a Marine or in the National Guard, being Hispanic/Latino or Black, and not being married.

Non-shooters with interest in sport shooting with firearms are disproportionally Marines, those in the National Guard, Hispanics/Latinos, Blacks, and those not married. These should be targets for sport shooting recruitment.

Target archery is of higher interest to non-archers who are residents of small cities/towns, Hispanics/Latinos, Blacks, those who have served 5 to 10 years, and those in the Marines, compared to other groups.

## **Constraints to Hunting Participation Among Non-Hunters**

> The top constraint to hunting participation among non-hunters with robust interest is lack of knowledge/experience and lack of time.

In the open-ended question, these were the top two responses among non-hunters with robust interest. In the series of questions in which they rated reasons for never hunting, the top three—with markedly higher ratings than the rest—are not knowing where to hunt, not having anyone to go with, and work obligations.

Although this section focuses primarily on non-hunters with robust interest, it is worth taking a moment to consider non-hunters without robust interest. Regarding constraints to starting to hunt among these non-hunters, lack of interest is by far the top reason. While there is no clear path to piquing interest among people who have no existing interest, the fact that they live within a social setting that includes many hunters is helpful as a start. Camaraderie and the potential to be mentored could play a key part of recruitment among non-hunters.

In the open-ended question regarding reasons for never hunting, lack of interest was the most commonly given response, and it was the top-ranked reason in the series of questions where the importance of each constraint was rated, among non-hunters without robust interest.

## **Encouraging an Interest in Participation Among Non-Hunters**

> Being able to be mentored/having training, a network to hunt with, and access are top hunting encouragements among non-hunters with robust interest.

Being able to be mentored/having training and a network to hunt with are the encouragements most commonly mentioned in the open-ended question about things that would pique interest in hunting. In the series of questions, mentoring (including invitations from friends) and access are important encouragements to interested non-hunters.

## **Constraints to Sport Shooting Participation Among Non-Sport Shooters**

➤ Lack of access, time, and knowledge, as well as ammunition availability problems, are the biggest constraints to sport shooting participation among non-shooters with robust interest.

In the open-ended question, lack of access, lack of time, and lack of knowledge are all important reasons for never having gone sport shooting among interested non-shooters. Other than a reason related to not having enough interest, the top reasons for never going sport shooting among non-shooters with robust interest in the series of questions include availability of ammunition and access (not enough access in general, no access on base, and cost of access).

## **Encouraging an Interest in Participation Among Non-Sport Shooters**

> Access, mentoring, and safety are top encouragements to go sport shooting among non-shooters.

Access is the top encouragement among interested non-shooters, as well as being mentored/training, in response to the open-ended question. Access, mentoring, a safe and controlled program, a loaner program, and on-base access are all top encouragements among interested non-shooters in the series of questions.

#### **OBSERVATIONS THAT APPLY ACROSS MULTIPLE GROUPS**

Some of the implications of the data do not apply just to active or just to short-term lapsed participants, for instance, but have wider applicability. They are discussed below.

> A nuance of the problem with access is related to frequent changes of station. Many service members grew up hunting and became familiar with where and what to hunt, and how to hunt it, in the state where they were raised. When they are transferred to an unfamiliar area, they have no local knowledge of where to hunt and sometimes what to hunt and how to hunt it. While such information is available on the internet, including through fish and wildlife agencies themselves, many of these transferred hunters see learning all the local nuances of hunting on their own as daunting.

Many of the open-ended responses to questions about things that prevented hunters from hunting as much as they would have liked or hunting at all reveal that a lack of local knowledge is a problem, particularly with knowledge about access. "Not knowing where to hunt" was the 6th-ranked constraint out of 25 constraints asked of active hunters, and it was a highly ranked constraint out of 26 asked of short-term and long-term lapsed hunters.

Additionally, the third rated encouragement (also to be discussed shortly) among active hunters that would encourage them to hunt more was being invited to go by a friend. While camaraderie is a primary aspect of that reason, another aspect may be related to not knowing where to go hunting. Being invited means to the invitee that the problem of access has been worked out—the hunter does not need to learn on his/her own where to go hunting (and what to hunt and how to hunt it).

> Outreach to newly stationed military personnel—particularly if they can be invited to accompany a hunting party that already has that local knowledge—would undoubtedly increase hunting participation among the military.

In the ratings of the effectiveness of things that would encourage more hunting participation, active hunters rated "being invited to go by a friend" at 7.7 on a 0 to 10 scale—the third item in the ranking of the 16 items asked about. Among short-term and long-term lapsed hunters, this is a highly rated item. Among non-hunters, it is the top item that would increase their interest.

> There is much latent interest in 3-gun shooting. To a lesser extent, there is also some latent interest in long-range shooting, muzzleloader shooting, clay sports, and archery.

When asked to name types of shooting that they had not done but would like to try, 31% of everyone who got the question (active, lapsed, and non-participants together who indicated an interest) named 3-gun shooting, well above all others. Next were long-range shooting (16%), muzzleloader shooting (14%), sporting clays, skeet, trap, and 5-stand (14%), and archery (11%). All other types of shooting were in the single digits.

#### CONCLUSIONS AND RECOMMENDATIONS

- > The results of this study support the idea that military personnel on active duty can be important and successful target markets for hunting and recreational shooting R3.
- > The results of this study show high rates of interest in the activities. The analysis looked at those who are *very* or *somewhat* interested in the activities—those with robust interest. Specifically, robust interest levels are at:
  - 66% for hunting with firearms.
  - 52% for bowhunting.
  - 72% for sport shooting with firearms.
  - 53% for target archery shooting.
- ➤ It is important that targeted marketing include consideration of military branch, as military personnel differ in their attitudes and behaviors according to branch. In various places within this report, important findings include differences by branch of military. Use the data in this report for this targeted marketing.
- ➤ The R3 community should work with military bases and base commanders, showing them the high level of existing interest in the activities among military members and demonstrating the psychological benefits of spending time in nature. Perhaps no other target market could derive more mental health benefit from spending time in nature, leading to reduced stress and anxiety. The results confirm this, with the high ratings given to spending time in nature and getting a mental health break. In fact, in response to one of the questions in the survey, one Major General wrote the following:

I'm advocating on post and across all military installations for access and opportunities for soldiers and families to hunt/shoot and fish as a method of team building and resiliency to combat suicides, assaults and other behavior health and marriage/family challenges.

> The R3 community has long been interested in increasing participation rates among currently under-represented groups such as Blacks and Hispanics/Latinos. The findings from this study show that there is high interest in these activities among these ethnic groups. In general, Hispanics/Latinos and Blacks/African Americans are among the groups with the highest latent interest (i.e., are interested but have not done it).

For bowhunting and target archery shooting, there is high interest among Hispanics/Latinos.

Two of the groups with high latent interest (showing interest while not having done the activities) in sport shooting with firearms and target archery shooting include Blacks and Hispanics/Latinos.

- ➤ Lack of information on hunting and sport shooting access is an important constraint among military personnel. The R3 community should encourage state fish and wildlife agencies and local hunting and sport shooting clubs to provide specific information to local military bases on local opportunities and local access.
  - This information should be provided pro-actively, not just to those who seek it. There are many who want to go hunting and sport shooting but who do not know where to do it and who will not necessarily seek that information on their own. Being given that information may prompt them to action.
- ➤ The R3 community should encourage sportsmen's organizations to invite staff from local military bases to attend their clubs. Americans in general express their appreciation to those in the military for their service, so encouraging these organizations to invite military members into their fold would be a way to put that thanks into action.
- ➤ The R3 community should advocate for allowing military personnel to use ranges on base for recreational shooting. This could include the construction of ranges for recreational shooting, if none exists on base. This could have dual benefits of improving the mental well-being of military members while improving their shooting skills at the same time.
- ➤ The R3 community should explore way to provide discounts on ammunition for recreational shooting to military members, as the cost of ammunition often was cited as a constraint.
- ➤ The R3 community should advocate for the establishment of on-base hunting and sport shooting clubs (for those bases that do not already have them) to help foster camaraderie and to share knowledge.
  - On-base hunting and sport shooting clubs could act as repositories for local information on hunting and sport shooting opportunities and access. This repository would counteract the loss of knowledge that occurs when military members are re-assigned to other bases. These clubs would also assist with helping would-be hunters and sport shooters find companions for hunting and sport shooting.
- > The R3 community should encourage the development of online forums devoted to hunting and sport shooting at bases that would help with the dissemination of information on companions, opportunities, and access for the given activities.

## **TABLE OF CONTENTS**

Introduction	1
Participation and Interest in Hunting, Bowhunting, Sport Shooting, and Archery	5
Active Participants: Those to Be Targeted With Retention Efforts	20
Demographic Characteristics of Active Hunters	20
Characteristics of Hunting Participation Among Active Hunters	22
Motivations for Hunting Among Active Hunters	25
Constraints to Hunting Participation Among Active Hunters	27
Encouraging Hunting Participation Among Active Hunters	
Demographic Characteristics of Active Sport Shooters	37
Characteristics of Sport Shooting Participation Among Active Sport Shooters	39
Motivations for Sport Shooting Among Active Sport Shooters	
Constraints to Sport Shooting Participation Among Active Sport Shooters	44
Encouraging Sport Shooting Participation Among Active Sport Shooters	48
Short-Term and Long-Term Lapsed Participants: Those to Be Targeted With Reactivation Efforts	51
Demographic Characteristics of Lapsed Hunters	51
Characteristics of Hunting Participation Among Lapsed Hunters	53
Motivations for Hunting Among Lapsed Hunters	56
Constraints to Hunting Participation Among Lapsed Hunters	
Encouraging Hunting Participation Among Lapsed Hunters	
Demographic Characteristics of Lapsed Sport Shooters	
Characteristics of Sport Shooting Participation Among Lapsed Sport Shooters	73
Motivations for Sport Shooting Among Lapsed Sport Shooters	
Constraints to Sport Shooting Participation Among Lapsed Sport Shooters	
Encouraging Sport Shooting Participation Among Lapsed Sport Shooters	
Non-Participants: Those to Be Targeted With Recruitment Efforts	
Demographic Characteristics of Non-Participants	
Constraints to Participation in Hunting	
Encouragements That Would Pique Interest in Hunting	94
Constraints to Participation in Sport Shooting	
Encouragements That Would Pique Interest in Sport Shooting	
Military Branch and Grade	
Implications of the Survey Results	
Participation in Hunting, Bowhunting, Sport Shooting, and Archery	
Active Participants: Retention	
Lapsed Participants: Reactivation	
Non-Participants: Recruitment	
Observations That Apply Across Multiple Groups	
Conclusions and Recommendations	
Methodology	
Design of Questionnaire	
Survey Samples and Contact Procedures	
Survey Data Collection and Quality Control	
Data Analysis	
Sampling Error	
Annendix: Other Analyses	124

## INTRODUCTION

Approximately 1.4 million people are on active duty in American armed forces, with another 0.4 million in the National Guard. This substantial segment of the population is trained proficiently with firearms, and many are already accustomed to the outdoors, making them a good target audience for hunting and sport shooting recruitment, retention, and reactivation (R3). Despite this potential, there is little information on these individuals that reveal their attitudes and proclivities toward hunting and recreational shooting. At a time when R3 efforts are increasingly targeted, the hunting and sport shooting community needs actionable data to reach American military members.

This project is perhaps the first comprehensive study of military personnel on hunting and sport shooting. For current participants, the research will facilitate efforts to increase time in the field or expansion into other hunting and sport shooting opportunities. For those who have not tried hunting or sport shooting, the research will identify barriers and identify ways that the R3 community can engage these individuals and increase the likelihood that they will try hunting and sport shooting. This report reveals the best R3 marketing strategies and messages for military members.

This project arose because the Sportsmen's Alliance Foundation (SAF), after launching a project to identify and eliminate legal and regulatory impediments to the recruitment of American servicemen and women, found that they lacked basic data on this subset of the American population. Indeed, almost nothing is known about U.S. military members' attitudes toward hunting and sport shooting, or the best methods of approaching them from an R3 perspective.

For instance, the hunting and sport shooting community does not know how many military members hunt or sport shoot. The community also does not know the species that they hunt, their frequency of going hunting or sport shooting, or the firearms and equipment that they use. The community does not know why some military members do not participate or how many have an interest. The community also does not know the most common barriers to successfully recruiting, retaining, or reactivating these individuals.

In order to reach the potential of this cohort of Americans, the R3 community has a real need for sound data to successfully guide recruitment, retention, and reactivation efforts towards American military members.

The project entailed a survey of active service members to obtain necessary data on them, as well as to establish a baseline for comparison to subsequent surveys that might be done. The data analyses included segmentation of the sample for targeted R3. For existing hunters and sport shooters, the goal of the data collection will be to provide a much better understanding of participants to facilitate efforts to increase their participation. For those who have lapsed, the goal will be to determine the best reactivation strategies and messages. Finally, for those individuals who have never tried hunting or sport shooting, the goal will be to help identify existing barriers impeding their participation to develop the best strategies to approach and recruit them.

This report first presents the results of the survey. It then includes a section on the implications of the research, including recommendations regarding R3 directed at military members. The final section details the full methodology for the surveying and data analyses.

The survey was developed by Responsive Management (with input from RTS Strategies) and the SAF. It was administered by Responsive Management. Overall, Responsive Management obtained 1,650 completed surveys of active duty military personnel. The data analyses were performed by Responsive Management, and the development of the implications and recommendations was conducted jointly by Responsive Management (again, with input from RTS Strategies) and the SAF.

Although the full methods of the project are detailed in the last section of the report, a brief summary of the methods here is necessary for understanding the results. One part of the project consisted of a survey of a randomly distributed nationwide sample of active-duty military members to establish baseline participation rates in hunting, bowhunting, sport shooting with firearms, and archery shooting. This nationwide sample was also used for the questions on interest. Another part of the project entailed surveying holders of military hunting licenses or military-associated hunting licenses; their data was merged with the nationwide data to learn indepth details about the opinions and participatory behaviors of hunters and sport shooters, potential hunters and shooters, and non-hunters and non-shooters. (The last section of the report, *Methodology*, contains the full details of the sampling plan.)

When this report discusses hunting, it refers to both firearm hunting and bowhunting together, unless the text specifically refers to *hunting with firearms* or *bowhunting*. Likewise, *sport shooting* refers to using either firearms or archery equipment unless specifically referenced as either *sport shooting with firearms* or *archery shooting*.

This report also categorizes hunters and sport shooters according the question that asked whether they had participated:

- In the past 2 years
- In the past 10 years (but not the past 2)
- Ever (but not in the past 10)
- Never

Based on this question, the following terms are used throughout this report:

- *Active* participant: a person who has participated within the previous 2 years. These individuals would be targeted with retention efforts.
- *Short-term lapsed* participant: a person who has participated within the previous 10 years, but not in the past 2 years. People in this group would be targeted with reactivation efforts (as well as retention efforts to some degree, if they are not too far gone).
- Long-term lapsed participant: a person who has participated at some point but not within the previous 10 years. These people would be targeted with reactivation efforts (and recruitment efforts to some degree if they never really considered themselves participants).
- *Non*-participant: a person who has never participated. These people would be targeted with recruitment efforts.

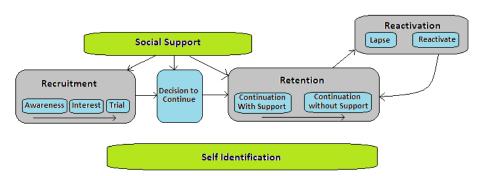
The survey very specifically limited the discussion of shooting to *recreational* shooting. On questions about shooting participation, respondents were asked to consider shooting *for recreation* completely separate from shooting as part of military training. The participation question first stated, "For this question, please only consider recreational shooting, not any firearms or military training you may have done."

The categorization based on participation discussed above allows the participatory groups to be fit into the Outdoor Recreation Adoption Model (ORAM), which provides a framework for the understanding and effective utilization of R3 programs.<sup>1</sup> This model is derived from research by rural sociologists studying farmers' decisions to adopt new innovation technologies.<sup>2</sup> Based on this foundation, one researcher<sup>3</sup> proposed an innovation-decision process consisting of five stages, which form the beginning steps of ORAM. Later researchers expanded on this and conceptualized ORAM in eight stages.<sup>4</sup>

The first three stages of ORAM (awareness, interest, and trial activity) are addressed by recruitment efforts (see the figure below), which would be aimed at non-participants (and long-term lapsed participants to a lesser degree). These initial stages lead to the next stages: the decision to continue, continuing participation with social support, and then continuing participation without social support. These continuation stages are addressed by retention efforts, which would be aimed at active participants.

Individuals who do not continue to participate are considered lapsed participants—the final stages of ORAM. Lapsing may be further divided into individuals who are short-term lapsed (retention and reactivation efforts would be aimed at them) and those who are long-term lapsed (reactivation and to some extent recruitment efforts would be aimed at them).<sup>5</sup> The ORAM is reproduced below.

## **Outdoor Recreation Adoption Model (ORAM)**<sup>6</sup>



Note that not all participants go through all the stages—the model is not meant to be strictly linear from beginning to end but contains loops—as some people move through the continuation stages into the lapsed stages and then back into the continuation stages (if they become reactivated).

<sup>4</sup> Morales, N.A.; R. Paudyal; and C. Hughes. 2020. Creating Life-Long Anglers: Impacts of a High School Fishing Program on Youth Fishing, Related Knowledge, Confidence and Perception of Barriers. *Knowledge and Management of Aquatic Ecosystems* 421.

<sup>&</sup>lt;sup>1</sup> Byrne, R; and M. Dunfee. 2018. *Evolution and Current Use of the Outdoor Recreation Adoption Model*. http://www.cahss.org/wp-content/uploads/2018/08/RB\_Evolution-and-Current-Use-of-the-ORAM\_FINAL.pdf.

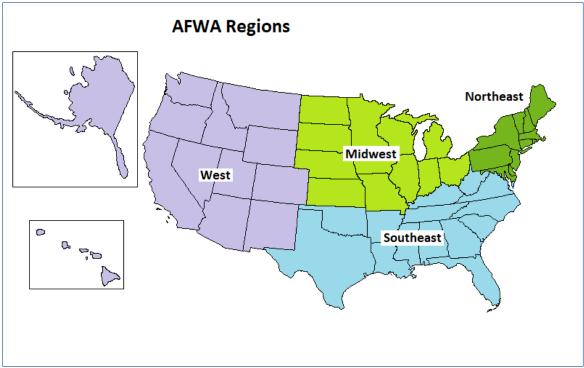
<sup>&</sup>lt;sup>2</sup> Ryan, B.; and N. Gross. 1950. *Acceptance and Diffusion of Hybrid Corn Seed in Two Iowa Communities. Research Bulletin 372*.

<sup>&</sup>lt;sup>3</sup> Rogers, E.M. 1962. *Diffusion of Innovations*, p. 367. New York: Free Press.

<sup>&</sup>lt;sup>5</sup> Byrne, R; and M. Dunfee. 2018. *Evolution and Current Use of the Outdoor Recreation Adoption Model*. http://www.cahss.org/wp-content/uploads/2018/08/RB\_Evolution-and-Current-Use-of-the-ORAM\_FINAL.pdf.

<sup>&</sup>lt;sup>6</sup> The model was recreated based on the figure in Appendix A of *AFWA President's Task Force on Angler R3* published in 2018.

A final categorization in some of the analyses was done by region, using the Association of Fish and Wildlife Agency (AFWA) regions. The analysis was based on the respondents' states of residence, not the states in which they were stationed. The AFWA regions are shown in the map that follows.



Note that all regional analyses were based on region of *residence* rather than region in which respondents were stationed.

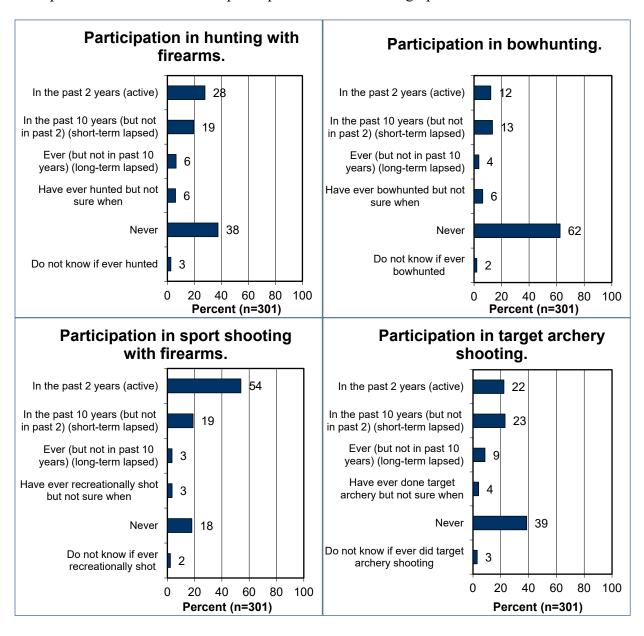
As a final thought, a quotation from a Major General (who will remain anonymous here) in one of the open-ended questions shows how important this project is:

I'm advocating on post and across all military installations for access and opportunities for soldiers and families to hunt/shoot and fish as a method of team building and resiliency to combat suicides, assaults and other behavior health and marriage/family challenges.

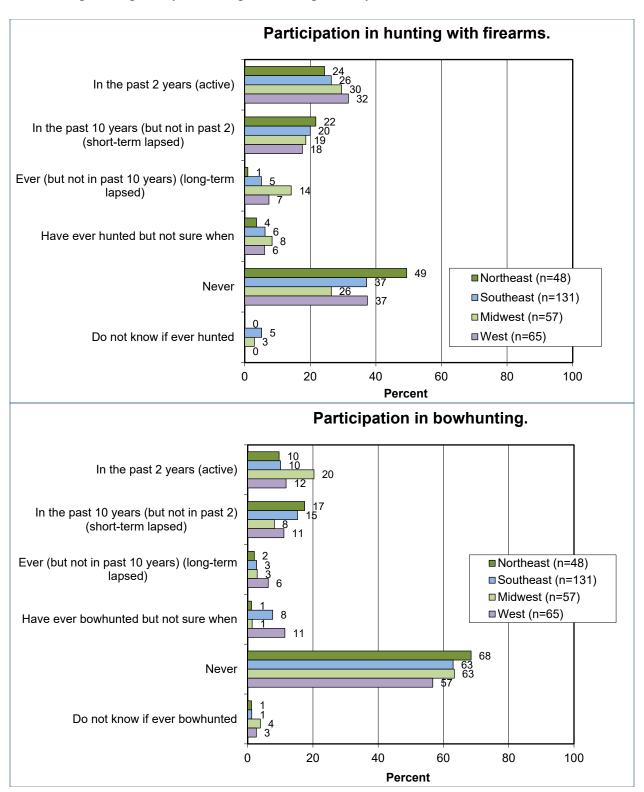
# PARTICIPATION AND INTEREST IN HUNTING, BOWHUNTING, SPORT SHOOTING, AND ARCHERY

As discussed above, one component of the project was a nationwide random sample of active-duty military members to establish participation rates. The survey asked about participation in the past 2 years (active participants, to be targeted with retention), in the past 10 but not the past 2 years (short-term lapsed participants, to be targeted with reactivation), at some time in the respondent's life but not in the past 10 years (long-term lapsed, to be targeted with reactivation), and never (non-participants, to be targeted with recruitment) (see graphs below). For the responses that included an unknown element, assignments to groups were as follows: "Ever, but not sure when" are categorized as long-term lapsed to be targeted with reactivation; "Do not know if ever hunted" are categorized as non-participants to be targeted with recruitment.

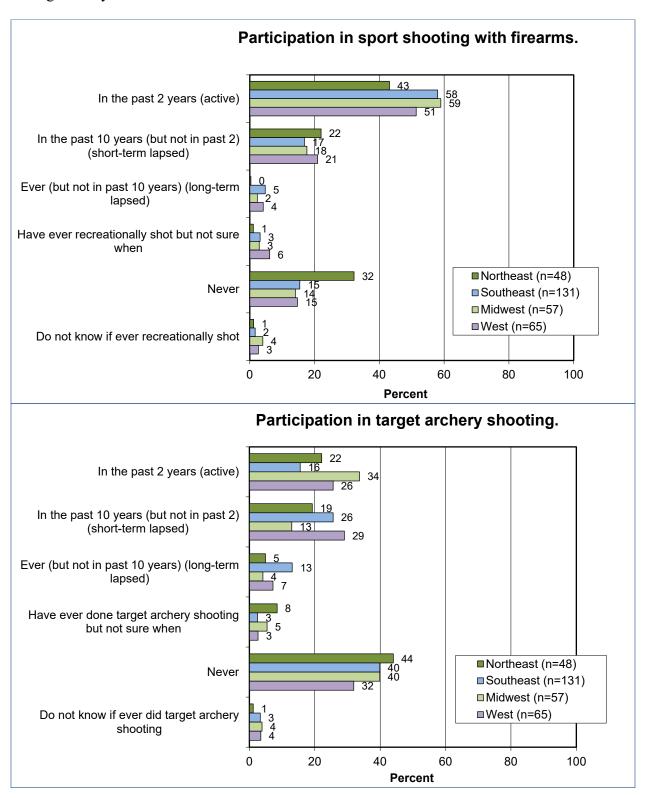
The specific breakdown of these participants is shown in the graphs below.



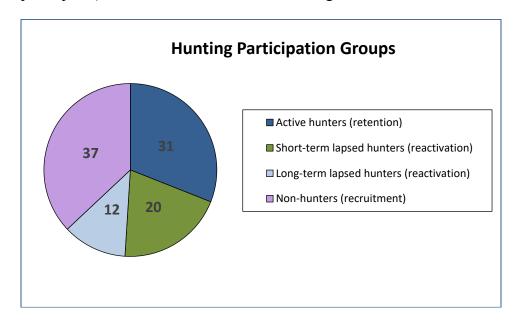
Military members from the West (the crosstabulations were based on state of residence, not state in which respondents were stationed) and Midwest have higher participation rates in hunting in the past 2 years, compared to military members from the other two regions. The rate of bowhunting in the past 2 years is highest among military members from the Midwest.



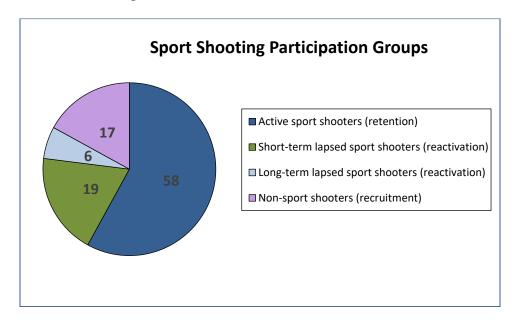
Participation rates in the past 2 years in sport shooting with firearms is highest among military members from the Midwest and Southeast. Target archery shooting participation is highest among military members from the Midwest.



In combining hunting with firearms and bowhunting participation with the specific components of R3 in mind, 31% of military members are active hunters to be targeted with retention, 20% are short-term lapsed to be targeted with retention and reactivation, 12% are long-term lapsed to be targeted with reactivation (and recruitment if their lapsing is such that they are now non-participants), and 37% are non-hunters to be targeted with recruitment.



Similarly, breaking down participation in sport shooting with either firearms or archery with the specific components of R3 in mind, 58% of military members are active sport shooters to be targeted with retention, 19% are short-term lapsed sport shooters to be targeted with retention and reactivation, 6% are long-term lapsed sport shooters to be targeted with reactivation (and recruitment if their lapsing is such that they are now non-participants), and 17% are non-sport shooters to be targeted with recruitment.



The tables on the next two pages show the way that the results above were calculated.

The tabulation below shows the possible combinations of participation in hunting with firearms and bowhunting. In combining the two hunting activities, 31% did any hunting (either with firearms or bowhunting) in the past 2 years (dark green), 51% did so in the past 10 years (dark and light green), and 63% did so ever (any green or yellow).

Hunting Participation			
Hunting with Firearms	Bowhunting	Percent	
Past 2 years	Past 2 years	9.3	
Past 2 years	Past 10 years (but not past 2)	3.9	
Past 2 years	Ever	0.8	
Past 2 years	Ever, but unsure	2.0	
Past 2 years	Never	11.9	
Past 10 years (but not past 2)	Past 2 years	1.4	
Past 10 years (but not past 2)	Past 10 years (but not past 2)	7.2	
Past 10 years (but not past 2)	Ever	1.2	
Past 10 years (but not past 2)	Ever, but unsure	2.0	
Past 10 years (but not past 2)	Never	7.1	
Ever	Past 2 years	0.0	
Ever	Past 10 years (but not past 2)	0.0	
Ever	Ever	1.0	
Ever	Ever, but unsure	0.2	
Ever	Never	4.6	
Ever, but unsure	Past 2 years	0.6	
Ever, but unsure	Past 10 years (but not past 2)	1.3	
Ever, but unsure	Ever	0.5	
Ever, but unsure	Ever, but unsure	1.1	
Ever, but unsure	Never	2.6	
Never	Past 2 years	0.2	
Never	Past 10 years (but not past 2)	1.0	
Never	Ever	0.0	
Never	Ever, but unsure	1.1	
Never	Never	34.8	
Do not know	Past 2 years	0.6	
Do not know	Past 10 years (but not past 2)	0.0	
Do not know	Ever	0.0	
Do not know	Ever, but unsure	0.0	
Do not know	Never	1.5	
Do not know	Do not know	0.5	
Past 2 years	Do not know	0.0	
Past 10 years (but not past 2)	Do not know	0.5	
Ever	Do not know	0.6	
Ever, but unsure	Do not know	0.0	
Never	Do not know	0.4	

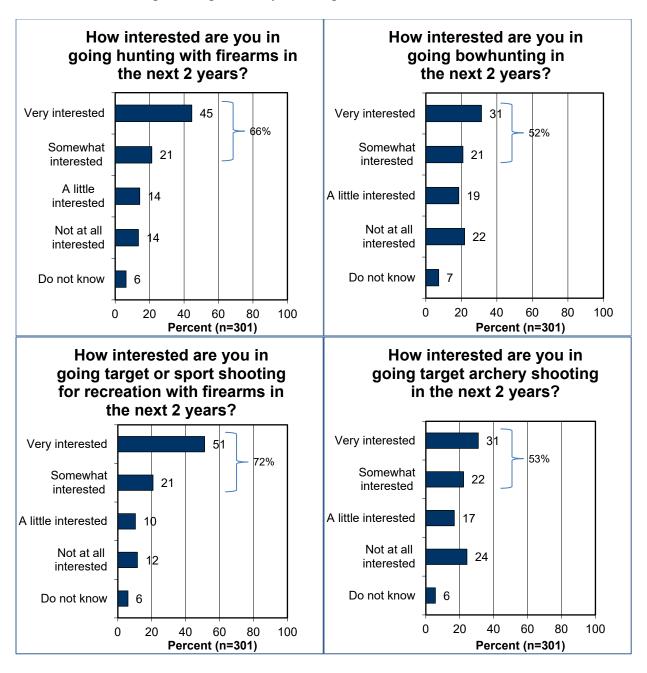
Any hunting in past 2 years (active)	31
Any hunting in past 10 years (active and short-term lapsed)	51
Any hunting ever (active, short-term lapsed, long-term lapsed)	63
Never any hunting	37

In the same way, participation in sport shooting with firearms or archery was considered: 58% did any firearm or archery shooting in the past 2 years (dark green), 77% did so in the past 10 years (dark and light green), and 83% did so ever (any green or yellow).

Sport Shooting Participation			
Sport Shooting with Firearms	Target Archery	Percent	
Past 2 years	Past 2 years	18.0	
Past 2 years	Past 10 years (but not past 2)	13.7	
Past 2 years	Ever	3.2	
Past 2 years	Ever, but unsure	1.9	
Past 2 years	Never	17.0	
Past 10 years (but not past 2)	Past 2 years	2.9	
Past 10 years (but not past 2)	Past 10 years (but not past 2)	6.3	
Past 10 years (but not past 2)	Ever	2.7	
Past 10 years (but not past 2)	Ever, but unsure	1.7	
Past 10 years (but not past 2)	Never	5.1	
Ever	Past 2 years	0.2	
Ever	Past 10 years (but not past 2)	0.6	
Ever	Ever	1.5	
Ever	Ever, but unsure	0.0	
Ever	Never	0.9	
Ever, but unsure	Past 2 years	0.2	
Ever, but unsure	Past 10 years (but not past 2)	0.8	
Ever, but unsure	Ever	1.1	
Ever, but unsure	Ever, but unsure	0.5	
Ever, but unsure	Never	0.9	
Never	Past 2 years	0.8	
Never	Past 10 years (but not past 2)	1.7	
Never	Ever	0.2	
Never	Ever, but unsure	0.0	
Never	Never	14.6	
Do not know	Past 2 years	0.2	
Do not know	Past 10 years (but not past 2)	0.0	
Do not know	Ever	0.0	
Do not know	Ever, but unsure	0.0	
Do not know	Never	0.2	
Do not know	Do not know	1.9	
Past 2 years	Do not know	0.2	
Past 10 years (but not past 2)	Do not know	0.2	
Ever	Do not know	0.2	
Ever, but unsure	Do not know	0.0	
Never	Do not know	0.6	

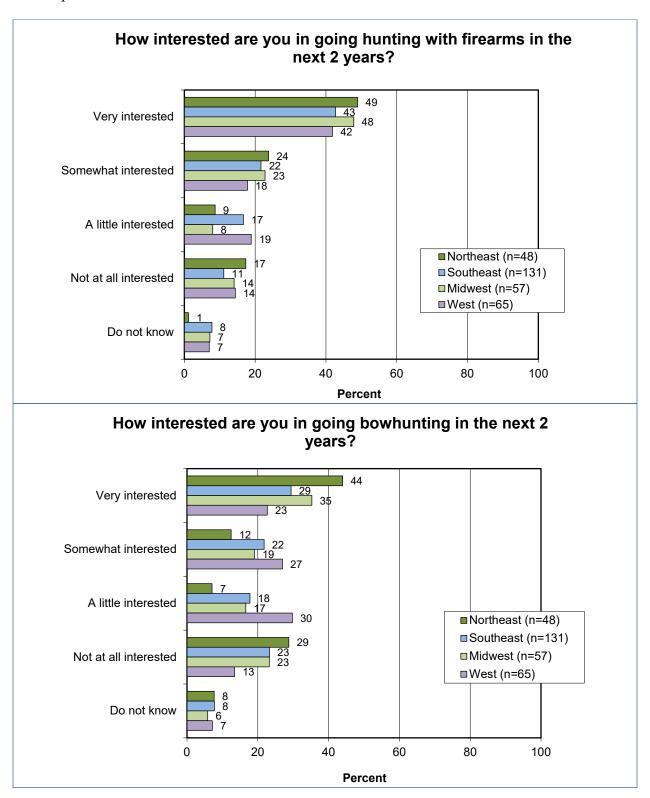
Any sport shooting in past 2 years (active)	58
Any sport shooting in past 10 years (active and short-term lapsed)	77
Any sport shooting ever (active, short-term lapsed, long-term lapsed)	83
Never any sport shooting	17

Overall interest was first looked at on the nationwide random sample of military members, as shown in the graphs below: about two thirds of military personnel show robust interest in hunting with firearms, three quarters in sport shooting with firearms, and about half show robust interest in bowhunting and target archery shooting.

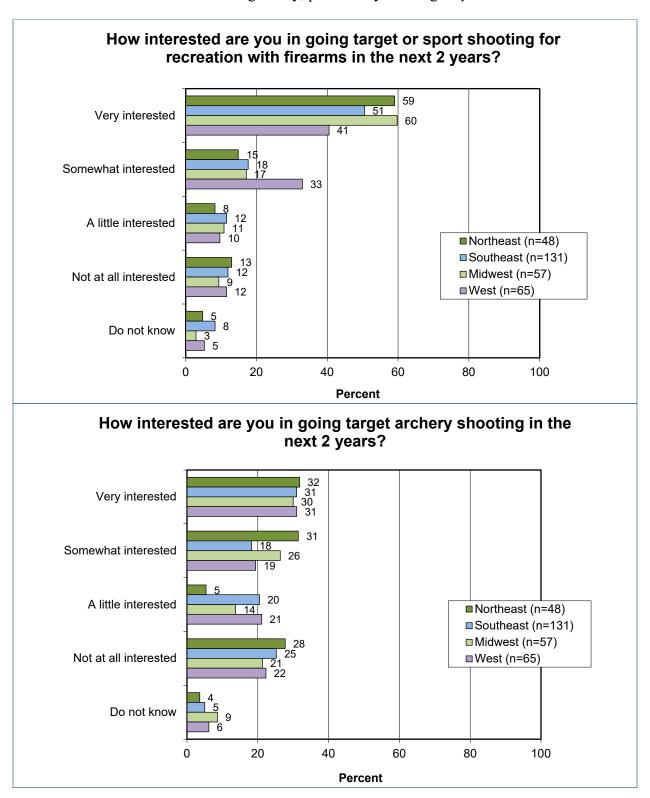


The main use of these analyses was to help identify subsets of non-participants, as they were divided into non-participants who are *very* or *somewhat* interested and non-participants who did not say that they are very or somewhat interested and who are not viable targets for recruitment. (Specifically, the latter group includes those who are *a little* interested, those who are *not at all* interested, and those who *do not know*.)

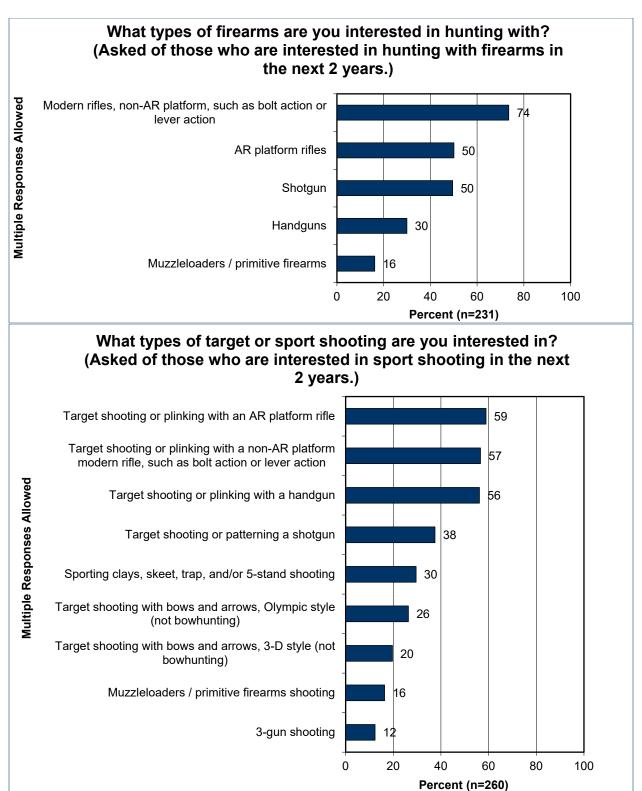
Interest in firearms hunting does not vary greatly by region. Interest in bowhunting, on the other hand, is markedly higher among military members from the Northeast, with the Midwest in second place.



Interest in sport shooting with firearms is highest among military members from the Midwest and Northeast; the least interest is among those from the West. Interest in target archery shooting does not show marked differences regionally, particularly in being *very* interested.



The greatest interest is in hunting with a modern rifle (non-AR platform). This is more distantly followed by interest in hunting with AR platform rifles and with shotguns. The types of sport shooting with the greatest interest is plinking with rifles (both non-AR and AR platform rifles) and handguns.



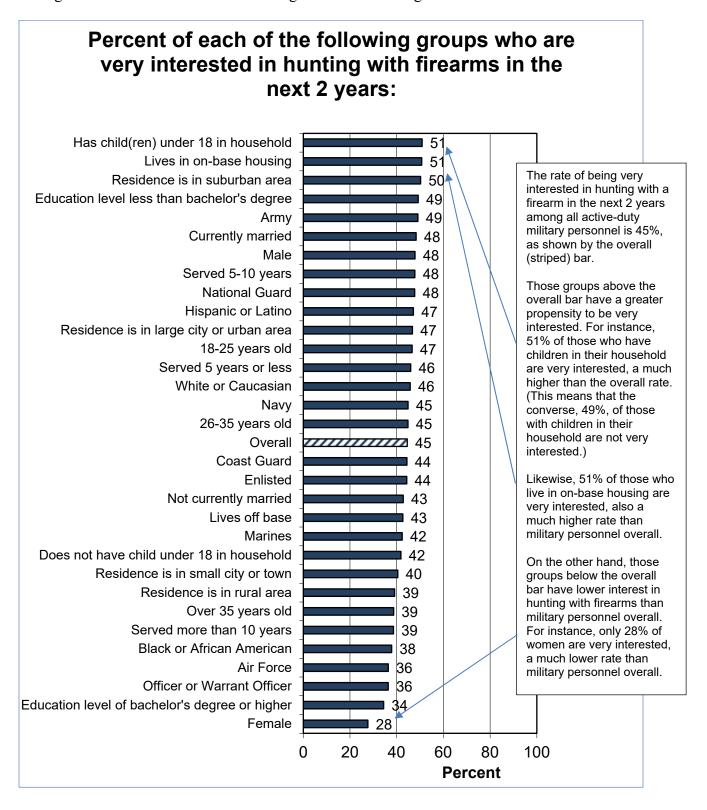
Demographic-participatory analyses were conducted on these groups who are very interested. These graphs show the percentage of respondents overall who are very interested in the given activity (indicated by the striped bar) and then the percentage of various groups who are very interested. An explanation of how to interpret these graphs is included on the first graph that follows. All of these demographic-participatory graphs are interpreted in the same way. Because these graphs need a full page for legibility, they start on the following page.

Note that these characteristics are not meant to describe a single person; rather, these are the groups that are associated with interest in the given activities, which are sometimes mutually exclusive. Each variable is considered separately, and then the results are compiled on one graph. Indeed, there may be some of these types of graphs where respondents in two branches are both associated with a given response. Obviously, this does not describe a single person; rather, both branches would be associated with the given response.

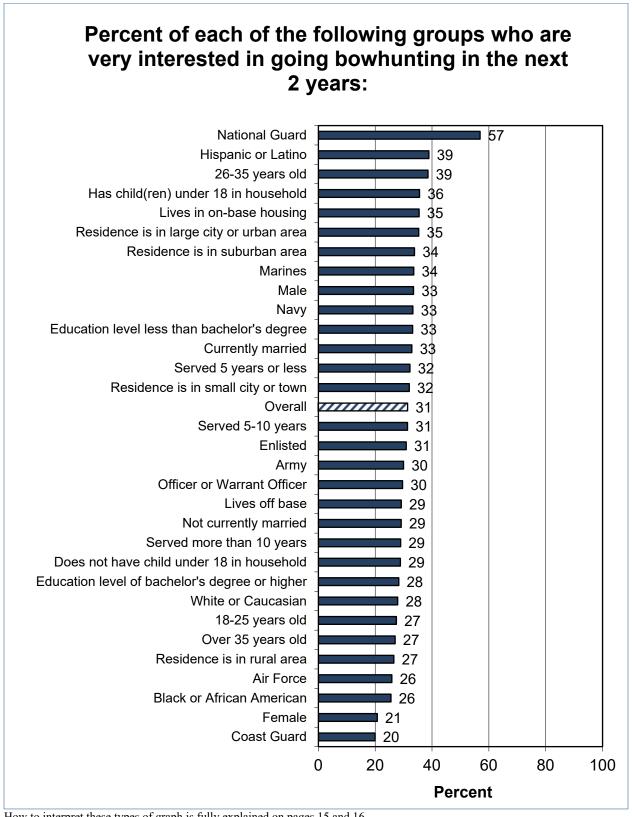
Only those groups at some distance from the overall bar are markedly different; those near the overall bar are not notably different from the overall percentage. A rule of thumb is that the groups need to be more than 5 percentage points above or below the overall bar to be considered worthy to note.

In these graphs, if one group is above the overall bar, its counterpart (or one of its counterparts) will be below the overall bar. For instance, both Army, National Guard, and Navy are above the overall bar, so at least one of their counterparts has to be below the overall bar; in this case Coast Guard and Marines are both below the overall bar. Additionally, male is above the overall bar, while female is below the overall bar.

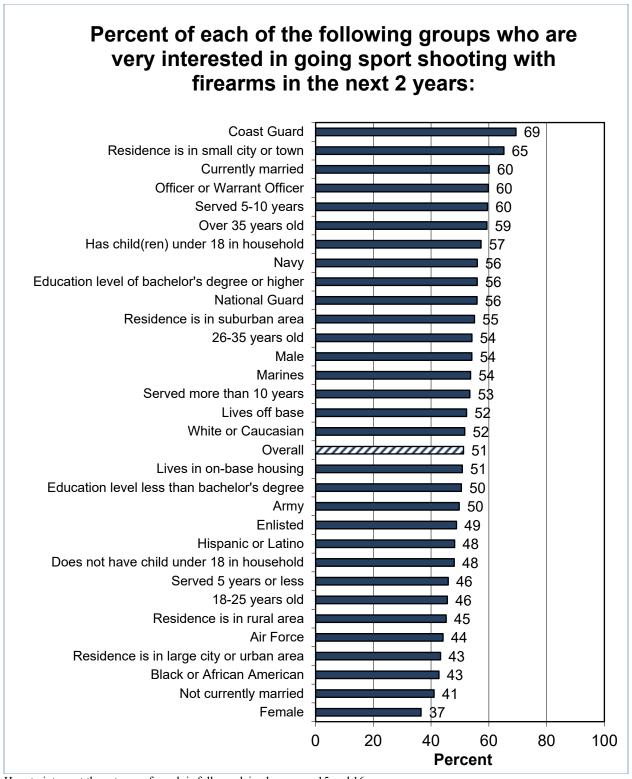
Those associated with being *very* interested in hunting with firearms in the next 2 years include having children in the household and living in on-base housing.



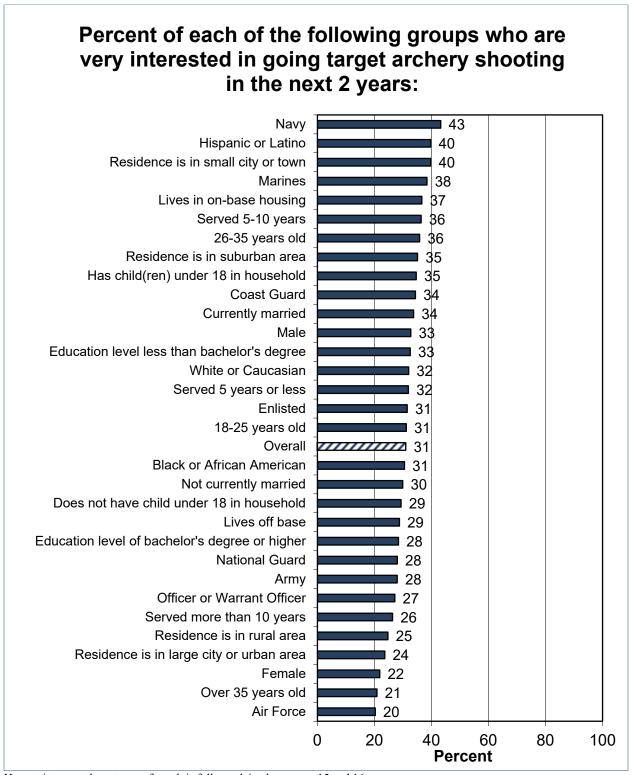
Being very interested in going bowhunting is associated with being in the National Guard, being Hispanic or Latino, and being 26 to 35 years old.



Being *very* interested in sport shooting with firearms in the next 2 years is associated with being in the Coast Guard, residing in a small city or town, being currently married, being an Officer or Warrant Officer, having served for 5 to 10 years, being over 25 years old, and having children in the household.



Being *very* interested in going target archery shooting in the next 2 years is associated with being in the Navy or Marines, being ethnically Hispanic or Latino, residing in a small city or town, and living in off-base housing.



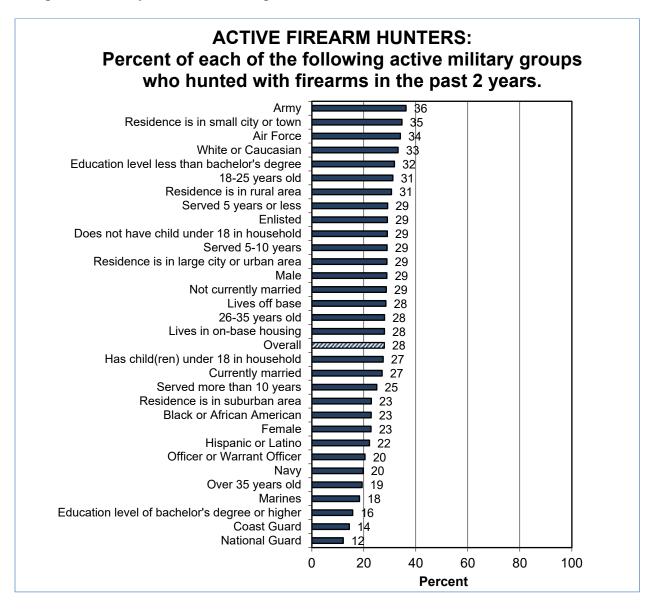
# ACTIVE PARTICIPANTS: THOSE TO BE TARGETED WITH RETENTION EFFORTS

The report now breaks down military personnel according to participation and interest in the activities into categories. One of those categories consists of active participants—those to be targeted by the retention component of R3. The report looks at hunting first, then at sport shooting.

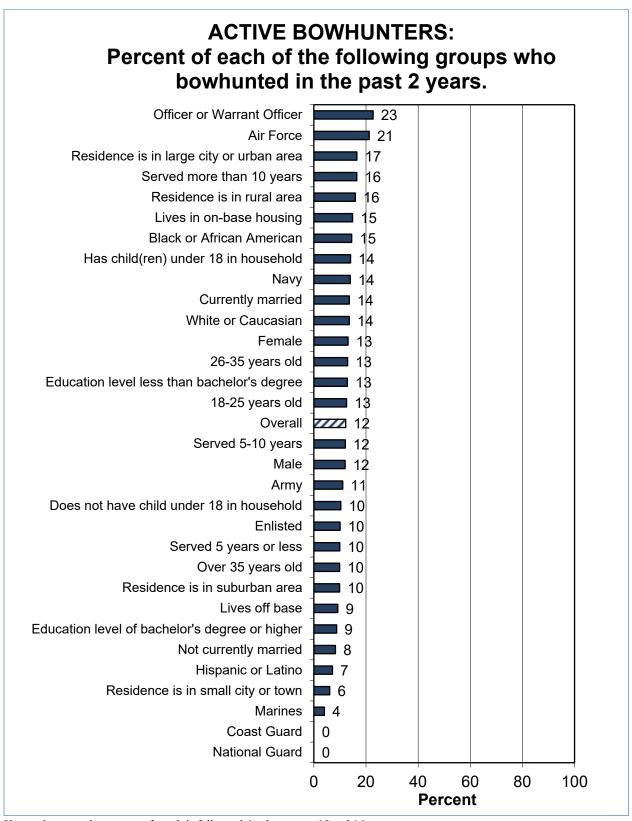
## **DEMOGRAPHIC CHARACTERISTICS OF ACTIVE HUNTERS**

The examination of this group starts with their demographic characteristics, as demonstrated by the demographic-participatory analyses graphs that follow.

The first demographic-participatory graph shows that the following military groups are associated with participation in hunting with firearms in the past 2 years (i.e., being an active firearm hunter to be targeted with retention efforts): being in the Army or Air Force branches, living in a small city or town, and being white.



Being an active bowhunter (to be targeted with retention efforts) is associated with being an Officer or Warrant Officer and being in the Air Force.

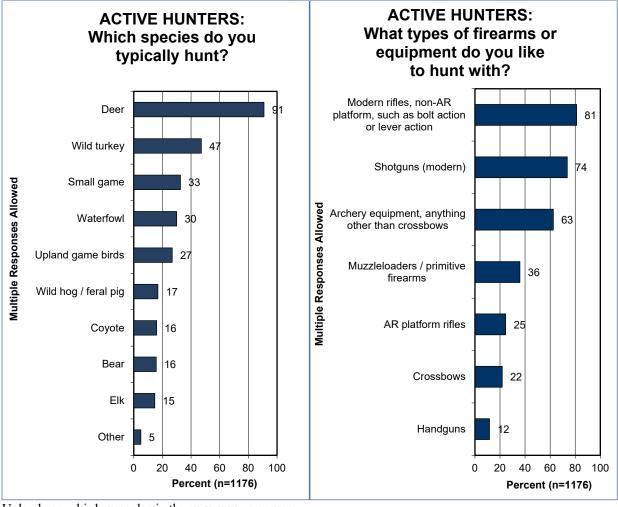


The above shows the characteristics of active hunters who are to be targeted with retention efforts. The report now looks at their hunting behaviors, motivations, constraints, and encouragements to participate.

#### CHARACTERISTICS OF HUNTING PARTICIPATION AMONG ACTIVE HUNTERS

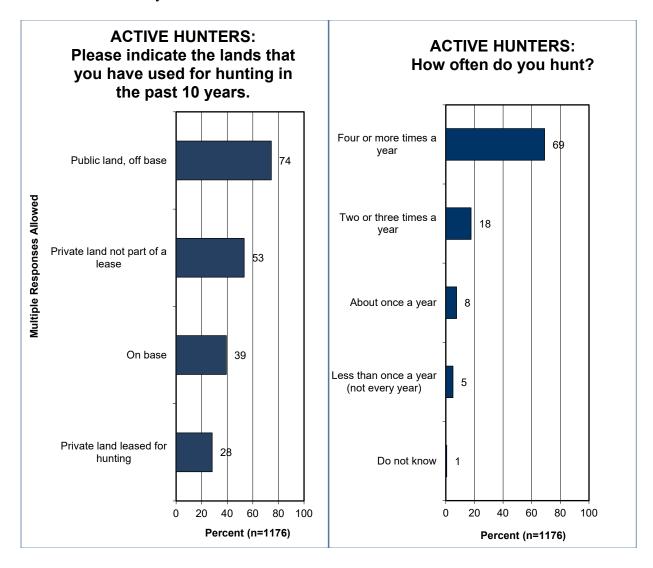
The results regarding characteristics of hunting are taken from the melded sample that comprised the nationwide sample of active-duty military members and the state samples based on license data and the other components of the state sampling. The *Methodology* section of this report details how those four sampling components were put together.

The most popular species among active hunters is deer. This is distantly followed by wild turkey, small game, waterfowl, and upland game birds. The types of firearms used most commonly are modern rifles (non-AR) and shotguns. Archery use is robust, as well.

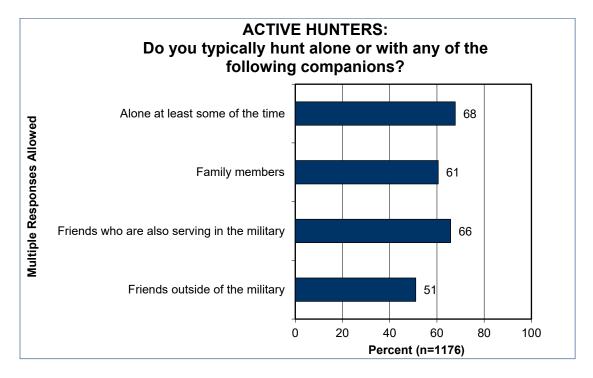


Upland game bird examples in the survey were grouse, pheasant, and quail.

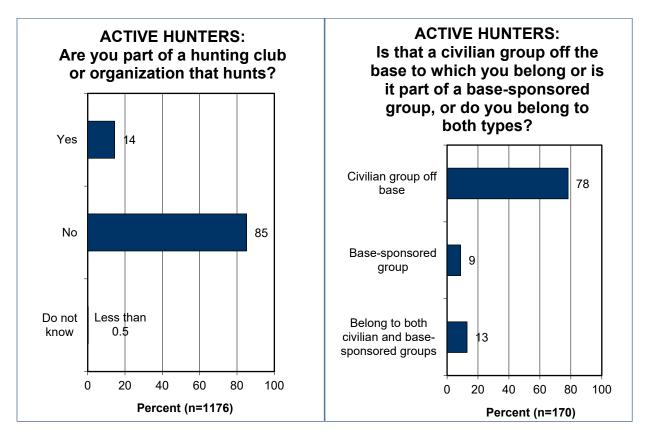
The survey looked at lands used for hunting, including on-base hunting. Nearly three quarters of active hunters use public land off base, and just over half use private land not part of a lease. The frequency of hunting participation is shown for active hunters. The majority of active hunters go four or more times a year.



This section also looks at hunting companions. A large majority of active hunters hunt alone at least part of the time (68% do so).

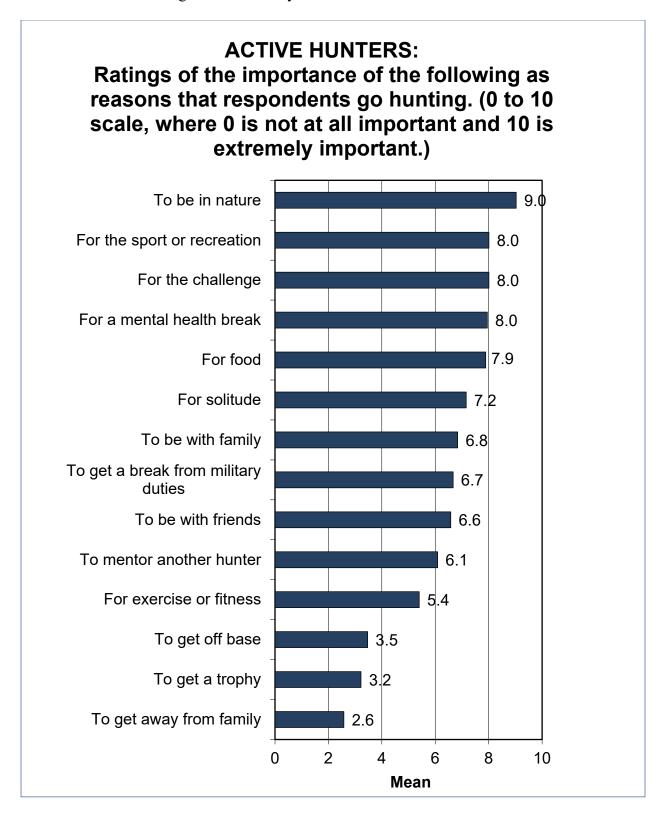


Also in this section is a look at hunting clubs: 14% of active hunters are part of a hunting club. These clubs are most commonly civilian clubs off base (the latter question was asked only of those who indicated belonging to a club).



#### MOTIVATIONS FOR HUNTING AMONG ACTIVE HUNTERS

Being in nature is, by far, the most important reason for hunting, having a mean of 9.0 on a 0 to 10 scale. For the recreation, the challenge, a mental health break, and food make up the next tier—all with mean ratings of 8.0 or nearly that.

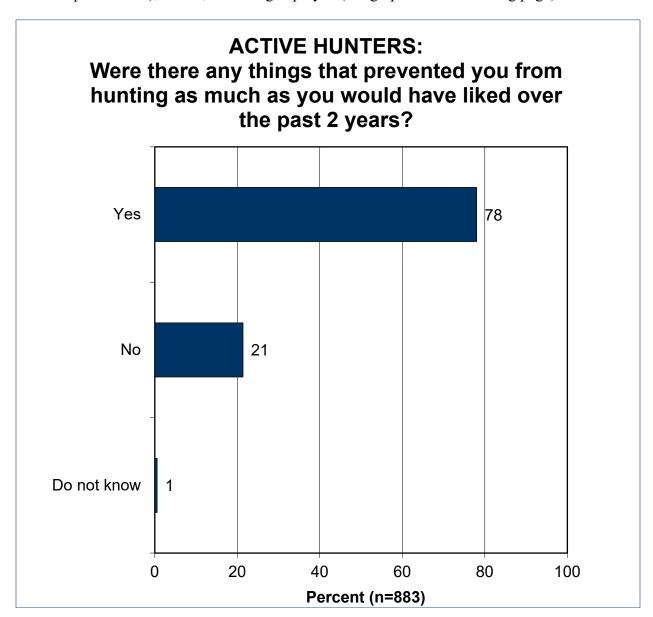


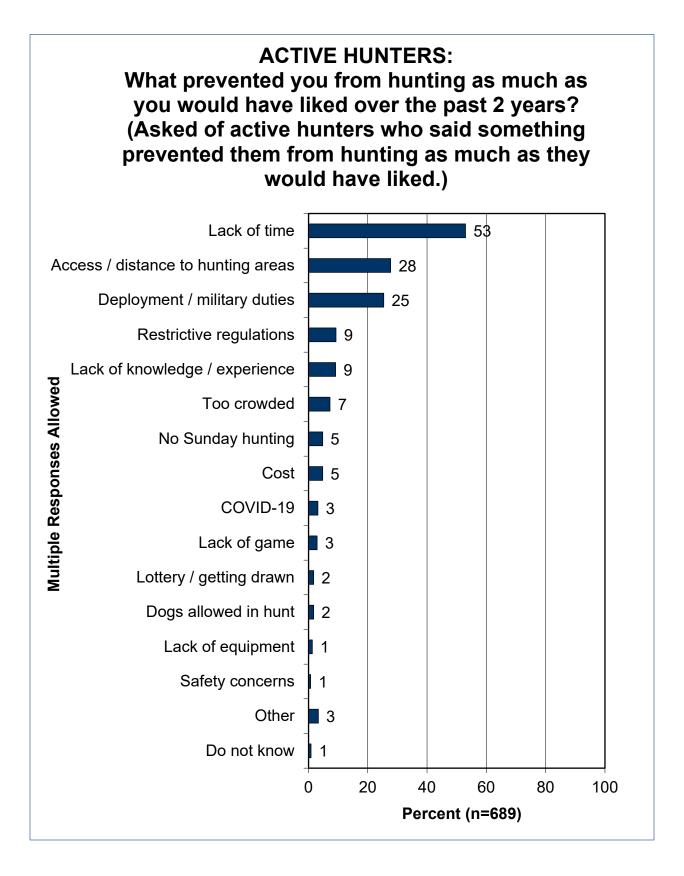
The analysis included a regional breakdown of the results regarding motivations, based on the region of residence (not the region where the respondent is stationed), as shown in the table below. Motivations are not markedly different regionally among active hunters.

ACTIVE HUNTERS: Ratings of the importance of the following as reasons that respondents go hunting. (0 to 10 scale, where 0 is not at all important and 10 is extremely important.)					
	Northeast	Southeast	Midwest	West	Total
To be in nature	8.9	9.1	9.1	9.0	9.0
For the sport or recreation	7.9	8.1	8.1	7.7	8.0
For the challenge	7.8	8.0	8.2	8.0	8.0
For a mental health break	7.5	8.1	7.9	8.2	8.0
For food	7.7	7.9	8.0	7.9	7.9
For solitude	6.9	7.3	7.4	7.1	7.2
To be with family	7.4	6.6	6.5	7.3	6.8
To get a break from military duties	6.6	6.9	6.2	6.6	6.7
To be with friends	6.6	6.5	6.8	6.7	6.6
To mentor another hunter	6.2	6.0	6.1	6.2	6.1
For exercise or fitness	5.4	5.2	5.8	5.5	5.4
To get off base	3.7	3.3	3.3	3.7	3.5
To get a trophy	2.6	3.4	3.7	3.0	3.2
To get away from family	2.9	2.6	2.7	2.1	2.6

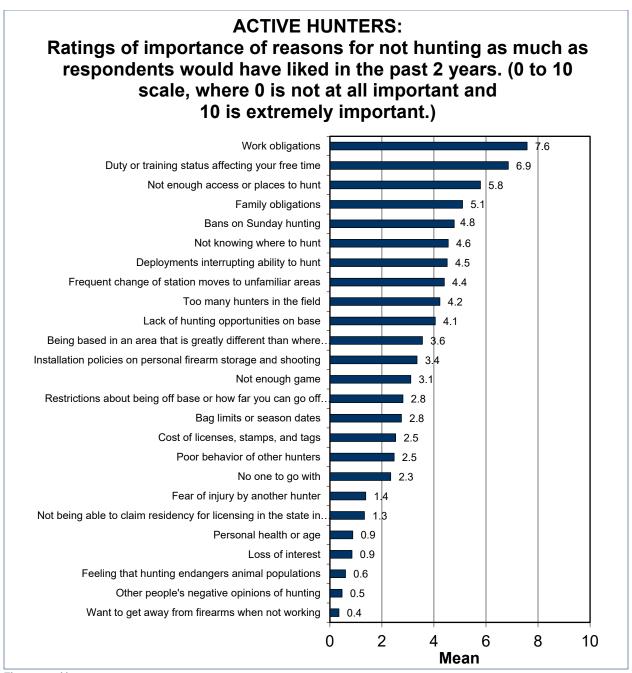
### **CONSTRAINTS TO HUNTING PARTICIPATION AMONG ACTIVE HUNTERS**

The first line of questioning on constraints overall was an open-ended question asking if there were any things that prevented participation in hunting. A large percentage of active hunters, despite hunting in the past 2 years, indicated that something had prevented them from hunting as much as they would have liked (78% of active hunters). Their top constraints are lack of time (by far the top constraint), access, and being deployed (see graph on the following page).





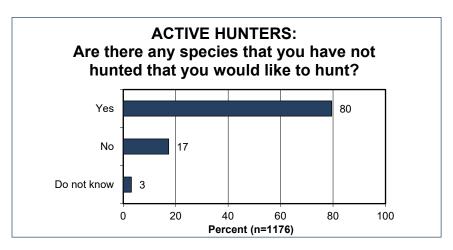
In addition to the open-ended question, the survey presented a series of potential constraints to respondents and asked them to rate the importance of each potential constraint to them as a reason for not hunting or not hunting as much as desired. The first series examined in this section asked active hunters why they did not hunt as much as they would have liked in the past 2 years. Work/duty obligations (either work obligations or duty/training status affecting free time) are, by far, the most important constraints (with family obligations also relatively high). Constraints over which the hunting community may have some sway include lack of access (including both a lack of direct access and a lack of knowing where to access hunting lands) and bans on Sunday hunting (among those states with such bans).



The truncated items are:

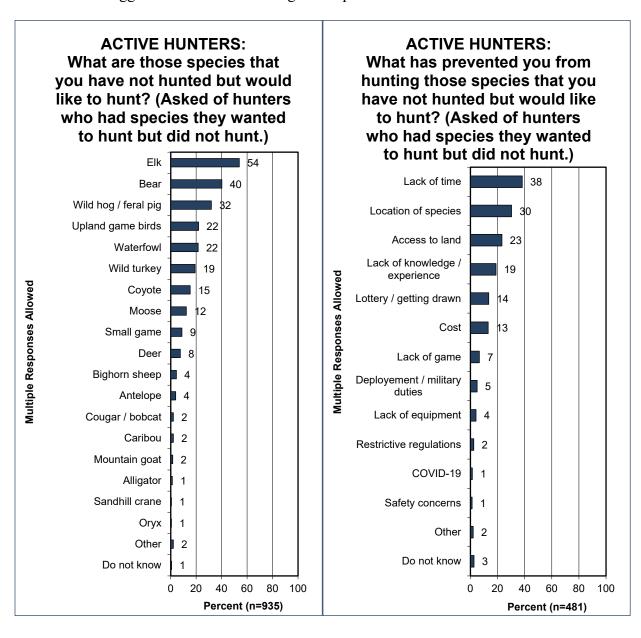
Being based in an area that is greatly different than where you grew up hunting. Restrictions about being off base or how far you can go off base Not being able to claim residency for licensing in the state in which you are based Not knowing where to hunt and installation policies on personal firearms are markedly lower as constraints among active hunters from the Northeast.

ACTIVE HUNTERS: Ratings of importance of reasons for not hunting as much as respondents would have liked in the past 2 years. (0 to 10 scale, where 0 is not at all important and 10 is extremely important.) Northeast Southeast Midwest West Total 7.2 Work obligations 7.3 7.9 7.6 7.6 Duty or training status affecting your free 6.7 7.1 6.7 6.6 6.9 Not enough access or places to hunt 4.9 6.1 5.9 5.7 5.8 Family obligations 5.0 5.2 5.0 5.2 5.1 Bans on Sunday hunting 5.1 4.2 4.8 3.6 5.3 Not knowing where to hunt 4.7 5.0 3.1 4.9 4.6 Deployments interrupting ability to hunt 4.7 4.3 5.1 4.3 4.5 Frequent change of station moves to 3.7 4.6 4.0 4.8 4.4 unfamiliar areas Too many hunters in the field 4.2 4.2 3.8 4.6 4.5 Lack of hunting opportunities on base 3.3 4.3 4.1 4.1 4.1 Being based in an area that is greatly 3.2 3.7 3.8 3.5 3.6 different than where you grew up hunting Installation policies on personal firearm 3.6 4.0 3.4 3.4 2.1 storage and shooting Not enough game 2.6 3.2 3.5 3.1 3.1 Restrictions about being off base or how far 1.8 2.9 3.6 2.9 2.8 you can go off base Bag limits or season dates 2.3 2.9 2.3 3.0 2.8 Cost of licenses, stamps, and tags 2.7 2.3 2.4 3.1 2.5 Poor behavior of other hunters 2.3 2.3 2.8 2.7 2.5 No one to go with 2.0 2.4 2.9 2.0 2.3 Fear of injury by another hunter 1.0 1.7 1.2 1.3 1.4 Not being able to claim residency for 1.2 1.3 1.4 1.6 1.3 licensing in the state in which you are based Personal health or age 0.7 0.9 1.1 8.0 0.9 Loss of interest 0.9 8.0 0.6 1.0 0.9 Feeling that hunting endangers animal 0.6 0.9 0.6 0.3 0.6 populations Other people's negative opinions of hunting 0.3 0.7 0.4 0.6 0.5 Want to get away from firearms when not 0.6 0.3 0.3 0.2 0.4 working

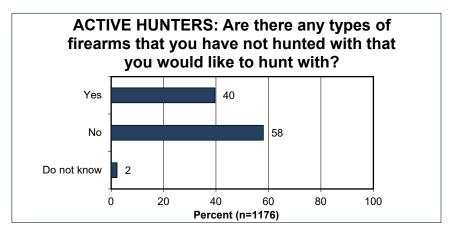


In the theme of constraints, hunters were asked if there are any species that they wanted to hunt that they had not hunted, and a large percentage of active hunters answered affirmatively: 80% say that there are such species.

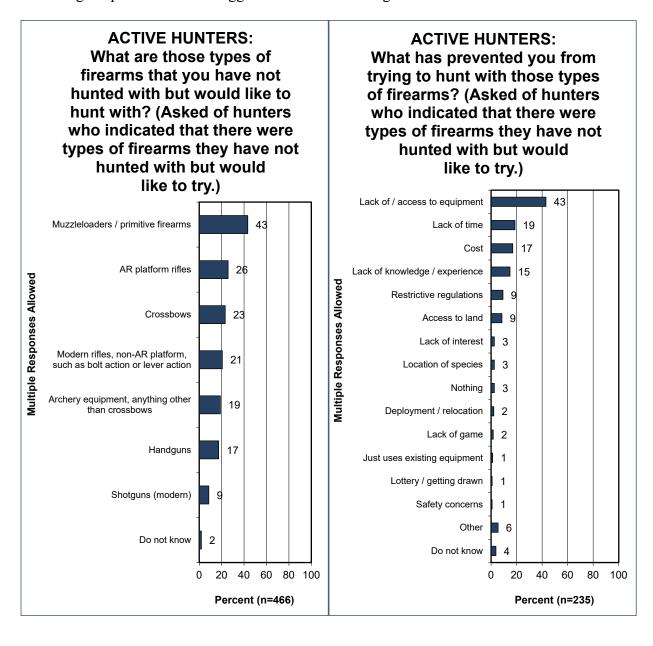
Elk, bear, and wild hog lead the list. Lack of time, the location specific to the species, and lack of access are the biggest constraints to hunting these species.



When asked if there are types of firearms that active hunters have not hunted with but would like to try, 40% indicated that there are.

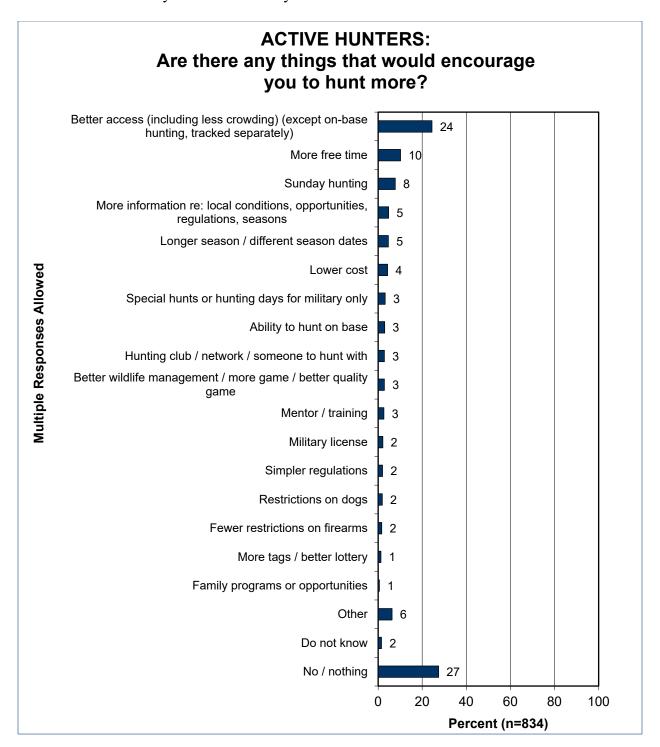


Muzzleloaders are the most commonly mentioned type of firearms that active hunters want to try but have not heretofore tried. Lack of the equipment, lack of time, cost, and lack of knowledge/experience are the biggest constraints to using these firearms.

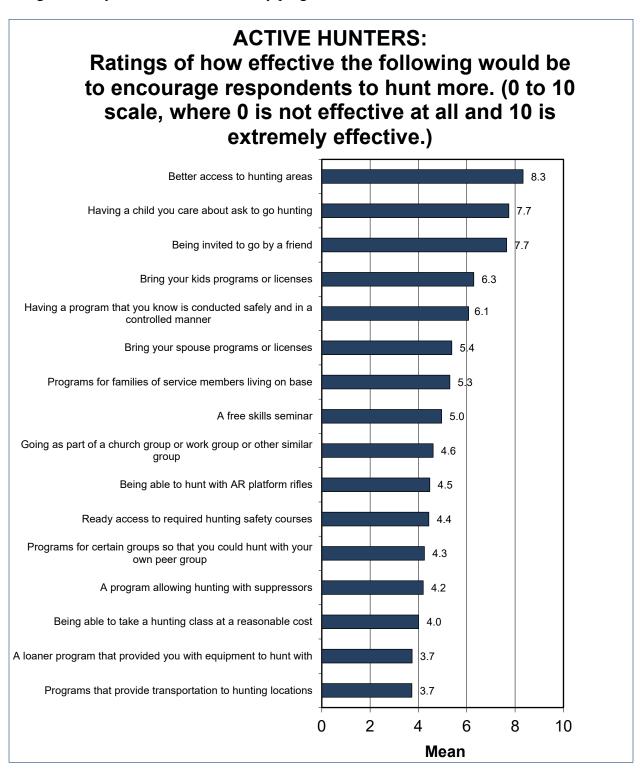


### **ENCOURAGING HUNTING PARTICIPATION AMONG ACTIVE HUNTERS**

Better access is the top encouragement to hunt by far among active hunters, who were asked in an open-ended question if there were any things that would encourage them to hunt more. More free time and the ability to hunt on Sunday were also often mentioned.



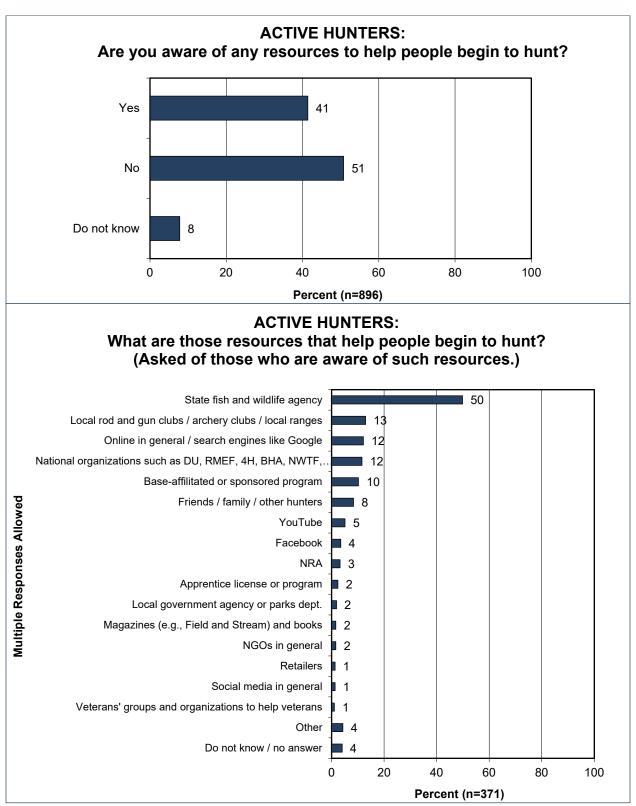
Access is again a top encouragement in another line of questioning. Along with the open-ended question, there was a series of questions in which active hunters rated items that might encourage them to hunt more. The top response by far is access to a place to go hunting. Also high in the ranking are camaraderie-related and mentoring-related items: having a child ask to be taken, being invited by a friend, and kids/family programs or licenses.



There are no marked regional differences among active hunters in things that would encourage more participation.

ACTIVE HUNTERS: Ratings of how effective the following would be to encourage respondents to hunt more. (0 to 10 scale, where 0 is not effective at all and 10 is extremely effective.)					
		Southeast		West	Total
Better access to hunting areas	7.7	8.5	8.2	8.6	8.3
Having a child you care about ask to go hunting	7.7	8.0	7.2	7.7	7.7
Being invited to go by a friend	7.5	7.6	8.0	7.7	7.7
Bring your kids programs or licenses	6.3	6.2	6.2	6.6	6.3
Having a program that you know is conducted safely and in a controlled manner	5.9	6.3	6.1	5.7	6.1
Bring your spouse programs or licenses	4.9	5.7	4.8	5.6	5.4
Programs for families of service members living on base	4.8	5.3	6.0	5.2	5.3
A free skills seminar	4.6	5.2	5.1	4.8	5.0
Going as part of a church group or work group or other similar group	3.7	5.0	4.4	4.8	4.6
Being able to hunt with AR platform rifles	4.3	4.9	4.1	3.9	4.5
Ready access to required hunting safety courses	4.8	4.4	3.5	4.9	4.4
Programs for certain groups so that you could hunt with your own peer group	4.0	4.6	3.9	3.9	4.3
A program allowing hunting with suppressors	3.4	4.3	4.4	4.6	4.2
Being able to take a hunting class at a reasonable cost	4.0	4.0	4.2	3.8	4.0
A loaner program that provided you with equipment to hunt with	3.4	3.9	3.6	4.0	3.7
Programs that provide transportation to hunting locations	3.2	4.2	3.4	3.5	3.7

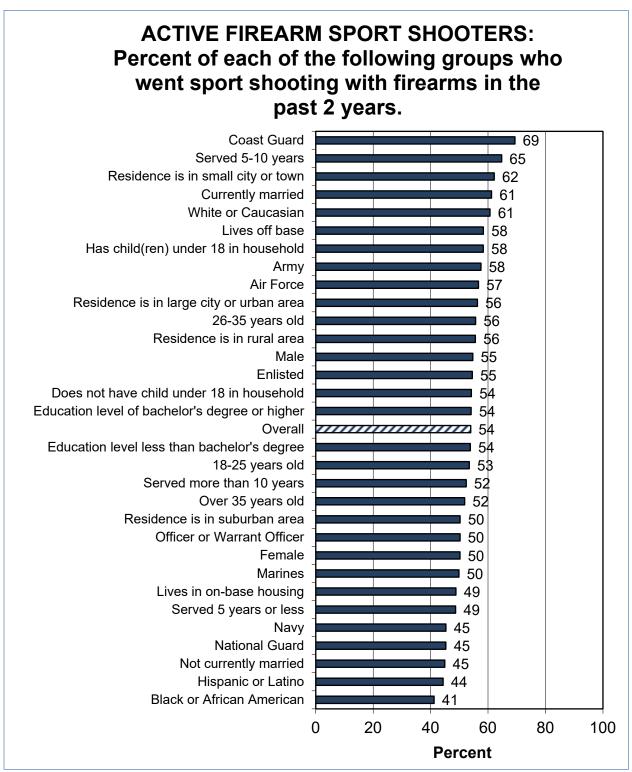
The last part of encouragements to examine is hunters' awareness of resources to help people begin to hunt: 41% of active hunters are aware of such resources. They are most commonly aware of resources made available by their state fish and wildlife agency.



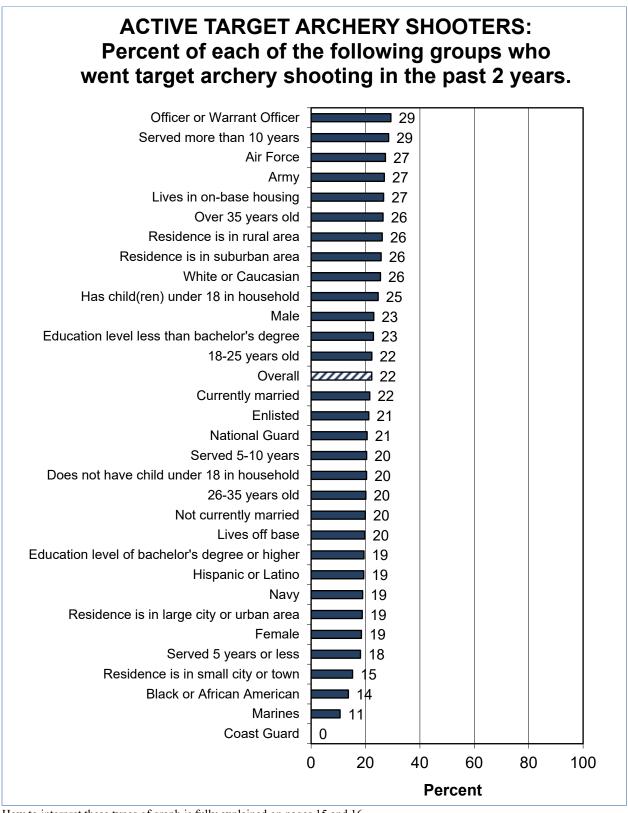
The truncated item is "National organizations such as DU, RMEF, 4H, BHA, NWTF, etc. (other than NRA, tracked separately)"

#### DEMOGRAPHIC CHARACTERISTICS OF ACTIVE SPORT SHOOTERS

The report now looks at sport shooting. The groups associated with being an active sport shooter with firearms (shot with firearms in the previous 2 years) include the following: being in the Coast Guard, having served for 5 to 10 years, residing in a small city or town, currently being married, and being ethnically white.

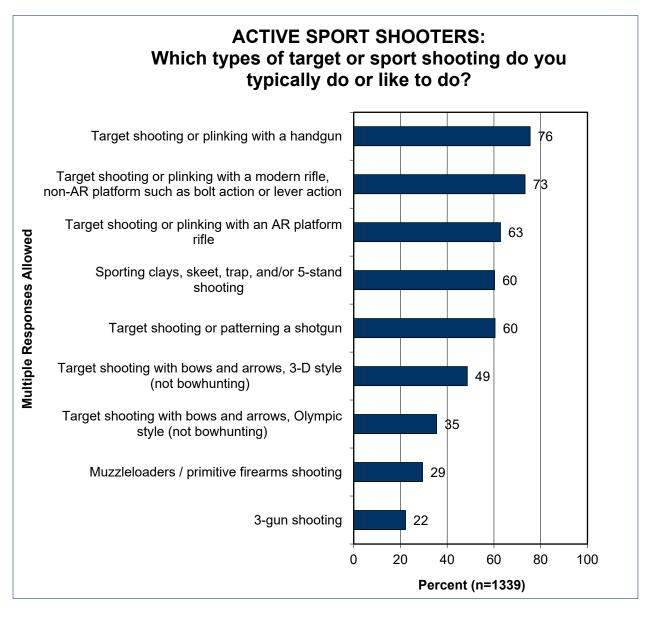


Being an active target archery shooter (participated in target archery in the past 2 years) to be targeted with retention efforts is associated with the following groups: being an Officer or Warrant Officer and serving for more than 10 years.

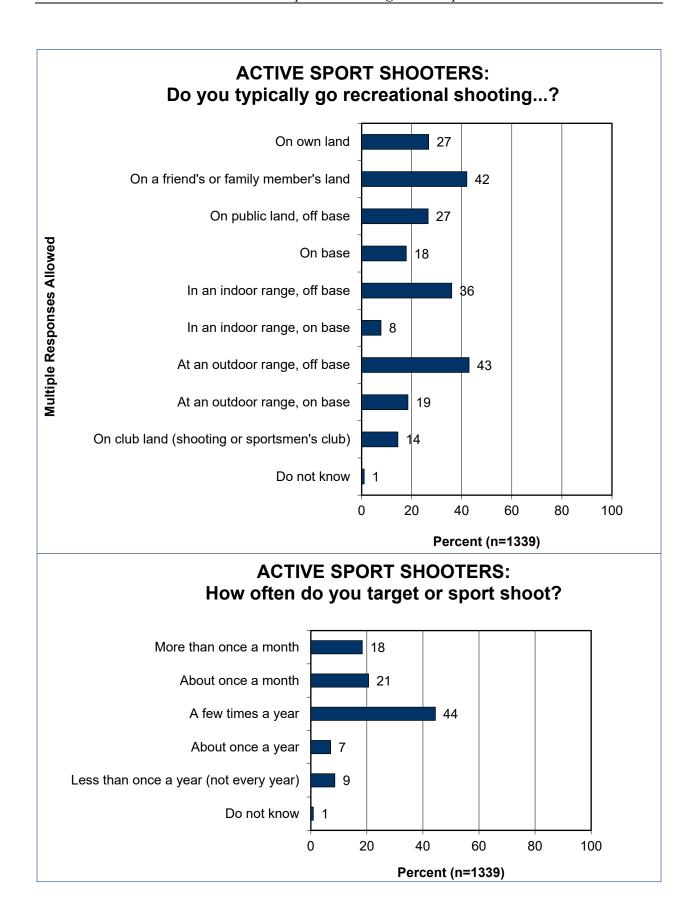


# CHARACTERISTICS OF SPORT SHOOTING PARTICIPATION AMONG ACTIVE SPORT SHOOTERS

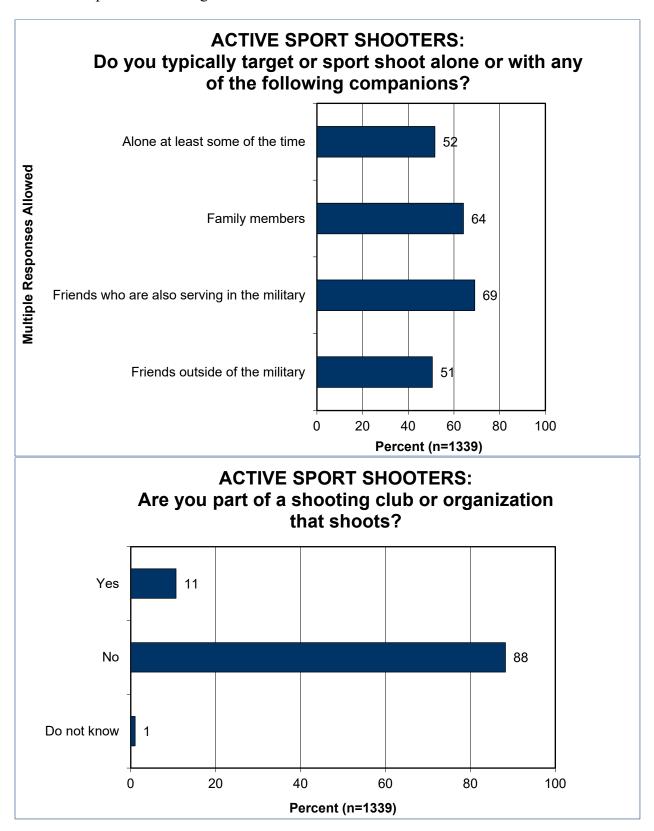
The types of shooting most commonly done by active sport shooters are target shooting or plinking with a handgun and with a modern rifle—both at more than 70%. The full list is shown in the graph below.



Off-base shooting ranges and land owned by a friend or family member are the most commonly used locations for sport shooting among active sport shooters. (Rather than show the types of land ranked by the most-used to least-used, the order of responses is shown in an order that makes for easier interpretation with the private lands first, public lands next, ranges following that, and club land last.) Also as shown in the graph on the following page, the large majority of active sport shooters go multiple times a year.

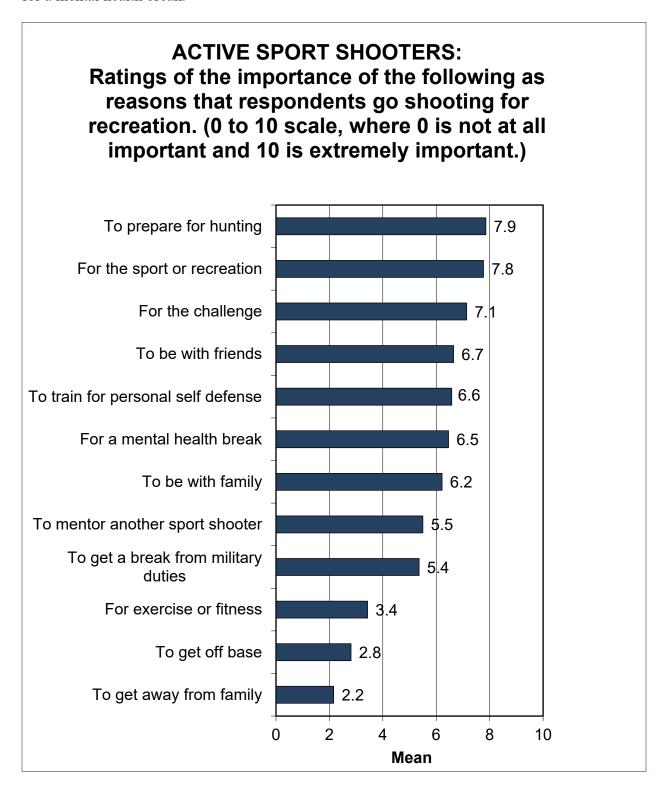


Sport shooting companions are shown: friends in the military are the most common sport shooting companions for active sport shooters. The survey also found that 11% of active sport shooters are part of a shooting club.



### MOTIVATIONS FOR SPORT SHOOTING AMONG ACTIVE SPORT SHOOTERS

Preparing for hunting and shooting for sport or recreation are top reasons that active sport shooters go shooting. The full listing is shown, with a visible second tier of items with means from 6.2 to 7.1 that includes the challenge, camaraderie (friends and family), self-defense, and for a mental health break.

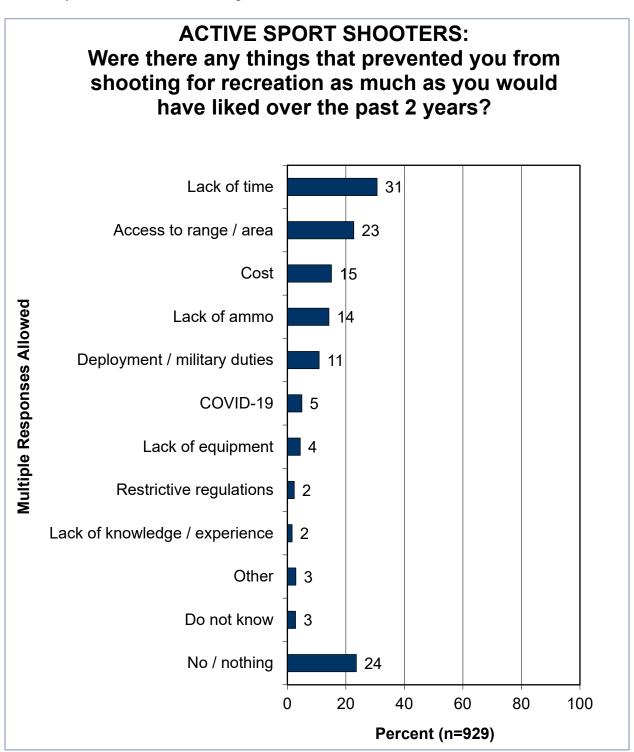


The analysis of the shooting motivations included a regional breakdown of the results, based on the region of residence (not the region where the respondent is stationed). Regionally, there are no marked differences in motivations to shoot among active sport shooters.

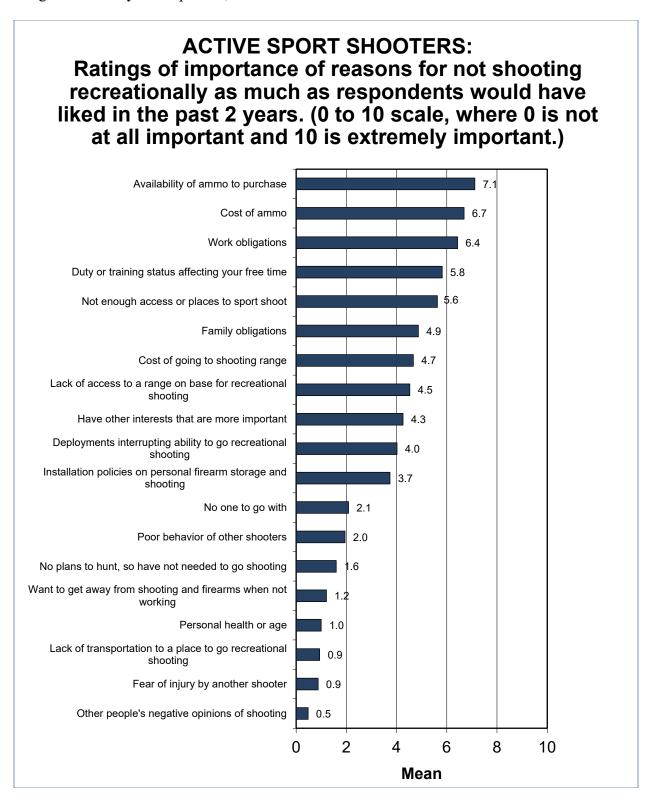
ACTIVE SPORT SHOOTERS: Ratings of the importance of the following as reasons that respondents go shooting for recreation. (0 to 10 scale, where 0 is not at all important and 10 is extremely important.)					
	Northeast	Southeast	Midwest	West	Total
To prepare for hunting	7.8	7.7	7.9	8.4	7.9
For the sport or recreation	7.9	7.7	8.1	7.7	7.8
For the challenge	7.2	7.2	7.1	7.1	7.1
To be with friends	7.2	6.8	6.1	6.3	6.7
To train for personal self defense	6.4	6.6	6.4	6.9	6.6
For a mental health break	6.3	6.4	6.7	6.5	6.5
To be with family	6.2	6.2	5.7	6.7	6.2
To mentor another sport shooter	6.0	5.3	5.1	6.0	5.5
To get a break from military duties	5.2	5.5	5.5	4.9	5.4
For exercise or fitness	3.0	3.4	3.6	3.8	3.4
To get off base	3.0	2.7	2.8	3.2	2.8
To get away from family	2.3	2.0	2.6	1.9	2.2

# CONSTRAINTS TO SPORT SHOOTING PARTICIPATION AMONG ACTIVE SPORT SHOOTERS

Lack of time and lack of access are important constraints to active sport shooters. An open-ended question asked active sport shooters if there were any things that prevented sport shooting participation as much as the respondent would have liked in the past 2 years. They most commonly said lack of time, access problems, cost, and lack of ammunition.



The availability and cost of ammunition are important constraints among active sport shooters. In the series of potential constraints that asked respondents to rate the importance of each, the availability and cost of ammunition led the constraints to sport shooting participation. Also, obligations of duty are important, as is access.



Other people's negative opinions of

shooting

The only marked difference regionally occurs on one item: the cost of going to a range is rated lower among active sport shooters from the Northeast.

ACTIVE SPORT SHOOTERS: Ratings of importance of reasons for not shooting recreationally as much as respondents would have liked in the past 2 years. (0 to 10 scale, where 0 is not at all important and 10 is extremely important.) Northeast Southeast Midwest West Total Availability of ammo to purchase 7.7 7.3 6.8 7.0 7.1 Cost of ammo 7.0 6.3 6.5 6.3 6.7 6.7 Work obligations 5.9 6.6 6.1 6.4 Duty or training status affecting your free 5.7 6.1 6.1 5.7 5.8 Not enough access or places to sport shoot 5.2 5.6 5.6 5.6 6.5 Family obligations 5.0 4.9 4.6 5.1 4.5 Cost of going to shooting range 3.6 5.0 5.2 4.5 4.7 Lack of access to a range on base for 4.8 4.4 4.5 4.0 4.5 recreational shooting Have other interests that are more 4.0 4.2 4.8 4.2 4.3 important Deployments interrupting ability to go 3.9 3.9 4.6 4.0 4.0 recreational shooting Installation policies on personal firearm 4.2 4.0 2.8 3.8 3.7 storage and shooting No one to go with 1.7 2.0 2.7 2.2 2.1 Poor behavior of other shooters 2.0 1.9 1.5 2.4 2.0 No plans to hunt, so have not needed to go 1.5 1.5 1.6 1.8 1.6 shooting Want to get away from shooting and 0.9 1.2 1.1 1.6 1.2 firearms when not working Personal health or age 0.7 1.0 1.3 1.2 1.0 Lack of transportation to a place to go 8.0 8.0 1.5 8.0 0.9 recreational shooting 8.0 1.2 0.9 Fear of injury by another shooter 0.5 0.9

0.4

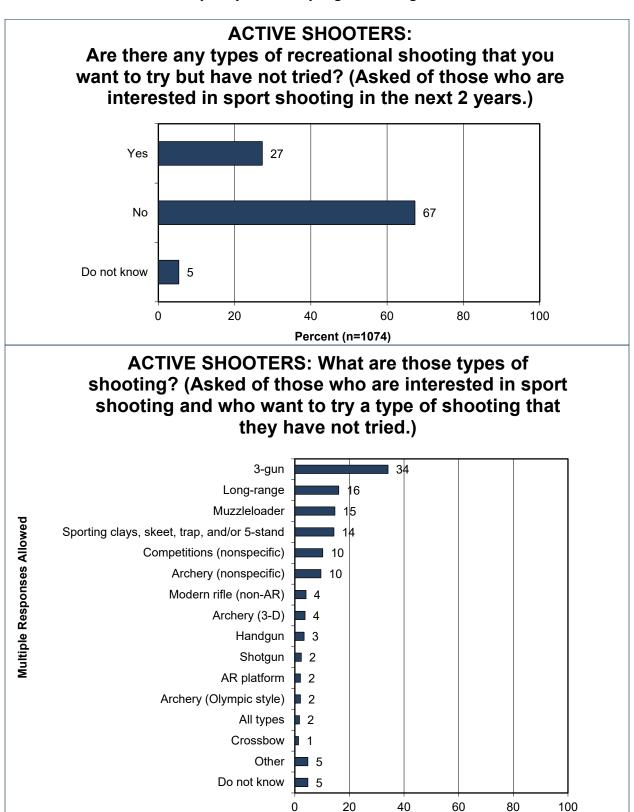
0.5

0.5

0.5

0.5

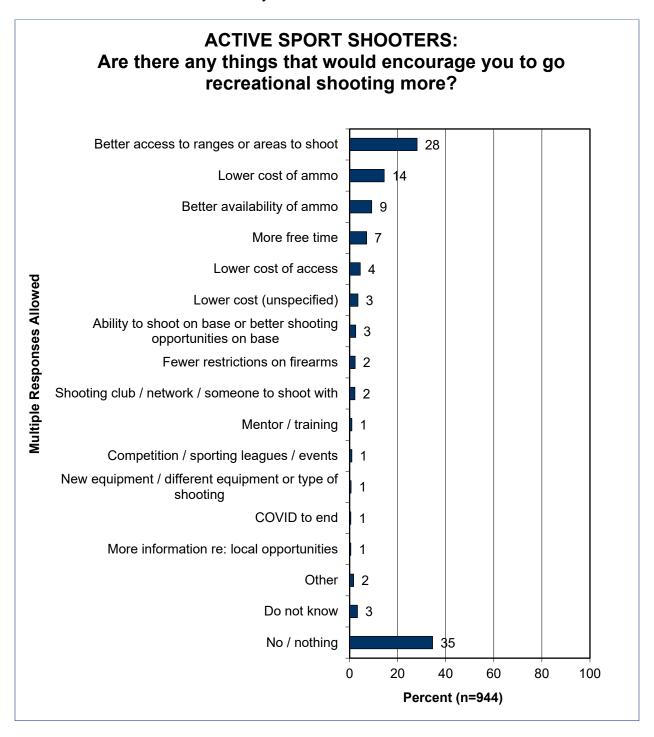
About a quarter of active sport shooters are interested in a type of recreational shooting that they have not done. Most commonly, they want to try 3-gun shooting.



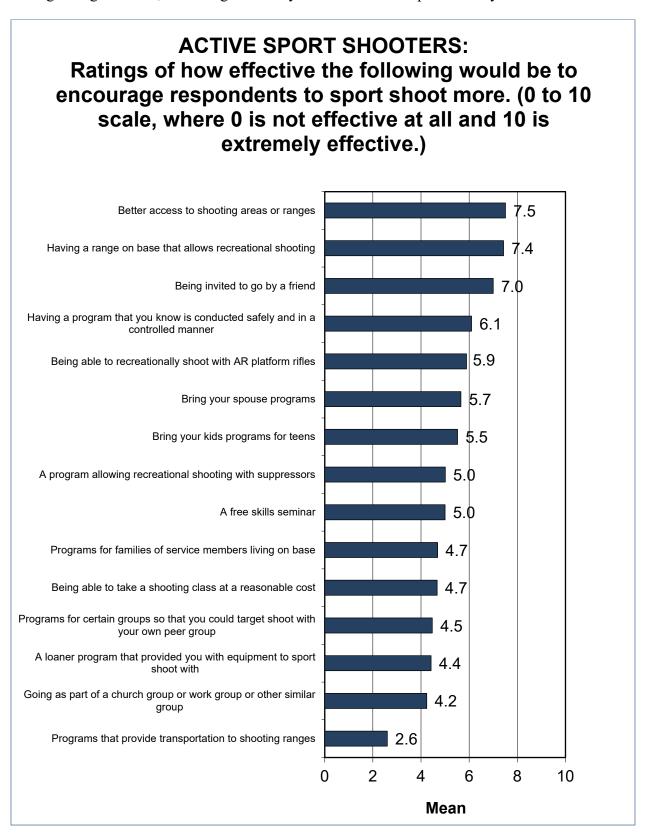
Percent (n=293)

# ENCOURAGING SPORT SHOOTING PARTICIPATION AMONG ACTIVE SPORT SHOOTERS

Access and better availability and cost of ammunition are top encouragements. As was done in the hunting section, the sport shooting section on encouragements had an open-ended question followed by a series of items that are rated for effectiveness, asking about any things that might encourage more participation among active sport shooters. The most commonly mentioned items to encourage more participation among active shooters (in an open-ended question) were better access and lower cost/better availability of ammunition.



The series of questions on encouragements among active shooters shows that access tops the ranking closely followed by camaraderie/family-related encouragements: having better access, having a range on base, and being invited by a friend are in a top tier clearly above the rest.



There are no marked differences among active sport shooters regionally.

ACTIVE SPORT SHOOTERS: Ratings of how effective the following would be to encourage respondents to sport shoot more. (0 to 10 scale, where 0 is not effective at all and 10 is							
extremely effective.)							
		Southeast	Midwest	West	Total		
Better access to shooting areas or ranges	7.2	7.6	7.8	7.5	7.5		
Having a range on base that allows recreational shooting	7.1	7.7	7.3	7.1	7.4		
Being invited to go by a friend	7.0	7.0	7.0	7.0	7.0		
Having a program that you know is conducted safely and in a controlled manner	6.0	6.1	6.0	6.3	6.1		
Being able to recreationally shoot with AR platform rifles	6.0	5.8	5.9	6.0	5.9		
Bring your spouse programs	5.5	5.9	5.5	5.3	5.7		
Bring your kids programs for teens	5.8	5.6	5.0	5.4	5.5		
A program allowing recreational shooting with suppressors	5.3	4.8	5.0	5.2	5.0		
A free skills seminar	4.8	5.2	4.9	4.9	5.0		
Programs for families of service members living on base	5.2	4.3	5.1	4.8	4.7		
Being able to take a shooting class at a reasonable cost	4.6	4.7	4.8	4.6	4.7		
Programs for certain groups so that you could target shoot with your own peer group	4.4	4.5	4.4	4.5	4.5		
A loaner program that provided you with equipment to sport shoot with	5.0	4.1	4.6	4.6	4.4		
Going as part of a church group or work group or other similar group	3.9	4.1	4.7	4.4	4.2		
Programs that provide transportation to shooting ranges	3.2	2.5	2.4	2.5	2.6		

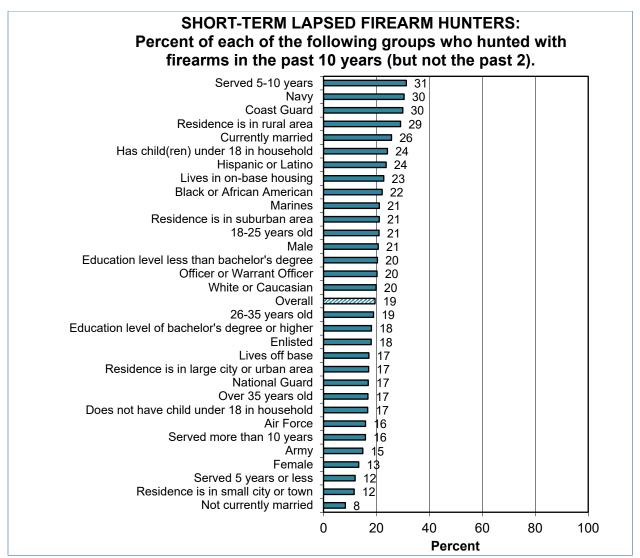
# SHORT-TERM AND LONG-TERM LAPSED PARTICIPANTS: THOSE TO BE TARGETED WITH REACTIVATION EFFORTS

The report now looks at short-term and long-term lapsed participants. The two lapsed groups are separated into short-term lapsed (participated in the past 10 years but not the past 2 years) and long-term lapsed (participated ever, but not in the past 10 years) because they are approached differently. While they would be primarily targeted with reactivation efforts, some of the long-term lapsed participants would also be subject to recruitment efforts, as well, if their lapsing is such that they are no longer viable participants.

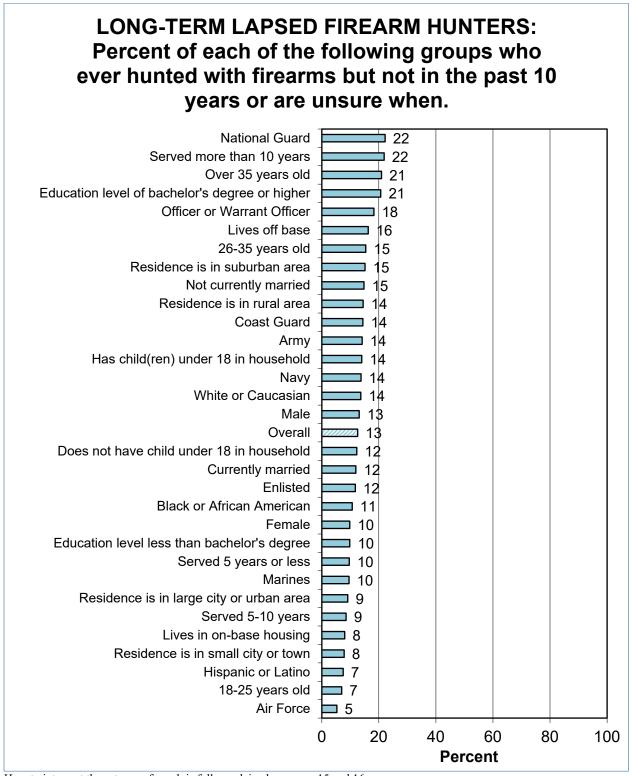
### DEMOGRAPHIC CHARACTERISTICS OF LAPSED HUNTERS

The characteristics of short-term lapsed participants to be targeted with reactivation efforts (and to a lesser extent to retention efforts, if they are still avid enough despite not having gone in the previous 2 years) are examined first through the demographic-participatory graphs.

Being a short-term lapsed firearm hunter is associated with being in the military for 5 to 10 years, being in the Navy or Coast Guard, residing in a rural area, and being currently married.



Long-term lapsing is associated with being in the National Guard, serving for more than 10 years, being over 35 years old, and being in the higher education bracket.

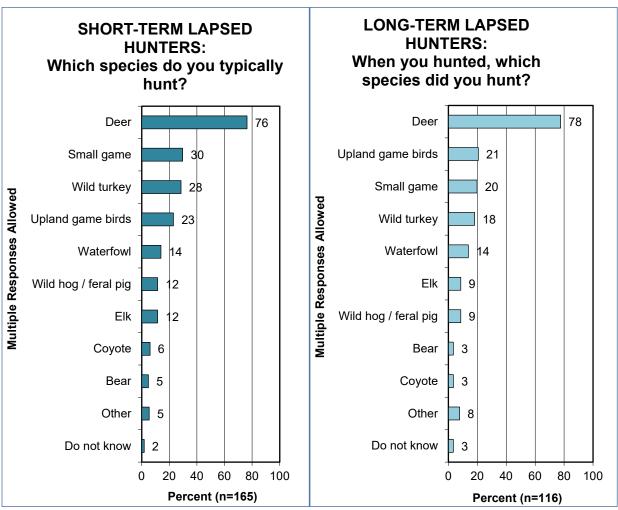


How to interpret these types of graph is fully explained on pages 15 and 16.

Note that the sample sizes were too low on short-term and long-term lapsed bowhunting to run the demographic-participatory graphs.

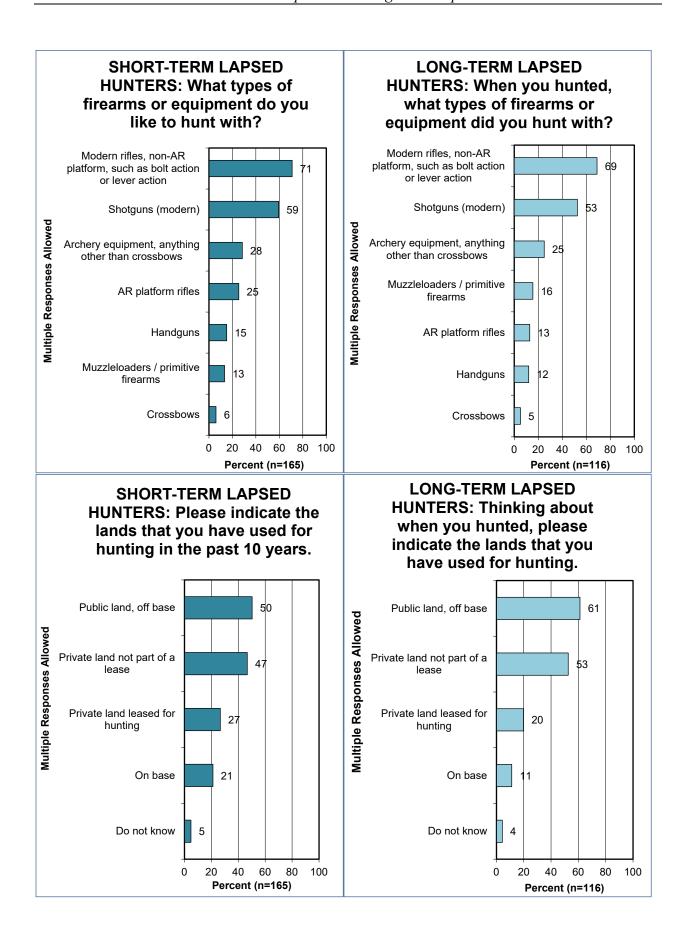
#### CHARACTERISTICS OF HUNTING PARTICIPATION AMONG LAPSED HUNTERS

The most popular species among short-term lapsed hunters is deer (76%), distantly followed by small game, wild turkey, and upland game birds—all at more than 20%. Among long-term lapsed hunters, deer was the most popular by far as well (at 78%), and this is followed by upland game birds and small game—both of those at 20% or more.

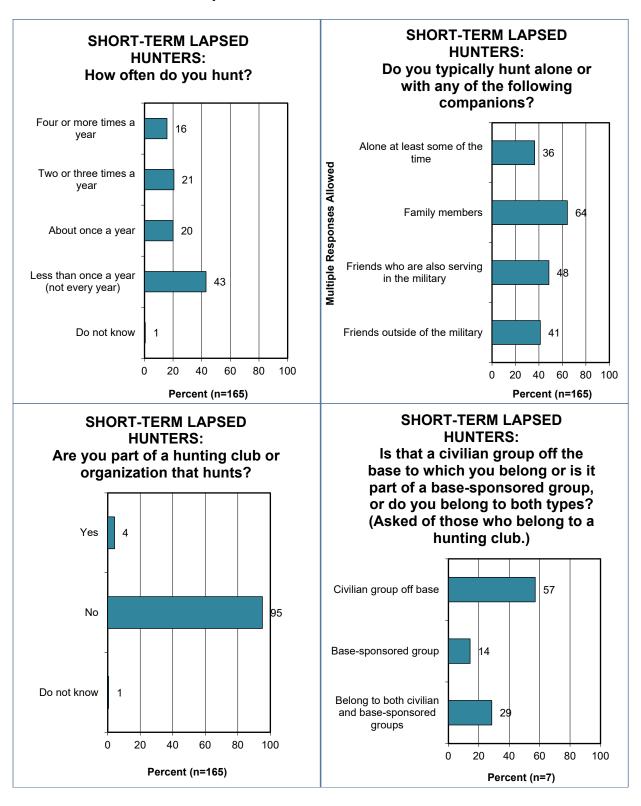


Upland game bird examples in the survey were grouse, pheasant, and quail.

The types of firearms used most commonly by both short-term and long-term lapsed hunters are modern rifles (non-AR) and shotguns, as shown on the following page. Archery use is robust, as well. The survey also looked at lands used for hunting, including on-base hunting. Both short-term lapsed and long-term lapsed hunters most often used public land off base and private land not part of a lease. On-base hunting was done by 21% of short-term lapsed hunters and 11% of long-term lapsed hunters (when they did hunt).

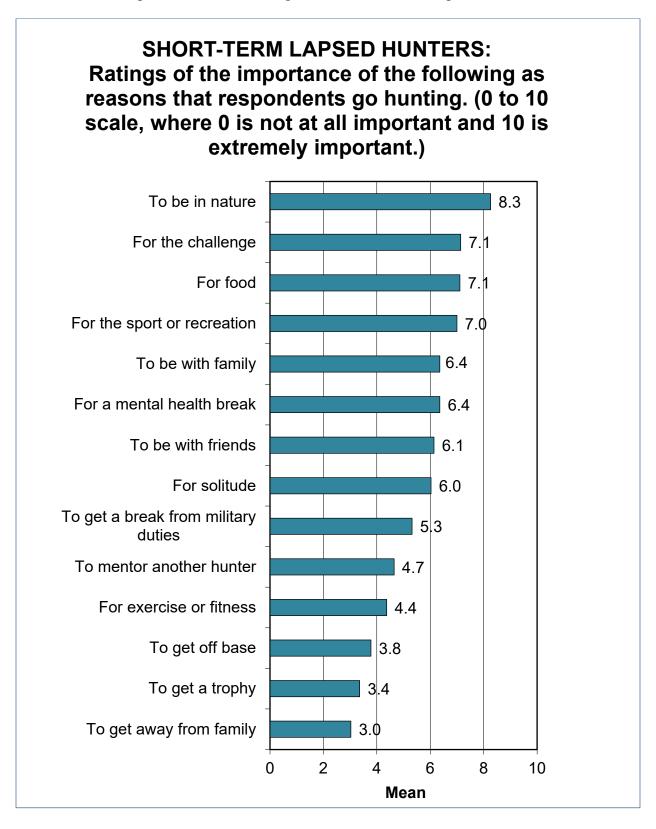


Several questions in this section were asked only of short-term lapsed hunters but not long-term lapsed hunters, as shown in the graphs below. When they hunt, the majority of short-term lapsed hunters go about once a year or less often. About a third of short-term lapsed hunters hunt alone at least some of the time. A small percentage (4%) of short-term lapsed hunters belong to a club. These clubs are most commonly civilian clubs off base.



#### MOTIVATIONS FOR HUNTING AMONG LAPSED HUNTERS

Being in nature is the top motivation for hunting among short-term lapsed hunters. Three other reasons are also important: for the challenge, for food, and for the sport or recreation.



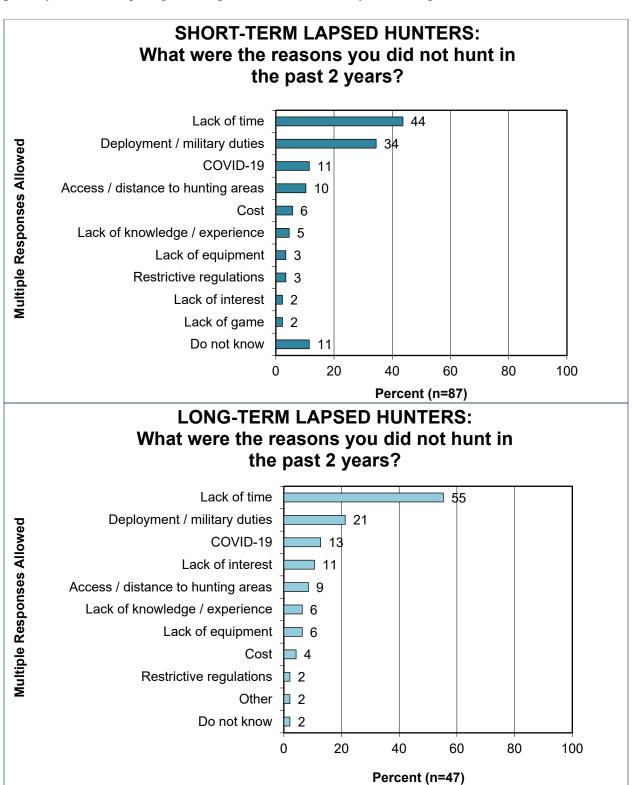
Among short-term lapsed hunters, hunting for a mental health break is markedly higher among hunters from the Northeast and Midwest, compared to the overall rating.

SHORT-TERM LAPSED HUNTERS: Ratings of the importance of the following as reasons that respondents go hunting. (0 to 10 scale, where 0 is not at all important and 10 is							
extremely important.)							
	Northeast	Southeast	Midwest	West	Total		
To be in nature	8.0	8.1	8.6	9.1	8.3		
For food	8.0	6.7	7.6	6.7	7.1		
For the challenge	6.6	7.5	8.0	6.4	7.1		
For the sport or recreation	7.4	6.9	7.8	5.9	7.0		
To be with family	6.7	6.0	6.3	6.9	6.4		
For a mental health break	7.5	5.4	8.8	5.9	6.4		
To be with friends	6.2	6.0	6.2	6.4	6.1		
For solitude	5.7	6.0	6.6	5.8	6.0		
To get a break from military duties	5.7	4.7	5.6	6.6	5.3		
To mentor another hunter	5.3	4.3	5.6	4.2	4.7		
For exercise or fitness	5.3	3.8	4.7	4.7	4.4		
To get off base	3.3	3.4	4.4	5.2	3.8		
To get a trophy	3.6	3.3	2.9	3.6	3.4		
To get away from family	2.4	3.1	3.5	3.6	3.0		

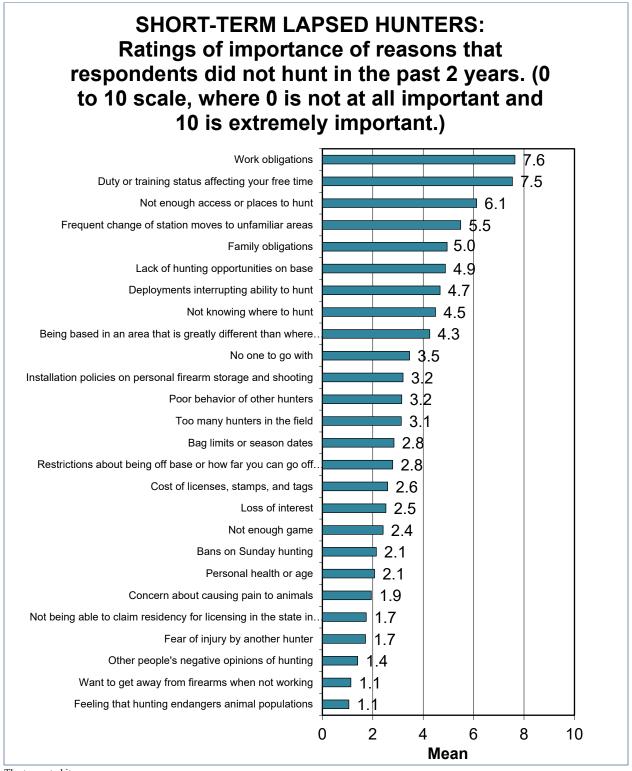
Note that long-term lapsed hunters were not asked questions about their motivations for hunting, as they had not hunted in the previous 10 years.

### CONSTRAINTS TO HUNTING PARTICIPATION AMONG LAPSED HUNTERS

In an open-ended question, short-term lapsed hunters most commonly indicated that lack of time and the related reason of deployment/military duties were their reasons for not hunting in the past 2 years. Among long-term lapsed, lack of time is by far the top reason.

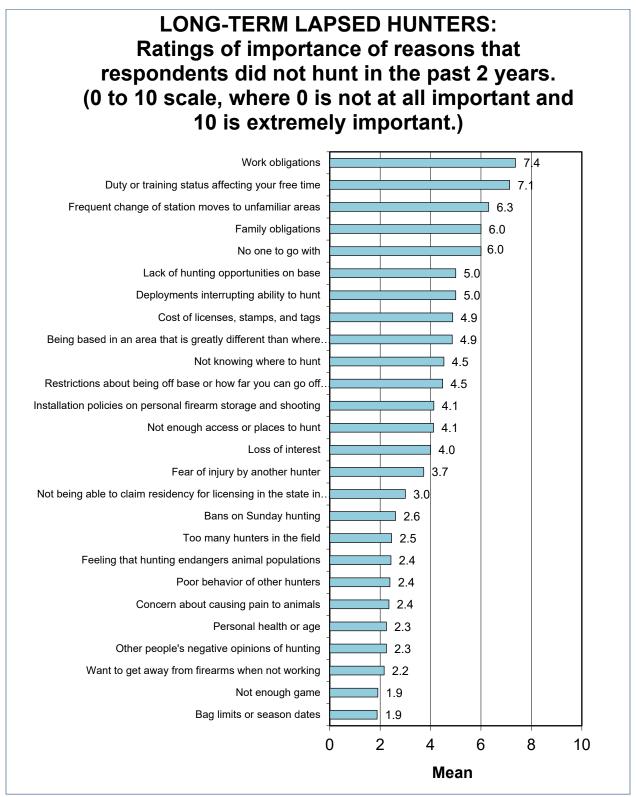


Obligations of work and duty (the top two items), lack of access, and frequent change of station moves to unfamiliar areas (also an access-related item) top the list of reasons that short-term lapsed hunters did not go hunting in the past 2 years.



The truncated items are:

Being based in an area that is greatly different than where you grew up hunting. Restrictions about being off base or how far you can go off base Not being able to claim residency for licensing in the state in which you are based Among long-term lapsed, obligations of work, duty, and family are top items. Two other items are related: frequent change of station moves to unfamiliar areas and no one to go with.

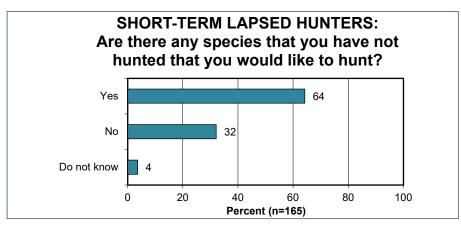


The truncated items are:

Being based in an area that is greatly different than where you grew up hunting. Restrictions about being off base or how far you can go off base Not being able to claim residency for licensing in the state in which you are based Of the notable differences in regional ratings compared to the overall rating, not enough access is a much greater problem among short-term lapsed hunters in the Midwest than to short-term lapsed hunters overall.

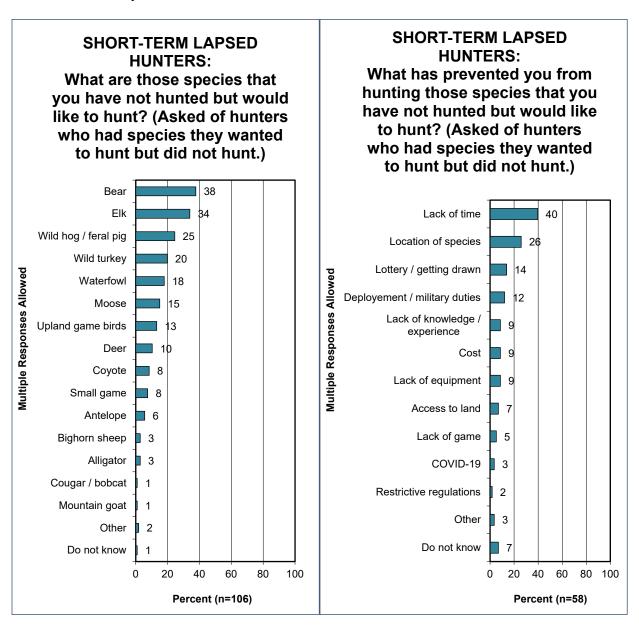
SHORT-TERM LAPSED HUNTERS: Ratings of importance of reasons that respondents did not hunt in the past 2 years. (0 to 10 scale, where 0 is not at all important and 10 is extremely important.)						
		Southeast	Midwest	West	Total	
Work obligations	8.3		9.3	7.0	7.6	
Duty or training status affecting your free time	6.8	7.9	6.8	7.7	7.5	
Not enough access or places to hunt	8.0	5.8	8.8	4.7	6.1	
Frequent change of station moves to unfamiliar areas	5.6	5.7	2.8	7.0	5.5	
Family obligations	6.0	5.3	4.4	3.8	5.0	
Lack of hunting opportunities on base	4.2	5.2	6.3	3.8	4.9	
Deployments interrupting ability to hunt	5.0	5.2	3.2	2.8	4.7	
Not knowing where to hunt	2.8	5.2	4.8	3.2	4.5	
Being based in an area that is greatly different than where you grew up hunting	3.3	4.1	6.6	3.6	4.3	
No one to go with	2.6	3.5	5.0	3.6	3.5	
Installation policies on personal firearm storage and shooting	3.0	3.0	6.0	2.1	3.2	
Poor behavior of other hunters	5.8	3.3	2.0	2.2	3.2	
Too many hunters in the field	3.0	3.3	1.3	3.5	3.1	
Restrictions about being off base or how far you can go off base	3.5	2.9	2.8	1.8	2.8	
Bag limits or season dates	3.4	2.7	1.5	3.6	2.8	
Cost of licenses, stamps, and tags	4.5	2.0	0.3	3.5	2.6	
Loss of interest	1.7	2.4	3.0	4.0	2.5	
Not enough game	2.5	2.2	3.6	1.8	2.4	
Bans on Sunday hunting	0.0	2.4	1.6	2.8	2.1	
Personal health or age	3.1	1.9	1.7	1.3	2.1	
Concern about causing pain to animals	4.6	1.1	3.0	2.8	1.9	
Not being able to claim residency for	0.0	2.1	2.0	1.3	1.7	
licensing in the state in which you are based	0.0	2.1	2.0	1.3	1.7	
Fear of injury by another hunter	4.3		1.0	1.3	1.7	
Other people's negative opinions of hunting	1.5	0.8	2.8	3.0	1.4	
Feeling that hunting endangers animal populations	1.0	1.1	0.2	1.8	1.1	
Want to get away from firearms when not working	1.6	0.7	1.8	1.0	1.1	

(Note that no regional table is shown for long-term lapsed hunters because the sample sizes were too low.)

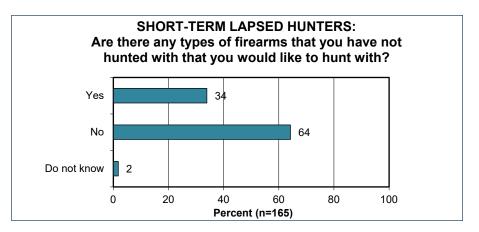


Just under two thirds of short-term lapsed hunters have species that they would like to hunt that they have not hunted.

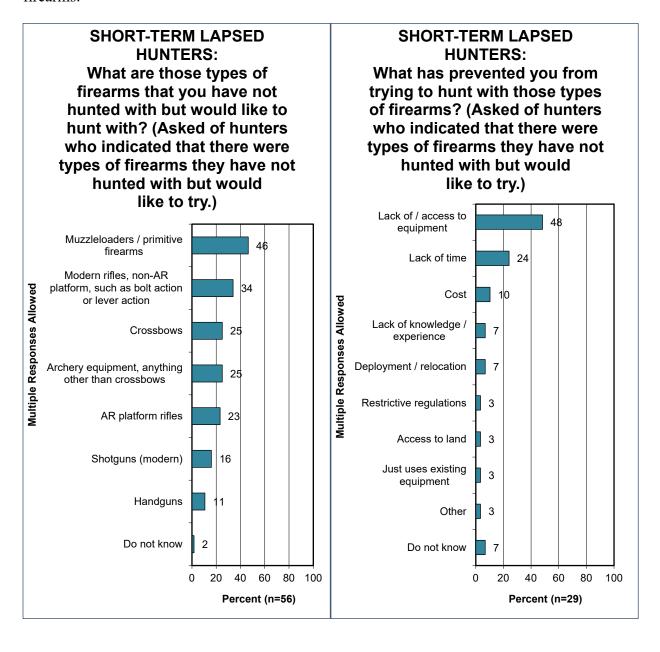
Bear and elk lead the list of species that short-term lapsed hunters would like to hunt that they have not previously hunted. Lack of time and access to the locations specific to the species are the most commonly named constraints.



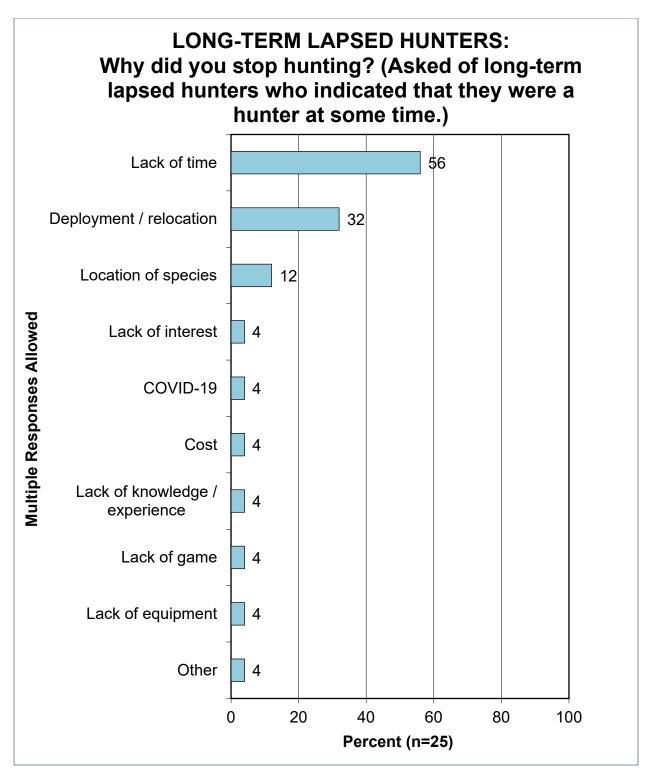
About a third of shortterm lapsed hunters indicated having types of firearms that they wanted to try that they had not yet tried.



Most commonly, they named muzzleloaders as the type they wanted to try. Lack of equipment and lack of time were the most common reasons for not trying to hunt with those types of firearms.

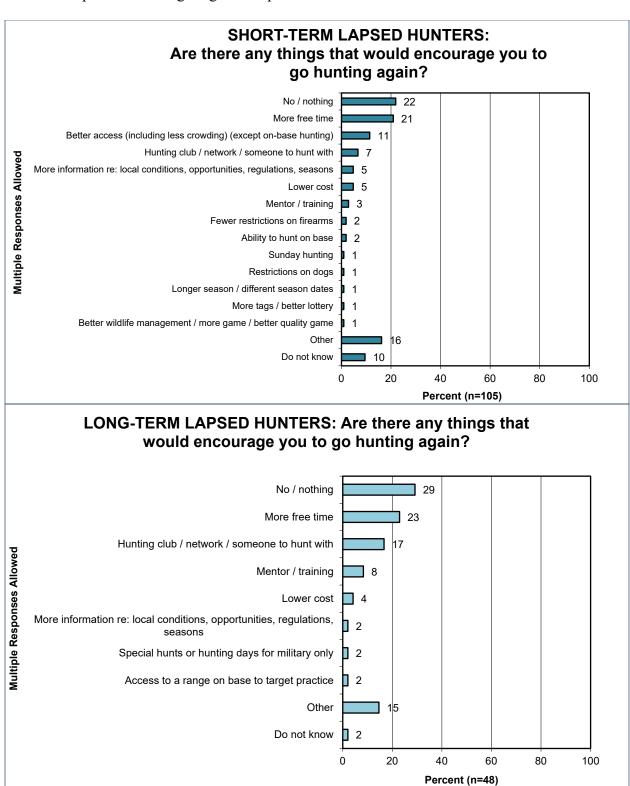


The last question examined in this section was asked of long-term lapsed hunters who, despite their long absence from the activity, indicated that they had considered themselves to be hunters in the past. When asked in an open-ended follow-up question why they had stopped hunting, the top two responses were lack of time and deployment/relocation.

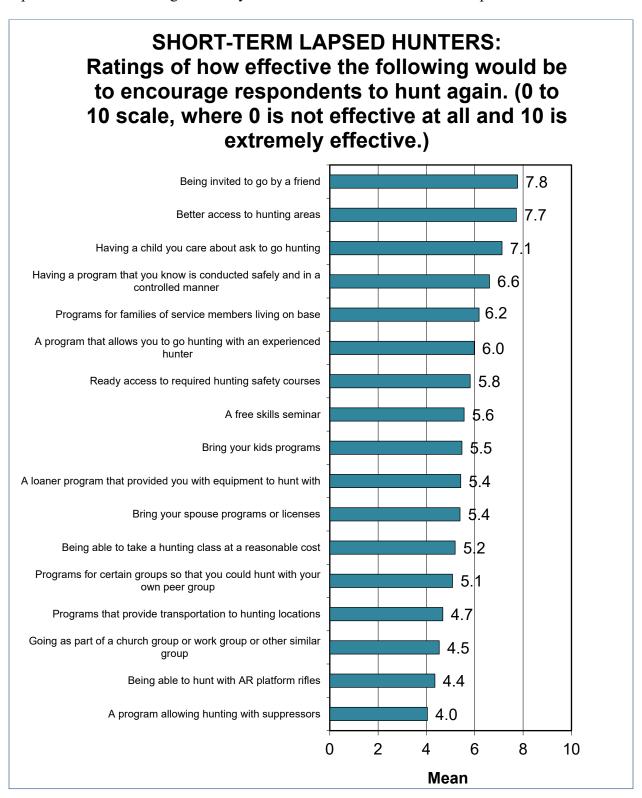


### **ENCOURAGING HUNTING PARTICIPATION AMONG LAPSED HUNTERS**

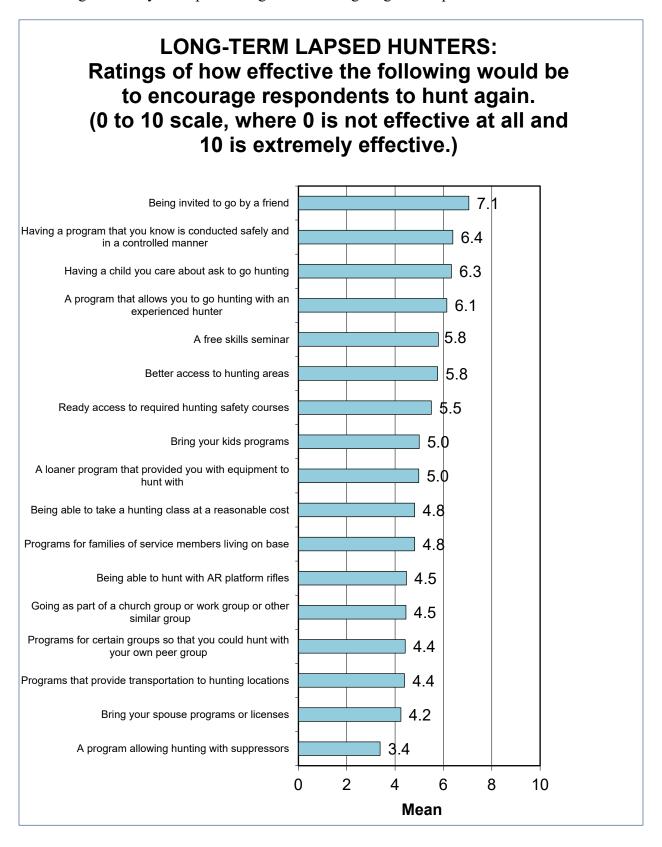
An open-ended question started the encouragements section of the survey: more free time and better access top the list among short-term lapsed hunters. More free time and a friend/mentor to hunt with top the list among long-term lapsed hunters.



Better access is a top encouragement, as are two mentoring-related items: being invited to go by a friend (being mentored) and having a child ask to be taken (doing the mentoring) are also in the top tier with access. Being invited by a friend also has a camaraderic component.



Mentoring and safety are top encouragements among long-term lapsed hunters.

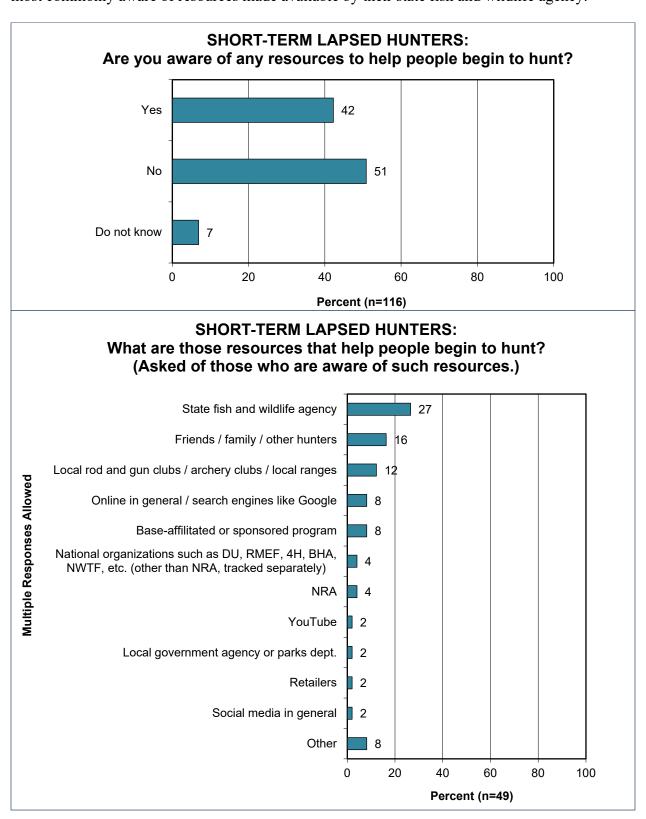


Among the marked regional differences, programs for service members living on base is much lower rated among short-term lapsed hunters from the West compared to those from other regions. Having a child ask to be taken is rated markedly higher among short-term lapsed hunters from the Midwest.

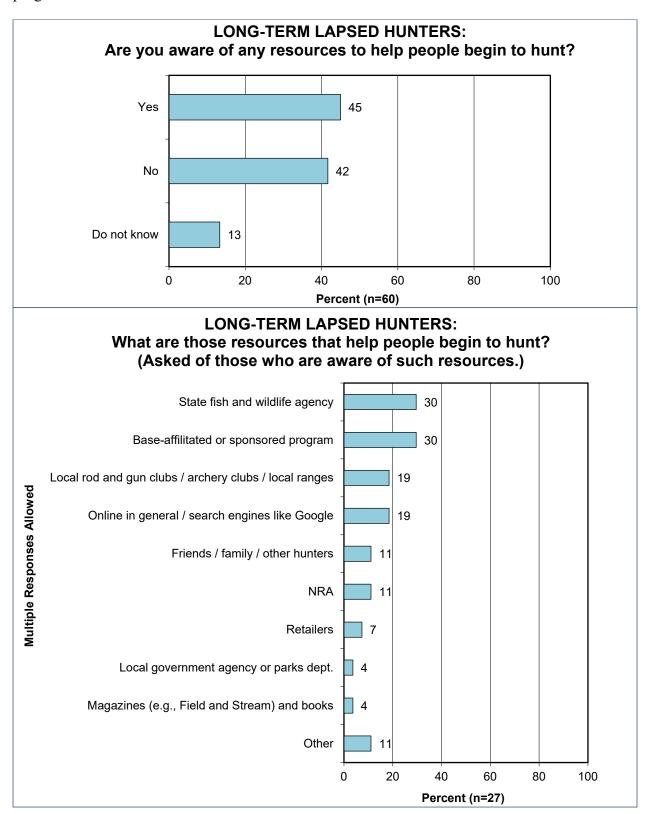
SHORT-TERM LAPSED HUNTERS: Ratings of how effective the following would be to encourage						
respondents to hunt again. (0 to 10 scale, where 0 is not effective at all and 10 is extremely effective.)						
		Southeast	Midwest	West	Total	
Being invited to go by a friend	8.5	7.5	8.8	7.1	7.8	
Better access to hunting areas	6.7	8.2	7.3	8.2	7.7	
Having a child you care about ask to go hunting	8.1	6.0	8.6	7.6	7.1	
Having a program that you know is conducted safely and in a controlled manner	6.2	7.1	5.8	6.3	6.6	
Programs for families of service members living on base	6.6	6.3	7.2	3.8	6.2	
A program that allows you to go hunting with an experienced hunter	5.4	6.3	6.3	5.7	6.0	
Ready access to required hunting safety courses	6.0	5.8	5.4	6.0	5.8	
A free skills seminar	6.6	5.4	5.3	4.6	5.6	
Bring your kids programs	7.4	4.0	6.3	7.1	5.5	
A loaner program that provided you with equipment to hunt with	5.6	5.3	5.9	4.9	5.4	
Bring your spouse programs or licenses	6.1	4.9	4.8	6.3	5.4	
Being able to take a hunting class at a reasonable cost	4.7	5.3	5.8	5.1	5.2	
Programs for certain groups so that you could hunt with your own peer group	5.4	4.9	5.8	4.7	5.1	
Programs that provide transportation to hunting locations	6.1	4.3	5.1	4.0	4.7	
Going as part of a church group or work group or other similar group	4.3	4.8	3.8	4.7	4.5	
Being able to hunt with AR platform rifles	3.5	4.9	6.4	2.8	4.4	
A program allowing hunting with suppressors	4.1	4.4	3.4	3.3	4.0	

(Note that no regional table is shown for long-term lapsed hunters because the sample sizes were too low.)

In this encouragements section is an examination of hunters' awareness of resources to help people begin to hunt: 42% of short-term lapsed hunters are aware of such resources. They are most commonly aware of resources made available by their state fish and wildlife agency.

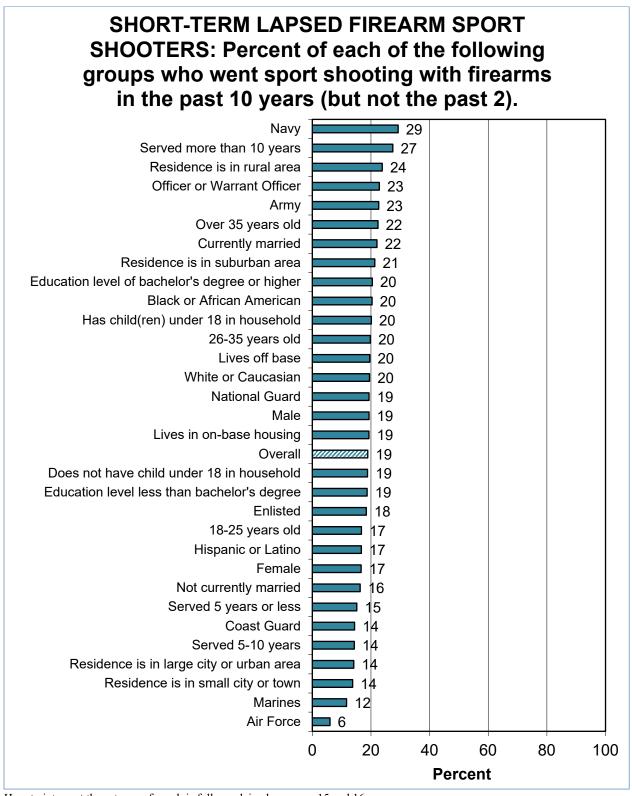


Among long-term lapsed hunters, 45% are aware of such resources. They are most commonly aware of resources made available by their state fish and wildlife agency or base-affiliated programs.



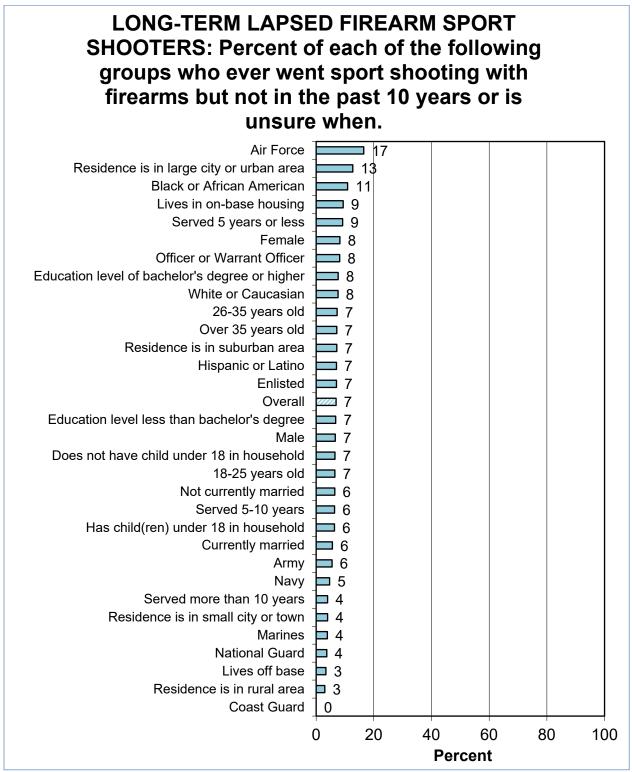
#### DEMOGRAPHIC CHARACTERISTICS OF LAPSED SPORT SHOOTERS

The demographic-participatory graphs show that being a short-term lapsed sport shooter is associated with being in the Navy and having served for more than 10 years.



How to interpret these types of graph is fully explained on pages 15 and 16.

Being a long-term lapsed sport shooter is associated with being in the Air Force and residing in a large city or urban area.

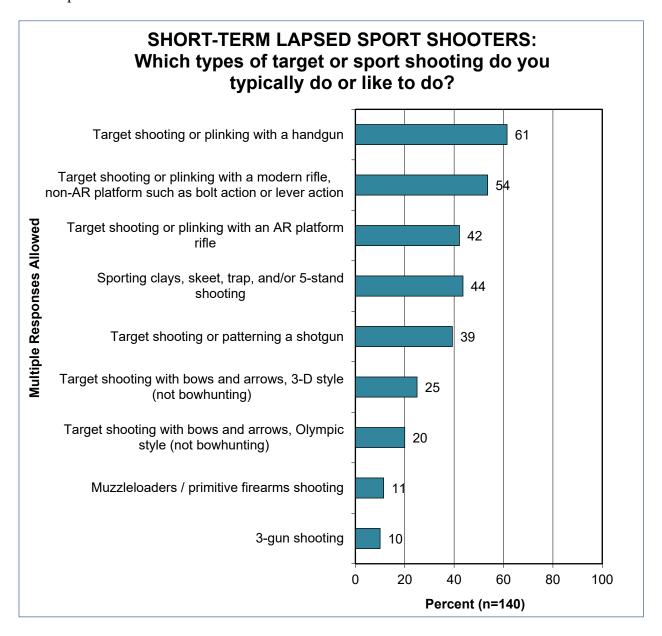


How to interpret these types of graph is fully explained on pages 15 and 16.

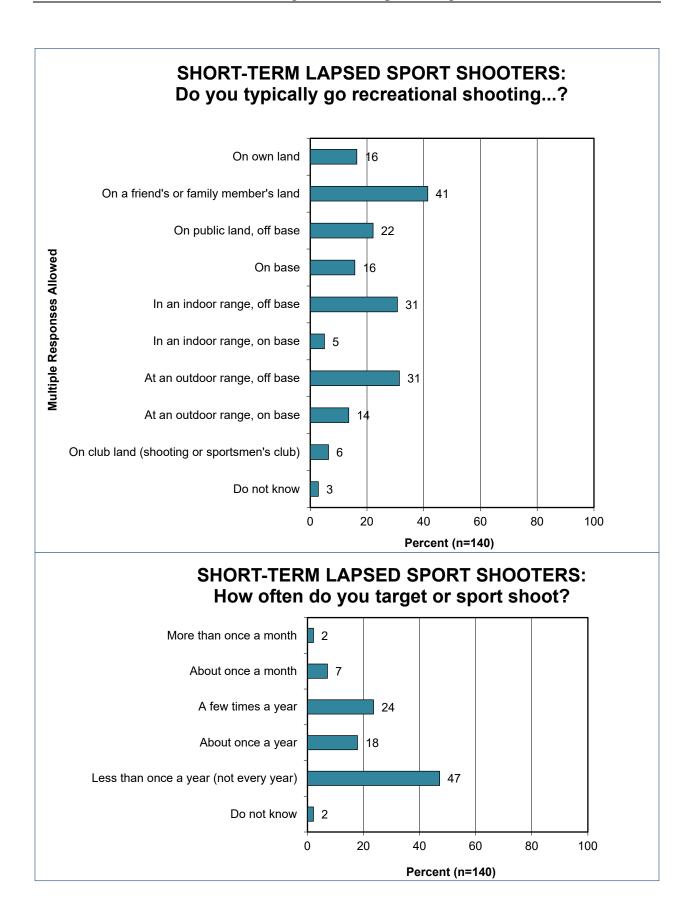
Note that the sample sizes were too low on short-term and long-term lapsed archery shooters to run the demographic-participatory graphs.

# CHARACTERISTICS OF SPORT SHOOTING PARTICIPATION AMONG LAPSED SPORT SHOOTERS

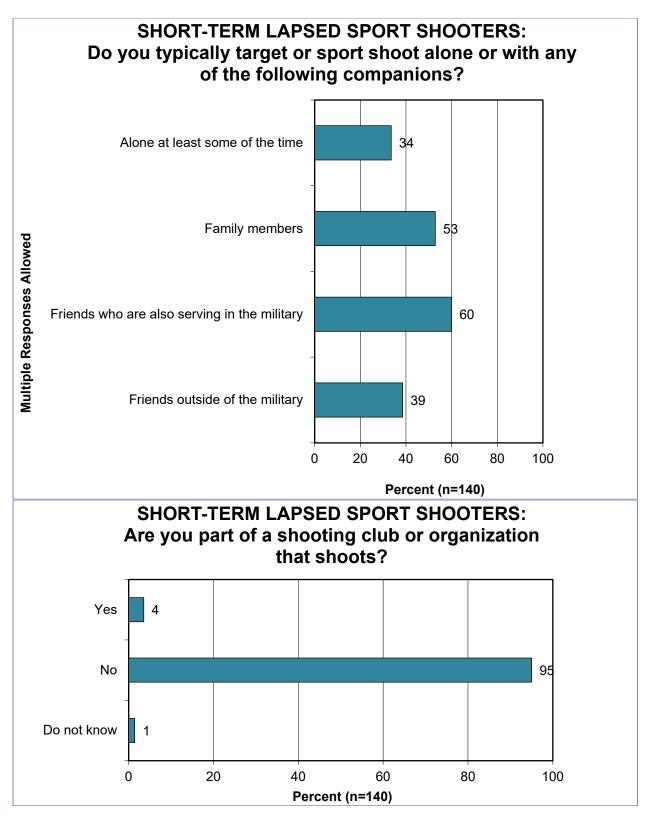
When they do shoot, the most common types of sport shooting among short-term lapsed sport shooters are target shooting or plinking with a handgun and doing the same with a modern rifle (at 61% and 54%, respectively). It is worth noting that these were the same top types among active sport shooters.



Off-base shooting ranges and land owned by a friend or family member are the most commonly used locations for sport shooting among short-term lapsed sport shooters, when they do go sport shooting. (Rather than show the types of land ranked by the most-used to least-used, the order of responses is shown in an order that makes for easier interpretation with the private lands first, public lands next, ranges following that, and club land last.) As shown as well, a third of short-term lapsed sport shooters go multiple times a year.

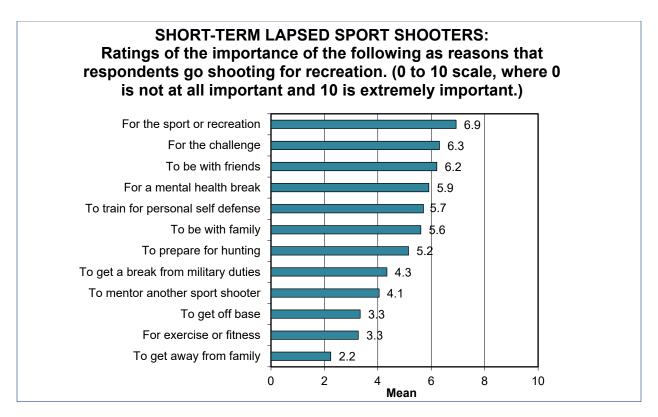


Sport shooting companions are shown: friends in the military are the most common sport shooting companions for short-term lapsed sport shooters, with family members close behind. Membership in shooting clubs is low among short-term lapsed shooters, as only 4% belong to one. (They were not asked if the club was off base or on base.)



#### MOTIVATIONS FOR SPORT SHOOTING AMONG LAPSED SPORT SHOOTERS

Shooting for the sport or recreation is the most important motivation, but this is closely followed by doing so for the challenge and to be with friends—all with mean ratings of more than 6.0 on a 0 to 10 scale.



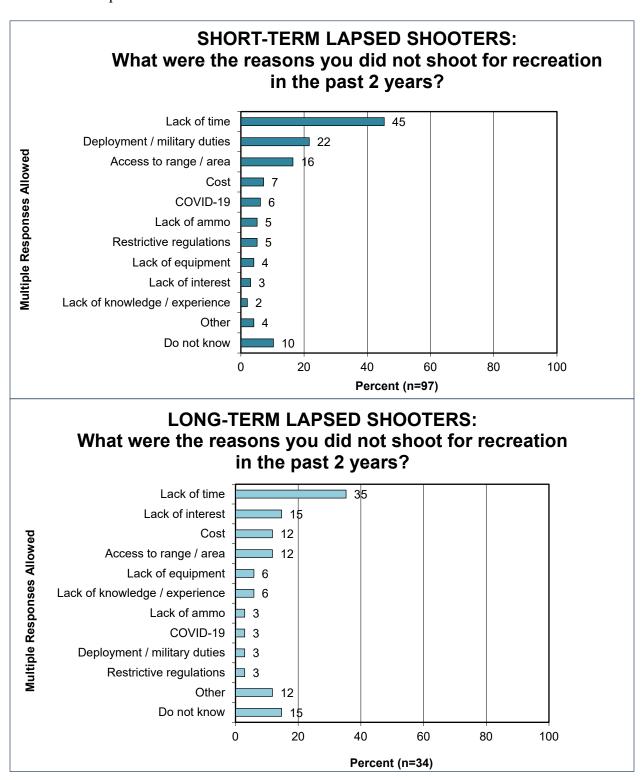
In the regional breakdown, shooting for a mental health break is markedly lower among sport shooters from the Midwest.

SHORT-TERM LAPSED SPORT SHOOTERS: Ratings of the importance of the following as reasons that respondents go shooting for recreation. (0 to 10 scale, where 0 is not at all							
important and 10 is extremely important.)							
Northeast Southeast Midwest West Total							
For the sport or recreation	6.9	7.1	7.5	6.3	6.9		
For the challenge	6.9	5.9	7.1	6.3	6.3		
To be with friends	5.6	6.0	6.9	6.9	6.2		
For a mental health break	5.9	6.2	4.8	5.9	5.9		
To train for personal self defense	5.9	5.8	6.6	5.1	5.7		
To be with family	6.3	5.6	5.9	4.9	5.6		
To prepare for hunting	6.6	4.9	4.9	4.4	5.2		
To get a break from military duties	5.8	4.0	3.9	4.1	4.3		
To mentor another sport shooter	4.8	4.2	2.3	3.6	4.1		
For exercise or fitness	3.3	3.5	3.4	2.7	3.3		
To get off base	4.8	3.3	2.8	2.9	3.3		
To get away from family	2.8	2.1	1.8	2.5	2.2		

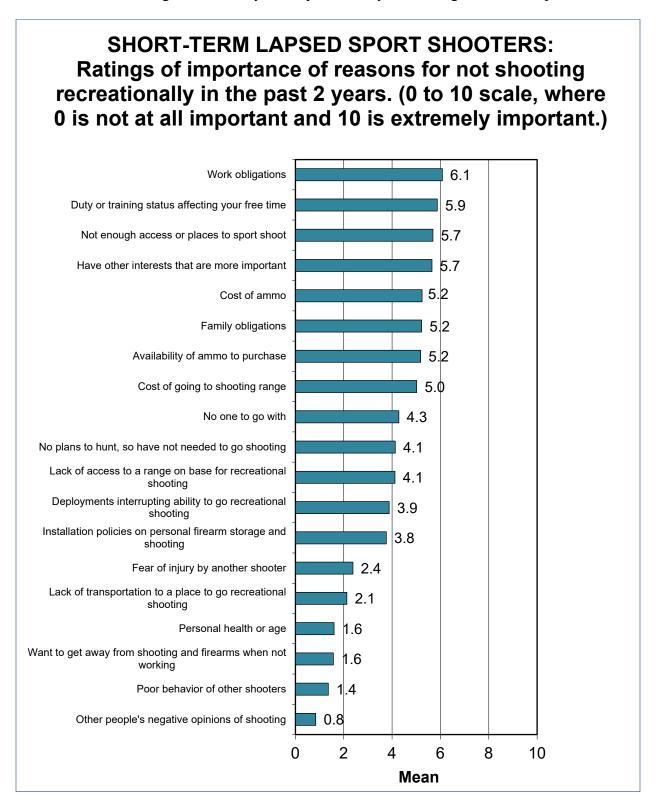
Note that long-term lapsed sport shooters were not asked questions about their motivations for sport shooting, as they had not done so in the previous 10 years.

# CONSTRAINTS TO SPORT SHOOTING PARTICIPATION AMONG LAPSED SPORT SHOOTERS

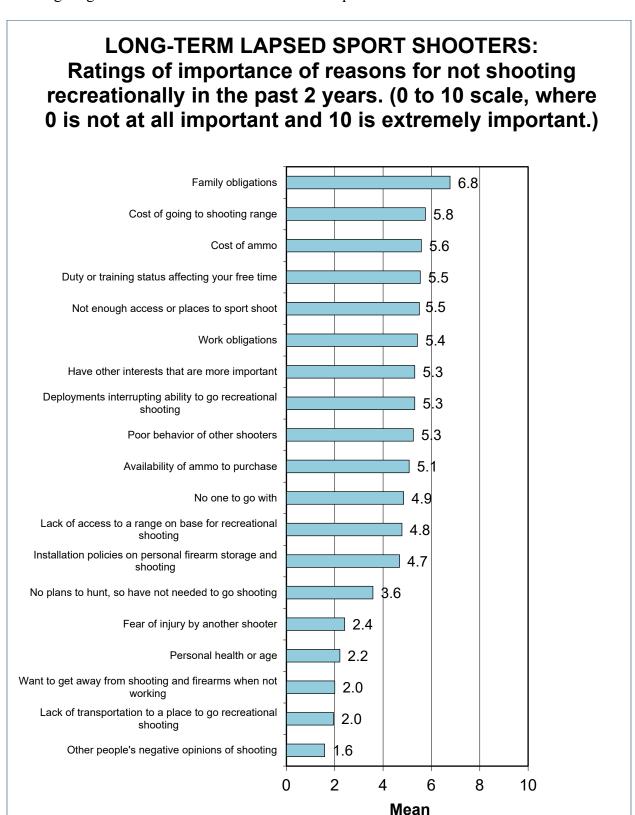
Lack of time, the associated reason of deployment/military duties, and lack of access are the most important constraints to sport shooting participation among short-term lapsed sports shooters. Among long-term lapsed sport shooters, lack of time, lack of interest, cost, and access are the most important constraints.



Obligations (for work as well as duty), lack of access, and lack of interest are the highest rated reasons for not shooting recreationally in the previous 2 years among short-term lapsed shooters.



Among long-term lapsed shooters, family obligations top the ranking of constraints. Cost of shooting ranges and of ammunition are also at the top.

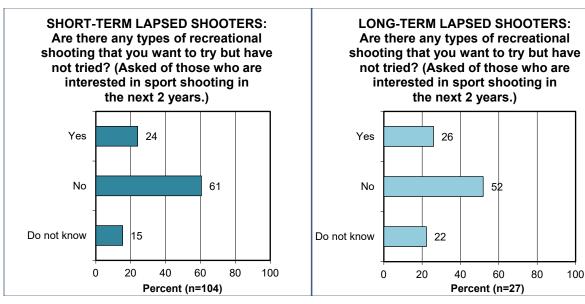


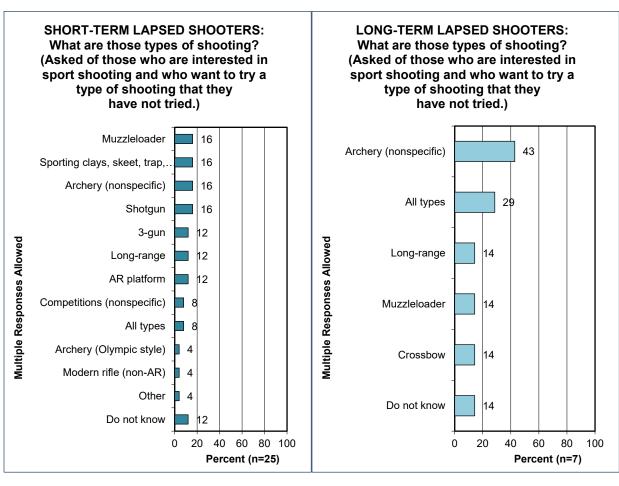
Lack of a range on base for shooting is rated much higher as a problem among short-term lapsed sport shooters from the Midwest compared to those from other regions. (Note, however, that there is no way of knowing if the problem occurs in the Midwest or elsewhere, as the regions were selected on state of residence, not on the state of stationing.)

SHORT-TERM LAPSED SPORT SHOOTERS: Ratings of importance of reasons for not shooting recreationally in the past 2 years. (0 to 10 scale, where 0 is not at all important and 10 is extremely important.)						
		Southeast	Midwest	West	Total	
Work obligations	4.1	6.5	6.6	6.6	6.1	
Duty or training status affecting your free time	4.5	6.2	6.6	6.2	5.9	
Not enough access or places to sport shoot	3.6	6.3	10.0	4.0	5.7	
Have other interests that are more important	5.4	5.3	5.6	6.6	5.7	
Family obligations	4.8	5.2	4.3	5.8	5.2	
Cost of ammo	3.5	5.0	7.3	6.4	5.2	
Availability of ammo to purchase	3.6	5.4	6.8	5.1	5.2	
Cost of going to shooting range	6.8	4.2	4.0	6.0	5.0	
No one to go with	4.2	3.8	3.7	5.6	4.3	
No plans to hunt, so have not needed to go shooting	3.2	3.4	4.7	6.1	4.1	
Lack of access to a range on base for recreational shooting	3.4	4.1	6.7	3.3	4.1	
Deployments interrupting ability to go recreational shooting	3.0	4.8	1.3	3.2	3.9	
Installation policies on personal firearm storage and shooting	5.0	3.2	4.3	4.3	3.8	
Fear of injury by another shooter	2.2	1.4	3.3	3.0	2.4	
Lack of transportation to a place to go recreational shooting	1.0	1.9	2.4	4.3	2.1	
Personal health or age	0.9	1.4	2.8	2.0	1.6	
Want to get away from shooting and firearms when not working	1.2	1.2	4.0	1.3	1.6	
Poor behavior of other shooters	1.4	0.7	2.8	2.3	1.4	
Other people's negative opinions of shooting	0.7	1.3	0.2	0.4	0.8	

(Note that no regional table is shown for long-term lapsed sport shooters because the sample sizes were too low.)

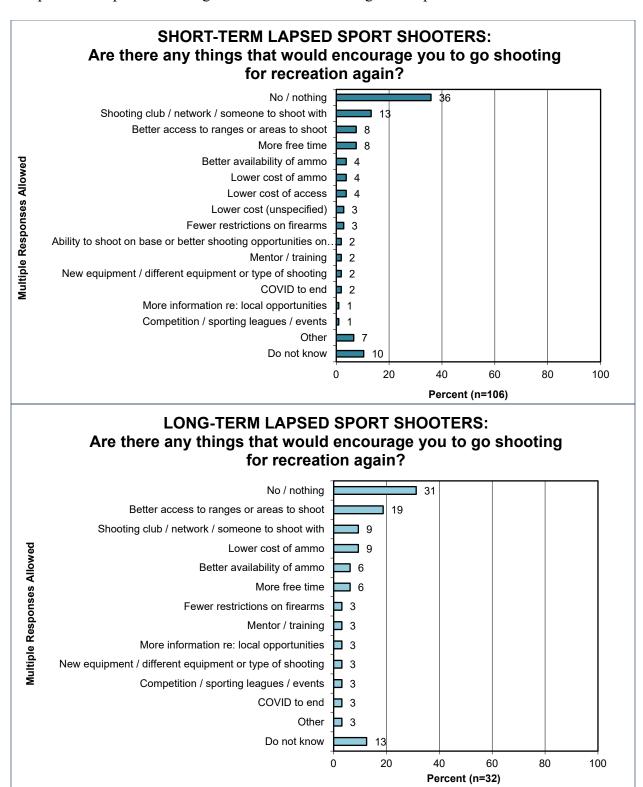
About a quarter of both short-term and long-term lapsed shooters indicated that there are types of recreational shooting that they have not tried that they would like to try. No single type stands out above the rest among short-term lapsed shooters, as can be seen in the graph. Archery is the top type among long-term lapsed shooters.



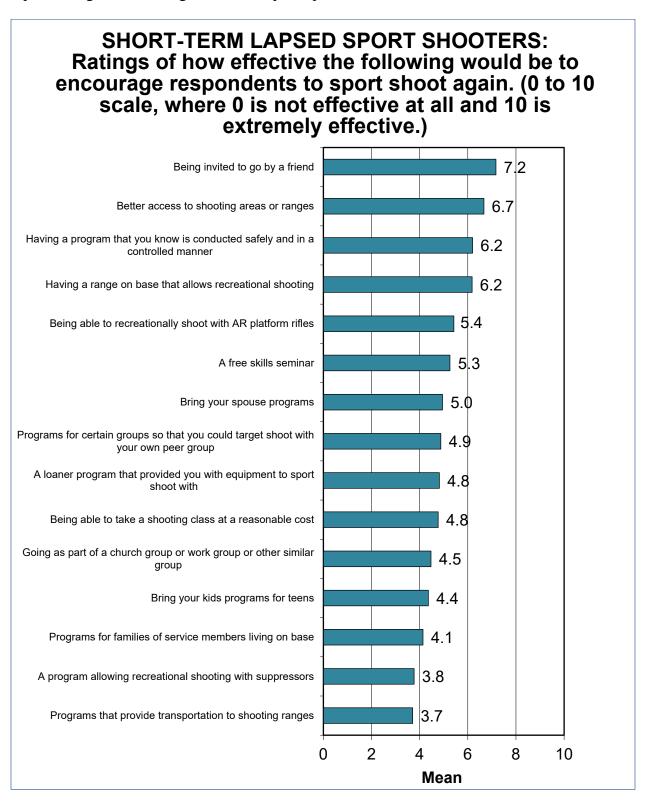


# ENCOURAGING SPORT SHOOTING PARTICIPATION AMONG LAPSED SPORT SHOOTERS

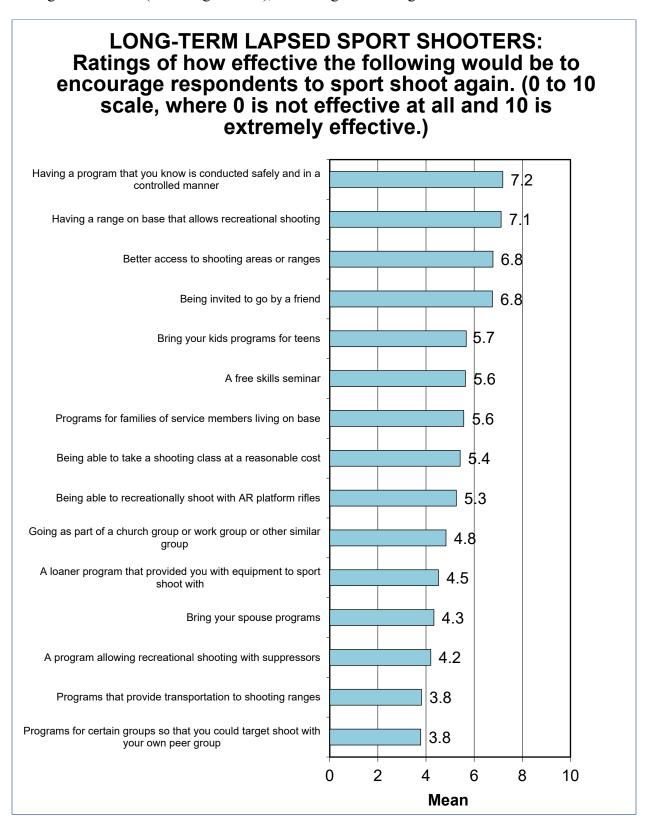
Someone to shoot with, access, and free time are the most commonly named encouragements in an open-ended question among both short-term and long-term lapsed hunters.



Being invited to go, having better access (including on base), and having a safe program are the top encouragements among short-term lapsed sport shooters.



The same encouragements as discussed above are at the top among long-term lapsed sport shooters, albeit in a different order. But the four of them make a top tier: having a safe program, having better access (including on base), and being invited to go.



Marked differences occur among short-term lapsed shooters from the Midwest compared to their counterparts: short-term lapsed shooters from the Midwest give much higher ratings to being invited to go by a friend, having better access, having a safe and controlled program, and having a range on base that allows recreational shooting.

SHORT-TERM LAPSED SPORT SHOOTERS: Ratings of how effective the following would be to								
encourage respondents to sport shoot again. (0 to 10 scale, where 0 is not effective at all and 10								
is extremely effective.)  Northeast Southeast Midwest West Total								
Being invited to go by a friend	7.9		8.3	7.2	7.2			
Better access to shooting areas or ranges	5.1	6.9	8.3	6.3	6.7			
Having a program that you know is	5.1	0.9	0.3	0.3	0.7			
conducted safely and in a controlled	6.6	5.8	7.9	5.9	6.2			
manner	0.0	3.0	1.5	0.9	0.2			
Having a range on base that allows	7.0	F 0	0.0	<i>5.7</i>	6.0			
recreational shooting	7.0	5.2	9.0	5.7	6.2			
Being able to recreationally shoot with AR	6.0	5.8	6.4	3.6	5.4			
platform rifles								
A free skills seminar	5.0	4.9	7.0	5.3	5.3			
Bring your spouse programs	3.9	5.3	5.5	5.2	5.0			
Programs for certain groups so that you	3.4	4.5	7.2	5.4	4.9			
could target shoot with your own peer group	5.4	4.5	1.2	5.4	4.5			
A loaner program that provided you with	3.6	5.0	6.6	4.8	4.8			
equipment to sport shoot with	0.0	0.0	0.0	1.0	1.0			
Being able to take a shooting class at a	4.2	3.8	7.1	6.1	4.8			
reasonable cost								
Going as part of a church group or work	2.9	4.6	4.9	5.1	4.5			
group or other similar group	3.4	5.3	4.5	3.5	4.4			
Bring your kids programs for teens	3.4	5.5	4.5	3.5	4.4			
Programs for families of service members living on base	5.5	3.7	4.9	3.7	4.1			
A program allowing recreational shooting								
with suppressors	2.9	4.2	5.0	3.3	3.8			
Programs that provide transportation to								
shooting ranges	1.7	3.6	6.4	4.1	3.7			

(Note that no regional table is shown for long-term lapsed sport shooters because the sample sizes were too low.)

# NON-PARTICIPANTS: THOSE TO BE TARGETED WITH RECRUITMENT EFFORTS

The participation and interest questions are used to categorize two groups of non-participants. One group consists of non-participants who expressed interest (to be targeted with recruitment with some anticipation of success), and the second group consists of non-participants who did not express any interest (to be targeted with recruitment, although they would not be considered a high priority for such efforts).

Specifically, non-participants were broken down according to the interest questions shown near the beginning of this report. The interested group consists of those who indicated being very or somewhat interested in either hunting activity (with firearms or bowhunting), with sport shooting done the same way. The discussion below is, for the most part, limited to this interested group, although the results among the not interested group (discussed in the next paragraph) are shown.

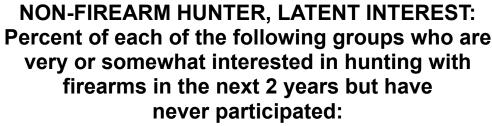
The not interested group consists of those who indicated being not at all interested as well as those who indicated that they were only *a little* interested. The rationale for categorizing respondents based on this parameter is because those expressing only *a little* interest in a survey do not have meaningful interest for R3 planning. This not interested group also includes those who responded with *do not know* on the interest question. In other words, the not interested group consists of those who gave any answer other than very or somewhat interested.

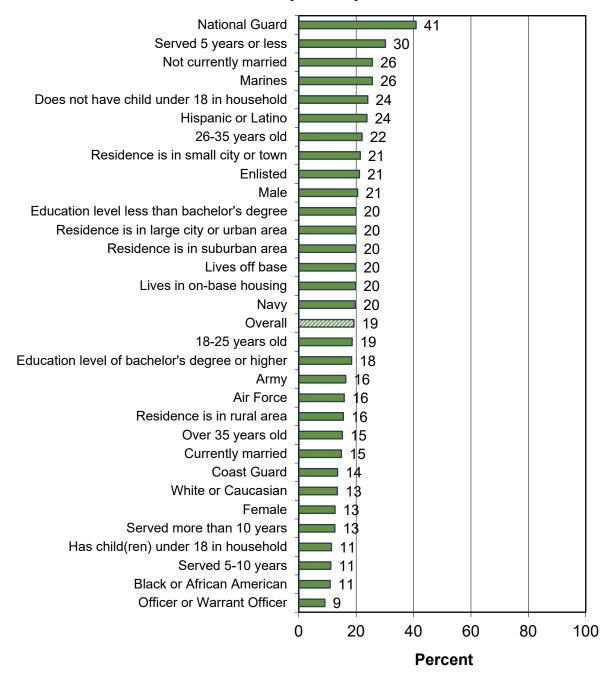
### **DEMOGRAPHIC CHARACTERISTICS OF NON-PARTICIPANTS**

The demographic-participatory graphs show that being in the National Guard, having served for 5 years or less, not being married, and being in the Marines are associated with being interested with firearm hunting while not having done so. These should be targets for hunting recruitment.

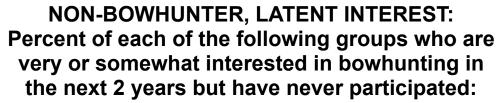
The National Guard and Marines are associated with interest in bowhunting among those who have never bowhunted. Being Hispanic/Latino also is associated with this. These also should be targets for hunting recruitment.

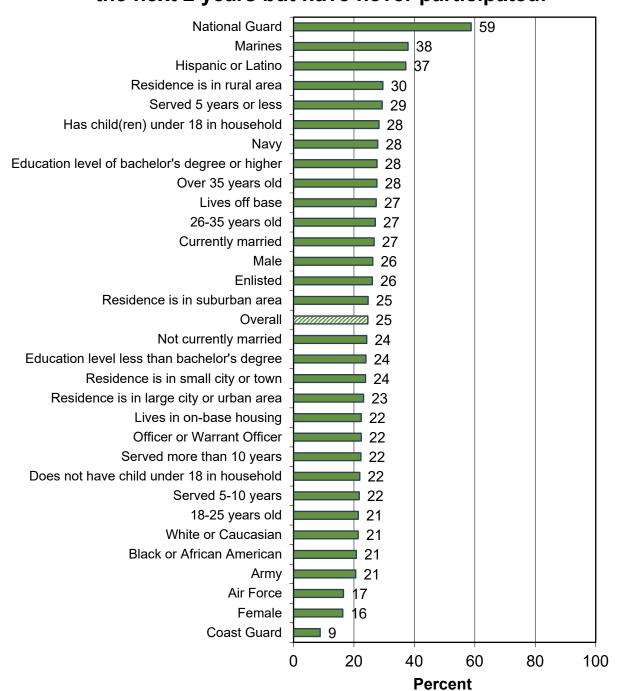
These graphs start on the following page.





How to interpret these types of graph is fully explained on pages 15 and 16.

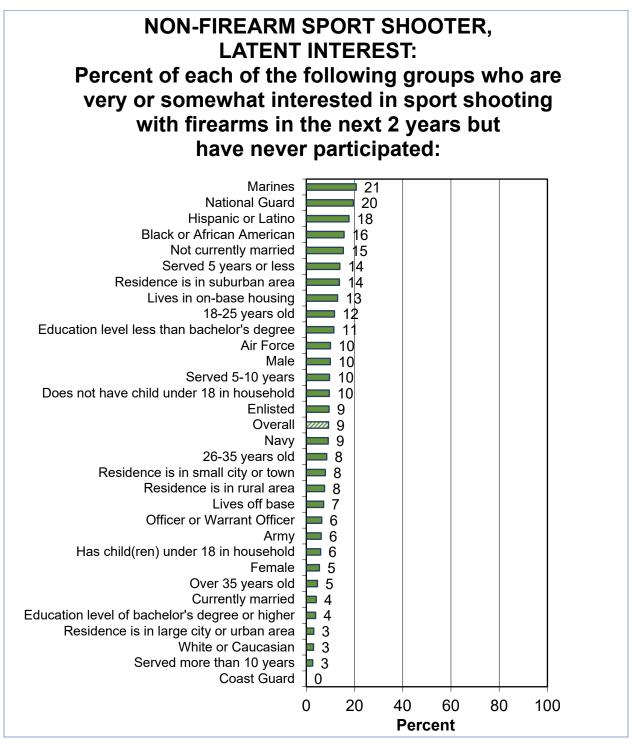




How to interpret these types of graph is fully explained on pages 15 and 16.

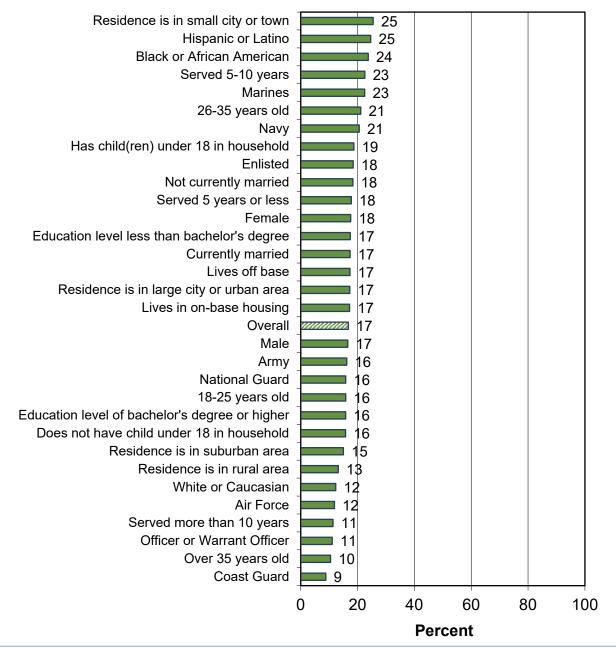
Non-shooters with interest in sport shooting with firearms are disproportionally Marines, those in the National Guard, Hispanics/Latinos, Blacks, and those not married. These should be targets for sport shooting recruitment.

Target archery is of higher interest to non-archers who are residents of small cities/towns, Hispanics/Latinos, Blacks, those who have served 5 to 10 years, and those in the Marines, compared to other groups. (This graph is on the following page.)



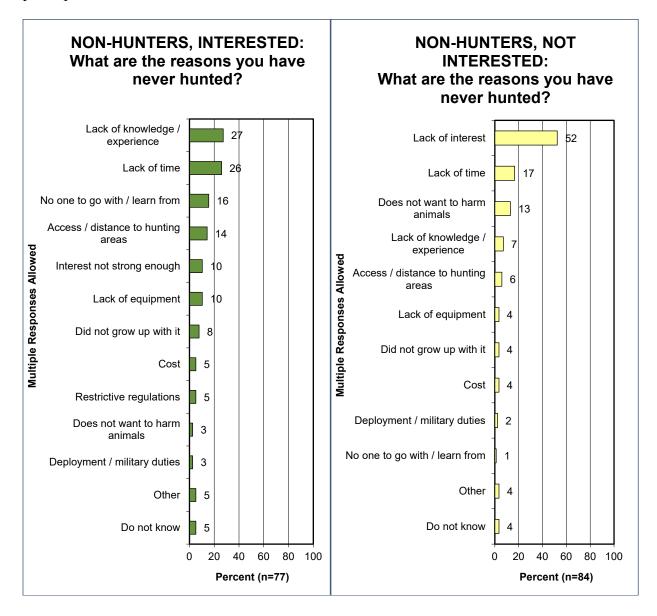
# NON-TARGET ARCHERY SHOOTER, LATENT INTEREST:

Percent of each of the following groups who are very or somewhat interested in target archery shooting in the next 2 years but have never participated:

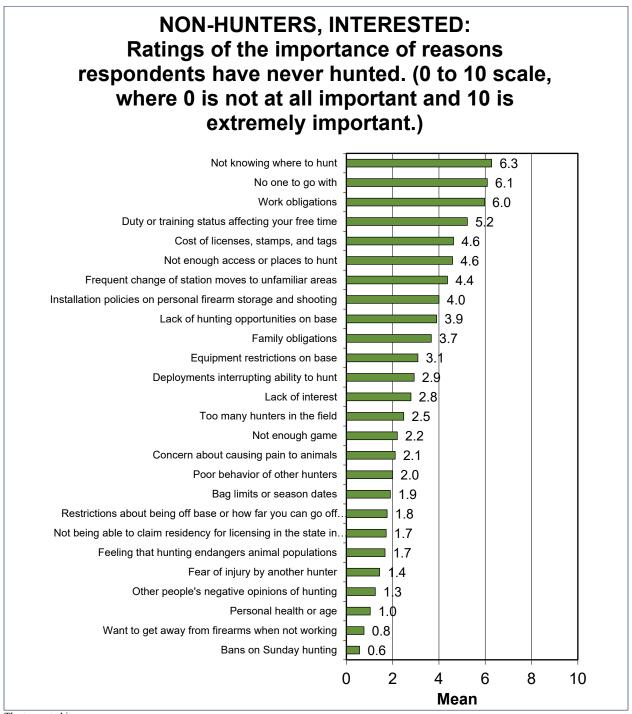


# **CONSTRAINTS TO PARTICIPATION IN HUNTING**

The last set of questions was for non-hunters, starting with an open-ended question regarding reasons for never hunting. Among interested non-hunters, lack of knowledge, lack of time, lack of someone to go with (and to mentor them), and lack of access all contributed to their lack of participation.

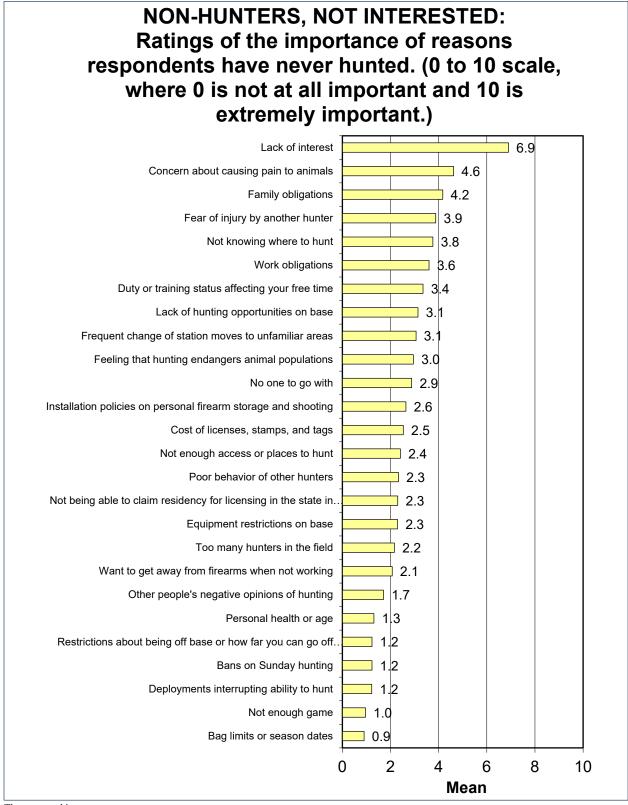


In the series of ratings questions, non-hunters were asked to rate reasons for never hunting. Of note to start is that none of the reasons received particularly high ratings, relative to active and lapsed participants. This is likely a function of lower interest—which is an important constraint to some non-hunters. A person with low interest is not being greatly constrained by other things because the interest to go is so low to begin with. Nonetheless, some constraints that are relatively more important than others to this group include not knowing where to go, lack of people with which to go hunting, and work obligations.



The truncated items are:

Restrictions about being off base or how far you can go off base Not being able to claim residency for licensing in the state in which you are based



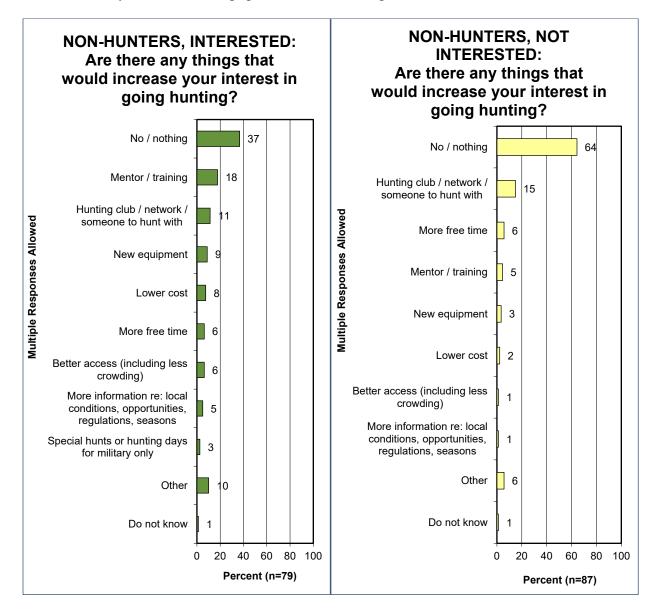
The truncated items are:

Not being able to claim residency for licensing in the state in which you are based Restrictions about being off base or how far you can go off base

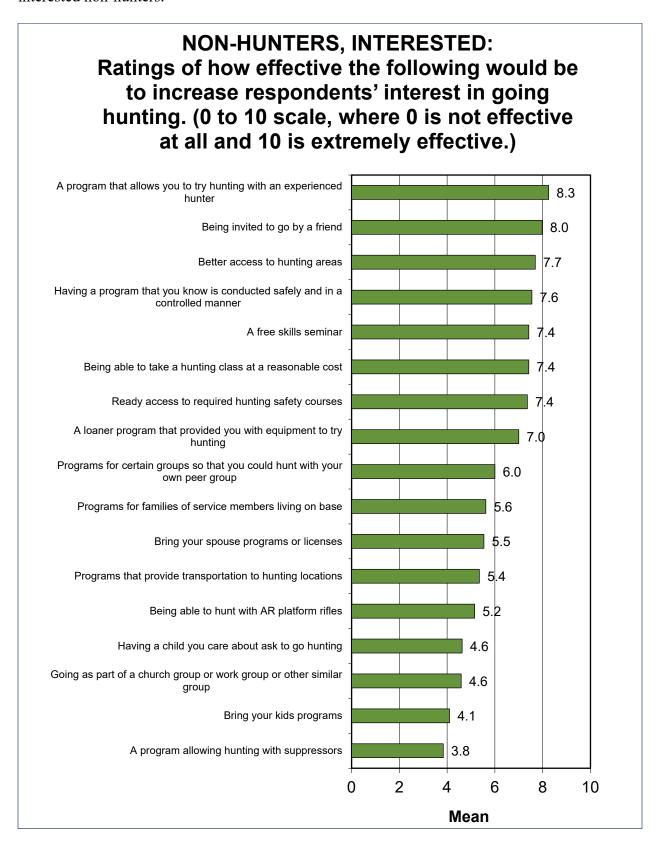
(Note that no regional table is shown for non-hunters because the sample sizes were too low.)

# **ENCOURAGEMENTS THAT WOULD PIQUE INTEREST IN HUNTING**

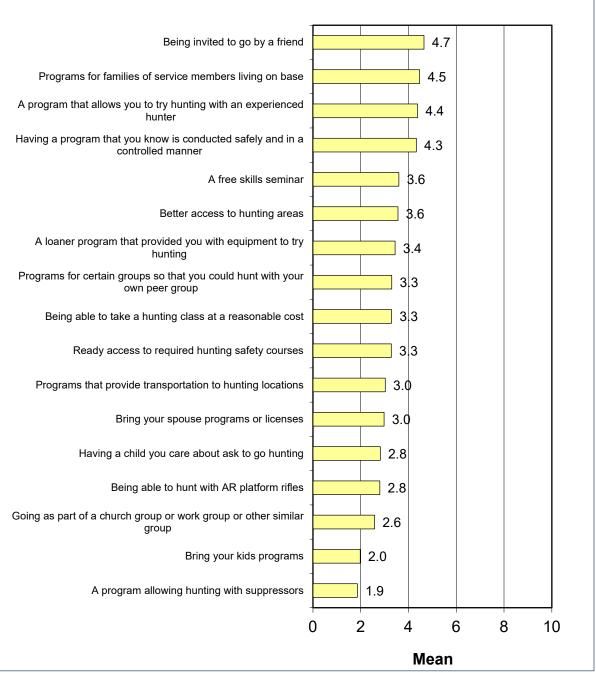
Being able to be mentored/having training and a network to hunt with are the encouragements most commonly mentioned that pique interest in hunting.



Mentoring (including invitations from friends) and access are important encouragements to interested non-hunters.

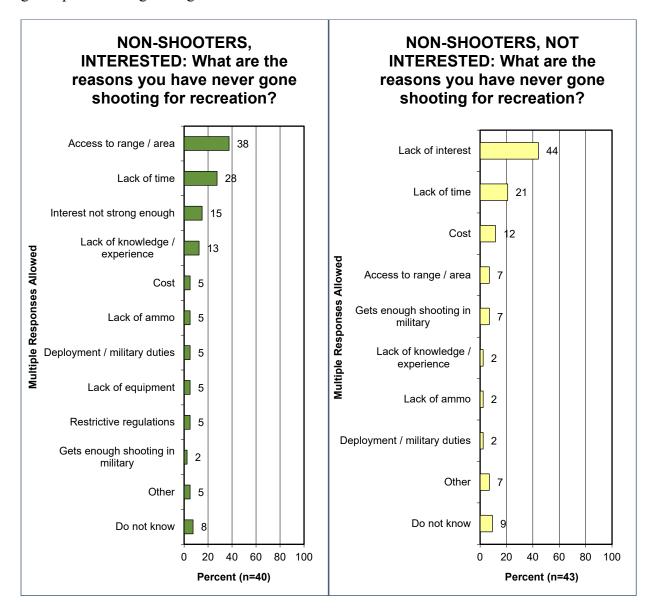


# NON-HUNTERS, NOT INTERESTED: Ratings of how effective the following would be to increase respondents' interest in going hunting. (0 to 10 scale, where 0 is not effective at all and 10 is extremely effective.)

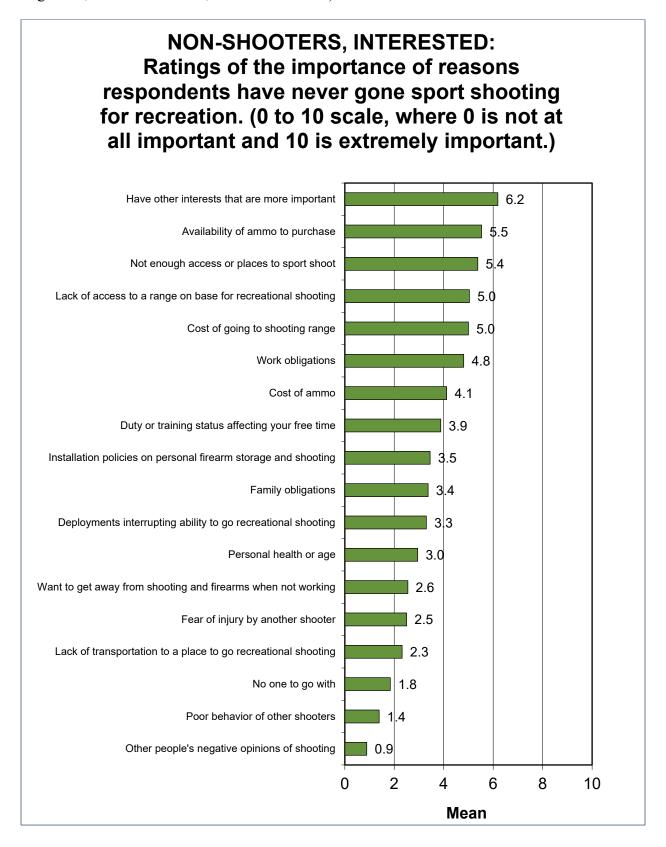


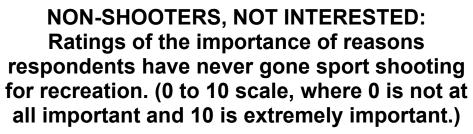
# **CONSTRAINTS TO PARTICIPATION IN SPORT SHOOTING**

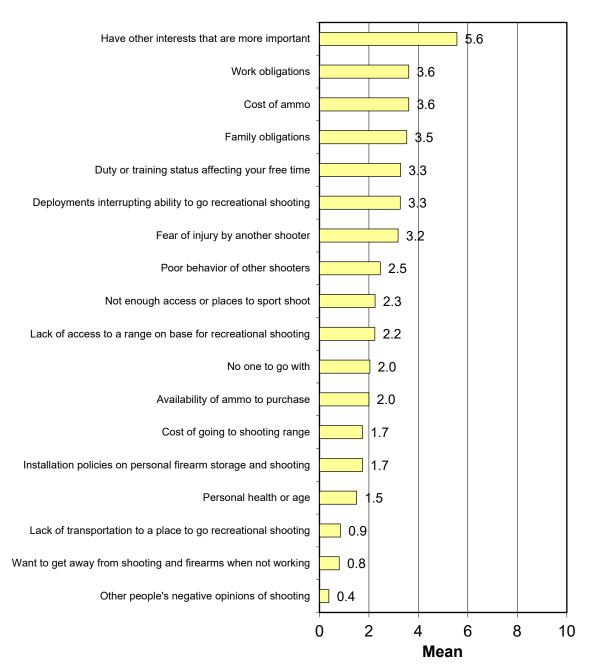
Lack of access, lack of time, and lack of knowledge are all important reasons for never having gone sport shooting among interested non-shooters.



Other than a reason related to having low interest, the top reasons for never going sport shooting among interested non-shooters include availability of ammunition and access (not enough access in general, no access on base, and cost of access).

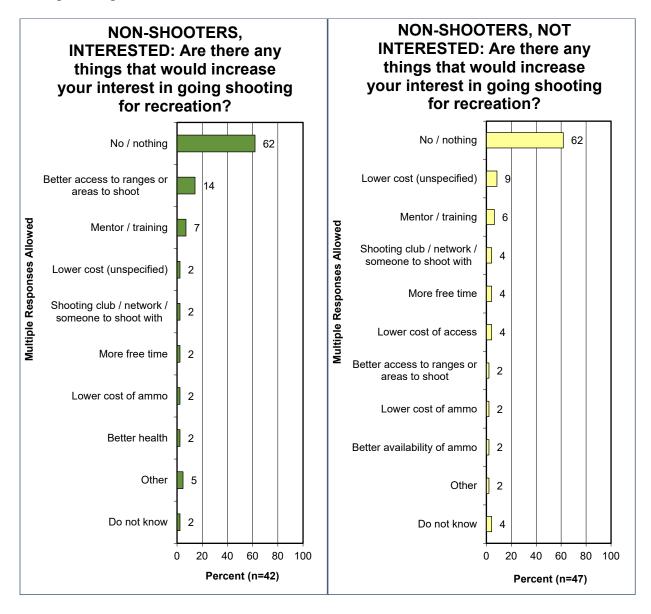




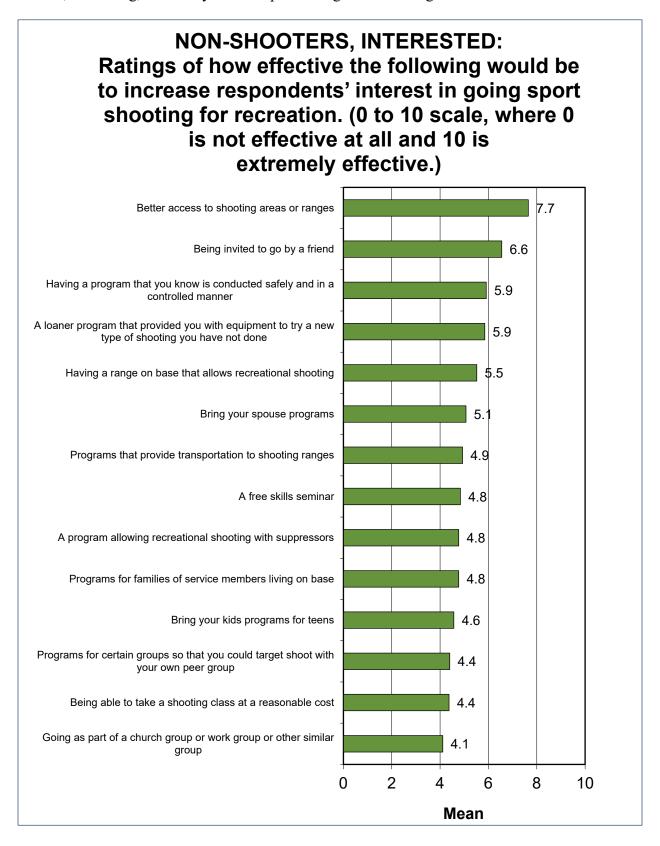


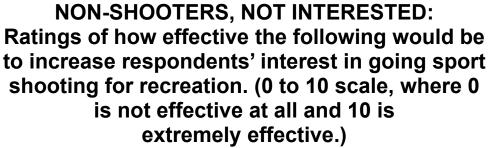
# **ENCOURAGEMENTS THAT WOULD PIQUE INTEREST IN SPORT SHOOTING**

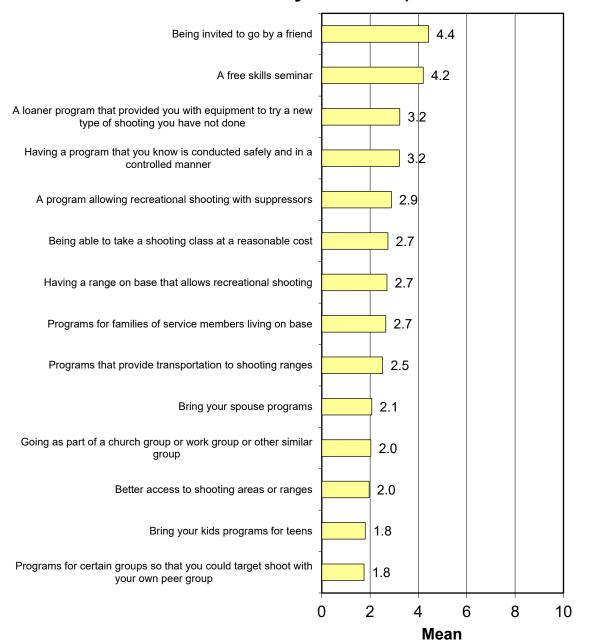
Access is the top encouragement among interested non-shooters, as well as being mentored / having training.



Access, mentoring, and safety are all top encouragements among interested non-shooters.





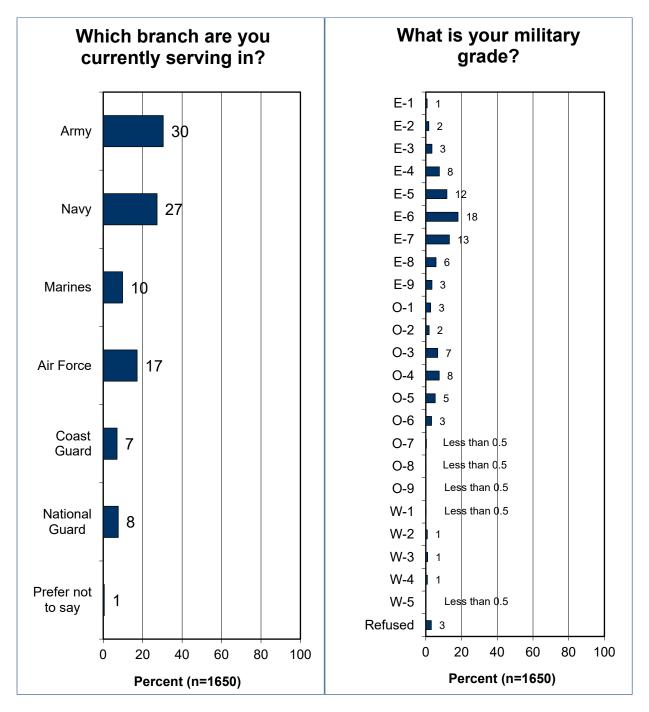


# **MILITARY BRANCH AND GRADE**

The following information was obtained to ensure that the survey was representative of active-duty military personnel:

- Branch
- Military grade.

Note that other demographic data were gathered for crosstabulations but are not shown.



# IMPLICATIONS OF THE SURVEY RESULTS

This section follows the organization of the above sections. One purpose of this project was to establish baseline data on military members' participation in hunting and sport shooting, which is where this section starts.

# PARTICIPATION IN HUNTING, BOWHUNTING, SPORT SHOOTING, AND ARCHERY

> Just less than a third of military personnel (31%) are active hunters.

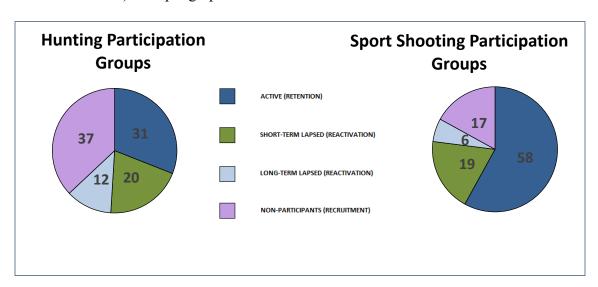
Specifically, combining the 28% who hunted with a firearm in the past 2 years with the 12% who went bowhunting in the past 2 years, 31% of military personnel did some type of hunting in that time period (some did both). These are the targets for retention.

Another 20% of military members are short-term lapsed hunters, meaning they hunted in the past 10 years (either hunting with firearms or bowhunting) but not in the past 2 years. These are the targets primarily for reactivation (and retention to a lesser extent, as some are not yet ex-hunters). The pie graph below shows the full breakdown.

➤ Participation in shooting is even higher: more than half of military members are active sport shooters, with 58% going sport shooting in the past 2 years (using firearms or archery).

More than half of military members (54%) went firearm sport shooting in the 2-year timeframe, while 22% went target archery shooting. Retention efforts would apply to them.

Short-term lapsed sport shooters make up 19% of military members—sport shooting in the past 10 years but not the past 2 years. This is a sizeable group for reactivation efforts (as well as some retention). The pie graph below shows the full breakdown.



> About two thirds of military personnel show robust interest in hunting with firearms, three quarters in sport shooting with firearms, and about half show robust interest in bowhunting and target archery shooting.

Robust interest means being either *very* or *somewhat* interested in the activity. Specifically, robust interest levels are at:

- 66% for hunting with firearms.
- 52% for bowhunting.
- 72% for sport shooting with firearms.
- 53% for target archery shooting.
- > The most interest is in hunting with modern (not AR platform) rifles—nearly three quarters of those interested want to use this type. However, half of those interested want to hunt with AR platform rifles, and half also want to try shotgun hunting.

In follow-up to the interest question, 74% want to hunt with modern firearms, 50% want to hunt with AR platform rifles, and 50% want to hunt with shotguns.

The types of sport shooting with the greatest interest is plinking with rifles (both non-AR and AR platform rifles) and handguns.

For each of these three types of shooting, more than half of those interested in sport shooting wanted to do that type of shooting.

- > Those with children in the household and those living on base have the highest rates of interest in hunting with firearms.
- ➤ Likewise, for bowhunting, the most interest is among those in the National Guard, Hispanics/Latinos, and those 26 to 35 years old.
- > Interest in sport shooting with firearms is high among those in the Coast Guard, residents of small cities or towns, Officers or Warrant Officers, those serving for 5 to 10 years, those over 25 years old, and those with children in their household.
- > Those groups disproportionally interested in target archery shooting are those in the Navy or Marines, Hispanics/Latinos, residents of small cities or towns, and those living in off-base housing.
- ➤ Another audience ripe for R3 efforts are those who expressed interest in the activities but who had not done them in the previous 10 years. In general, Hispanics/Latinos, Blacks/African Americans, National Guard members, and those serving for 10 years or less are the groups with the highest latent interest (i.e., are interested but have not done it).

- > The participation and interest questions together allow for the subsequent categorization of military members into various target audiences for R3 efforts.
  - Active hunters and shooters: retention efforts. (Participated in the past 2 years.)
  - Short-term lapsed: reactivation efforts. (Participated in the past 10 years but not in the past 2 years.)
  - Long-term lapsed: reactivation efforts. (Participated ever but not in the past 10 years.)
  - Non-participants: recruitment efforts. (Never participated.) These were divided into non-participants who are very or somewhat interested and those who were not, the former group being a viable target for recruitment.

#### **ACTIVE PARTICIPANTS: RETENTION**

This section looks at the demographic characteristics, the characteristics of hunting and sport shooting participation, motivations, constraints, and encouragements.

## **Demographic Characteristics of Active Hunters and Sport Shooters**

- > Active firearm hunters are disproportionally from the Army or Air Force, reside in a small city or town, and are ethnically white.
  - Those doing retention efforts to active hunters should consider that these groups have a higher rate of participation compared to other groups.
- ➤ Active firearm sport shooters are disproportionally made up of Coast Guard personnel, those serving for 5 to 10 years, residents of a small city or town, those who are married, and those who are ethnically white.
  - The retention efforts aimed at these sport shooters should consider these characteristics.
- > In looking at archery participation, either bowhunting or target archery shooting, the characteristics associated with being active in these activities include being an Officer or Warrant Officer, being in the Air Force, and serving for more than 10 years.
  - In retention efforts for archery, these groups should be considered.

# **Characteristics of Hunting Participation Among Active Hunters**

- ➤ Deer are the most popular species among active hunters (91% hunt it), with wild turkey (47%) at about half that rate. About a third hunt small game (33%) and waterfowl (30%), and about a quarter hunt upland game birds (27%).
- Firearm use in hunting is as follows: 81% use modern rifles (non-AR platform), 74% use shotguns, and 63% use archery (non-crossbow).
  - These top three are distantly followed by muzzleloaders (36%), AR platform rifles (25%), and crossbows (22%).

> Public land, off base, predominates as hunting locations. Also important are private land *not* part of a lease. Meanwhile, a little more than a third hunt on base.

Specifically, in the past 10 years, 74% used public land off base, 53% used private land not part of a lease, 39% hunted on base, and 28% used private leased land.

> While camaraderie is important in hunting (two thirds hunt with other military friends, half hunt with friends outside the military, and well more than half hunt with family), about two thirds of active hunters in the military hunt alone at least some of the time.

Among active hunters in the military, 66% hunt with military friends, 51% hunt with non-military friends, 61% hunt with family, and 68% hunt alone some of the time. Additionally, 14% belong to a hunting club, most typically an off-base club.

# **Motivations for Hunting Among Active Hunters**

> The top motivations for hunting among active hunters are to be in nature, for sport/recreation, for the challenge, for a mental health break, and for food.

Although food is within the top tier of reasons for hunting, the aesthetic and recreational reasons generally predominate. On a scale of 0 to 10, where 0 is not important at all and 10 is extremely important as a reason for hunting, to be in nature was the top-ranked motivation among active hunters with a mean rating of 9.0. Four other items are in the top tier: for the sport or recreation (mean rating of 8.0), for the challenge (8.0), for a mental health break (also at 8.0), and for food (7.9).

> Men are more attracted to hunting for the sport or recreation than are women hunters, as well as to get a break from military duties.

Mean ratings among men are higher than among women for these reasons: for the sport or recreation and to get a break from military duties (this analysis was run on active and short-term lapsed together, as shown in the appendix).

# **Constraints to More Hunting Participation Among Active Hunters**

> Even among active hunters, there are important constraints to their participation: lack of time and access.

These two constraints are related: lack of close access means it takes more time to go hunting. In the open-ended question, lack of time was the top constraint, and problems with access was the second reason in the ranking. In the series of questions asked of active hunters, the top two constraints were work obligations and duty or training status affecting free time. This was followed by not enough access. Another important constraint in the series was access-related as well: not *knowing* where to hunt.

**Bans on Sunday hunting are constraining participation in hunting.** 

State fish and wildlife agencies cannot unilaterally change Sunday bans in states that have them. Nonetheless, it is a problem with hunting participation. In the open-ended question on things that prevented as much hunting as the hunter would have liked, a ban on Sunday hunting was commonly mentioned. It was the 5th-ranked item of the 25 constraints asked of active hunters. In the open-ended questions related to constraints, hunters talked about their

only time available to hunt—the weekend—being arbitrarily cut in half by Sunday hunting bans.

## **Encouraging More Participation Among Active Hunters**

> Better access (by far the most important) and allowing Sunday hunting are most commonly named by active hunters as things that would encourage more hunting. Also high in the ranking are camaraderie-related and mentoring-related items.

Better access is the top encouragement to hunt among active hunters in response to an openended question about things that would encourage them to hunt more. Their top item is better access—by far the most important. More free time and the ability to hunt on Sunday were also often mentioned.

In the series of questions in which active hunters rated items that might encourage them to hunt more, the top response by far is access to a place to go hunting. Also high in the ranking are camaraderie-related and mentoring-related items: having a child ask to be taken, being invited by a friend, and kids/family programs or licenses

Active hunters overwhelmingly say that there are species that they would like to hunt that they have not heretofore hunted (80% indicated this). Elk, bear, and wild hog are high on the list of those species they want to try to hunt.

Appealing to the desire to try to hunt new species is a tactic that would seemingly work well.

# **Characteristics of Sport Shooting Participation Among Active Sport Shooters**

- ➤ The types of recreational shooting most commonly done by active sport shooters are target shooting or plinking with a handgun and with a modern rifle—with participation rates of about three quarters. Additionally, a large majority target shoot/plink with an AR platform rifle, do various clay sports, and shoot with a shotgun—all at 60% or more of active sport shooters.
- > Off-base shooting ranges and land owned by a friend or family member are the most commonly used locations for sport shooting among active sport shooters.
  - Specifically, 43% use an off-base outdoor range and 36% use an off-base indoor range, while range use on base is 8% at an indoor on-base range and 19% at an outdoor on-base range. Meanwhile, 42% use a friend's land, 27% use their own land, and 27% use public land off base.
- Examaraderic plays a role in sport shooting participation among active sport shooters: 69% go with military friends, 51% go with friends outside the military, and 64% go with family members. Additionally, 52% go alone at least some of the time.

# **Motivations for Sport Shooting Among Active Sport Shooters**

> The top motivations for sport shooting among active participants are to prepare for hunting and for the sport or recreation. Also important are the challenge, camaraderie, self-defense training, and for a mental health break.

This top tier contains these two items, with mean ratings of 7.9 and 7.8, respectively, on a 0 to 10 scale, where 0 is not important at all and 10 is extremely important as a reason for sport shooting. A second tier, with rating from 6.2 to 7.1, includes the challenge, camaraderie (with friends and family), self-defense training, and a mental health break.

> There is a huge difference between men and women in reasons to sport shoot. Men give higher ratings than women to the importance of sport shooting to prepare for hunting and for the sport or recreation. Otherwise, they are largely the same in the top-rated items.

Men's mean rating of shooting for the sport or recreation is much higher than the rating among women. Likewise, men's mean rating of shooting to prepare for hunting is well above the rating among women—the largest difference in this series of questions (this analysis was run on active and short-term lapsed together, as shown in the appendix).

# **Constraints to More Sport Shooting Participation Among Active Sport Shooters**

> Important constraints to sport shooting participation among active sport shooters are lack of time, lack of access, and the cost and availability of ammunition.

Access is the biggest problem over which the sport shooting community may have some influence. In the series of questions about constraints asked of active sport shooters, the availability of ammunition was the top-rated reason, closely followed by the cost of ammunition. The next two items were related to time: work obligations and duty or training status affecting time. Then the next item was access. These five constraints were in the top tier, with markedly higher ratings than the other constraints asked about.

In the series of questions about the effectiveness of things to encourage more shooting (discussed later), the highest mean rating was for better access to shooting areas or ranges, and the second encouragement in the list was having a range on base that allows recreational shooting.

# **Encouraging More Participation Among Active Sport Shooters**

> Access and better availability and cost of ammunition are top encouragements among active sport shooters to get them to participate more, as well as camaraderie.

An open-ended question was followed by a series of items that were rated for effectiveness, asking about any things that might encourage more participation among active sport shooters. The most commonly mentioned items to encourage more participation among active shooters (in an open-ended question) were better access and lower cost/better availability of ammunition. The series of questions on encouragements among active shooters shows that access tops the ranking closely followed by camaraderie/family-related encouragements: having better access, having a range on base, and being invited by a friend are in a top tier clearly above the rest.

### LAPSED PARTICIPANTS: REACTIVATION

Note that lapsed participants were divided into short-term lapsed (participated in the past 10 years but not the past 2) and long-term lapsed (participated ever but not in the past 10 years). They are divided this way because they are approached differently, with short-term lapsed being addressed primarily by reactivation but some retention, and long-term lapsed being addressed by reactivation but some amount of recruitment if their participation was long in the past.

# **Demographic Characteristics of Lapsed Hunters and Sport Shooters**

> Being a short-term lapsed firearm hunter is associated with being in the military for 5 to 10 years, being in the Navy or Coast Guard, residing in a rural area, and being married.

Reactivation (primarily) and retention (secondarily) efforts to short-term lapsed hunters should be carried out with these groups in particular in mind.

➤ Long-term lapsed firearm hunters are disproportionally made up of National Guard members, those who served more than 10 years, and those in the higher education bracket (bachelor's degree or higher).

The reactivation efforts at long-term lapsed hunters should be developed with these groups in mind, targeting them as the most likely to be long-term lapsed hunters.

> Short-term lapsed firearm sport shooters are well represented among military personnel in the Navy and those who have served a long time (more than 10 years).

These groups should be considered in reactivation and retention efforts aimed at short-term lapsed shooters.

> Long-term lapsed firearm sport shooters are disproportionally made up of those in the Air Force and residents of a large city or urban area.

The reactivation efforts aimed at long-term lapsed sport shooters should consider these characteristics that are associated with this status.

# **Characteristics of Hunting Participation Among Lapsed Hunters**

> Deer was the most hunted species among lapsed hunters. Other species (or species groups) that were commonly hunted included small game, wild turkey, and upland game birds.

The most commonly hunted species among short-term lapsed hunters was deer (76%), distantly followed by small game, wild turkey, and upland game birds—in the range of 23% to 30%.

➤ Modern rifles (non-AR) and shotguns were the types of equipment most commonly used by lapsed hunters.

Among short-term lapsed hunters, 71% used modern rifles and 59% used shotguns. Other use was lower: 28% used archery other than crossbows, and 25% used AR platform rifles.

- > Public land off base and private land not part of a lease were the most used types of land among lapsed hunters.
- Family members were the most common hunting companions among short-term lapsed shooters—64% went with family. Additionally, 48% went with military friends, 41% went with non-military friends, and 36% went alone (at least some of the time). Finally, only 4% belong to a hunting club.

## **Motivations for Hunting Among Lapsed Hunters**

> The top motivations for hunting among short-term lapsed hunters were to be in nature, for the challenge, for food, and for sport/recreation.

Although food was within the top tier of reasons for hunting (when they had hunted), aesthetic and recreational reasons were prominent. On a scale of 0 to 10, where 0 is not important at all and 10 is extremely important as a reason for hunting, to be in nature was the top-ranked motivation among short-term lapsed hunters with a mean rating of 8.3. Three other items were in the top tier: for the challenge (mean rating of 7.1), for food (7.1), and for the sport or recreation (7.0).

## **Constraints to Hunting Participation Among Lapsed Hunters**

Among short-term and long-term lapsed hunters, lack of time and access were the top constraints. No one to go with was also an important constraint among long-term lapsed hunters.

Obligations of work and duty (the top two items), lack of access, and frequent change of station moves to unfamiliar areas (also an access-related item) topped the list of reasons that short-term lapsed hunters did not go hunting in the past 2 years.

# **Encouraging Participation Among Lapsed Hunters**

> Access and invitations to go hunting, as well as being asked to take a child hunting, are all top encouragements among lapsed hunters.

An open-ended question started the encouragements section of the survey: more free time and better access top the list among short-term lapsed hunters. In the series of things that might encourage participation, better access is a top encouragement, as are two mentoring-related items: being invited to go by a friend (being mentored) and having a child ask to be taken (doing the mentoring).

A large percentage of short-term lapsed hunters say that there are species that they would like to hunt that they have not heretofore hunted (64% indicated this). Bear, elk, wild hog, and wild turkey are high on the list of those species they want to try to hunt.

Appealing to the desire to try to hunt new species is a tactic that would seemingly work well to reactivate these lapsed hunters.

# **Characteristics of Sport Shooting Participation Among Lapsed Sport Shooters**

> The most popular types of shooting were target shooting/plinking with a handgun and doing the same with a modern rifle.

The most common types of sport shooting among short-term lapsed sport shooters were target shooting or plinking with a handgun and doing the same with a modern rifle (at 61% and 54%, respectively). Three more activities were in a middle tier, that were done by 39% to 44%: target shooting/plinking with an AR platform rifle, clay sports, and target shooting/patterning a shotgun.

> Off-base shooting ranges and land owned by a friend or family member were the most commonly used locations for sport shooting among short-term lapsed sport shooters.

Specifically, 31% used an off-base outdoor range and 31% used an off-base indoor range. Meanwhile, 5% used an indoor on-base range and 14% used an outdoor on-base range. Land owned by friends and family was used by 41%, 16% used their own land, and 22% used public land off base.

As with active sport shooters, camaraderie was important in sport shooting participation among short-term lapsed sport shooters: 60% went with military friends, 39% went with friends outside the military, and 53% went with family members. Also, 34% went alone at least some of the time.

# **Motivations for Sport Shooting Among Lapsed Sport Shooters**

> The sport or recreation, the challenge, and being with friends were the top-rated motivations for sport shooting among short-term lapsed sport shooters.

Shooting for the sport or recreation was the most important motivation, but this was closely followed by doing so for the challenge and to be with friends—all with mean ratings of more than 6.0 on a 0 to 10 scale.

# **Constraints to Sport Shooting Participation Among Lapsed Sport Shooters**

> Lack of time and access were the biggest constraints to sport shooting participation among lapsed sport shooters.

Lack of time, the associated reason of deployment/military duties, and lack of access were the most important constraints to sport shooting participation among short-term lapsed sports shooters. Among long-term lapsed sport shooters, add cost to the list.

# **Encouraging Participation Among Lapsed Sport Shooters**

> Someone to go sport shooting with, access, and a safe/controlled program are all top encouragements to sport shooting among lapsed sport shooters.

Someone to shoot with, access, and free time are the most commonly named encouragements in an open-ended question among both short-term and long-term lapsed hunters. In the series of questions, being invited to go, having better access (including on base), and having a safe program are the top encouragements among short-term lapsed sport shooters.

#### **NON-PARTICIPANTS: RECRUITMENT**

Interest in the activities was used as a way to divide non-participants into those who are very or somewhat interested (have robust interest) and those who are not very or somewhat interested. For purposes of this implications section, the focus is on those with robust interest.

# **Demographic Characteristics of Non-Hunters and Non-Sport Shooters**

> Non-participants interested in hunting (i.e., have latent interest) are disproportionally National Guard members or Marines, those serving for 5 years or less, and those who are married. Latent interest in bowhunting is high among National Guard members, Marines, and Hispanics/Latinos.

The demographic-participatory graphs show that being in the National Guard, having served for 5 years or less, not being married, and being in the Marines are associated with being interested with firearm hunting while not having done so. These should be targets for hunting recruitment.

The National Guard and Marines are associated with interest in bowhunting among those who have never bowhunted. Being Hispanic/Latino also is associated with this. These also should be targets for hunting recruitment.

> Latent interest in sport shooting is associated with being a Marine or in the National Guard, being Hispanic/Latino or Black, and not being married.

Non-shooters with interest in sport shooting with firearms are disproportionally Marines, those in the National Guard, Hispanics/Latinos, Blacks, and those not married. These should be targets for sport shooting recruitment.

Target archery is of higher interest to non-archers who are residents of small cities/towns, Hispanics/Latinos, Blacks, those who have served 5 to 10 years, and those in the Marines, compared to other groups.

# **Constraints to Hunting Participation Among Non-Hunters**

> The top constraint to hunting participation among non-hunters with robust interest is lack of knowledge/experience and lack of time.

In the open-ended question, these were the top two responses among non-hunters with robust interest. In the series of questions in which they rated reasons for never hunting, the top three—with markedly higher ratings than the rest—are not knowing where to hunt, not having anyone to go with, and work obligations.

Although this section focuses primarily on non-hunters with robust interest, it is worth taking a moment to consider non-hunters without robust interest. Regarding constraints to starting to hunt among these non-hunters, lack of interest is by far the top reason. While there is no clear path to piquing interest among people who have no existing interest, the fact that they live within a social setting that includes many hunters is helpful as a start. Camaraderie and the potential to be mentored could play a key part of recruitment among non-hunters.

In the open-ended question regarding reasons for never hunting, lack of interest was the most commonly given response, and it was the top-ranked reason in the series of questions where the importance of each constraint was rated, among non-hunters without robust interest.

# **Encouraging an Interest in Participation Among Non-Hunters**

> Being able to be mentored/having training, a network to hunt with, and access are top hunting encouragements among non-hunters with robust interest.

Being able to be mentored/having training and a network to hunt with are the encouragements most commonly mentioned in the open-ended question about things that would pique interest in hunting. In the series of questions, mentoring (including invitations from friends) and access are important encouragements to interested non-hunters.

## **Constraints to Sport Shooting Participation Among Non-Sport Shooters**

➤ Lack of access, time, and knowledge, as well as ammunition availability problems, are the biggest constraints to sport shooting participation among non-shooters with robust interest.

In the open-ended question, lack of access, lack of time, and lack of knowledge are all important reasons for never having gone sport shooting among interested non-shooters. Other than a reason related to not having enough interest, the top reasons for never going sport shooting among non-shooters with robust interest in the series of questions include availability of ammunition and access (not enough access in general, no access on base, and cost of access).

# **Encouraging an Interest in Participation Among Non-Sport Shooters**

> Access, mentoring, and safety are top encouragements to go sport shooting among non-shooters.

Access is the top encouragement among interested non-shooters, as well as being mentored/training, in response to the open-ended question. Access, mentoring, a safe and controlled program, a loaner program, and on-base access are all top encouragements among interested non-shooters in the series of questions.

#### **OBSERVATIONS THAT APPLY ACROSS MULTIPLE GROUPS**

Some of the implications of the data do not apply just to active or just to short-term lapsed participants, for instance, but have wider applicability. They are discussed below.

A nuance of the problem with access is related to frequent changes of station. Many service members grew up hunting and became familiar with where and what to hunt, and how to hunt it, in the state where they were raised. When they are transferred to an unfamiliar area, they have no local knowledge of where to hunt and sometimes what to hunt and how to hunt it. While such information is available on the internet, including through fish and wildlife agencies themselves, many of these transferred hunters see learning all the local nuances of hunting on their own as daunting.

Many of the open-ended responses to questions about things that prevented hunters from hunting as much as they would have liked or hunting at all reveal that a lack of local knowledge is a problem, particularly with knowledge about access. "Not knowing where to hunt" was the 6th-ranked constraint out of 25 constraints asked of active hunters, and it was a highly ranked constraint out of 26 asked of short-term and long-term lapsed hunters.

Additionally, the third rated encouragement (also to be discussed shortly) among active hunters that would encourage them to hunt more was being invited to go by a friend. While camaraderie is a primary aspect of that reason, another aspect may be related to not knowing where to go hunting. Being invited means to the invitee that the problem of access has been worked out—the hunter does not need to learn on his/her own where to go hunting (and what to hunt and how to hunt it).

> Outreach to newly stationed military personnel—particularly if they can be invited to accompany a hunting party that already has that local knowledge—would undoubtedly increase hunting participation among the military.

In the ratings of the effectiveness of things that would encourage more hunting participation, active hunters rated "being invited to go by a friend" at 7.7 on a 0 to 10 scale—the third item in the ranking of the 16 items asked about. Among short-term and long-term lapsed hunters, this is a highly rated item. Among non-hunters, it is the top item that would increase their interest.

> There is much latent interest in 3-gun shooting. To a lesser extent, there is also some latent interest in long-range shooting, muzzleloader shooting, clay sports, and archery.

When asked to name types of shooting that they had not done but would like to try, 31% of everyone who got the question (active, lapsed, and non-participants together who indicated an interest) named 3-gun shooting, well above all others. Next were long-range shooting (16%), muzzleloader shooting (14%), sporting clays, skeet, trap, and 5-stand (14%), and archery (11%). All other types of shooting were in the single digits.

#### CONCLUSIONS AND RECOMMENDATIONS

- > The results of this study support the idea that military personnel on active duty can be important and successful target markets for hunting and recreational shooting R3.
- > The results of this study show high rates of interest in the activities. The analysis looked at those who are *very* or *somewhat* interested in the activities—those with robust interest. Specifically, robust interest levels are at:
  - 66% for hunting with firearms.
  - 52% for bowhunting.
  - 72% for sport shooting with firearms.
  - 53% for target archery shooting.
- > It is important that targeted marketing include consideration of military branch, as military personnel differ in their attitudes and behaviors according to branch. In various places within this report, important findings include differences by branch of military. Use the data in this report for this targeted marketing.
- ➤ The R3 community should work with military bases and base commanders, showing them the high level of existing interest in the activities among military members and demonstrating the psychological benefits of spending time in nature. Perhaps no other target market could derive more mental health benefit from spending time in nature, leading to reduced stress and anxiety. The results confirm this, with the high ratings given to spending time in nature and getting a mental health break. In fact, in response to one of the questions in the survey, one Major General wrote the following:

I'm advocating on post and across all military installations for access and opportunities for soldiers and families to hunt/shoot and fish as a method of team building and resiliency to combat suicides, assaults and other behavior health and marriage/family challenges.

> The R3 community has long been interested in increasing participation rates among currently under-represented groups such as Blacks and Hispanics/Latinos. The findings from this study show that there is high interest in these activities among these ethnic groups. In general, Hispanics/Latinos and Blacks/African Americans are among the groups with the highest latent interest (i.e., are interested but have not done it).

For bowhunting and target archery shooting, there is high interest among Hispanics/Latinos.

Two of the groups with high latent interest (showing interest while not having done the activities) in sport shooting with firearms and target archery shooting include Blacks and Hispanics/Latinos.

> Lack of information on hunting and sport shooting access is an important constraint among military personnel. The R3 community should encourage state fish and wildlife agencies and local hunting and sport shooting clubs to provide specific information to local military bases on local opportunities and local access.

This information should be provided pro-actively, not just to those who seek it. There are many who want to go hunting and sport shooting but who do not know where to do it and who will not necessarily seek that information on their own. Being given that information may prompt them to action.

- ➤ The R3 community should encourage sportsmen's organizations to invite staff from local military bases to attend their clubs. Americans in general express their appreciation to those in the military for their service, so encouraging these organizations to invite military members into their fold would be a way to put that thanks into action.
- ➤ The R3 community should advocate for allowing military personnel to use ranges on base for recreational shooting. This could include the construction of ranges for recreational shooting, if none exists on base. This could have dual benefits of improving the mental well-being of military members while improving their shooting skills at the same time.
- > The R3 community should explore way to provide discounts on ammunition for recreational shooting to military members, as the cost of ammunition often was cited as a constraint.
- ➤ The R3 community should advocate for the establishment of on-base hunting and sport shooting clubs (for those bases that do not already have them) to help foster camaraderie and to share knowledge.

On-base hunting and sport shooting clubs could act as repositories for local information on hunting and sport shooting opportunities and access. This repository would counteract the loss of knowledge that occurs when military members are re-assigned to other bases. These clubs would also assist with helping would-be hunters and sport shooters find companions for hunting and sport shooting.

> The R3 community should encourage the development of online forums devoted to hunting and sport shooting at bases that would help with the dissemination of information on companions, opportunities, and access for the given activities.

# **METHODOLOGY**

The project entailed a multi-modal scientific survey of active-duty military members. The survey effort included both telephone surveying and online surveying, as discussed below.

#### **DESIGN OF QUESTIONNAIRE**

The questionnaire was developed by Responsive Management (with input from RTS Strategies) and the SAF, based on the research team's familiarity with surveys on natural resources and outdoor recreation. The team helping to develop the survey included a consultant, Ken Perrotte, hired by Responsive Management who is a former member of the military who now studies and writes about military issues.

The telephone survey was computer coded for Responsive Management's computer-assisted telephone interviewing (CATI) system. An important aspect of this system is that the computer controls which questions are asked. Each telephone survey, however, is administered by a live interviewer.

The online survey was based on the telephone survey, with slight adjustments of wording to account for the mode (question wording that is spoken orally by an interviewer differs from question wording that a respondent reads).

For all surveys, there were slight differences in introductory wording to account for different states and different samples. Responsive Management conducted pre-tests of all versions of the questionnaire to ensure proper wording, flow, and logic in the surveys.

In the survey, participants were divided into those who had hunted in the past 2 years, those who had hunted in the past 10 years but not the past 2 years, those who had ever hunted but not in the past 10 years, and those who had never hunted, and the survey asked slightly different questions for the various groups. The same was done for sport shooting participants. The data analyses also considered these groupings.

### SURVEY SAMPLES AND CONTACT PROCEDURES

The overall sample had four components. The first component was a nationwide sample of military members obtained from a firm that specializes in providing samples for surveys. The sample consisted of likely military members; a screener ensured that only active military members took the survey. This sample was surveyed online. This sample included all states. These people were sent contact emails with a link to the survey. This component was important to establish participation rates in the outdoor activities (hunting, bowhunting, sport shooting with firearms, and archery shooting), because overall participation rates cannot be determined through the license database samples or other specialized samples detailed below.

The second component of the sample was a general population sample of residents near military bases; this sample was obtained from a firm that specializes in providing scientifically valid samples for surveys of the general population. Telephone calls were made to this sample, and a screener ensured that they were active military members to be eligible for the survey. The surveys were conducted at the time of the call, or an appointment time was scheduled for a call back. All surveys of this sample were conducted by telephone.

The third component consisted of license databases from seven states that either had military-associated licenses or otherwise included an indication that the license holder was in the military, in one instance supplemented with a general hunting license holder database (note that these databases were used only for this survey and were subsequently deleted from Responsive Management's database management system at the conclusion of the survey; Responsive Management does not maintain databases of license holders). To obtain these databases, Responsive Management contacted all state agencies and received databases from 19 states, but only 7 of them had military licenses or otherwise indicated military members in the database. The states that provided military-associated license information were Florida, Indiana, Maine, Oregon, Vermont, Virginia, and Wisconsin, as described below.

- Florida provided a database of military-associated license holders. From that database, a probability-based random sample was pulled for the survey. License holders in the sample were contacted by telephone, and the survey was administered at that time or an appointment time was set up for a call back. All surveys in Florida were conducted by telephone.
- Indiana provided its military "LAND/REFUGE" hunting license database, which consists of licenses that give permission to hunt on military land. Not all of these are sold to military members. An attempt was made to call every person in the database with a telephone number. A screener ensured that the respondent was an active member of the military. These license holders were first contacted by telephone, and the survey was administered at that time by telephone or a call back time was set. The remainder of the database (who had an email address) as well as those who could not be reached by telephone (and who had an email address) were contacted by email with a link to the survey, and these respondents took the online version of the survey (also with the screener to ensure that they were active members of the military). Surveys in Indiana were conducted by telephone and online.
- Maine provided a database of military serviceman licenses. An attempt was made to call every person in the database with a telephone number. These license holders were contacted by telephone, and the survey was administered at that time by telephone or a call back time was set. The remainder of the database (who had an email address) as well as those who could not be reached by telephone (and who had an email address) were contacted by email with a link to the survey, and these respondents took the online version of the survey. Surveys in Maine were conducted by telephone and online.
- Oregon provided a database of general license holders with telephone numbers and a database of the names of military license holders. The names in the military database were matched to the general license database to determine telephone numbers. In all, approximately 400 matches were made, and an attempt was made to call all of those people. Once that sample of 400 was attempted, a probability-based random sample of the general license holder database was pulled, and telephone calls were then made to those hunters, with a screener to ensure that only active members of the military took the survey. All surveys in Oregon were conducted by telephone.
- Vermont provided a database of military-associated license holders. An attempt was
  made to call every person in the database with a telephone number. License holders in the
  sample were contacted by telephone, and the survey was administered at that time or an
  appointment time was set up for a call back. All surveys in Vermont were conducted by
  telephone.
- Virginia does not have a special military license but provided a database of license holders that were known to be military service members. An attempt was made to call every person in the database with a telephone number. These license holders were

contacted by telephone, and the survey was administered at that time by telephone or a call back time was set. The remainder of the database (who had an email address) as well as those who could not be reached by telephone (and who had an email address) were contacted by email with a link to the survey, and these respondents took the online version of the survey. Surveys in Virginia were conducted by telephone and online.

Wisconsin provided a license database of likely military license holders (the state does
not specifically have military licenses but indicated that the names provided were likely
military members). An email was sent to every person in the database with an email
address. A screener ensured that only active military members took the survey. All
surveys in Wisconsin were conducted online.

An example of the email that was sent to potential respondents in Indiana, Maine, Virginia, and Wisconsin is shown below. The example email is for the Virginia survey. For the other states surveyed online, the state name was substituted for Virginia, the respond-by date was adjusted as necessary, and the proper state agency for the given state was used. (The hyperlinks are shown but are not active in this report.)



Hello Virginia Hunting License Holder,

The U.S. Fish and Wildlife Service (USFWS) has provided a grant to study the participation of military personnel in outdoor recreation activities, particularly hunting and target shooting, and we would like your help with this study. As a Virginia hunting license holder who may also be an active member of the military, you have been randomly selected to participate in this study.

#### Click Here to Start the Survey

If you are active military, we would greatly appreciate your feedback, even if you do not currently participate in hunting or recreational target shooting. Please respond by March 1.

The results of this study will help develop and improve hunting and target shooting programs and opportunities specifically for military personnel. We have partnered with the Virginia Department of Wildlife Resources to reach out to license holders who may be active members of the military. Because you are one of only a small number of Virginia hunting license holders randomly chosen to participate in this study, if you are active military we need your input to ensure that the results truly represent active military personnel who have obtained a hunting license. Your answers will be kept completely confidential and will not be associated with your name or license in any way.

This USFWS grant study is being administered by Responsive Management, an independent research firm that specializes in outdoor recreation issues. If you need technical assistance with the survey, please contact Responsive Management via email at <a href="mailto:responsivemanagement.com">responsivemanagement.com</a>.

#### Click Here to Start the Survey

Thank you for very much for your time and willingness to help.

Sincerely, Mark Damian Duda Executive Director Responsive Management The final component of the overall sample consisted of a general hunting license database from one state, Oklahoma, that did not include any indication of military service. A probability-based random sample of the license database was pulled for the survey. License holders in Oklahoma were contacted by telephone, and a screener identified active military members who were then given the survey. Again, an appointment time for a call back was scheduled, when requested. All surveys in Oklahoma were conducted by telephone.

For all telephone surveys, the surveying times were Monday through Friday from 10:00 a.m. to 9:00 p.m., Saturday from noon to 7:00 p.m., and Sunday from 2:00 p.m. to 9:00 p.m., local time. A five-callback design was used to maintain the representativeness of the sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all to participate. When a respondent could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day. Telephone calling was started on February 15 and continued to February 24, 2021.

The online survey could be taken at any time, at the convenience of the respondent. The nationwide online survey was open from February 24 to March 8, 2021. For the surveys of license holders, initial email survey invitations were sent, and then reminder emails were sent a few days later to all who had not yet responded. The online survey of license holders was conducted from February 19 to March 8, 2021. Specifically, the online survey dates for each state are shown below:

- Indiana: first email sent on February 23; reminder email sent on February 26. The survey was open from February 23 to March 8, 2021.
- Maine: first email sent on February 22; reminder email sent on February 26. The survey was open from February 22 to March 8, 2021.
- Virginia: first email sent on February 19; reminder email sent on February 25. The survey was open from February 19 to March 8, 2021.
- Wisconsin: first email sent on March 1; reminder email sent on March 5. The survey was open from March 1 to March 8, 2021.

#### SURVEY DATA COLLECTION AND QUALITY CONTROL

For the telephone portion of this survey, a combination of in-house and home-based calling was conducted. Responsive Management has a central surveying site that allows for rigorous quality control over the interviews and data collection staffed by interviewers with experience conducting computer-assisted surveys. Survey Center Managers monitor these in-house calls. Due to coronavirus distancing, some interviewers conducted the surveys from their home locations, as well. Nonetheless, Survey Center Managers were able to remotely monitor these home-based interviews in real time and provide rigorous quality control over the interviews and data collection.

As previously mentioned, a CATI system was used for the telephone data collection. The telephone survey data were entered into the computer as each interview was being conducted, eliminating manual data entry after the completion of the survey and the concomitant data entry errors that may occur with manual data entry. The survey questionnaire was programmed so that CATI branched, coded, and substituted phrases in the survey based on previous responses to ensure the integrity and consistency of the data collection. Note that each telephone survey was administered by a live interviewer; the CATI system only directs the interviewer to the proper questions, depending on previous responses given in the survey, but the interviewer reads the questions to the respondent in the telephone survey.

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

For the online portion of the survey, Responsive Management used an online platform. The data were then downloaded into Responsive Management's data management facilities. These surveys were also checked for clarity.

For both versions of the survey, error checkers and other proprietary quality checks ensured the integrity of the survey data. Overall, Responsive Management obtained 1,650 completed surveys of active duty military personnel.

#### DATA ANALYSIS

The analysis of data was jointly performed using IBM SPSS Statistics as well as proprietary software developed by Responsive Management. RTS Strategies provided input to the analyses.

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

Some of the questions were open-ended, meaning that no answer set was presented and respondents could respond with anything that came to mind. For the analysis of these questions, each verbatim open-ended response was put into one or more categories. In this way, each verbatim response was examined and categorized so that the graph could show logical response sets. In total, the analysts categorized the responses to 22 questions, which totaled approximately 6,400 lines of data that were categorized.

The data analyses included a breakdown by time of participation: those who had hunted in the past 2 years, those who had hunted in the past 10 years but not the past 2 years, those who had ever hunted but not in the past 10 years, and those who had never hunted. The same was done for the analyses of sport shooting participants.

Weighting was applied to the samples, as necessary, to produce overall results, as described below. The nationwide sample of active military members was weighted by age and gender to be fully representative of military members across the country (the branch and grade were close to reality, so no weighting was applied by those factors, although they were examined in regard to the possible necessity of weighting by them). For the melded sample that included both the nationwide sample of military members and the state samples of license holders, no further weighting was applied, which produced samples that were representative of hunters and shooters in the military.

### **SAMPLING ERROR**

Throughout this report, findings of the statewide survey are reported at a 95% confidence interval. For a sample size of 1,650 active-duty military members and a population size of 1.386 million active members, the sampling error is at most plus or minus 2.41 percentage points. Sampling error was calculated using the formula described below.

**Sampling Error Equation** 

$$B = \left(\sqrt{\frac{N_p(.25)}{N_s} - .25} \right) (1.96)$$
Where: B = maximum sampling error (as decimal)
$$N_P = \text{population size (i.e., total number who could be surveyed)}$$

$$N_S = \text{sample size (i.e., total number of respondents surveyed)}$$

Derived from formula: p. 206 in Dillman, D. A. 2000. *Mail and Internet Surveys*. John Wiley & Sons, NY. **Note**: This is a simplified version of the formula that calculates the <u>maximum</u> sampling error using a 50:50 split (the most conservative calculation because a 50:50 split would give maximum variation).

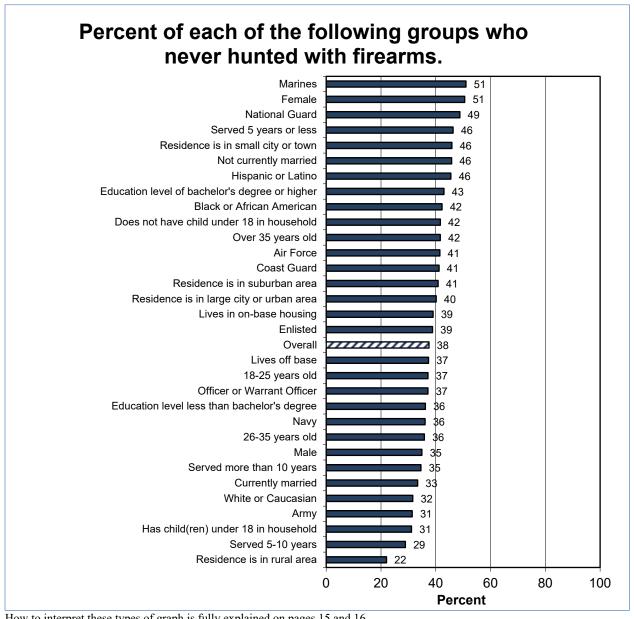
# APPENDIX: OTHER ANALYSES

Several analyses were run that provided only tangential information or proved to be less important than the analyses that are shown in the body of this report. Nonetheless, they may be of interest to some readers and so are provided in this appendix.

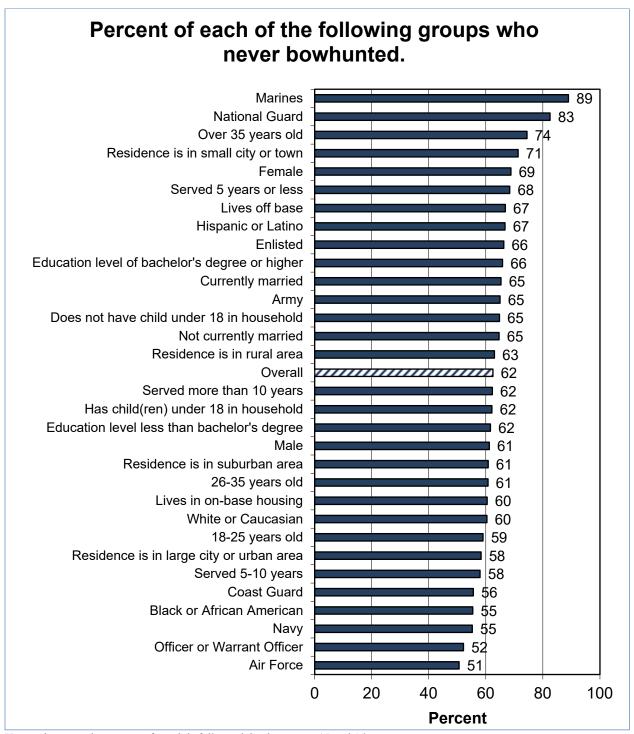
One set of analyses were run on non-participants together (the interested and the not interested). While the analyses of those interested is more important than this set of graphs, this set has some interesting results.

#### **DEMOGRAPHIC-PARTICIPATORY ANALYSES OF NON-PARTICIPANTS**

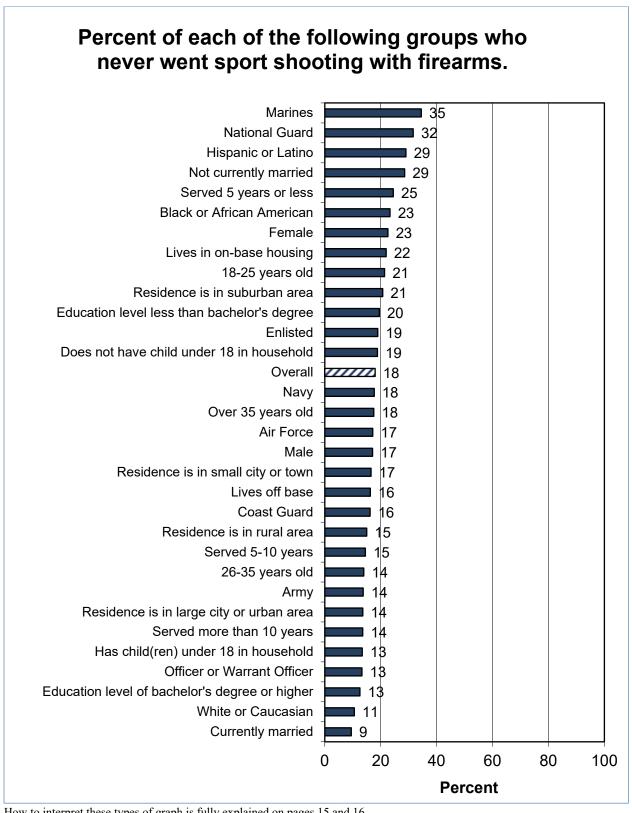
Two branches are associated with having never hunted: the Marines and the National Guard. Also associated with no hunting experience is being female, having served 5 years or less, being in a small city or town, being not currently married, and being Hispanic or Latino.



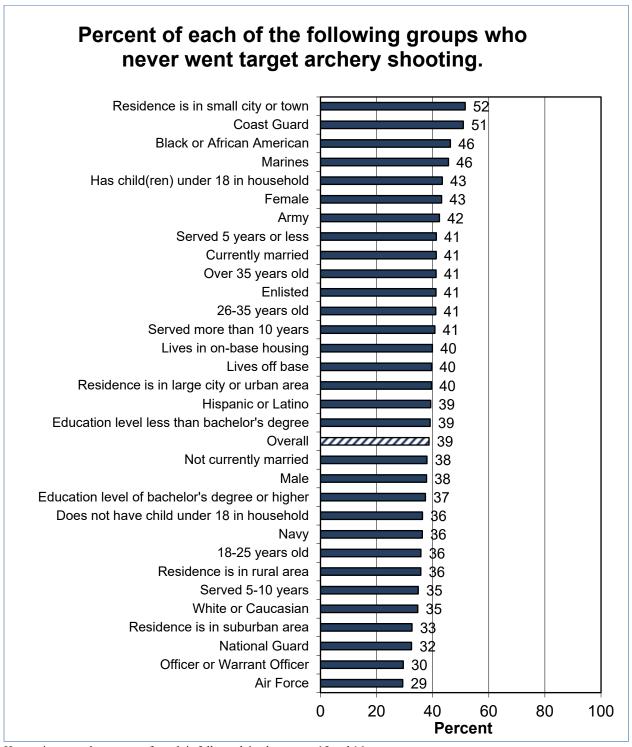
Lack of participation in bowhunting is associated with being in the Marines or National Guard, being over 35 years old, residing in a small city or town, being female, and having served for 5 years or less.



Having never shot recreationally with firearms is associated with being in the Marines or National Guard, being ethnically Hispanic or Latino, not being currently married, and having served for 5 years or less.

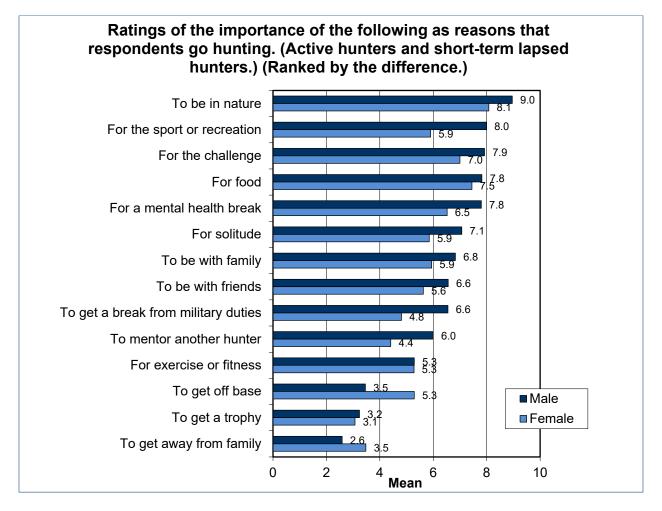


The characteristics associated with not participating in archery shooting is residing in a small city or town, being in the Coast Guard or Marines, and being Black or African American.



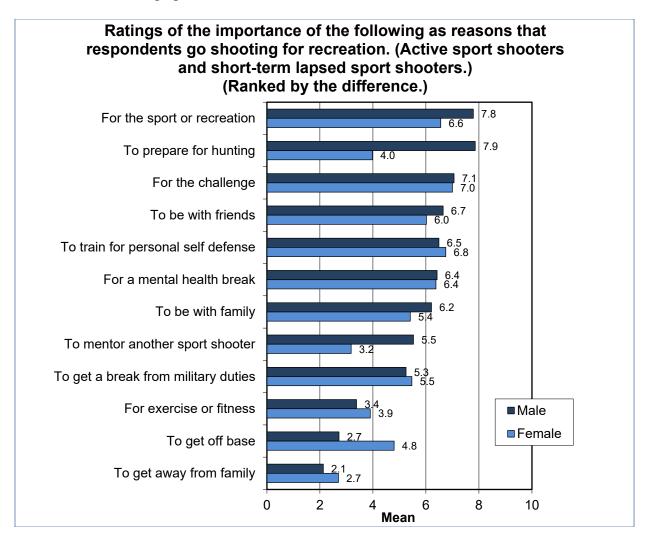
### **MOTIVATIONS CROSSTABULATED BY GENDER**

Ratings of motivations for hunting differ according to gender, with women giving higher ratings to getting off base and getting away from family (although both are not highly rated by either gender, being near the bottom of the ranking). Men give higher ratings to hunting for sport or recreation, to get a break from military duties, to mentor, for a mental health break, and for solitude (all with a difference of more than 1.0 points in the ratings—differences are shown in the accompanying table). (For this analysis, active hunters and short-term lapsed hunters were combined to ensure the sample sizes were sufficient for analysis.)



	Male	Female	Difference
For the sport or recreation	8.0	5.9	2.1
To get a break from military duties	6.6	4.8	1.7
To mentor another hunter	6.0	4.4	1.6
For a mental health break	7.8	6.5	1.3
For solitude	7.1	5.9	1.2
To be with friends	6.6	5.6	0.9
For the challenge	7.9	7.0	0.9
To be with family	6.8	5.9	0.9
To be in nature	9.0	8.1	0.9
For food	7.8	7.5	0.4
To get a trophy	3.2	3.1	0.2
For exercise or fitness	5.3	5.3	0.0
To get away from family	2.6	3.5	-0.9
To get off base	3.5	5.3	-1.8

The crosstabulation by gender shows that men go shooting more often than women to prepare for hunting, to mentor another sport shooter, and for the sport or recreation. On the other hand, women more often than men go sport shooting to get off base. The differences are shown in the table that follows the graph.



	Male	Female	Difference
To prepare for hunting	7.9	4.0	3.9
To mentor another sport shooter	5.5	3.2	2.4
For the sport or recreation	7.8	6.6	1.2
To be with family	6.2	5.4	0.8
To be with friends	6.7	6.0	0.6
For the challenge	7.1	7.0	0.1
For a mental health break	6.4	6.4	0.0
To get a break from military duties	5.3	5.5	-0.2
To train for personal self defense	6.5	6.8	-0.3
For exercise or fitness	3.4	3.9	-0.5
To get away from family	2.1	2.7	-0.6
To get off base	2.7	4.8	-2.1